Running Head: UTILITY OF STRUCTURED DECISION-MAKING

The Utility of a Structured Decision-Making Model in Correctional Release Decisions

by

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Abstract

A structured release decision-making model was retrospectively applied to eighty offender files of the National Parole Board (NPB) to examine the predictive ability of the *Release Decision-Making Manual* to accurately identify good and poor parole candidates for conditional release. Cases were selected using strict selection criteria and were identified as one of four groups of interest: True Positives, False Positives, True Negatives and False Negatives. In the current study, Reintegration Potential and the Statistical Information on Recidivism-Revised (SIR-R1) scale were used as a statistical base for criminal risk and the Total Adjustment Score of the *Release Decision-Making Manual* was incorporated into the statistical estimate using three adjustment procedures. ROC analysis revealed that the predictive ability was highest when adjustments were made to the SIR-R1, with an $AUC = .65$; chi-square and correlation analysis were consistent, however, only approached statistical significance. Limitations and implications are discussed.

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Introduction

Given the sensationalistic reporting of the media when parolees re-offend, bodies such as the National Parole Board (NPB) need to maintain their credibility and are often held accountable for the subsequent consequences of early release decisions. According to Public Safety and Emergency Preparedness Canada (PSEPC; 2005), 84.1% of offenders released on day parole and 73.1% of offenders released on full parole completed their release successfully. Further, PSEPC (2005) reports that offenders under discretionary release are less likely to be reconvicted of a violent offence, than offenders on statutory release. When comparing these rates to the perception of the Canadian public, a large inconsistency is found. In a study conducted by Roberts, Nuffield and Hann (2000), the recidivism rate of parolees was overestimated by 51%. It appears as though the public is misinformed and as a result, tend to question the ability of bodies such as the NPB to efficiently render accurate release decisions. According to the NPB (2005e), the public's limited understanding of the correctional release decision-making process needs to be addressed by engaging the community in discussions of conditional release and forging partnerships to aid in the safe reintegration of offenders. Specifically, "community engagement must be supported by clear and accurate information about the effectiveness of conditional release and by processes which monitor performance" (2005e, p. 8). In order to increase the public confidence in the Canadian correctional system and to maintain the integrity of the NPB organization, it is necessary to develop a standard set of guidelines that will make the decision-making process more transparent and understandable to the public. According to Serin (2004a), a structured methodology for rendering release decisions has not been developed. Prior to examining what the

release decision-making process of the NPB looks like, an introduction to parole in Canada is presented first.

Parole in the Canadian Criminal Justice System

In Canada, authority for offenders serving 2 years or more and being considered for institutional release, falls under federal jurisdiction; thus, they are the responsibility of the NPB. In Canada, the NPB is an independent tribunal, free from political or bureaucratic interference and/or pressure (NPB, 2003a) and is guided by the following mission statement:

The NPB, as part of the criminal justice system, makes independent, quality conditional release and pardon decisions and clemency recommendations. The Board contributes to the protection of society by facilitating, as appropriate, the timely reintegration of offenders as law-abiding citizens. (NPB, 2003b)

Thus, the primary objective of the NPB is making quality decisions, while safeguarding the two important values of public safety and personal freedom of offenders, made possible in collaboration with other agencies such as correctional services, the police, the courts, the community, etc.

Members of the NPB are appointed under the Corrections and Conditional Release Act and according to the NPB Code of Professional Conduct (2005a), “members must strive at all times to make their decisions independently, fairly, objectively, impartially and without bias” (p.1).

For provinces that do not have their own parole board, the NPB assumes responsibility for offenders serving 2 years less a day; Québec, Ontario and British Columbia have their own parole boards (NPB, 2003a).

According to the NPB (2003a), parole is a form of conditional release that provides offenders the opportunity to re-integrate into society and become law-abiding citizens with the assistance of a parole officer. Currently, there are three types of release that an offender may be granted: temporary absences, day parole and full parole; an offender automatically receives the fourth type of release – statutory release, except in extraordinary circumstances. Temporary absences are either escorted or unescorted and may be granted to offenders for a number of reasons such as work projects, family contact, medical reasons, etc. (NPB, 2003c); day parole allows the offender to participate in community-based activities and return to an institution or halfway house at night; and full parole allows the offender to serve the remainder of their sentence under supervision in the community (NPB, 2003c). The fourth type of release, statutory release, is not discretionary and is automatically granted to offenders once they have served 2/3 of their sentence¹; offenders serving life or indeterminate sentences are not automatically released on statutory release (NPB, 2003c).

In the 2004-2005 fiscal year, offenders served 39.9% of their sentence prior to being released on full parole (PSEPC, 2005); this rate has remained relatively stable since the 1995-1996 fiscal year. Interestingly, PSPEC (2005) also reports that females served 2.5% less of their sentence than their male counterparts prior to being granted their first federal full parole and 4.4% less than males prior to being granted their first federal day

¹ Unless there is evidence to suggest that the offender would present an undue risk to society (NPB, 2003c).

parole. In addition, Aboriginal offenders served a higher proportion of their sentence than non-Aboriginal offenders prior to being granted full parole (42.9% and 39.5% respectively) or day parole (37.8% and 32.7% respectively; PSEPC 2005). Prior to a discussion on the parole system currently operating in Canada, a brief review of the changes in correctional ideologies will highlight the influential role these changes have had in shaping this system.

The Impact of Changes in Correctional Ideologies on Parole Processes

Over time, correctional ideologies have shifted between the models of punishment, protection of the public, rehabilitation and justice (Nuffield, 1982). As a result of these shifts, parole has had to be incorporated into the correctional ideology of the time in the following ways. According to Nuffield (1982), when punishment is the preferred ideology, parole is rare and is used as clemency or a “reprieve for offenders whose punishment was viewed as unduly harsh given their age and/or inexperience” (p.1); when protection of the public is the dominant ideology, paroling authorities are expected to be particularly concerned with the separation of high risk and low risk offenders; when rehabilitation is dominant, parole is expected to “guide” the offender through program stages towards the goal of “freedom”; and finally, when corrections places its emphasis on justice and subsequently focuses on objectives such as humaneness, fairness, and cost-efficiency, parole has either no presence or is used to even disparities of sentences given by different courts.

Accordingly, parole practices in Canada have had to evolve with respect to the different, dominant correctional ideologies. The National Parole Board has a difficult role to perform attempting to maintain the delicate balance between the paramount

protection of the public and the offender's right to freedom. Their work is guided by their Mission Statement and has evolved into the process, as it is currently known.

Current parole practices and the process of rendering release decisions will be explored next.

Current Parole Practices: The Decision-Making Process of the NPB

According to the NPB policy manual (2005f), the review process and documentation reviewed is the same for pre-release decisions, initial decisions, and expansion of a decision and/or the continuation of a release program. Specifically, the policy manual dictates Board members are required to review and consider all relevant information² pertaining to: the offender's criminal and social history, including offender functioning and attitude during a previous conditional release; the offender's functioning and attitude during incarceration, which includes modifications of behaviour, professional reports and actuarial scales, and the results of completed interventions; and the offender's release plan and community management strategy.

According to one Board member's account, the process starts with a review of the offender's file in order to identify any missing information needed to make a decision, such as specific crime details (e.g. motivations, whether there was violence involved, sexual motivations, etc.), criminal history of similar offending, victim impact, offender rehabilitation efforts and changes in risk level (i.e. reductions in risk that would allow for community monitoring; NPB, 2005b). Offender files are prepared by the Correctional Service of Canada (CSC) and contain the following information: police reports, criminal history records, comments/reasons on sentencing from the presiding judge, community

² Please see the NPB policy manual (2005f) for a detailed review of the specific information Board members are required to review and analyze in their decision for release.

assessments (which include reactions from community sources such as victims, family, friends and police), the Offender Intake Assessment (OIA)³, correctional treatment plans, progress reports regarding offender participation in treatment and institutional progress (including psychiatric and psychological reports when required). In addition to file reviews, professional opinions and assessments, Case Management Officer (CMO) recommendations and information obtained from parole hearings are also included in the deliberation process (NPB, 2005b). Once all of this information is accounted for, rendering the final decision requires two NPB members to review the case and vote on the conditional release (NPB, 2005b). The decision sheet is an official record of the review process and includes the decision and the reasons for the decision (NPB, 2005f). Specifically, the decision sheet is the overall assessment and evaluation of the offender and includes an “analytical statement of the major case factors” (NPB, 2005f, p. 2.1-8), the extent to which offender needs have been addressed, the analysis and evaluation of the community management strategies, the risk the offender presents to society (i.e. the offender must not present an undue risk) and any specific conditions necessary and reasonable for the protection of society (NPB, 2005f).

Taylor (1998) provides more detail specific to this process. In order to render release decisions, the CSC must provide the NPB the following information: static risk information, dynamic risk information, actuarial instrument results, risk management plans and current assessment(s) and/or recommendation(s). According to Taylor (1998), the CSC completes three assessment instruments at intake including the Statistical Information on Recidivism – Revised (SIR-R1; Bonta, Harman, Hann & Cormier, 1996),

³ The OIA reports on the criminogenic needs of an offender (e.g. substance abuse, academic deficiencies, serious psychological or psychiatric difficulties, etc.); see Motiuk, 1997 for a detailed review of the OIA.

the Custody Rating Scale (CRS; Solicitor General Canada, 1987) and the Offender Intake Assessment (OIA; Motiuk, 1997). In addition, Taylor (1998) highlights the importance of including the correctional plan and community input; specifically, he states: “the case assessor should be able to rely on the correctional plan as the starting point in preparing a decision report. The decision report should be, in fact, based on the plan” (p.3). According to Taylor (1998), this is the most important document produced for an offender.

These accounts provide the general guidelines that pertain to the source and type of information considered as part of the current decision-making process of the NPB, however, it is more challenging to find a specific document highlighting the manner in which the information is combined and weighted to render a decision⁴. Nonetheless, the information presented above will be referred to in forthcoming sections as current parole practices of the NPB. Thus, when the methodology section refers to a comparison of decisions made by current parole practices and the model of structured release decision-making, it is referring to a comparison of the decisions made by the NPB using the information detailed above and the decisions obtained by scoring the structured decision-making manual from a review of offender files; see Method section for further detail.

A brief overview of the parole system currently operating in Canada and the decision-making process of the NPB provides the necessary framework to situate the current research. The two sections that follow will highlight the necessary factors to consider as part of any decision-making process and the importance of incorporating risk assessment in the process of rendering correctional release decisions.

⁴ This may be attributed to the requirement to review each case based on its own merits as discussed by Taylor (1998) and NPB (2005b).

The Decision-Making Process

The Importance of the Decision-Making Process

The decision-making process is a fundamental component for the maintenance of any correctional system. According to a study conducted by Clements (1996), a major benefit of decision-making is the rational allocation of resources; without classification systems, the decisions rendered result in inappropriate housing decisions and inadequate responses to offender needs. Clements (1996) argues that this is problematic given that the priority of correctional decision-makers is to establish a custodial or security profile for offenders, in order to assign appropriate levels and types of institutions or community facilities and/or alternatives to incarceration. For members of the NPB in particular, the accuracy of their decisions is extremely important given that their decisions are often subjected to public scrutiny, in the event of false negatives⁵.

The Need for Rules and Procedures in the Decision-Making Process

According to Sutcliffe and McNamara (2001), the need for the establishment of rules and procedures in the decision-making process is important for the following reasons. First, they believe that rules and procedures would increase the consistency of the decision-making process within and across organizational units and would raise the consistency of decision evaluations over time. According to Sutcliffe and McNamara (2001), decision rules are created to reduce the “idiosyncratic heuristics” used by decision-makers, increase the reliability and predictability of decision outcomes and decrease uncertainty around decision outcomes. This is particularly important in an organizational context for credibility and accountability to be maintained, if the decisions

⁵ Offenders are incorrectly identified as good parole candidates, however, upon release, subsequently fail (i.e. re-offend).

are ever called into question, as seen with bodies such as the NPB. They claim that decision-makers, as part of an organization, are guided by “the formal system of rules and organizational hierarchies, and by the multilevel relational contexts within which action occurs”(p.486). In other words, adherence or departure from rules and procedures is guided by both the immediate context and the organizational context, where the decisions are made. They suggest that the presence of certain characteristics may determine whether or not decision-makers will adhere to prescribed procedures. Specifically, they found evidence that decisions with important consequences are likely to be made by adhering more closely to specific guidelines (Sutcliffe & McNamara, 2001). The use of structured rules and procedures would create a standard for the organization thereby restricting attention to information that only contributes to the evaluation of the decision. In contrast, unstructured procedures would simply add unnecessary noise. Sutcliffe and McNamara (2001) also suggest that some of the factors used in the decision-making process relates to the level of uncertainty of the decision-maker. A structured set of guidelines would be helpful in eliminating some of the discrepancy and increase the consistency across the organization. Findings such as those presented by Sutcliffe and McNamara (2001) have important implications for the NPB, given the potential consequences associated with the decisions that are made.

Webster, Hucker and Bloom (2002) believe rules and procedures are important given that Board members are reliant on the assessments they are provided. Specifically, for effective execution of the decision-making task, the assessment for the Board should be comprised of the following criteria: a) it should be conducted in a manner that respects the law and is legally relevant; b) the mental health or correctional risk assessment must

be evidence-based; c) it must contain an individual assessment of risk specific to the case at hand and be as relevant as possible; d) it should suggest a step to reduce the risk of future violence; and e) it may be beneficial if the individual case was compared to data derived from statistically driven studies, in the event the assessment of the individual case is settled. Heilbrun (1997) presents the same argument by stating “in theory, at least, the quality of the information provided to a decision-maker should affect the quality of the decision” (p.349). The importance of established rules and procedures is clearly presented by these researchers, as the decision will be impacted by the quality of the information used during the deliberation process.

With the establishment of rules and procedures for the decision-making process, Sutcliffe and McNamara (2001) highlight two important considerations of which to be aware. First, they suggest that the use of these rules may cause “the decision-maker to ignore, overlook, or otherwise become aware of critical factors that indicate important changes in the decision environment” (p.488). Second, they discuss other research which suggests that decision-makers who use a “scripted” approach engage in less active processing. According to Sutcliffe and McNamara (2001), for the decision-making process to be effective, there is a need to develop a carefully crafted and structured model that allows for the assessment of all of the factors that have been demonstrated to predict/assess the desired behaviour, as well as rules for incorporating additional relevant information that will only aid in the effectiveness of the decision (i.e. the use of professional override in warranted circumstances). It can be argued that the model of correctional release decision-making being tested in the current study is consistent with

this argument, as it allows for the careful consideration of empirically derived factors, using a guided and structured approach.

Factors Affecting the Decision-Making Process

Research has demonstrated that there are a wide variety of factors that may influence decision-making processes. The following section will present some of these factors and discuss their impact on release decisions that are made.

Differential Factors in Correctional Release Decision-Making

Research has repeatedly demonstrated that differential factors are being used in the correctional release decision-making process. For example, Samra-Grewal, Pfeiffer and Ogloff (2000) found that there were differences in the information considered and the rankings and number of relevant factors used in release decisions, across decision-makers. They report that the factors traditionally considered in parole decisions were offence, prior record, institutional adjustment and future prospects of the offender (Samra-Grewal et al., 2000). From a review of several studies, Nuffield (1982) identifies the different types of factors as: crime seriousness and institutional disciplinary record (Daiger et al., 1978, as cited in Nuffield, 1982); institutional personnel's clinical predictions (Heinz et al., 1976, as cited in Nuffield, 1982); recommendations of the penitentiary and parole staff (Léveill, 1970, as cited in Nuffield, 1982); offence severity and sentence length (Waller, 1974, as cited in Nuffield, 1982); and information source rather than nature of the information (MacNaughton-Smith, 1976, as cited in Nuffield, 1982), where as others, such as Turpin-Petrosino (1999) report that crime seriousness has been found among studies as the most prominent indicator of decision behaviour.

Using a sample of inmates under supervision at the Alabama Department of Corrections, Morgan and Smith (2005) found that length of original sentence, the total number of felonies for which the offender was serving time and recommendations made by wardens and senior officials were the strongest predictors of parole release decisions. Specifically, offenders were granted parole if they had committed less serious offences, were convicted of fewer felonies and had positive recommendations. In addition, favourable parole candidates were those who served more of their original sentence, had fewer institutional disciplinary problems and had more education (high school or above; Morgan & Smith, 2005). Seriousness of offence, measures of the degree of rehabilitation and personal characteristics of the offender (other than education) were not found to be significant predictors of parole release decisions.

From the research discussed above, it is clear that the factors being used in the decision-making process are not being considered consistently across decision-makers both within and between jurisdictions. In order to increase the consistency and accuracy of the correctional release decision-making process, there is a demonstrated need to improve the method by which these decisions are made and develop a standard set of factors to consider.

Heuristics and the Decision-Making Process

In any discussion regarding the decision-making process, an important influence to be taken into consideration is that of heuristics. As decision-makers face the difficult task of reviewing large amounts of information and rendering life-altering decisions, there is research to suggest that, as humans, heuristics are being employed and thus influence the decisions being made. According to Todd and Gigerenzer (2000), the term

heuristics derives itself from Greek origin and from the early 1800's until 1970, was defined as "serving to find out or discover" (p. 739). After 1970, in the field of psychology and decision-making, the term heuristics became known as "limited decision-making methods that people often misapply to situations where logic and probability theory should be applied instead" (Todd & Gigerenzer, 2000, p. 739). What has emerged are distinct views regarding the impacts of heuristics in a decision-making context. Todd and Gigerenzer's work focuses primarily on the use of heuristics as an "essential cognitive tool for making reasonable decisions" (2000, p. 739), where as others such as Tversky and Kahneman focus on the systematic errors and biases that may result from their use. Specifically, Tversky and Kahneman (1974) argue that individuals may rely on heuristic principles to reduce complex tasks of assessing probabilities and predicting values, which are generally useful, however, have the potential to lead to severe and systematic errors. Consequently, an overwhelming amount of research and literature can be found on heuristics and decision-making, however, for the purposes of this review, the discussion will strictly focus on the potential decision errors that may result from three general types of heuristics. Specifically, a brief review of the work by Tversky and Kahneman (1974) will examine three heuristics commonly used in decisions of judgment under uncertainty; these heuristics and their potential biases are presented in Table 1. The three heuristics are described in greater detail following Table 1, however, for a detailed review of the biases associated with each heuristic, please refer to Tversky and Kahneman (1974).

Table 1

Heuristics of Judgments Made Under Uncertainty

Heuristic	Potential Bias
Representativeness	Insensitivity to prior probability of outcomes Insensitivity to sample size Misconceptions of chance Insensitivity to predictability The illusion of validity Misconceptions of regression
Availability	Biases due to the retrievability of cues Biases of imaginability Illusionary correlation
Adjustment & anchoring	Insufficient adjustment Biases in the evaluation of conjunctive & disjunctive events Anchoring in assessment of subjective probability distributions

Representativeness. According to Tversky and Kahneman (1974), the representativeness heuristic is used when judgments are made based on similarity or resemblance to the construct of interest. This decision-making process may lead to errors in judgment of probability, because decisions based on representativeness or similarity are not influenced by factors such as prior probability of outcomes, sample size, chance, predictability, validity and regression towards to mean, as they should be. In the decision-making context, Board members are using the *representativeness* heuristic when

their decision to grant or deny release is based on the resemblance of the current case to a previous case.

Availability. The second heuristic discussed by Tversky and Kahneman (1974) in their work and presented in Table 1 is the *availability* heuristic. The *availability* heuristic is said to occur when the probability of an event or the frequency of a class is being assessed by the ease with which instances or occurrences are brought to mind. For example, the *availability* heuristic would occur in the correctional release decision-making context when the probability of an offender failing on parole is assessed using the knowledge of previous offenders who failed on parole. It could be argued that the “failures” would be more easily retrievable because this outcome is incongruent with the Board’s goal of correctly identifying good and poor parole release candidates.

Adjustment and anchoring. Finally, the third heuristic presented in Table 1, is *adjustment and anchoring*. Simply put, the adjustment and anchoring heuristic is used when estimates (of the construct of interest) are generated by making adjustments from an initial starting point. According to Tversky and Kahneman, (1974), the different estimates that are produced may be biased because the estimates are influenced by the initial starting points (i.e. they are biased towards the initial starting points) and the adjustments are usually insufficient. For example, the *adjustment and anchoring* heuristic occurs when the probability of offender failure on parole is obtained from an initial consideration of static variables (e.g. criminal history) and is adjusted using dynamic variables (e.g. criminogenic variables). According to Tversky and Kahneman (1974), the estimate of the probability of offender failure on parole may be biased towards the initial starting value and the adjustment may be insufficient.

The reason to focus strictly on a review of the heuristics used in decisions of judgment under uncertainty by Tversky and Kahneman (1974) was based on the context in which correctional release decisions are made. In the correctional release decision-making process, Board members are provided the opportunity to consider and weigh all available information accordingly – time constraints aside. Consequently, decisions made in this context are not “snap” judgments, thus it was felt that a discussion of the “fast and frugal heuristics” endorsed by Gigerenzer and the ABC group, was more detailed and specific than warranted for the purposes of this review. Swets, Dawes and Monahan (2000) assert that “fast and frugal heuristics” should be studied for the “day to day ad-lib” decisions, but are not expected to be helpful in repetitive problems of the same form. Further, they argue that the selection of decision thresholds is an important societal matter that requires a great deal of time and effort, where even small increments in accuracy or utility are preferred to savings in time and effort (Swets et al., 2000). Thus, speed and simplicity are not an issue in the correctional release decision-making context and there is a need to appropriately weigh and combine all of the evidence.

For the purposes of this research, a brief introduction into the realm of heuristics was a reflection of the type of research study – the model of structured correctional release decision-making does not set out to test for the presence and influence of heuristics. Rather, this review was offered as an introduction to the influential role heuristics may play on the nature of decision-making in general. Any study testing a model of decision-making should highlight their presence and the potential influence on the results of the study. Briefly presenting an overview of the work conducted by Tversky and Kahneman allows the reader to appreciate the presence and potential

influence of heuristics on the decision-making process and how a model of decision-making needs to recognize the potential influence of their presence. Future research could examine the effectiveness of a standardized model in reducing the effect of heuristics on the decision-making process.

Time Constraints

Another influential factor that may impact the decision-making process is time constraints. Some researchers have suggested that decision-makers will trade off accuracy in favour of effort (e.g. decision time) while making decisions. According to Busemeyer and Townsend (1993), decision field theory was developed for use in decision-making, where probabilities are conveyed from past outcomes with similar situations. More specifically, Busemeyer and Townsend (1993) describe this deliberation process as follows:

When confronted with a difficult personal decision, the decision maker tries to anticipate and evaluate all of the possible consequences produced by each course of action. For real decisions, a vast number of consequences may be considered, and these anticipated consequences are retrieved from a rich and complex associative memory process. Obviously, all of these consequences cannot be retrieved and evaluated all at once. Therefore, the decision maker must undergo a slow and time-consuming process of retrieving, comparing, and integrating the comparisons over time. No action is taken until the preference for one action becomes strong enough to lead the decision maker into action. (p.444)

In other words, this is a lengthy and effortful process and Busemeyer and Townsend (1993) suggest that the accuracy of decisions made according to this process may be

affected by bias, specifically, hindsight bias (i.e. basing the prediction/decision using knowledge of a previous case and/or similar circumstances; described previously as the *availability heuristic*).

Ideally, members of the NPB would be afforded the opportunity to review, assess and weight all of the necessary documentation as part of the decision-making process, however, given the number of decisions the NPB are expected to make⁶ and the influence of the potential biases of the heuristics to manage these, time constraints may be an important influence to consider. The implementation of a structured release decision-making model to render release decisions will allow for significant savings in time by maintaining the focus only on the important areas to consider and reduce potential biases, by reducing the opportunity for heuristics to be used as a timesaving device.

Amount of Information

As previously discussed, there are no established guidelines that outline an efficient way to assess and combine all of the information required to render correctional release decisions. As a result, the decisions of the NPB could be influenced by differences in the amount of information used, the weights assigned to the importance of information and/or the consideration of multiple items which offer the same information (i.e. the consideration of highly correlated information). As suggested by Shanteau (1992) the problem, even for an expert, is how to distinguish between what is relevant according to the demands of the decision-making task and what is not.

Serin (2004a) discusses the relationship between the amount of information used and the accuracy of decisions. He suggests that the consideration of multiple measures

⁶ The NPB estimates completing 22,295 conditional release reviews in the 2005-2006 fiscal year (NPB, 2005c).

that are highly correlated do not improve the accuracy of the decision being made. By considering many items that purport to measure the same thing (i.e. they are highly correlated), accuracy is not improved because no new information is being added to the equation. Consequently, the consideration of irrelevant information can dilute judgments because decision-makers are unable to remove the extraneous information from the equation. The consideration of multiple, correlated measures does not improve accuracy, rather, it improves the decision-makers confidence in the accuracy of the decision (bias of the *illusion of validity*, presented in Table 1).

Accordingly, the amount of information and how it is used is an important influence to consider in the decision-making context, given its influence on the quality and consistency of decisions that are made. By developing a structured model of correctional release decision-making, the opportunity for the consideration of irrelevant information that does not discriminate between good and poor parole candidates is significantly reduced.

Deception Detection

Yet another component that could have an influential role in the decision-making process is the detection of deception. As a result of the evidence that suggests that parole officers base their recommendations on an initial review of the offender's file and their perception of honesty of the offender during the parole interview, Porter, Woodworth, & Birt (2000) were interested in determining whether or not parole officer's ability to detect deception is comparable to other professional groups. Using 23 parole officers from the Correctional Service of Canada who volunteered to attend a workshop on deception training, they examined whether or not providing information regarding empirically-

based cues and myths about deception would improve the accuracy of deception judgments (Porter et al., 2000). They found that the ability to detect deception was below chance levels at baseline (it appeared as though parole officers were relying on false cues or “unreliable rules of thumb”), however, five weeks later after training in myth dissolution⁷, information provision and practice judgments, and feedback and knowledge testing, the accuracy of their judgments improved. From their findings, Porter et al. (2000) suggest:

Interviewers may get little or inconsistent feedback on the accuracy of their deception judgments, or the feedback may come months or years after the judgment. By the time feedback is available, it is usually too late to have any substantial impact on improving judgment accuracy. (p.645)

They conclude that immediate and accurate feedback can facilitate judgment accuracy and that increases in detection accuracy, however small they may be, warrant training in deception detection, given the consequences of judgment errors (Porter et al., 2000). If deception is a factor that is weighed into the decision-making process, the above results are promising as the accuracy of detecting deception can be improved and the bias of inaccurate deception detection can be removed. A component of the structured model of correctional release decision-making presented by Serin (2004b) is the incorporation of information obtained from the parole hearing. In order for Board members to accurately incorporate this information into the release decision, the findings of Porter et al. (2000) suggest that training in deception detection may be beneficial to ensure that decisions will not be biased by the consideration of false cues and “unreliable rules of thumb”.

⁷ See Porter et al. (2000) for a further review of the training components.

The Decision-Making Context

Another influential factor in the decision-making process is the context in which decisions are made. According to Rassin and Merckelbach (1999), there are different standards that exist depending on the context in which the decision is being made. In particular, these researchers examined the differences in decision criteria that exist between the clinical and the judicial context. Specifically, these two contexts were compared in terms of the types of errors the decision-maker is trying to avoid.

In the clinical context, to maximize the detection of pathology, false negatives⁸ are worse than false positives⁹; thus, clinician's would rather treat patients who do not have a disease rather than overlook a disease. In other words, the risk of diagnosing a patient where no condition exists is viewed as less consequential (provided the treatment has no ill effects associated with it), than failing to treat a patient who actually has the condition. Alternatively, within the judicial context, there is great effort to reduce the risk of false positive errors. That is, legal decision-makers adopt a more conservative approach, where a false negative error is more acceptable than a false positive error; the goal is to reduce the risk of a false positive error. As Rassin and Merckelbach (1999) state: "the possibility of convicting an innocent person is considered worse than discharging a guilty suspect" (p.241). In contrast, in the release decision-making context, releasing a recidivist has important negative consequences associated with it, thus care must be taken when rendering these decisions.

⁸In the clinical context, a false negative would be failing to diagnose a condition that exists. In the judicial context, a false negative is the prediction that an outcome will not occur and the outcome subsequently occurs (Mossman, 1994).

⁹ A false positive in the clinical context is diagnosing a condition that does not exist. In the judicial context, a false positive is predicting an outcome will occur and the outcome does not occur (Mossman, 1994).

A simple comparison between clinical and judicial judgment clearly reveals how the context in which decisions are made reflect different standards of credibility and error; when rendering decisions, there is a trade-off in the types of mistakes that are going to be made. According to Mossman (1994), because these mistakes are inevitable, the decision-maker needs to decide what mistakes are preferable. Thus, in the correctional release decision-making context, the goal is one of correctly identifying good and poor release candidates without unnecessarily restricting the freedom of offenders or placing society at risk for future harm. The development of a structured model of correctional release decision-making is an important step to improve the ability of the NPB to maximize the true positive rate (the correct identification of recidivists) while being attentive to the false positive rate (the incorrect identification of offenders as recidivists).

This review of the research literature has situated the importance of structure in the release decision-making process and has highlighted various factors to be aware of that may influence the decisions being made. This study aims to test the ability of a structured model to accurately predict offenders as good or poor parole candidates, however, future research will be needed to examine how correctional release decisions are influenced by the factors above. A systematic examination of the factors influencing correctional release decisions can be used to strengthen the decision-making process by ensuring that the structured model incorporates necessary precautions to limit their influence.

The discussion that follows includes the importance of risk assessment in the decision-making process and the necessary considerations for incorporating it into a structured model of decision-making.

Risk Assessment and the Decision-Making Process

At the base of the structured correctional release decision-making model presented by Serin (2004b) and to be tested in the current study, is a validated risk assessment tool. The rationale for the inclusion of a statistical estimate as the base of the structured release decision-making model will become clear through the discussion that follows.

The Evolution of Risk Assessment

Risk assessment has evolved over time and has undergone a series of revisions to accommodate the changing need and purpose of assessing risk. Accordingly, Bonta (1996) has identified three generations of risk assessment.

Clinical judgment, also referred to as the first generation of risk assessment, is an unstructured risk assessment, whereby the evaluator assesses only those factors he or she considers to be important; these assessments are often intuitive (Bonta, 1996). Consequently, first-generation risk assessments are difficult to replicate, due to their subjective nature. Grove, Zald, Lebow, Snitz and Nelson (2000) describe clinical judgment as a judge putting data together using an informal and subjective method, the process of which is difficult to specify. Others such as Grove and Meehl (1996) describe clinical judgment as “an informal, ‘in the head’, impressionistic, subjective conclusion, reached (somehow) by a human clinical judge” (p. 294). Further they argue “*clinical experience* is only a prestigious synonym for *anecdotal evidence* when the anecdotes are told by somebody with a professional degree and a licence to practice a healing art” (Grove & Meehl, 1996, p. 302; italics in original). According to Grove et al. (2000), the errors associated with clinical judgment include the following: ignorance of base rates,

ignorance of regression towards the mean, co-variation among factors, heuristics (e.g. representativeness and availability) and lack of feedback on accuracy of judgments. Simply put, first generation risk assessments have poor interrater reliability and poor predictive accuracy (Bonta, 1996).

The second generation of risk assessment that Bonta identifies is referred to as statistical or actuarial risk assessments. Second generation assessments contain objective criteria that have been empirically linked to recidivism. According to Bonta (1996), second generation risk assessments perform better than subjective approaches (i.e. clinical judgment) and are a reliable means of differentiating the higher risk offenders from the lower risk offenders; they have good interrater reliability and satisfactory predictive ability. According to Litwack (2001), actuarial risk assessment is based on validated relationships between a measurable predictor and outcome variables that are determined by fixed, mechanical and explicit rules. Similarly, Grove and Meehl (1996) define actuarial assessment as a “formal method, uses an equation, a formula, a graph, or an actuarial table to arrive at a probability, or expected value, of some outcome” (p.294). Grove et al. (2000), claim that the application of this mechanical prediction requires no expert judgment and is reproducible. It is clear from the following statement that Grove and Meehl (1996) are grounded in the actuarial approach:

All policymakers should know that a practitioner who claims not to need any statistical or experimental studies but relies solely on clinical experience as adequate justification, by that very claim is shown to be a non-scientifically minded person whose professional judgments are not to be trusted. (p. 321)

Grove and Meehl (1996) assert that the actuarial method provides probabilities, and these probabilities are more accurate than those made by clinicians who fail to apply their weights consistently. In addition, they counter-argue others who view that the use of statistics treats offenders as a group and fails to view them as individuals - “opponents of actuarial tools assert population data cannot be applied to individuals” (Hilton, Harris, Rawson & Beach, 2005; p.99). Despite the improvement over the first generation, second generation risk assessments are still limited in that they are primarily comprised of static, criminal history variables, which provide an adequate classification of risk, however, as static factors do not change over time, they provide little guidance in terms of the development of an intervention plan. Consequently, the third generation of risk assessment attempts to address the limitations of the previous two.

The intention for third generation risk assessments was to develop a tool that would be able to provide a baseline level of offender risk of recidivism and identify treatment targets for intervention; thus, third generation risk assessments were designed to include both static predictors (historical or unchanging factors to provide a level of risk) and dynamic predictors (criminogenic¹⁰ treatment targets to efficiently develop an effective intervention plan). Thus, third generation risk assessments are objective, empirically validated assessments of both static risk and criminogenic needs. According to Bonta (1996), the third generation has all of the advantages of the second generation, with the addition of the dynamic or criminogenic predictors of recidivism (e.g. substance abuse, employment, accommodations, etc.).

¹⁰According to Andrews and Bonta (2003), criminogenic factors are dynamic factors, that when targeted for change, are related to a reduction in recidivism.

Despite the improvements in the generations of risk assessment over time, there remains an ongoing debate as to the “best” approach in assessing risk of offenders.

Sjöstedt and Långström (2001) assert that a balance needs to be reached between the pros and cons of using imperfect but guided assessments, where there is some idea regarding the errors associated with using or not using structured judgments, and relying on less accurate clinical decisions. Research has attempted to alleviate the controversy with these approaches, by measuring the superiority of one approach over the other. Specifically, Mossman (1994) re-evaluated the accuracy of prediction using Receiver Operating Characteristic (ROC)¹¹ analysis. He analysed 44 studies predicting violence over two decades. From his investigation, Mossman (1994) concluded that a non-clinician with knowledge of past behaviour could outperform a health professional relying solely on information from an interview. He suggests that on the basis of these findings, clinicians relying on the actuarial approach are able to distinguish between violent and non-violent patients with greater accuracy than chance. According to Litwack (2001), this study is methodologically flawed as the studies did not directly compare actuarial and clinical assessments and were unrepresentative, thereby suggesting that this empirical support in favour of actuarial risk assessment must be accepted with caution and/or may be unfounded.

Others, such as Buchanan (1999), identify the central theme to this debate as the inefficiency of clinicians’ ability to combine and weight the factors appropriately or consider the most accurate predictors. Buchanan’s (1999) concern is for those rare cases where actuarial models are unable to analyse all of the information that needs to be

¹¹ According to Mossman (1994), ROC analyses “describe accuracy with indices of performance that are unaffected by base rates or by clinicians’ biases for or against Type I or Type II prediction errors” (p. 783).

considered; when assessors are unable to establish to what extent a particular piece of information is relevant to the specific individual. In addition, Buchanan (1999) believes that the disadvantages of actuarial assessments are that they make use of only one type of probability; specifically, they are correlational and can only show an association between the outcome to be predicted and the risk factor.

Despite the changes in risk assessment over time, where each generation attempts to address the limitations of its predecessor, the debate over using clinical judgment or structured instruments in the assessment of risk remains unresolved. The implications of this debate for the correctional release decision-making process of the NPB are that the utility of a structured model grounded in actuarial theory could be called into question, if the superiority of this approach remains controversial.

Considerations of Risk Assessment in the Decision-Making Process

As previously discussed, the goal of risk assessment is to accurately classify and categorize offenders. According to Clements (1996), offenders are composed of a heterogeneous group of individuals and it is both “theoretically interesting and practically useful” (p.123) to sub-divide them into meaningful categories that share common symptoms, etiology, behavioural attributes and other relevant characteristics. In the correctional release decision-making context, the goal of risk assessment is to accurately categorize offenders into those who present an acceptable level of risk for release (i.e., good parole candidates) and those who present an unacceptable risk for release (i.e., poor parole candidates). The classification of offenders is a difficult task and is further compounded by the heterogeneous nature of this group. Specifically, NPB members are faced with the challenge of rendering release decisions on a heterogeneous group of

offenders thus, the most appropriate factors to consider among offenders in “special populations” has been explored in the literature. What follows is a brief review of some of the research conducted on the risk factors among the “special” populations of mentally-disordered offenders, sexual offenders and female offenders.

Risk Assessment of Special Populations

Mentally-disordered offenders. A meta-analysis conducted by Bonta, Zinger, Harris and Carrière (1998) revealed that many of the predictors of recidivism among non-disordered offenders are the same as disordered offenders, for both general and violent offending. According to this meta-analysis, the best predictors of recidivism were criminal history variables. In addition, early evidence of antisocial and aggressive behaviour (from measures of juvenile delinquency) showed a moderate relationship with general and violent recidivism and clinical variables were unrelated or inversely related to recidivism (Bonta, et al., 1998). They also found that studies comparing the recidivism rates of mentally-disordered offenders to non-disordered offenders reported lower rates of recidivism among the mentally-disordered offenders. It is interesting to note that clinical variables (e.g. hospital admissions, treatment history, etc.) are given more emphasis in the mentally-disordered literature, however, Bonta et al. (1998) found these variables to be poor predictors of recidivism. They conclude that clinical variables and clinical judgments contribute minimally to the prediction of recidivism and that objective, empirically derived risk assessments are the best predictors of recidivism. Some may argue that a structured model of decision-making requires the inclusion of additional factors (e.g. clinical variables and clinical judgment) to appropriately assess risk in mentally-disordered offenders, however, the research above suggests that the factors

predictive of recidivism in general offenders are applicable for this population as well.

Thus, the inclusion of clinical factors in a structured model of correctional release decision-making will not contribute to the predictive accuracy of the model with mentally-disordered offenders, based on the findings of the research above.

Sexual offenders. A meta-analysis conducted by Hanson and Bussière (1998) revealed that the strongest predictor of sexual offence recidivism was sexual interest in children, as measured by phallometric assessment. In addition, they also found the following variables to be predictive of sexual recidivism: prior sexual offences, any stranger victims, any unrelated victims, any boy victims, any prior offences, age (being young) and single (never married). These findings have prompted the development of risk assessment instruments for use with sexual offenders. The Static-99 and the SONAR scales are described as follows.

The STATIC-99 provides an estimate of the long-term risk of sexual and violent recidivism at 5, 10 and 15 year intervals from the following variables: having prior sexual offences, young age (less than 25 at time of exposure to risk), having a male victim, having an unrelated victim, the number of discrete sentencing dates in the offender's record (excluding the index offence), any convictions for non-contact sexual offences, any convictions for non-sexual violence dealt with on the index sentencing occasion, any convictions for non-sexual violence prior to the index sentencing occasion, any stranger victims, and having lived with a lover (male or female) for at least two years (Hanson & Thornton, 1999). The Static-99 shows moderate predictive accuracy; the correlation between test score and sexual recidivism in samples of adult male sexual offenders is $r = .33$ and $ROC = .71$ (Hanson & Thornton, 1999).

Second, the Sex Offender Need Assessment Rating (SONAR; Hanson & Harris, 2001) was developed to address the inability of the Static-99 to measure whether or not an offender is responding to treatment over time. According to Hanson and Harris (2001), the following areas of intimacy deficits, social influences, attitudes, sexual self-regulation, general self-regulation, victim access, negative mood, anger/hostility and substance abuse are included to determine if an offender is getting more or less risky over time. The SONAR has since been separated into two assessments: the Stable-2000 and the Acute-2000.

Briefly, the Stable-2000 contains risk factors that remain relatively stable over time (e.g. personality traits, learned behaviours, skill deficits) but when targeted for change, have the potential to reduce recidivism (Hanson & Harris, 2003a). Alternatively, the Acute-2000 (Hanson & Harris, 2003b) contains risk factors that are generally transient personal or environmental states that can signal increased risk and timing of re-offence (e.g. victim access, substance abuse, emotional collapse).

According to the research above and the development of risk assessment instruments for use with sexual offenders, there is evidence to suggest that specific factors need to be considered in the prediction of risk among these offenders. Incorporating factors that have been empirically linked to the prediction of recidivism among sexual offenders into the deliberation process of correctional release decision-making, could improve the accuracy of correctly identifying offenders who are good versus poor candidates for conditional release.

Female offenders. The prediction of risk and the use of risk assessment tools with female offenders is a subject of great debate and remains highly controversial. Many

argue against the use of any actuarial or structured risk assessments with female offenders, because they do not include the realities of poverty (Kendall, 1998) or economic marginalization (Holtfreter, Reisig & Morash, 2004). Further, it is believed that these assessments place female offenders in overly restrictive environments when they provide little to no risk to society to begin with (Owen & Bloom, 1995).

Researchers such as Holtfreter and Morash (2003) agree that the criminogenic needs originally established on male offenders (e.g. antisocial attitudes, associates, education, employment, etc.) are also important for female offenders; however, they believe that there are additional, different needs that arise from being female, such as pre-natal care, parenting skills, abusive relationships and HIV/AIDS education. Consequently, Holtfreter and Morash (2003) argue that in addition to the “traditional” criminogenic needs, needs specific to females should also be identified for the effective treatment of female offenders.

Others, such as Lowenkamp, Holsinger and Latessa (2001) and Dowden and Andrews (1999) have examined the utility of actuarial assessments and the principles of effective corrections with female offenders. Lowenkamp et al. (2001) examined the use of the Level of Service Inventory – Revised (LSI-R; Andrews and Bonta, 1995) with female offenders and whether a history of abuse was correlated or possibly interacted with the instrument. Generally, Lowenkamp et al. (2001) suggest that the experience of childhood abuse may affect other areas of dynamic domain such as attitudes and cognitions and suggest this is worthy of further research, however, there was no interaction between experiences of childhood abuse and the LSI-R, thus concluding it is a valid measure for use with this population. In a meta-analysis conducted by Dowden and

Andrews (1999), reductions in recidivism among female offenders were found when the treatment program targeted the principles of risk, need and responsivity (Andrews & Bonta, 2003), which suggests that the principles of effective corrections are also applicable with female offenders.

Although the use of actuarial assessments and the assessment of risk among female offenders remains unresolved, there is evidence to suggest that the risk factors and criminogenic needs advocated by Andrews and Bonta (2003) are repeatedly identified and their empirical utility continues to be demonstrated. Despite the controversy, there is evidence as to the utility of actuarial risk assessment with female offenders, thus a structured model of release decision-making cannot ignore this evidence and the risk factors that are empirically related to the prediction of recidivism should be incorporated in the decision-making process.

Resistance to Risk Assessment

The resistance to risk assessment may have important implications in the context of the current study, which is testing a model to enhance the correctional release decision-making process of the NPB. The utility of such a model will not be realized if those responsible for its implementation do not believe in its value. Glaser (1985) suggests that some may resist risk assessment for two reasons. First, decision-makers may feel that risk assessment disregards unique evidence of good or bad character, post-release intentions and the appropriateness of the punishment (in addition to parole violation). Second, researchers may be viewed as outsiders who ignore concerns expressed by decision-makers in favour of pleasing the public and politicians, on whom they depend for job security and advancement (Glaser, 1985).

To examine resistance to risk assessment, Turpin-Petrosino (1999) conducted a study to examine a presumptive parole policy of New Jersey (i.e. a parole law that seeks to facilitate release) that requires the paroling authority to grant parole at first eligibility, unless substantial evidence exists to suggest a strong likelihood of recidivism. Turpin-Petrosino (1999) found that despite this legislative effort, decision-making was still disproportionately based on crime factors. According to Turpin-Petrosino (1999) these findings provide evidence for a “bureaucratic resistance” to a restricted formula approach. Further, it was argued that the disproportionate dependence on crime type in decision-making processes could be the result of a political fallout that may result in unpopular (or inaccurate) parole decisions. Turpin-Petrosino (1999) concluded that these findings demonstrate a need to determine if standardized tools are being implemented properly – once this is established it can be determined if the results are indicative of a more consistent decision-making system.

Others such as Samra-Grewal et al. (2000) have found that when structured criteria are used, they may be used as a “loose guide” to supplement other information obtained. Their study revealed that the consistency in release recommendations did not increase when structured criteria were used, however, when the data was recoded using a tabled risk score¹², the consistency did significantly improve. According to Samra-Grewal et al. (2000), it looked as though participants may have ignored the tabled risk score if it was inconsistent with their subjective perceptions of offender’s risk or the structured criteria were loosely applied. As a result, Samra-Grewal et al. (2000) conclude

¹² The tabled risk score was obtained using specific scoring criteria; each response option was assigned a specific score based on its importance in relation to the overall recommendation decision and these individual scores were then summed (Samra-Grewal et al., 2000).

that the use of structured criteria does improve consistency; specifically, they suggest that their findings demonstrate the importance of the proper utilization of structured criteria.

Taken together, the results of Turpin-Petrosino (1999) and Samra-Grewal et al. (2000) demonstrate a need to address any resistance to risk assessment prior to implementing a standardized approach, such as the one being tested, to ensure proper adherence to the guidelines and sufficient buy-in by those who are directly responsible for the success of its implementation.

Difficulties with Prediction Devices

In addition to a consideration of the resistance to risk assessment, a discussion on the difficulties with prediction devices is warranted in a study whose goal is to test the accuracy of a structured decision-making model, in correctly identifying good versus poor parole candidates.

Nuffield (1982) discusses in great detail the specific difficulties with prediction devices. Recognizing and resolving these difficulties prior to the implementation of a new and structured approach to how correctional release decisions are made by the NPB, may also be necessary.

First, Nuffield (1982) argues for a greater examination of the effectiveness of correctional programs. Specifically, in order to identify an individual in terms of conditional or dynamic risk, Nuffield (1982) argues that the effectiveness of correctional programs (i.e. their impact) needs to be explored. In order for risk assessment to appropriately be used, more knowledge as to changes in offender risk as a result of correctional programs needs to become more evident. As part of the deliberation process, the general information on offender performance and participation in correctional

programming could be enhanced if information regarding the program impact and change were to become available.

Second, relating to recidivism, Nuffield (1982) highlights the inconsistencies apparent in the definition and its use; recidivism is often defined differently and not always consistently with the organizational needs of decision-makers. For example, researchers prefer to measure recidivism using re-arrest or reconviction because it is less impacted by organizational influence and fluctuation; however, parole period would be more useful as it measures the period during which the NPB has legal control over the offender (Nuffield, 1982). In addition, Nuffield (1982) believes that there is a need to distinguish between the risk of general and violent recidivism. Specifically, Nuffield (1982) acknowledges the difficulties predicting violent recidivism, attributed in part to the low base rate (further complicated by undetected, unreported and unrecorded occurrences of violent crime), which typically invites over-prediction. Nuffield (1982) argues that the accurate prediction of violent recidivism is difficult, if not impossible given the uncertainty in the prediction and the risk of false positive errors. More recent research suggests that the Violence Risk Appraisal Guide (VRAG; Harris, Rice & Quinsey, 1993) shows promise in predicting institutional and post-release general and violent long-term recidivism, however, given the static nature of the VRAG, other measures that include treatment targets, change and case specific factors should also be used (Forth, 2003). If the goal of the correctional release decision-making process is to correctly identify those offenders who are the poorest candidates for conditional release, a consistent definition of failure (i.e. recidivism) and the consistent use of the best available tools to predict this outcome are necessary.

Third, given that there is no overall consensus on how much punishment a given offender or offence deserves (i.e. proportion of a sentence to serve), it is argued that prediction devices may be affected by a decision-maker's focus on the issue of punishment (Nuffield, 1982). Glaser (1985) highlighted a similar concern that decision-makers' views of punishment may also interfere with the final decision and mitigate the contribution of a prediction device. In order to remove this influence from the equation of prediction devices, standards need to be developed so decision-makers do not feel a need to make the adjustments themselves, thus affecting the accuracy and reliability of the prediction device.

Finally, according to Nuffield (1982), as laws and social conditions change, so too will the characteristics of offenders becoming involved with the correctional system, thus a good predictive instrument at one time may seriously lose its power over time. As a result, it becomes necessary to be continuously aware of these changes as different instruments are being developed and earlier scales are used longer than might be appropriate. Continuous monitoring and updating will be important for the effectiveness of prediction devices. The development and implementation of a structured release decision-making model will require continuous evaluation and monitoring to ensure it maintains its efficiency over time.

Consequences of Risk Assessment

In the development of a model designed to classify and assess the risk of offenders, the consequences of risk assessment and how the information will be used is important to take into consideration. Rogers (2000) presents two consequences of risk assessment which highlight why care and caution must be taken when utilizing such

measures. First, he discusses the importance of ethical responsibility. More specifically, when risk assessments are misused and/or misinterpreted, the question becomes one of where and with whom responsibility lies. Misuse either by lack of training or failure to adhere to the established guidelines associated with the instrument can have serious consequences regarding classification, institutional placement and release decision-making. Second, Rogers (2000) discusses the exclusion or de-selection of individuals based on an improper fit into a category obtained from the risk assessment. Both of these consequences are valid reasons that care and caution must be taken to ensure that risk assessments are used appropriately. These consequences are important to consider in the development of a structured decision-making model, which has serious implications upon implementation. Given the importance and potential consequences of release decisions made by the NPB, a structured model should contain empirically-based items that maximally predict and accurately identify offenders into good and poor release candidates. Once such a model has been established, sufficient training is necessary to ensure the integrity of the model and reduce the consequences associated with misuse.

The overview of the material presented on risk assessment was to establish the importance of risk assessment in the decision-making process. This section was used to introduce the evolution of risk assessment approaches over time and consider the purpose and value of risk assessment in the decision-making process. A brief overview of the resistance to risk assessment and the difficulties with prediction devices, in addition to the consequences of conducting risk assessment in this context, was presented to highlight the potential difficulties that the implementation of a structured model of correctional decision-making may encounter.

The review of the literature presented in the preceding sections has been used to highlight a considerable need for the development of structured guidelines to maintain the integrity of the correctional release decision-making process. Its purpose has been to situate the context in which the primary goal of the current research study will be conducted. In particular, these issues are relevant as part of an evaluation of the accuracy of a structured model of correctional release decision-making compared to the current method used by the NPB.

Purpose

Accountability and Integrity of the NPB

According to Serin (2004a), many paroling authorities consider the following factors in their decisions: criminal history and severity, sentence, institutional adjustment, program participation and interpersonal characteristics (e.g. motivation, community support, release plan, etc.). What remains unknown, however, is how these factors are combined and weighted, and what factors are critical for specific types of offenders, given the heterogeneity of the offender population (e.g. mentally-disordered offenders, sexual offenders, female offenders, etc.). In addition, the use of risk assessment methodology is clearly an important component of the decision-making process, as discussed previously. The NPB emphasizes this importance as documented in the Code of Professional Conduct (NPB, 2005a), which requires members to maintain up-to-date knowledge in risk assessment. Specifically the code states:

Members shall actively participate in training provided by, or at the request of the Board, and otherwise pursue the enhancement of their professional competence and knowledge individually and collegially, recognizing that knowledge about risk assessment for conditional release decision-making is constantly evolving.

(p.3)

As demonstrated through a thorough review of the literature, there are many inconsistencies and issues that may potentially influence the process of correctional release decision-making. In order for the NPB to be held accountable and maintain integrity in their role of managing the delicate balance between the protection of the

public and freedom of offenders, the development of a standardized instrument to make recommendations on conditional release is an important task. As Nuffield (1982) argues:

The use of a statistically-based decision model and parole guidelines would go a long way towards making parole policy both more equitable and more visible. A carefully constructed system of decision monitoring and feedback would permit authorities to assess the manner in which parole was meeting the more abstract objectives set for it by decision-makers. (p.63; emphasis in original)

According to the NPB (2005f), “the Board has a responsibility to promote consistency of process that reflects [that] a concrete analysis and assessment of the case has been undertaken, consistent with the idea of openness, accountability and professionalism” (p. 2.2-1). Further, a quality decision is one that: is reflective of a commitment to the protection of the public and consistent with the least restrictive determination; demonstrates that full and impartial consideration of the case was undertaken; is sensitive to social and cultural differences; is based on comprehensive and reliable material; is clear, concise and understandable; and is documented to summarize the Board’s analysis and assessment of known risk indicators, risk and need factors, institutional behaviour, benefits from intervention and release plan/community management strategies (NPB, 2005f). Given the documented importance of the quality of correctional release decisions, the purpose of the current research endeavour is to enhance the quality of correctional release decision-making through the use of a structured decision-making model, which is both empirically-based and derived from past lessons learned from NPB investigations. Thus, the primary purpose of this study is to determine the predictive accuracy of decisions generated using a structured decision-

making model (the *Release Decision-Making Manual*) compared to actual decisions based on NPB's current parole practice (as discussed in the introduction) and develop a better decision that is more accurate and systematically covers a greater breadth of information. This purpose was addressed by retrospectively applying a structured model of correctional release (the *Release Decision-Making Manual* – see Method section) to eighty offender files of the NPB, to generate release decisions that would have resulted had this model been applied at the time of original release decision by the NPB, and to compare the relative accuracy of the model.

Hypotheses

To address the purpose of this study the following hypotheses were made.

Hypothesis 1

The concordance rates between the manual-based decisions and the actual case outcome (i.e. offender success or failure on release) would be higher than the concordance rates between current practice-based decisions and the actual case outcome (which were artificially set to include a 50% error rate). It was predicted that the *Release Decision-Making Manual* would have good predictive accuracy, thus, it was expected that the structured model would accurately identify true positives and true negatives and generate fewer false positives and false negatives.

Hypothesis 2

It was expected that the highest risk offenders would be denied parole more frequently than the lower risk cases, thus differences in risk among the four groups of false negatives, false positives, true positives and true negatives would be expected. Specifically, it was hypothesized that risk level, as measured by the Statistical

Information on Recidivism-Revised (SIR-R1) scale would be highest among offenders who were not granted conditional release (day or full parole). In addition, it was expected that offenders who were granted conditional release (day parole or full parole) by the NPB would score higher on Reintegration Potential (RP) than offenders who were not released, as those who score low on RP would not represent an acceptable level of risk to be released.

Hypothesis 3

In order to explore a few of the findings discussed in the research literature, it was hypothesized that the profile of offenders who were granted conditional release by the NPB would be significantly different than the offenders who were denied conditional release in the following ways.

Hypothesis 3a. It was expected that female offenders would be more likely to be granted conditional release than their male counterparts based on the grant rates reported by PSPEC (2005).

Hypothesis 3b. According to the rates of release reported by PSEPC (2005) between Aboriginal and non-Aboriginal offenders, it was hypothesized that Aboriginal offenders would be less likely to be granted conditional release than non-Aboriginal offenders.

Method

Subjects

A total of eighty offender files from all five regions of the NPB were reviewed and coded using the *Release Decision-Making Manual - Coding Form* (see Appendix A). Specifically, the NPB identified 20 cases in each of four groups: True Positives (TP's) – offenders were released on statutory release and were revoked prior to their WED or the study end date (whichever date occurred first); False Positives (FP's) – offenders were denied parole and when subsequently released on Statutory Release (SR), were not revoked prior to their WED or the study end date; True Negatives (TN's) – offenders were granted parole and did not fail prior to their warrant expiry date (WED) or the study end date; and False Negatives (FN's) – offenders were granted parole and were revoked prior to their WED or the study end date. The rater was blind to the outcome of the cases (i.e. which of the four groups the case belonged). Files were coded chronologically beginning with the earliest documentation available in the file, up to and including the first NPB Day Parole and/or Full Parole release decision for the index offence. These efforts were taken to ensure that files were coded without the knowledge of which of the four groups the case belonged, until the end of the data collection process, so as not to bias the coding of the structured release decision-making model.

Selection Criteria

Cases were selected for inclusion in this study using a very strict set of selection criteria. First, federal¹³ offenders, released on day parole, full parole or statutory release between April 1st, 2003 and March 31, 2004 were identified. Once this group of

¹³Only federal cases were included in this study as there are differences in training for provincial and federal cases.

offenders was identified, they were divided into two groups: offenders released on parole (day parole or full parole) and offenders released on statutory release. In order to further divide these two groups into the four groups of TP's, FP's, TN's, and FN's, their outcome (i.e. success or failure on release) was required, thus the decision was made to use a one-year post release follow-up. In other words, offenders were defined as a failure if their release (on day parole, full parole or statutory release) was revoked prior to their WED¹⁴ or March 31, 2005 (the study end date), whichever date occurred first. The detailed selection of offenders into the four groups occurred as follows.

True Negatives and False Negatives. Of the offenders who were released on day parole or full parole between April 1st, 2003 and March 31, 2004, offenders who were released via the Accelerated Parole Review (APR)¹⁵ process were identified and excluded. Once the APR cases were removed, the group of offenders released on parole was further divided into two groups: the True Negatives (TN's) and the False Negatives (FN's). The TN's were identified as those offenders who were released on parole and did not have their parole revoked prior to their WED or March 31, 2005 and the FN's were identified as those offenders who were released on parole and were revoked prior to their WED or March 31, 2005. Once the parole releases were divided into the two groups of

¹⁴ The time for failure was defined as the period from which offenders were released on day parole, full parole or statutory release until WED, as decisions made by the NPB reflect only the time period for which they have legal control over the offender (Nuffield, 1982); their role is to identify good and poor release candidates for the time period during which they have control over the offender, until WED, not beyond.

¹⁵ APR, introduced by the Corrections and Conditional Release Act, requires offenders to be released on full parole at 1/3 of their sentence, unless the NPB determines there are reasonable grounds to believe violence is likely prior to WED. APR only applies in cases where the offender is serving their first penitentiary sentence for a non-violent offence or the offender is serving time for a drug offence and the judge did not set a parole eligibility at one half of the sentence (NPB, 2005d). APR cases were excluded in the current study because the Board has limited discretion in these cases and the purpose of the current study is to test a structured model of decision-making where the discretion remains with the Board rather than legislation.

TN's and FN's, 20 cases were randomly selected from each group, for a total of 40 offenders released on parole, divided into the two groups of TN's and FN's.

True Positives and False Positives. Of the offenders who were released on statutory release between April 1, 2003 and March 31, 2004, offenders who waived or withdrew their review were identified and excluded. Once these cases were removed, the group of offenders released on statutory release were divided into two groups: the True Positives (TP's) and False Positives (FP's). The TP's were those offenders who were released on statutory release and were revoked prior to their WED or March 31, 2005 and the FP's were those offenders who were released on statutory release and were not revoked prior to their WED or March 31, 2005. Once the group of offenders released on statutory release were divided into the two groups of TP's and FP's, 20 cases were randomly selected from each group, for a total of 40 offenders released on statutory release, divided into the two groups of TP's and FP's.

Generally, cases were initially screened and excluded for the following reasons: offenders were being reviewed for a release decision other than their first release (i.e. they had already been revoked and were being reconsidered for release on the same sentence); cases included statutory release residencies; offenders were deceased; offenders had been deported; or offenders were temporarily suspended or unlawfully at large. Once these cases had been screened for these initial criteria, the selection process occurred as described above.

Overall, cases that met the above criteria were selected at random from each of the five regions; cases selected from the Prairie region were intentionally all Aboriginal and women were selected where present, except in regions where their inclusion would

have exceeded 50%. The intention in selecting cases was to include Aboriginal offenders, female offenders and sexual offenders as well as a few ‘lifers’ to obtain a diverse sample on which to test the model, rather, not for representative numbers of these populations. The selection criteria for this sample was necessarily strict in order to obtain a straightforward sample and to avoid coding complications where possible.

Materials

Structured Release Decision-Making Model: Release Decision-Making Manual

According to Serin (2004b), the structured release decision-making model was developed to assist the decision-making process and enhance the quality of decisions made in correctional release decision-making. The structured model of correctional release decision-making is both empirically-based and incorporates previous lessons learned from NPB investigations. The manual is designed to guide the decision-maker through several stages prior to rendering a final decision. A general overview of the model is presented in Appendix B as Figure B-1 and a brief review of the each section of the *Release Decision-Making Manual* is described next.

Statistical Risk Estimate. The first section of the *Release Decision-Making Manual* is the statistical risk estimate. According to the manual, the statistical estimate in the majority of offender files is the SIR-R1, which provides a measure of general recidivism within a 3-year follow-up period. In cases where the SIR-R1 scale is not appropriate (e.g. females and Aboriginal offenders), the manual suggests using the 3-point estimated risk rating given by parole officers or another instrument, which has been validated for use with the particular group of offenders.

Domains. The second section of the *Release Decision-Making Manual* guides the decision-maker through eight “domain” areas of *Criminal History*, *Special Populations*, *Disinhibitors*, *Responsivity*, *Change*, *Release Plan*, *Risk Management* and *Specific Factors*.

First, *Criminal History* is included in the manual as it is considered to be a well-established risk factor (Andrews & Bonta, 2003; Serin, 2004b) and allows for a greater understanding of the trends and patterns regarding the offender’s criminality. The criminal history domain is measured by age of onset, density, escalation and severity.

Second, the *Special Populations* domain has been included given the heterogeneity of the offender population. As previously discussed, some researchers believe that different factors need to be considered and/or addressed when dealing with different populations (e.g. mentally-disordered offenders, sexual offenders, female offenders, etc.) The inclusion of the *Special Populations* domain allows the decision-maker to take these differences into consideration (Serin, 2004b).

Third, the assessment of *Disinhibitors* has been included to allow for an understanding of the individual’s ability to inhibit antisocial and criminal behaviour and act in a well-regulated manner. The *Disinhibitors* domain is measured by variables such as negative peer pressure, substance use, threat perception, intelligence, impulsivity, sexual deviance, instrumentality/callousness, criminal attitudes and mental disorder (Serin, 2004b).

Responsivity is the fourth domain and has been described as one of the principles of effective correctional treatment (Andrews & Bonta, 2003). The issue of responsivity is important for NPB members to be aware, as it is their job to ensure that hearings and

panels are conducted in a manner that is consistent with the learning style of the offender. In addition, this domain allows Board members to take into consideration whether or not responsivity issues have been adhered to with respect to offender programming and assessment while incarcerated.

The next domain is designed to take offender *Change* (through programming and incarceration) into account. According to Serin (2004b), statistical estimates are useful for predicting post-release recidivism, but given that many instruments focus primarily on static (i.e. unchangeable factors), it is important to consider those factors that can be targeted for change, to obtain a more accurate assessment of offender risk level. Utilizing this domain can assess change in risk level that the statistical estimate is unable to address.

Release Plan is the next domain, which according to Serin (2004b) is an important component of post-release success. According to Serin (2004b), “the extent to which social supports and aftercare are present is related to the viability of the release plan” (p.18). The *Release Plan* (put forward by the offender and the Case Management Team) is discussed with the offender and is assessed by the NPB, according to the offender’s account of his or her release plan.

Next, *Risk Management* is considered by using offence cycle information and structured interviews (Serin, 2004b) and measures changes in the seven need domains of employment, marital/family, associates, substance abuse, community functioning, personal/emotional orientation and attitudes. According to Andrews and Bonta (2003), changes (i.e. an increase) in these need domains are predictive of future recidivism.

The final domain assessed in the second section of the manual is *Specific Factors*. Given that many cases contain unique factors, the inclusion of this domain allows for these case specific-factors to be considered if they are deemed relevant and important for a release outcome. Serin (2004b) describes the measurement of this domain as interview-based and highlights that this domain is unstructured.

Interview Information. The next section of the *Release Decision-Making Manual* considers information obtained from the offender interview. The manual recommends a structured protocol to follow regarding the content to be covered during the interview, however, not in terms of the conclusions to be made (Serin, 2004b). The content derived from the interview may be useful, however, the manual cautions the conclusions drawn from such interviews based on the findings of Porter et al. (2000), who suggest that the information obtained from these interviews are not accurate in detecting deception.

Reconcile Disconcordant Information. This section prompts the decision-maker to acknowledge and address any inconsistencies between the recommendations of the statistical risk estimate and the clinical assessment (e.g. from the assessment of each domain area and the interview information discussed above). Specifically, the manual states that decision-makers should justify the inclusion of the information used in their consideration, in terms of the method, reliability and validity of that information.

Adjustment to Statistical Risk Estimate. The next section of the manual recommends an aggregation of the corroborating, mitigating and aggravating factors to adjust the statistical risk estimate. As a result, the consideration of these factors should contribute to the ultimate decision regarding whether or not an adjustment to the original

estimate will be made. Further, discordant information may provide the justification for making such an adjustment (Serin, 2004b).

Confidence Rating for Decision. At this stage, the manual requires the decision-maker to rate the confidence of their decision. According to Serin (2004b), the inclusion of this component will inform training initiatives by obtaining a better understanding of Board members' confidence rating of the decisions that are made and its relation to decision and release outcomes.

Decision. Finally, the release decision is rendered. This final stage has the decision-maker describe in detail: 1) the decision that was made, 2) how it relates to prior decisions for similar cases, and 3) their justification for the decision in the event an investigation is launched regarding the final decision/release outcome.

The components of the *Release Decision-Making Manual* discussed above may potentially address a few of the previously identified influences on the decision-making process. First, the *Release Decision-Making Manual* outlines the specific factors to consider, thus reducing the amount of time that could be spent considering irrelevant information. This model may be an important timesaving mechanism given the issue of time constraints of Board members and the projected number of reviews for the 2005-2006 fiscal year. Further, the use of a structured model will not allow decision-makers to trade off accuracy in favour of effort (Busemeyer & Townsend, 1993).

A pilot study was conducted by Gobeil (2005) to examine the utility of this model in generating release recommendations. This preliminary investigation found that the manual had greater predictive accuracy than decisions made by the NPB based on current parole practices, providing evidence for the utility of the structured model.

At this point, it should be noted that the following sections of the *Release Decision-Making Manual* were not used for the purposes of this study: *Interview Information*, *Reconcile Disconcordant Information* and *Confidence Rating for Decision*. Given the nature of the proposed study, it was not possible to score these sections based on an archival study and file review alone.

Statistical Information on Recidivism – Revised (SIR-R1)

As previously mentioned, the SIR-R1 scale has been validated for use with adult, male, non-Aboriginal offenders and the psychometric properties have been consistently demonstrated through research (Forth, 2003). The SIR-R1 scale consists of the following 15 items: current offence; age at admission; previous incarceration; previous parole breach; escape history; maximum security classification; age at first adult conviction; number of dependents; previous assault; marital status; interval at risk since last offence; aggregate sentence; previous convictions for violent sex offence; and previous convictions for break and enter. The SIR-R1 scale provides a likelihood of general recidivism with a 3-year follow-up and total scores ranges from –30 to +27, where negative scores represent an increased likelihood of recidivism and positive scores indicate a decreased likelihood of recidivism (Forth, 2003). Total scores are broken down into five risk categories as follows: Very Good (+6 to +27); Good (+1 to +5); Fair (–4 to 0); Fair to Poor (–8 to –5); and Poor (–30 to –9).

Reintegration Potential (RP)

At time of admission, all federal offenders are assessed using the Offender Intake Assessment (OIA; Motiuk, 1997). As part of the OIA process, the 3 classification measures necessary to calculate an offender's Reintegration Potential are obtained: Level

of Intervention Based on Static Factors, Level of Intervention Based on Dynamic Factors (for female and Aboriginal offenders), Custody Rating Scale (CRS; Solicitor General Canada, 1987) and the SIR-R1. Using these measures, an offender's Reintegration Potential is obtained according to Table C-1 in Appendix C. As presented in Table C-1, the convergence of the 3 measures mentioned above yield a Reintegration Potential score of Low (3), Moderate (2) or High (1); Low scores (3) being associated with a higher likelihood of recidivism. According to Motiuk and Nafekh (2001), the predictive validity of the Reintegration Potential was measured by examining the relationship between the 3 categories of Reintegration Potential and discretionary release and post-release outcome. The likelihood of discretionary release was significantly associated with a higher Reintegration Potential. In addition, the highest percentage of offenders returned to federal custody were among the offenders who scored Low on Reintegration Potential (Motiuk & Nafekh, 2001).

Procedure

An archival study, which retrospectively applied a structured model of correctional release decision-making to offender files of the NPB, was used to address the purpose of the current study. Eighty offender files, equally divided among four groups of interest (True Positives, False Positives, True Negatives and False Negatives) were reviewed and coded using the *Release Decision-Making Manual - Coding Form*. As previously discussed, files were carefully reviewed between identified time periods to ensure that case outcome (i.e. success or failure on day parole, full parole or statutory release) remained unknown, until the end of the coding process. All documentation up to and including the NPB release decision was included in the scoring of the *Release*

Decision-Making Manual - Coding Form. This included information on previous sentences and in some cases, required the review of multiple volumes per offender file. All documentation included in the offender's file after the NPB release decision was not reviewed, to avoid becoming aware of any information that would identify to which of the four groups the case belonged.

Training

Prior to reviewing and coding the eighty offender files of the sample, five test cases (selected according to the criteria detailed above) were reviewed to familiarize the coder with the contents and layout of the offender files. There was a brief overview of the model provided by its author, however, limited formal training or orientation was provided for the file review process. Rather, informal discussions were held with a member of the NPB to clarify questions as they arose.

Confidentiality

All files were reviewed on site at the National Headquarters of the NPB. No identifying information was recorded on the coding forms and following the review of all files, the data was subsequently entered into the Statistical Package for the Social Sciences (SPSS) software program.

Data Cleaning

Once all of the forms were entered, frequencies were run to identify any missing data and/or discrepancies in the data set. Of the minor discrepancies that were found, all issues were resolved through cross-referencing with the NPB. In addition, univariate assumptions of normality and homogeneity of variance were considered where necessary, which included an examination of histograms and values of skewness and kurtosis for

variables used in the data analysis. There was no evidence to suggest that these assumptions were violated.

Generating a Manual Release Recommendation

Calculation of the Total Adjustment Score (TAS). The first step in calculating a ‘manual’ release decision was the calculation of the Total Adjustment Score for each case. Similar to Gobeil (2005), each of the eight domains (*Criminal History, Special Populations, Disinhibitors, Responsivity Issues, Change, Release Plan, Risk Management and Case Specific Factors*) concluded with a final question which summarized all information obtained in the section as aggravating, corroborating or mitigating, in relation to overall statistical risk. For example, “Does criminal history represent a corroborating, mitigating or aggravating factor?” – if all of the information contained in the *Criminal History* domain was considered aggravating in relation to statistical risk, then the *Criminal History* domain was given a score of –1. All domains were similarly scored and the Total Adjustment Score was calculated by summing all eight of the domain adjustment scores; theoretically, the Total Adjustment Score could range from –8 to +8, with negative values being associated with increased likelihood of recidivism (i.e. aggravating), similar to the SIR-R1.

Adjustments to the statistical risk estimate. As previously mentioned, the *Release Decision-Making Manual* suggests using the SIR-R1 scale as the statistical base, from which necessary adjustments based on all information contained in the manual are made (Serin, 2004b). In Gobeil (2005), the SIR-R1 scale or appropriate risk measure in cases of Aboriginal or female offenders was used as this statistical base. In the current study, the statistical base for the manual was the Reintegration Potential score and the SIR-R1.

The decision to include the Reintegration Potential score as the statistical estimate was based on two things: 1) it was anticipated that this risk estimate would be available in all cases (including female and Aboriginal offenders) given that all federal offenders undergo the Offender Intake Assessment process, and 2) Motiuk and Nafekh (2001) report good predictive validity of this measure.

To generate a manual release recommendation in the current study, three different adjustment procedures were used, which as a result generated three different manual release recommendations. The preliminary investigation by Gobeil (2005) generated a manual release recommendation by adjusting the statistical estimate with the manual Total Adjustment score. This process was similar to the current study, except 2 other adjustment procedures were also used to determine the utility of different adjustment procedures.

The first adjustment procedure used the Reintegration Potential score of Low, Moderate or High (obtained from the OIA in the offender file) and adjusted up or down one bin, depending on a positive or negative score overall on the Total Adjustment Score. Specifically, if the Total Adjustment Score was positive, the Reintegration Potential score was adjusted down one bin (e.g. a TAS = +6 would adjust RP from 2 to 1) and if the Total Adjustment Score was negative, the Reintegration Potential was adjusted up one bin (e.g. TAS = -3 would adjust RP from 2 to 3); if the Total Adjustment Score was equal to 0 (i.e. neutral), no change was made to the Reintegration Potential score. This adjustment procedure is referred to as the *crude adjustment to RP* throughout remaining sections of the document.

A second adjustment procedure was based on cut-off points derived from the sample distribution of scores on the Total Adjustment Score. The distribution of scores on the Total Adjustment Score of the *Release Decision-Making Manual* is presented in Figure 1. Note that the theoretical range of the Total Adjustment Score was -8 to $+8$, however, the range based on the current sample was -5 to $+5$.

Figure 1

Sample Distribution on the Total Adjustment Score of the Release Decision-Making Manual

In order to derive the cut-off points for adjustments to Reintegration Potential, the distribution of the Total Adjustment Scores was divided into thirds. As a result, Total Adjustment Scores of -3 to -5 adjusted the Reintegration Potential score up one bin (e.g. $RP = 2$ to $RP = 3$) and scores of $+1$ to $+5$ adjusted the Reintegration Potential score down one bin (e.g. $RP = 3$ to $RP = 2$); Reintegration Potential score was not adjusted if the offender scored -2 to 0 on the Total Adjustment Score. This adjustment procedure is referred to as the *sample adjustment to RP* in forthcoming sections of the document.

Finally, the third adjustment procedure is similar to that of Gobeil (2005), which used the Total Adjustment Score of the *Release Decision-Making Manual* to adjust the SIR-R1 scale up or down a maximum of one risk bin. The Total Adjustment Score was then multiplied by 3 (to convert the score into a percentage equivalent to one risk category on the SIR-R1 – see Gobeil, 2005). These converted adjustment scores were used to adjust the percentages of the SIR-R1 based on the five risk bins (Very Good, Good, Fair, Fair to Poor and Poor). For example, consider an offender who scored Fair to Poor on the SIR-R1 and –4 on the Total Adjustment Score of the *Release Decision-Making Manual*. The Total Adjustment Score of –4 is multiplied by 3 and converted to –12%. This percentage would then be used to adjust the SIR-R1 score of 40% (the “success” rate which corresponds to the Fair to Poor risk bin) to 28% (which subsequently corresponds to the Poor risk bin, with a 33% success rate or lower). This adjustment procedure is referred to as the *percentage adjustment to the SIR-R1* throughout the remaining sections of the document.

Obtaining a ‘manual’ release recommendation. As previously mentioned, the three different adjustment procedures discussed above yielded three different manual release recommendations. Once the adjustment procedures were applied to the statistical estimate (Reintegration Potential and the SIR-R1), decision thresholds (i.e. the cut-off point to deny or grant release) were determined. The cut-off score for recommending release in Gobeil’s (2005) preliminary investigation was a success rate of 67% or higher (which corresponded to the Good and Very Good bins of the SIR-R1), thus in order to compare findings, a similar threshold was used. As previously mentioned, Reintegration Potential categorizes offenders into 3 bins: Low, Moderate and High. The corresponding

success rates for each of these bins are: 53%, 61% and 83% respectively. As a result, offenders who scored Moderate or High (i.e. 2 or 1 respectively) on the adjusted Reintegration Potential were assigned a 'manual' release recommendation of Release and offenders who scored Low on the adjusted Reintegration Potential (i.e. 3) were assigned a manual recommendation of Do Not Release. Similar to Gobeil (2005), offenders scoring in the Good and Very Good categories on the adjusted SIR-R1 were assigned a manual recommendation of Release. Results are presented next.

Results

*Profile of Research Sample**Offender Characteristics*

At the time of file review, offenders in this sample ranged from 21.79 to 82.01 in age ($M = 38.83$; $SD = 11.25$) and 71.3% ($n = 57$) were male and 28.8% ($n = 23$) were female. The breakdown of offender race is reported in Table 2.

Table 2

Offender Race

Race	% (n)
Caucasian	62.5 (50)
Aboriginal	26.3 (24)
Black	3.8 (3)
Asian	1.3 (1)
Other	6.3 (2)

Of the 24 Aboriginal offenders, 18 were identified as North American Indian, 5 were identified as Métis and 1 was not specified. Of the 2 offenders whose race was classified as “other”, one was identified as Lebanese and the other was not specified.

Offender type was classified according to five categories: general, sexual, female, mentally-disordered and other; the sample is broken down into each of these categories and presented in Table 3.

Table 3

Types of Offenders – Based on Index Offence

Type of Offender	% (n)
General offender	56.3 (45)
Sexual offender	6.3 (5)
Female offender	23.8 (19)
Mentally-disordered offender	8.8 (7)
Other	5.0 (4)

From Table 3, it can be seen that 5 offenders were classified as sexual offenders. To be considered a sexual offender for this study, the index offence(s) for which they were serving a sentence upon which the index release decision was made, had to include a sexual crime. Offenders who were considered mentally-disordered were those offenders who were assessed to be suffering from the following: chronic anxiety disorder, panic disorder and obsessive-compulsive disorder ($n = 1$); depression ($n = 2$); Fetal Alcohol Syndrome/Fetal Alcohol Effects ($n = 1$); mental deficiency ($n = 1$); mild mental retardation ($n = 1$); and schizophrenia and severe borderline personality disorder ($n = 1$). From Table 3, four offenders were classified as “other”. These offenders were categorized in this way to capture their identity in two groups – they were classified as female, mentally-disordered offenders; these females were assessed to be suffering from manic depression (i.e. bipolar; $n = 1$); stress, anxiety and depression ($n = 1$); depression ($n = 1$); and depression and agoraphobia ($n = 1$).

Case Characteristics

Cases in this study were requested from all five regions of the NPB. The number of cases selected from each region is provided in Table 4.

Table 4

Number of Cases from Each Region of the NPB

Region	% (n)
Atlantic	20.0 (16)
Quebec	18.8 (15)
Ontario	21.3 (17)
Prairies	22.5 (18)
Pacific	17.5 (14)

Based on the selection criteria discussed previously, cases were selected to obtain an approximately equal distribution from each region of the NPB, as can be seen in Table 4.

Types of offences. As part of the index sentence, the majority of offenders ($n = 55$) were convicted of one to three offences ($M = 2.98$, $SD = 2.04$) and ranged from one to ten offences. These offences were categorized into ten general categories of criminal offences and are presented in Table 5.

Table 5

Number of Index Offences in Each Criminal Offence Category

Categories of Criminal Offences	Number of Index Offences per Category
Crimes against the person	70
Crimes against property	83
Crimes against public morals and decency	3
Narcotics	17
Crimes against property with violence	3
Liquor and traffic offences	15
Crimes against public order and peace	30
Sexual offences	13
Probation and parole violation	6
Other	8

*Note: number of offences do not sum to total number of cases as a result of multiple offences per index sentence in most cases

As can be seen from Table 5, the majority of the offences in this sample were property crimes or crimes against the person. For a complete list of index offences per category for this sample, please refer to Appendix D.

Table 6 breaks down these offences according to the most serious violent offence as part of the index offence. It should be noted that not all index offences contained violence, thus the number of serious violent offences do not sum to the total number of cases.

Table 6

Most Serious Violent Offence as Part of the Index Sentence

Most Serious Violent Offence	(n)
Robbery – all others	12
Aggravated assault	8
Sexual assault	4
Assault – use of force	4
Assault cause bodily harm	3
1 st degree murder	2
2 nd degree murder	2
Manslaughter – all others	2
Impaired driving causing death	2
Assault – threats of violence	2
Attempt murder - firearm	1
Invitation to sexual touching	1
Assault with a weapon	1
Assault	1
Possess explosive substance	1
Possession prohibited/restricted firearm with ammunition	1
Discharge firearm with intent	1

According to Table 6, the most common serious violent offence as part of the index offence was robbery – all others, followed by aggravated assault.

Sentence length. Sixty-six offenders (82.5%) were sentenced to serve between two and three years incarceration. The mean length of sentence was 3.27 ($SD = 3.88$), which took into account four offenders who were sentenced to life in prison with no possibility of parole for 25 years ($n = 2$), 14 years ($n = 1$) or 10 years ($n = 1$).

Observations on Components of the Release Decision-Making Manual

Domains of the Release Decision-Making Manual

As previously discussed, the eight domains of *Criminal History*, *Special Populations*, *Disinhibitors*, *Responsivity Issues*, *Change*, *Release Plan*, *Risk Management* and *Case Specific Factors* were scored as aggravating, corroborating or mitigating depending on their relation to overall statistical risk and summed to obtain the Total Adjustment Score of the *Release Decision-Making Manual*. The frequencies of the domain scores of the *Release Decision-Making Manual* as aggravating, corroborating or mitigating are presented in Table 7.

Table 7

Frequencies of the Domain Scores as Aggravating, Corroborating or Mitigating

	Aggravating	Corroborating	Mitigating
	% (n)		
Criminal History	63.8 (51)	31.3 (25)	5.0 (4)
Special Populations	10.0 (8)	90.0 (72)	0.0 (0)
Disinhibitors	81.3 (65)	16.3 (13)	2.5 (2)
Responsivity Issues	1.3 (1)	62.5 (50)	36.3 (29)
Change	13.8 (11)	61.3 (49)	25.0 (20)
Release Plan	30.0 (24)	15.0 (12)	55.0 (44)
Risk Management	42.5 (34)	22.5 (18)	35.0 (28)
Case Specific Factors	7.5 (6)	88.8 (71)	3.8 (3)

From Table 7, it can be seen that the *Criminal History*, the *Disinhibitors* and the *Risk Management* domains were scored as aggravating in the majority of cases; the domains of *Special Populations*, *Responsivity Issues*, *Change* and *Case Specific Factors* were

scored as corroborating in the majority of cases; and the *Release Plan* domain was scored as mitigating in the majority of cases.

Release Decisions Made by the NPB

Based on the methodology of the current study, it was not possible to examine the potential factors that may influence the decisions (e.g. heuristics, amount of information, etc.), however, as part of the file review process, NPB members “Reasons for Decision” were documented to examine what factors were used to arrive at the final decision. The “Reasons for Decision” have been divided into Reasons to Deny Release and Reasons to Grant Release and are presented in Tables 8 and Table 9 respectively.

Table 8

Reasons for Decision: Day and Full Parole Denied

Reasons for Decision to Deny Release	<i>n</i>
Insufficient benefit from treatment/no treatment taken to address needs	29
Criminal history and/or history of violence/use of weapons (incl. index offence)	22
Alcohol or drug addiction/use of intoxicants, denial of problem	15
Behaviour demonstrates potential for violence/pattern of aggressive behaviour	14
Reasonable grounds to believe violence is likely before WED	13
Risk is not manageable in community/risk is not sufficiently reduced	10
No demonstrated change/questionable motivation and credibility	10
Psychological or actuarial assessment indicates mod to high risk for violence	10
Minimizes or rationalizes crime/fails to take responsibility	9
Ongoing problems with emotions management (e.g. anger, impulses)	9
Lack of insight/limited insight into factors relating to crime	8
History problems with community supervision/release (E.g. bail, court orders, conditional release, no contact orders)	7
Criminal associates (e.g. substance abusers, gangs)	7
Lack of structured release plan/not viable or sufficient	5
Need to demonstrate change/commitment to change (i.e. change fragile/new)	5
Institutional charges/incidents	5
Antisocial attitudes	4
Denial of needs/unwilling to participate in programming and address needs	3
Case Management Team (CMT)/IPO does not support release	3
Mental disorder/mental instability	3
Comfort with criminal lifestyle/highly criminalized lifestyle – “criminal milieu”	3
Offences demonstrate escalation in violence	2
Lacks occupational/life skills	2
No support (i.e. no positive influences who are likely to intervene)	2

Table 9

Reasons for Decision: Day and Full Parole Granted

Reasons for Decision to Grant Release	<i>n</i>
CMT, IPO, Elders and/or psychologist recommend release	15
Demonstrated change/progress towards addressing factors/needs	13
Release plan is sufficient/realistic, viable	12
Good understanding/insight into criminal activity	12
Sincere motivation, commitment and credibility; high Reintegration Potential	11
Positive support/resources in community (e.g. family/friends, professional)	11
Appropriate positive behaviour within institution and programming	10
Risk manageable/sufficiently reduced; manageable with conditions	10
Successful Escorted Temporary Absences (ETAs)	6
Successful completion of programs	6
Remained abstinent	5
Engaged in Correctional Plan (CP)	4
Acceptance of responsibility/consequences of behaviour on others realized	4
DP next logical step/progressive reintegration necessary and/or beneficial	3
Support of Community Release Facility (CRF)	3
Appropriate relapse prevention plans	3
Police do not oppose release	2
Required programming available in community	2
Positive work/school reports	2
Learned management of emotions	2
No criminal history	1
Psychological or actuarial assessment indicates low risk	1
Positive attitude	1
No institutional charges/not the attention of institutional preventative security officer (IPSO)	1

From Table 8, the most common reason to deny release of an offender included “insufficient benefit from treatment and/or no treatment taken to address needs”, cited in 29 cases and “criminal history of violence and/or use of weapons (including the index offence)”, cited in 22 cases. The most common reason documented to recommend release to an offender, according to Table 9, was a recommendation of release from the CMT, the IPO, Elders and/or the institutional psychologist ($n = 15$). Other reasons cited in 10-13 cases included: demonstrating change or progress towards addressing risk factors and needs; presenting a realistic and sufficient release plan; having gained an understanding/insight into criminal behaviour; demonstrating sincere motivation and commitment to addressing needs and establishing credibility; having identified positive resources in the community to assist with reintegration; demonstrating appropriate positive behaviour within the institution and in programming; and presenting a sufficiently reduced risk that is manageable in the community with conditions.

Of the offenders who were released on day parole or full parole, Table 10 presents the special conditions imposed on their release. From this Table, it can be seen that the condition imposed most often for offenders in this sample was “abstain from all intoxicants” ($n = 15$).

Table 10

Special Conditions Imposed on Release

Special Conditions Imposed on Day or Full Parole	<i>n</i>
Abstain from all intoxicants	15
Avoid certain persons (e.g. persons with a criminal record/activity within drug subculture)	10
Follow treatment plan	9
Abstain from drugs (with the exception of prescription drugs and only as directed)	7
Follow psychological counselling/intense psychological counselling	7
Avoid certain places (e.g. where the primary source of income is from the sale of alcohol)	6
Report/full disclosure of all intimate relationships	6
Abstain from alcohol	5
No direct/indirect contact with the victim; contact with victim only when approved and through a third party	4
Disclose financial details to parole supervisor	2
Day parole until warrant expiry	1
Abstain from gambling	1
Disclose full details of record to employer	1
No employment position with access to money	1
No to personally use or be in possession of credit cards or cheques	1
Not to be in care of a motor vehicle	1
Must not attend raves, night clubs or after hours bars	1
No contact with persons under 18 years of age	1
Not to take care of children	1
No contact with father of children unless through supervised visits	1
Restricted leave privileges	1

Case Specific Factors

The final section of the decision-making manual provides an opportunity for the consideration of case specific factors. In this sample, case specific factors were identified in ten cases (12.5%). In three cases, health was identified as a case specific factor and rated as aggravating in two of those cases. Particular health concerns that were identified included: ongoing physical pain, stemming from a childhood accident; diabetes with complications of failing eyesight, frequent insulin injections and blackouts; and fibromyalgia and rheumatoid arthritis. In the first two cases (physical pain and diabetes), these factors were rated as aggravating because of the drug use as pain management and its relation to the index offence and the diabetic blackouts that lead to the index sexual assault of teenage boys. In the third case, the offender had limited mobility as a result of the fibromyalgia and rheumatoid arthritis, thus this was rated as a mitigating factor in relation to risk of future criminal behaviour. In two cases, both health and age were identified; in one case health and age was considered a mitigating factor (offender was over 60 years of age and was suffering from congestive heart failure) and the other was considered a corroborating factor because despite his age of 78 years, hearing loss and heart condition, he was still engaging in criminal activity. Age alone was considered a mitigating specific factor in one case, where the offender was 60 years of age, had no criminal history and had maintained a law-abiding life within the community for many years, until her involvement in the index offence, which was reportedly committed to save her daughter's life. In the remaining four cases, specific factors were considered aggravating and included personal emotional issues (identify struggle and issues of abandonment), outstanding charges for violent offences (charges for relatively violent

offences was felt to aggravate risk as it demonstrated a serious escalation, given no previous violence in the criminal history), and supervision/criminal history (previous failure on release where drugs and alcohol remained problematic; one offender has participated in every program CSC had to offer and was presenting to NPB with the same *modus operandi*).

Predictive Ability of the Release Decision-Making Manual

Distribution of Offender Scores on the Unadjusted Statistical Estimates

The Statistical Instrument on Recidivism – Revised (SIR-R1) was available for just over half of the sample ($n = 44$); since the SIR-R1 scale has not been validated for use with females and Aboriginal offenders, SIR-R1 scores were not applicable in 35 cases and was missing in 1 case. When available, SIR-R1 scores ranged from -16 to 22 ($M = -2.52$; $SD = 10.81$). Offender's scores were then grouped according to the five "risk" bins: Poor (-30 to -9), Fair to Poor (-8 to -5), Fair (-4 to 0), Good ($+1$ to $+5$) and Very Good ($+6$ to $+27$). The distribution of offenders in each category of the SIR-R1 is presented in Figure 2.

Figure 2

Sample Distribution of Offender Scores on the SIR-R1 (Unadjusted)

Dividing this distribution into thirds, it can be seen that the majority of offenders scored in the Poor category ($n = 18$), followed by the Fair to Poor, Fair or Good categories ($n = 14$) and the lowest proportion of offenders ($n = 12$) scored within the Very Good category.

Table 11

Offender Scores on Items of the RP (Unadjusted)

	Low/Min	Med/Mod	High/Max
	% (n)		
Level of Intervention Static	11.3 (9)	45.0 (36)	40.0 (32)
Level of Intervention Dynamic	5.0 (4)	35.0 (28)	56.3 (45)
SIR-R1	21.3 (17)	6.3 (5)	27.5 (22)
Custody Rating Scale (CRS)	35.0 (28)	48.8 (39)	10.0 (8)
Reintegration Potential	31.3 (25)	31.3 (25)	32.5 (26)

Note: rows do not sum to number of cases due to missing data

Table 11 presents the scores on each item of the Reintegration Potential. In cases where the Reintegration Potential was not documented in the file, these scores were calculated according to Appendix C. In 4 cases (5.0%), scores were missing on the items of the Reintegration Potential, thus Reintegration Potential could not be calculated for these cases. According to Table 11, the scores on Reintegration Potential were evenly distributed across the three bins of Low, Moderate and High.

Decision-Making Manual Release Recommendations

Manual recommendation – “crude” adjustment to the RP. Manual decisions generated using a positive or negative value on the Total Adjustment Score of the *Release*

Decision-Making Manual to adjust the Reintegration Potential recommended release for 41 offenders (51.3%) and did not recommend release for 35 offenders (43.8%).

Manual recommendation – “sample” adjustment to the RP. When Reintegration Potential was adjusted using the cut-off scores derived from the sample distribution of scores on the Total Adjustment Score, the manual recommendation was to release offenders in 48 cases (60.0%) and not release offenders in 28 cases (35.0%).

Manual recommendation – percentage adjustment to the SIR-R1. Using Gobeil’s (2005) methodology, which made percentage adjustments to the SIR-R1, release was recommended for 13 offenders (29.5%) and not recommended for 31 offenders (70.5%).

Concordance Rates

It was predicted that the manual recommendation from the *Release Decision-Making Manual* would correctly identify cases in the TP and TN groups and generate fewer errors associated with the FP and FN groups. Table 12 presents the results of the *Release Decision-Making Manual’s* ability to correctly identify offenders in the TP and TN groups and reduce the number of errors associated with the FP and FN groups, based on the three different adjustment procedures.

Table 12

Comparison of Manual Release Recommendations Based on 3 Adjustment Procedures

	“Crude” Adjustment to RP		“Sample” Adjustment to RP		Adjustment to SIR-R1	
	Release	Do not Release	Release	Do not Release	Release	Do not Release
	(n = 76)		(n = 76)		(n = 44)	
True Positive (TP)	5	13	6	12	1	13
False Positive (FP)	6	14	10	10	2	10
False Negative (FN)	13	6	15	4	3	6
True Negative (TN)	17	2	17	2	7	2

Manual recommendation – “crude” adjustment to the RP. Examining Table 12, it appears as though recommendations based on the crude adjustment to the Reintegration Potential were able to correctly identify true poor parole candidates (TP’s) and true good parole candidates (TN’s) 72.2% and 89.5% of the time respectively; the errors associated with the identification of offenders in the TP’s and TN’s was 27.8% and 10.5% respectively. Using this adjustment procedure, the *Release Decision-Making Manual* was able to identify offenders as FP’s only 30.0% of the time and FN’s only 31.6% of the time; manual recommendations based on the crude adjustment to the Reintegration Potential incorrectly identified cases in these two groups 70.0% and 68.4% of the time respectively. The Pearson Chi-Square for the crude adjustment to the Reintegration Potential was significant; $\chi^2 (3) = 20.83, p < .001$.

Manual recommendation – “sample” adjustment to the RP. Using this adjustment procedure was slightly less able to correctly identify poor parole candidates (TP’s) than the manual recommendation using the crude adjustment (66.7% and 72.2%

respectively), however, was able to accurately identify good parole candidates (TN's) at the same rate (89.5%). Manual recommendations based on the second adjustment procedure were able to correctly identify offenders as FP's 50.0% of time (compared to the first procedure, only 30.0% of the time), however, were only able to correctly identify offenders as FN's 21.1% of the time (lower than the first procedure which was 31.6% of the time). The Pearson Chi-Square for the manual recommendations using the second adjustment procedure was also significant; $\chi^2 (3) = 16.06, p < .005$.

Manual recommendation – percentage adjustment to the SIR-R1.

Recommendations generated using the third procedure were able to correctly identify poor parole candidates (TP's) 92.9% of the time and good parole candidates (TN's) 77.8% of the time. The correct identification of FP's and FN's were 16.7% and 66.7% respectively. Pearson Chi-Square was significant for manual recommendations using the third adjustment; $\chi^2 (3) = 14.45, p < .005$.

Specifically, recommendations based on the third adjustment procedure was able to correctly identify offenders as poor parole candidates (TP's) 92.9% of the time; the highest rate of correct identification of the three adjustment procedures for this group. Recommendations based on the second adjustment procedure had the highest percentage of correct identification of offenders in the False Positive category (albeit only at chance levels, 50.0%) and recommendations made using the first and second adjustment procedure were able to correctly identify True Negatives the greatest percentage of the time at 89.5%. The structured release decision-making manual was able to reduce the rate of error for the FP and FN groups (none of the 3 manual recommendations incorrectly recommended release for all 20 cases of FP's or did not incorrectly

recommend release for all 20 cases belonging to the FN's), however, at the expense of increasing the errors in the TP and TN group; if the manual had perfect predictive accuracy it would have correctly recommended release for all 20 of the FP's and would not have recommended release for all 20 of the FN's, in addition to correctly identifying all cases in the TP and TN groups.

Predictive Ability

The first hypothesis of the current study predicted that the *Release Decision-Making Manual* would have good predictive accuracy. ROC analysis was used to obtain a measure of predictive accuracy of the *Release Decision-Making Manual*. This procedure was chosen as ROC analysis is unaffected by base rate or biases for or against Type I or Type II prediction errors (Mossman, 1994). ROC analysis plots the true positive rate as a function of the false positive rate and the overall discriminating power is measured by the Area Under the ROC Curve (AUC; Mossman, 1994). The AUC is a measure of the likelihood of rating a randomly selected actually poor parole candidate as more likely to be a poor parole candidate than a randomly selected, actually successful candidate. An AUC of .50 indicates that the measure is not performing much greater than chance and an AUC = 1.0 indicates perfect predictive accuracy. In order to evaluate the accuracy of the *Release Decision-Making Manual* in predicting success or failure of offenders on release, two objective measures (Reintegration Potential and the SIR-R1 scale) were adjusted to incorporate the Total Adjustment Score generated from the *Release Decision-Making Manual*. The AUC, 95% Confidence Interval (CI), Chi-Square and correlations between these measures and outcome (success or failure on release – day parole, full parole or statutory release) are presented in Table 13.

Table 13

Predictive Ability of Release Decision-Making Manual Using 3 Adjustment Procedures

	<i>AUC*</i>	<i>95% CI</i>	χ^2	<i>p</i>	<i>r</i>
Total Adjustment Score	.56	.44 - .69	5.30	.87	-.11
RP (Unadjusted)	.58	.45 - .71	1.92	.38	.14
RP (Adjusted – crude)	.56	.43 - .69	.93	.63	.11
RP (Adjusted – sample)	.60	.47 - .73	3.01	.22	.18
SIR-R1 (Unadjusted)	.63	.46 - .80	3.54	.47	.25
SIR-R1 (Adjusted)	.65	.48 - .81	3.84	.43	.29

*Note: please see Appendix E for plotted ROC curves.

From Table 13, it can be seen that using the Total Adjustment Score from the *Release Decision-Making Manual* alone, does not predict success or failure on release much greater than chance; the *AUC* of .56 is consistent with the non-significant Chi-Square and correlation with the outcome (success or failure on release – day parole, full parole or statutory release). When Reintegration Potential is adjusted using the crude adjustment, it is interesting to note that the predictive accuracy of outcome is worse than the unadjusted Reintegration Potential (.58 and .56 respectively). The predictive accuracy of the Reintegration Potential adjusted using the sample distribution on the Total Adjustment Score, however, demonstrates an improvement; *AUC* = .60. Finally, incorporating the Total Adjustment Score of the *Release Decision-Making Manual* into the actuarial risk estimate of the SIR-R1 demonstrates the greatest accuracy predicting the success or failure of an offender on release; *AUC* = .65. Given the demonstrated properties of the SIR-R1, it is not surprising that the unadjusted SIR-R1 has greater predictive accuracy than the Reintegration Potential. Applying the Total Adjustment

Score of the *Release Decision-Making Manual* to the SIR-R1 as an adjustment, increases the predictive accuracy; the *AUC* of .65 is consistent with Chi-Square and correlation which both approach significance.

From a review of the predictive accuracy of different measures incorporating the Total Adjustment Score as an adjustment, the results are in the hypothesized direction; it appears as though the *Release Decision-Making Manual* adds to the predictive accuracy. These results should be interpreted with caution, however, as none of the findings were significant. Measures of predictive accuracy with the SIR-R1 scale approached significance, however, these findings are based on just over half of the sample ($n = 44$).

Interrater Reliability

In order to obtain a measure of confidence in the coding of the *Release Decision-Making Manual*, 10% of the offender files ($n = 8$) were reviewed and coded by a second rater, (also blind to the case outcome - success or failure on release). No formal training was provided to the second rater, however, an informal discussion between the author and the second rater took place prior to coding the interrater files, to acquaint the second rater on the coding process of the *Release Decision-Making Manual*. Following the review of three test cases, another discussion was held to generate consensus and resolve differences on issues identified by the test cases, prior to coding the eight interrater files. The interrater agreement on the Total Adjustment Score using an intraclass correlation coefficient¹⁶ was .78 with a 95% confidence interval of .27 to .95. These findings suggest a modest agreement but that there is room for improvement in the scoring of the *Release Decision-Making Manual*.

¹⁶ Intraclass correlation coefficient was used to measure interrater reliability, because adjacent scores on the Total Adjustment Score mean something (i.e. they are not categorical or distinct categories); as a result, this statistic was most appropriate.

Exploratory Findings – Hypothesized Differences in Release of Offenders

Differences in Release Rates and Risk Level

It was expected that offenders released on parole would be lower risk than offenders denied release on parole. This relationship was examined using both the unadjusted Reintegration Potential and unadjusted scores on categories of the SIR-R1. Specifically, it was expected that offenders who scored Moderate or High on Reintegration Potential would be granted parole and those who scored Low on Reintegration Potential would be denied parole. This linear trend was found, offenders who scored High on Reintegration Potential were released at the highest rate (61.5%), followed by offenders who scored Moderate and Low (52.0% and 36.0% respectively), however, the difference was not significant; $\chi^2 (2) = 3.39, p > .05$.

Using the five categories of the SIR-R1, it was expected that offenders who scored in the highest categories would be released on parole at higher rates than offenders who scored in the lower categories. This linear trend was somewhat demonstrated in the current data set: 66.7% of offenders who scored in the Very Good category were released on parole, followed by 60.0% of the Good category, 40.0% of the Fair category, 50.0% of the Fair to Poor category and 2.9% of the Poor category. These differences, however, were not significant, but approached significance; $\chi^2 (4) = 8.56, p > .05$.

Differences in Release Rates by Gender

Based on the research literature, differences among rates of release on parole were expected between male and female offenders; this hypothesis was supported. Differences in parole release rates between males and females were significantly different; $\chi^2 (1) = 4.94, p < .05$. Thus, a greater proportion of females were granted parole compared to

males; 69.6% females (16/23) were released on parole, compared to 42.1% males (24/57).

Differences in Release Rates by Race

Differences in rates of release on parole between Aboriginal and non-Aboriginal offenders were expected based on the rates reported by PSEPC (2005). This hypothesis was not supported, as the results were found in the opposite direction – 66.7% of Aboriginals were released compared with 42.9% of non-Aboriginals; the chi-square statistic for this difference approached significance; $\chi^2 (1) = 3.81, p > .05$.

Differences in Release Rates by Offender Age

A final exploratory analysis examined differences in rates of release on parole and offender age, using an independent samples t-test. The mean age of offenders granted release by the NPB was 37.18 ($SD = 10.58$), compared to offenders not granted parole, which was 40.49 ($SD = 11.79$). Not surprisingly, the independent samples t-test was not significant, $t (78) = -1.32, p > .05$ (two-tailed).

The interpretation and implications of these findings are discussed in greater detail in the next section and the discussion will conclude with an overview of the limitations of the current study and suggestions on where to go from here.

Discussion

The primary purpose of this research study was to test the ability of a structured model of correctional release decision-making to correctly identify good and poor parole candidates. In order to address this purpose, a necessarily strict set of selection criteria were used to identify eighty offender files of the NPB as belonging to one of four groups: True Positives (TP's) - offenders were released on statutory release and were revoked prior to their WED or the study end date, False Positives (FP's) – offenders were denied parole and when subsequently released on Statutory Release (SR), were not revoked prior to their WED or the study end date, True Negatives (TN's) - offenders were granted parole and did not fail prior to their warrant expiry date (WED) or the study end date and False Negatives (FN's) – offenders were granted parole and were revoked prior to their WED or the study end date.. In order to appropriately identify to which of four groups these files belonged, a one-year post release (i.e. day parole, full parole or statutory release) follow-up was used. Cases used in this study were from all five regions of the NPB and were selected to include female offenders, Aboriginal offenders, sexual offenders and long-term offenders (i.e. lifers), to obtain a diverse sample similar to the correctional population, however, not for representative numbers. Some of the particular noteworthy findings are highlighted and explored in greater detail in the discussion that follows.

Key Findings

Predictive Ability of a Structured Decision-Making Model

First and foremost, the primary purpose of this study was to demonstrate empirical evidence to support the use of a structured decision-making model in the

correctional release decision-making process of the NPB. The research was designed to retrospectively apply a structured model of decision-making to cases of the NPB where a release decision has been rendered in the recent past. As part of the selection criteria, knowledge of the case outcome (whether or not the offender's release was revoked prior to the study end date or WED, whichever date occurred first) allowed for the examination of the predictive accuracy of the model in identifying cases as good or poor parole candidates. An artificial failure rate was set at 50% to determine if the predictive accuracy would be high at correctly identifying cases (TP and TN) without simultaneously increasing the error rate (FP and FN). Despite the empirical evidence in support of a structured model, the primary results of this study did not find a high predictive accuracy of this model.

When the manual release rates, generated by one of the three adjustment methods, were compared, different rates were found. When the adjustment to the Reintegration Potential was made using the sample distribution on the Total Adjustment Score, the highest rate of release was recommended, followed by the crude adjustment to the Reintegration Potential and the percentage adjustment to the SIR-R1; rates of release were 60.0%, 51.3% and 29.5% respectively. Clearly, the use of different cut-off points to make adjustments to a statistical estimate will generate different recommendations of release and will ultimately impact the ability of the model to accurately identify offenders. The determination of appropriate cut-off points for making adjustments to a statistical estimate by incorporating the items of the decision-making model is an important objective for future research to establish.

Examining the concordance rates between the manual recommendations and the group outcome (TP's, FP's, TN's and FN's), the third adjustment procedure (percentage adjustment to the SIR-R1) had the highest percent of correct decisions of offenders in the FN group and the second adjustment procedure (the adjustment to the Reintegration Potential using the sample distribution on the Total Adjustment Score) had the highest percentage of correct decisions of offenders in the FP group. It is important to note, however, that despite being able to reduce the errors associated with the FP and FN groups, simultaneously reduced the number of correct decisions in the TP and TN groups – 92.0% correct identification of the TP's and 77.8% correct identification of the TN's for the third adjustment procedure and 66.7% correct identification for the TP and 89.5% correct identification of the TN's for the second adjustment procedure. If the goal of the model were to correctly identify offenders in the True Positive or True Negative groups, then based on the findings of this study, the preferred adjustment method to use would be the percentage adjustment to the SIR-R1 and the crude or sample adjustment to the Reintegration Potential, respectively. On the other hand, the findings of this study suggest that the preferred adjustment method to use to identify offenders in the False Positive and False Negative groups would be the sample adjustment to the Reintegration Potential and the percentage adjustment to the SIR-R1 respectively. These results should be interpreted with caution, as the measures of predictive accuracy were not significant. As established in the results section, the predictive ability of the scales (both adjusted and unadjusted), used to predict success or failure on day parole, full parole or statutory release, were not much greater than chance; measures of the *AUC* were at chance levels. The corresponding chi-square and correlations of the scales and the case outcome

(success or failure) confirmed the results of the ROC analysis. Taking these findings into consideration suggests that the *Release Decision-Making Manual* did not yield improved predictive accuracy.

Implications. Similar to the findings of Gobeil (2005), this study also found that using the *Release Decision-Making Manual* to adjust the validated SIR-R1 scale provides empirical evidence to defend its inclusion as the statistical base for the structured model, as this adjustment procedure yielded the highest ROC value. This finding, which suggests a preference of the SIR-R1 as the statistical anchor over the Reintegration Potential has important implications. Most importantly, it demonstrates a need to develop a standardized risk assessment that is applicable for all offenders. The Reintegration Potential was originally used in addition to the SIR-R1, because it is obtained for all federal offenders as part of the intake assessment process, unlike the SIR-R1, which has not been validated for use with female and Aboriginal offenders. Even though the SIR-R1 was only available on just over half of the sample, this study found a preference for the SIR-R1 as the statistical anchor for the structured model of decision-making. Despite the availability of the Reintegration Potential for all federal offenders, it is primarily based on clinical opinion and as demonstrated by the current study, this first generation approach did not perform as well as the validated, actuarial approach of the SIR-R1. These findings are consistent with the existing empirical evidence for the preference of the actuarial and/or structured professional judgment over the clinical approach, but more importantly highlights a need to move forward with the development of a standardized assessment that is available for all offenders, because the findings of the

current study demonstrate that a standardized statistical anchor of risk yielded the highest value of predictive accuracy based on the ROC analysis.

Quality of Decisions Using the Structured Decision-Making Model

As discussed, the findings of the current study did not demonstrate greater predictive accuracy of the structured model, however, noteworthy is that using this model did not decrease the predictive accuracy. If one of the goals of the NPB is to enhance the quality of the decision-making process, the findings herein suggest that the value added by the structured model may contribute to a higher quality of decision-making (i.e. more clear rationale for the decision and greater transparency). Specifically, the items of the structured model may not add to the predictive accuracy of the model, however, they may contribute to the quality of the decisions made, by systematically covering a greater breadth of information. The structured model is intended to guide the decision-maker using a systematic approach by considering items that are empirically derived and based on previous lessons learned, as discussed. It would be expected that using a structured model would reduce the potential influence of heuristics, time constraints and the breadth of information, consequently enhancing the quality of the decisions, by capturing the important content areas in a more structured and systematic way. A structured approach to decision-making does not allow the decision-maker to unknowingly utilize heuristics to render release decisions (representativeness, availability and/or adjustment and anchoring), nor does it allow the decision-maker to choose which information to consider in favour of managing time constraints.

Implications. To be consistent with the objective of the NPB, a structured model of correctional release decision-making needs to take both predictive accuracy and

quality of decisions into consideration. Unfortunately, the findings of the current study did not demonstrate greater predictive accuracy of the model, however, the model does include items consistent with obtaining higher quality decisions. Given the nature of the correctional release decision-making context, it is clear that in order to enhance the quality of the process, the Board needs to maintain flexibility in their process and cannot be limited to approaches that establish statistical models (i.e. linear regression), which maximize predictive ability while sacrificing quality. The findings of this study highlight the importance of establishing a balance between the trade-off of predictive accuracy and quality enhancement.

Sample Heterogeneity

Given the heterogeneity of offenders seen by the NPB, the intention of the current study was to test the structured model of decision-making on a diverse sample of offenders. Cases were not selected for representative numbers, however, were selected to obtain a sample of offenders to correspond to the diversity among the true correctional population and included general offenders, sexual offenders, female offenders and mentally-disordered offenders. In addition, the index offences of the sample included a wide range of offences, divided among ten general categories of offences according to Appendix D; in this sample, the majority of index offences were either property crimes and/or crimes against the person. Further, for just over half of the sample, their index offence included violence.

Implications. A diverse sample of offenders was used for the current research study to highlight the value of using a structured approach to decision-making as opposed to a straight statistical or actuarial approach. Given the diversity of the federal offender

population, the NPB is faced with the difficult task of rendering decisions on a variety of cases, which include different types of offenders and offences. Developing an actuarial model of decision-making that is based solely on items derived to maximize predictive accuracy will ignore potentially unique and case specific factors pertaining to the special populations. Considering the types of offenders and multitude of offences that are presented before the Board, presents a compelling argument for the need to implement an approach that allows the NPB to retain some flexibility in their decision-making process. Implementing a structured model of professional judgment retains some flexibility in the decision-making process by allowing the unique items to be considered, rather than adopting a strictly statistical approach, which takes only the predictive ability into consideration and potentially ignores those items that enhance the quality of the decisions. In actual fact, it will be difficult to develop a standardized, actuarial risk scale to reflect the diversity of cases that are routinely presented to the Board. Clearly, the breadth of a structured professional judgment is needed, rather than a purely actuarial approach to ensure both predictive accuracy and quality of decisions.

Reasons for Decision

Board members Reasons for Decision to deny and grant day and full parole were presented in Tables 8 and 9 respectively. From these Tables, it appears as though there is a substantial overlap between the factors taken into consideration during the deliberation process of the NPB and the eight domains of *Criminal History, Special Populations, Disinhibitors, Responsivity, Change, Release Plan, Risk Management* and *Case Specific Factors* of the *Release Decision-Making Manual*.

Implications. This has important implications for the potential implementation of a structured model in correctional release decision-making – a review of the Reasons for Decision obtained from a retrospective review of offender files demonstrates that the items considered important by members of the NPB to render correctional release decisions are consistent with those items that have been incorporated into a structured release decision-making model. A model that is similar in content and consistent with current parole practices will be easier to implement and can enhance the quality of the decision-making process, as the important items have been captured in a more structured and systematic way. It will be important, however, for future research to test the items more fully using a prospective approach, to address the limitations of the current study, which examined these items retrospectively.

Limitations

Possible Explanations for the Lack of Predictive Ability

Both the preliminary investigation of the correctional release decision-making model and the current study aimed to incorporate the guidelines recommended by Serin (2004b) into a comprehensive assessment tool to code offender files. In other words, the decision-making model presented by Serin (2004b) was used for a purpose other than originally intended and certain sections of the model were omitted due to the limitations of the design of both the current study and the preliminary investigation (i.e. file reviews only). Further, in both of these studies, an equal weighting scheme was applied to all sections of the manual, however, there may be a need for some factors to be weighted more heavily than others, which could further increase the predictive ability of the structured model. Future research could examine the relative importance of each

component of the model to determine appropriate weights to be applied. In addition, both studies recommend that the constructs be more clearly defined. As demonstrated by the results of the interrater reliability presented earlier, there is room for improvement, as discussion among the two raters revealed that the domains and constructs incorporated into the *Release Decision-Making Manual* allowed for some personal interpretation into the meaning and importance of items. The variability of the reliability demonstrates a need for the development of stricter coding rules and the provision of more clearly defined constructs to aid in the interpretation of the information considered as part of the decision-making process. Further, training in the decision-making process of the NPB and in the interpretation of the items of the structured model may increase the accuracy and consistency of the decisions made using this approach. Finally, the predictive accuracy of the structured model may have been affected by the manner in which the False Positive Group was defined. Specifically, the period of time between being denied parole and being released on statutory release is not captured due to design of the study, meaning that anything positive that may have occurred between the index denial of conditional release and the statutory release would not have been captured by the model. Consequently, it cannot be determined whether the manual had poor predictive accuracy with this group, or there were proximal factors prior to statutory release that affected the outcome. One way that future research could control for this limitation would be to follow-up and do an exit interview/review of these cases at release to document any changes that occurred (i.e. treatment, etc.) that may attenuate risk. This could prove that the events proximal to the outcome resulted in a different outcome, rather than an inability of the model to accurately predict the outcome.

Although the methodology for the current study was similar to that of the preliminary investigation, there are important differences in terms of the results, which may be attributable to the minor differences between the two studies. First, the current study tested the accuracy of the model using four groups (True Positives, False Positives, True Negatives and False Negatives), where as Gobeil (2005) focussed solely on the False Positives and False Negatives - the ability of the manual to identify cases in the “true” conditions was not measured. It is possible, based on the findings of the current study, that if these two “true” groups had been included in the design, Gobeil (2005) may have found similar results; decreased accuracy in the “true” conditions. Second, the current study used a very stringent set of selection criteria which chose a diverse sample of offenders, where as Gobeil (2005) chose a sample that represented a higher proportion of sexual offenders, domestic violence offenders, female offenders and Aboriginal offenders, than represented in the correctional population; the samples may not be comparable as it appears Gobeil’s (2005) intention was to target a higher risk sample. Third, manual recommendations in Gobeil’s (2005) investigation were based on the coding of offender files or ‘panel packages’ – which offer a summary of the offender file, where as the current study relied on all of the information in an offender file; no ‘panel packages’ were used. The difference in the findings may be attributed to the type of information used – the amount of information in the offender file compared to the ‘panel package’ and/or the quality of information from both of these sources may also have affected the results. Finally, the preliminary findings of Gobeil (2005) are based on a relatively small sample size of 23 compared to the sample size of the current study, which was 80. It is possible that had more files been examined in the preliminary investigation,

the results may have been consistent with the current findings. Although the differences in methodology were minor, they may be sufficiently different so as to influence the results. It should be noted that Reintegration Potential was not used as a statistical anchor in Gobeil's (2005) investigation, rather, only the SIR-R1 scale was used. Results using both the Reintegration Potential and the SIR-R1 scale were presented in the current study in order to enable comparisons between the two studies. Although the purpose of the current study was to address the limitations discussed by Gobeil (2005) and test the structured model on a larger sample, the findings were less favourable than the preliminary investigation. The current study revealed that the structured model was unable to predict success or failure beyond chance levels, however, the findings suggest that the SIR-R1 is a superior risk anchor.

The major limitations of the current research study are inherent in the design. In particular, Shaughnessy, Zechmeister and Zechmeister (2000) identify the limitations of archival studies as follows. First, Shaughnessy et al. (2000) argue that archival data may be biased in two ways: selective deposit and survival. Specifically, there may exist discrepancies in the data in terms of what information has been recorded (selective deposit) and some of the NPB files may be incomplete or missing (survival). Second, given the time that may have elapsed since the original files were created, files will most likely contain errors or changes in record keeping. Certainly, a review of the NPB offender files revealed significant changes in content and record keeping over time, which accounted for some of the missing data reported in the results; especially for the files that dated back twenty years (e.g. the lifers). Finally, Shaughnessy et al. (2000) caution about the use of archival data for the effect of reactivity and suggest that

corroborative evidence may be necessary to ensure the accuracy of the data collected.

Given the nature of this study (data collected relied solely on file review), this information was not corroborated, thus, this type of bias may be present. Nonetheless, the file information reviewed was provided by multiple sources.

Additional limitations include the presence of factors or influences that were not directly tested. This includes things such as heuristics, time constraints, amount of information and deception detection; factors pertaining to how decisions are made. It was not the intention of this study to directly test for the presence of these factors, however, given their importance (as discussed in preceding sections), they should be the focus of future research in order to obtain a greater understanding of their influence on the quality and accuracy of decisions made.

Finally, the current study did not set out to test the complete model of structured correctional release decision-making presented by Serin (2004b). In order to adequately test the model presented by Serin (2004b) requires the prospective application of the model to release decisions as they are made and an appropriate control group. Based on file review alone, there are components of the model that cannot be directly tested such as the salience of information presented at the parole hearing, the reconciliation of discordant information and the Reasons for Decision. As presented in the results, the Reasons for Decision were coded from a review of the file, but the actual process of arriving at these decisions remains unknown.

Future Direction

It is clear that the expectations of good predictive accuracy were not realized. What this means, however, is not that the goal of developing a structured method for rendering correctional release decisions should be abandoned, rather, that the model presented herein should be revised and subjected to further rigorous testing. As previously mentioned, this model can be improved by more clearly defining the constructs of the model and only including items that add to the predictive ability of the model or enhance the quality of the decisions made. The value of a structured approach to decision-making is clear, not only to increase the consistency and reliability of the decisions being made and reduce the use of differential factors in release decisions (decision-making heuristics, time constraints, amount of information used, etc.), however, also to increase the quality of the decision-making process of the NPB. An important goal for future research is to address the limitations discussed herein to improve the model of structured decision-making to achieve higher predictive accuracy and enhance the quality of the decisions that are made.

References

- Andrews, D.A. & Bonta, J. (1995). *Level of Service Inventory – Revised*. Multi-Health Systems Inc. Toronto, Canada.
- Andrews, D.A. & Bonta, J. (2003). *The psychology of criminal conduct, 3rd edition*. Cincinnati, Ohio: Anderson Publishing.
- Bonta, J. (1996). Risk-needs assessment and treatment. In A.T. Harland (Ed.), *Choosing correctional options that work: Defining the demand and evaluating the supply* (pp. 18-32). Thousand Oaks, CA; Sage.
- Bonta, J., Harman, W.G., Hann, R.G., & Cormier, R.B. (1996). The prediction of recidivism among federally sentenced offenders: A re-validation of the SIR Scale. *Canadian Journal of Criminology*, 38, 61-79.
- Bonta, J., Zinger, I., Harris, A.J.R. & Carrière, D. (1998). The dangerous offender provisions: Are they targeting the right offenders. *Canadian Journal of Criminology*, 40 (4), 377-400.
- Buchanan, A. (1999). Risk and dangerousness. *Psychological Medicine*, 29, 465-473.
- Busemeyer, J.R. & Townsend, J.T. (1993). Decision field theory: A dynamic-cognitive approach to decision-making in an uncertain environment. *Psychological Review*, 100 (3), 432-459.
- Clements, C.B. (1996). Offender classification: Two decades of progress. *Criminal Justice and Behaviour*, 23 (1), 121-143.
- Dowden, C. & Andrews, D.A. (1999). What works with female offenders: A meta-analytic review. *Crime & Delinquency*, 45 (4), 438-452.

- Forth, A.E. (2003). *Risk assessment tools: A guide*. National Parole Board of Canada User Guide.
- Glaser, D. (1985). Who gets probation and parole: Case study versus actuarial decision-making. *Crime & Delinquency*, 31 (3), 367-378.
- Gobeil, R. (2005). *An initial exploration of the use of Serin's decision-making manual in release recommendations of the NPB*. Unpublished manuscript.
- 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 (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 (1), 19-30.
- Hanson, R.K. & Bussière, M.T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology*, 66, (2), 348-362.
- Hanson, R.K. & Harris, A.J.R. (2001). A structured approach to evaluating change among sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 13 (2), 105-122.
- Hanson, R.K. & Harris, A.J.R. (2003a). *The stable scoring guide*. Unpublished manuscript.
- Hanson, R.K. & Harris, A.J.R. (2003b). *The acute scoring guide*. Unpublished manuscript.

- Hanson, R.K. & Thornton, D. (1999). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behaviour*, 24 (1), 119-136.
- Harris, G.T., Rice, M.E. & Quinsey, V.L. (1993). Violent recidivism of mentally disordered offenders: The development of a statistical prediction instrument. *Criminal Justice and Behaviour*, 20, 315-335.
- Heilbrun, K. (1997). Prediction versus management models relevant to risk assessment: The importance of legal decision-making context. *Law and Human Behavior*, 21 (4), 347-359.
- Hilton, N.Z., Harris, G.T., Rawson, K. & Beach, C.A. (2005). Communicating violence risk information to forensic decision makers. *Criminal Justice and Behavior*, 32 (1), 97-116.
- Holtfreter, K., & Morash, M. (2003). The needs of women offenders: Implication for correctional programming. *Women and Criminal Justice*, 12, (2-3), 137-159.
- Holtfreter, K., Reisig, M.D. & Morash, M. (2004). Poverty, state capital, and recidivism among women offenders. *Criminology and Public Policy*, 3 (2), 185-208.
- Kendall, K. (1998). Evaluation of programs for female offenders. In R. Zaplin (Ed.), *Female offenders: Critical perspectives and effective interventions*. (pp. 361-379). Gaithersburg, MD: Aspen Publishers.
- Litwack, T.R. (2001). Actuarial versus clinical assessments of dangerousness. *Psychology, Public Policy and Law*, 7 (2), 409-443.

- Lowenkamp, C.T., Holsinger, A.M., & Latessa, E.J. (2001). Risk/need assessment, offender classification, and the role of childhood abuse. *Criminal Justice and Behaviour*, 28 (5), 543-563.
- 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.
- Mossman, D. (1994). Assessing predictions of violence: Being accurate about accuracy. *Journal of Consulting and Clinical Psychology*, 62, (4), 783-792.
- Motiuk, L. (1997). Classification for correctional programming: The offender intake assessment (OIA) process. *Forum on Corrections Research*, 9 (1). Retrieved March 10, 2005, from http://www.csc-scc.gc.ca/text/pblct/forum/e09/091d_e.pdf.
- Motiuk, L. & Nafekh, M. (2001). Using reintegration potential at intake to better identify safe release candidates. *Forum on Corrections Research*, 13 (1). Retrieved December 5, 2005, from http://www.csc-scc.gc.ca/text/pblct/forum/e131/131d_e.pdf.
- National Parole Board. (2003a). *Parole decision-making: Myths and realities*. Retrieved July 22, 2004, from http://www.npb-cnrc.gc.ca/whatsn/myths053001_e.htm.
- National Parole Board. (2003b). *Mission statement of the NPB*. Retrieved December 29, 2004, from http://www.npb-cnrc.gc.ca/about/missio_e.htm.
- National Parole Board. (2003c). *Types of release*. Retrieved December 29, 2004, from <http://www.npb-cnrc.gc.ca/infocntr/parolec/ptypee.htm>.
- National Parole Board (2005a). *Code of professional conduct*. Retrieved August 17, 2005, from http://www.npb-cnrc.gc.ca/org/bmcode_e.htm.

- National Parole Board (2005b). *A day in the life of a parole board member*. Retrieved August 17, 2005, from http://www.npb-cnrc.gc.ca/org/bmlife_e.htm.
- National Parole Board (2005c). *2005-2006 report on plans and priorities*. Retrieved September 12, 2005, from http://www.npb-cnrc.gc.ca/reports/pdf/prp_2005_2006_e.pdf.
- National Parole Board (2005d). *Parole eligibility*. Retrieved December 8, 2005, from <http://www.npb-cnrc.gc.ca/infocntr/parolec/pparele.htm>.
- National Parole Board (2005e). *Performance monitoring report 2004-2005*. Retrieved April 28, 2006, from http://www.npb-cnrc.gc.ca/reports/pdf/pmr_2004_2005/pmr2004-05_e.pdf.
- National Parole Board (2005f). *NPB Policy manual*. Retrieved April 28, 2006, from http://www.npb-cnrc.gc.ca/infocntr/policym/polman_e.htm.
- Nuffield, J. (1982). *Parole decision-making in Canada: Research towards decision guidelines*. Ottawa: Solicitor General Canada.
- Owen, B. & Bloom, B. (1995). Profiling women prisoners: Findings from national surveys and a California sample. *The Prison Journal*, 75, 165-185.
- Porter, S., Woodworth, M. & Birt, A.R. (2000). Truth, lies and videotape: An investigation of the ability of federal parole officers to detect deception. *Law and Human Behavior*, 24 (6), 643-658.
- Public Safety and Emergency Preparedness Canada (2005). *Corrections and Conditional Release Statistical Overview*. Public Works and Government Services Canada: Ottawa, Canada.

- Rassin, E. & Merckelbach, H. (1999). The potential conflict between clinical and judicial decision-making heuristics. *Behavioural Sciences and the Law*, 17, 237-248.
- Roberts, J.V., Nuffield, J. & Hann, R. (2000). Parole and the public: Attitudinal and behavioural responses. *Empirical and Applied Criminal Justice Review: An Online Journal of the Research on Crime and Justice Network*.
- Rogers, R. (2000). The uncritical acceptance of risk assessment in forensic practice. *Law and Human Behaviour*, 24 (5), 595-605.
- Samra-Grewal, 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*, 42 (4), 421-447.
- Serin, R.C. (2004a). *Understanding parole decision-making: History and context for the National Parole Board*. Unpublished manuscript.
- Serin, R.C. (2004b). *Release Decision-Making Manual*. Unpublished manuscript.
- Shanteau, J. (1992). How much information does an expert use? Is it relevant? *Acta Psychologica*, 81, 75-86.
- Shaughnessy, J.J., Zechmeister, E.B. & Zechmeister, J.S. (2000). Research methods in psychology (5th ed.). McGraw Hill, USA.
- Sjöstedt, G. & Långström, N. (2001). Actuarial assessment of sex offender recidivism risk: A cross-validation of the RRASOR and the STATIC-99 in Sweden. *Law and Human Behaviour*, 25 (6), 629-645.

- Solicitor General Canada (1987). *Development of a security classification model for Canadian federal offenders: A report to the offender management division*. Ottawa: Correctional Service of Canada.
- Sutcliffe, K.M. & McNamara, G. (2001). Controlling decision-making practice in organizations. *Organization Science*, 12 (4), 484-501.
- Swets, J.A., Dawes, R.M. & Monahan, J. (2000). Psychological science can improve diagnostic decisions. *Psychological Science in the Public Interest*, 1 (1), 1-26.
- Taylor, G. (1998). Preparing reports for parole decisions: Making the best use of our information – and time. *Forum on Corrections Research*, 10 (2), 1-7.
- Todd, P.M. & Gigerenzer, G. (2000). Précis of simple heuristics that make us smart. *Behavioural and Brain Sciences*, 23, 727-780.
- Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. In D. Kahneman, P. Slovic & A. Tversky (Eds.), *Judgment under uncertainty: Heuristics and biases*. (pp. 3-20). New York, NY: Cambridge University Press.
- Turpin-Petrosino, C. (1999). Are limiting enactments effective? An experimental test of decision-making in a presumptive parole state. *Journal of Criminal Justice*, 27 (4), 321-332.
- Webster, C.D., Hucker, S.J. & Bloom, H. (2002). Transcending the actuarial versus clinical polemic in assessing risk for violence. *Criminal Justice and Behaviour*, 5, 659-665.

Appendix A

Release Decision-Making Manual – Annotated Coding Form

Project ID: _____

File Reviewed By: _____

Date: _____
(dd/mm/yy)**I. CASE DETAILS**1. Gender: ☐ Female ☐ Male

2. Race:

- ☐ Caucasian
- ☐ Aboriginal
- ☐ Black
- ☐ Asian
- ☐ Other visible minority

a. Specify other: _____

3. DOB: _____
(dd/mm/yy)

4. NPB Region:

- ☐ Atlantic
- ☐ Quebec
- ☐ Ontario
- ☐ Prairies
- ☐ Pacific

5. Specify offence(s):

- *Convictions for index offence, including criminal code number and section*

6. Sentence commencement: _____
(dd/mm/yy)

- *First sentencing occasion – if additional time imposed at a later date, document offences as part of index cluster, but keep original sentence date as sentence commencement*

7. Sentence details: ☐ None available

- *Including length of sentence, conditions and/or prohibitions*

8. Type of offender:

- ☐ General Offender (not a special population)
- ☐ Sexual Offender
- ☐ Female Offender
- ☐ Mentally-Disordered Offender
- ☐ Other notable categories (i.e. Domestic/spousal violence)

a. Specify: _____

- *Based on offence (i.e. index sexual offence, consider a sexual offender)*

II. DOMAINS

A. Criminal History

☐ Insufficient information in file

1. Is the pattern of the offender's criminality increasing in severity?

☐ Yes ☐ No ☐ Unable to rate

- *Are the crimes becoming more serious*
- *Score 'yes' if the file specifically states this OR if index is most serious crime/most serious to date*

2. Are the offender's crimes becoming more frequent?

☐ Yes ☐ No ☐ Unable to rate

- *Shorter time between arrests/charges/convictions (if using CPIC)*
- *Score 'yes' if file specifically states or it is very clear*

3. Does the offender's crime appear situational or representative of chronic criminality?

☐ Situational ☐ Chronic ☐ Unable to rate

- *Situational: one-of crime (e.g. offender was drunk and subsequently committed a crime)*
- *Chronic: repetitive crime/criminal behaviour*
- *In relation to criminal history*

4. Does criminal history represent a corroborating, mitigating, or aggravating factor?
☐ Aggravating (-1) ☐ Corroborating (0) ☐ Mitigating (+1) ☐ Insufficient info.
 a. Rationale:

- *Mostly property and little violence, score as 'neutral'; should not be an extensive and diverse criminal history*
- *Limited criminal history and index violence, score as 'neutral'*
- *No criminal history and index violence, score as 'neutral'*
- *Limited history, 2nd federal sentence, similar offences, score as 'neutral'*

B. Special Populations

☐ Insufficient information in file

1. Does the offender represent a special population (sexual, female, MDO, other)?
☐ Yes ☐ No
2. Does the offender's membership in a special population increase understanding regarding the dynamics of the offence? ☐ Yes ☐ No ☐ Unable to rate
 a. If yes, specify.

- *Has this membership been addressed/acknowledged? If ignored, it could be hazardous*
3. Is there a mental disorder present? ☐ Yes ☐ No ☐ Unable to rate
 • *Diagnosis, Axis I of the DSM-IV (e.g. depression)*

- a. If yes, what has been the offender's compliance with medication?
☐ Poor ☐ Good ☐ Unable to rate
- b. If yes, are the symptoms acute?
☐ Yes ☐ No ☐ Not applicable ☐ Unable to rate

4. Is FAS/FAE is present? ☐ Yes ☐ No ☐ Unable to rate
 a. If yes, have safeguards been put in place for aftercare?
☐ Yes ☐ No ☐ Not applicable ☐ Unable to rate

5. In what manner is such membership related to risk – corroborating, mitigating, aggravating?

- ☐ Aggravating (-1) ☐ Corroborating (0) ☐ Mitigating (+1) ☐ Insufficient info.
a. Rationale:

- *If mental condition/disorder is a contributing factor in criminal offending, score as 'aggravating'*

C. Disinhibitors

☐ Insufficient information in file

- *Unable to rate – limited information in file OR if unable to determine extent of presence*
- *"No immediate need" score as 'not present' or 'some presence'; if monitoring/follow-up is mentioned*
- *"Some need" score as 'some presence'; if it is a contributing factor, score as 'very present'*
- *"Considerable need" score as 'very present'*

1. To what extent are these disinhibitors present?

a. Negative peer pressure

☐ Socially isolated	☐ Resides in a criminogenic area
☐ Associates with substance abusers	☐ Unattached to any community groups
☐ Has many criminal acquaintances	☐ Relations are described as predatory
☐ Has mostly criminal friends	☐ Often victimized in social relations
☐ Has been affiliated with a gang	☐ Easily influenced by others
☐ Has difficulty communicating with others	
☐ Not present	
☐ Some presence	
☐ Very present	
☐ Unable to rate	

Comments:

- *Procriminal peers; risk factor for criminality*

b. Anger, arousal, jealousy, rejection and anxiety

☐ Feels especially self-important	☐ Assertion problem
☐ Has difficulties solving interpersonal probs.	☐ Aggressive
☐ Copes with stress poorly	☐ Hostile
☐ Has low frustration tolerance	
☐ Worries unreasonably	
☐ Not present	
☐ Some presence	
☐ Very present	
☐ Unable to rate	

Comments:

- *Affective or emotional dysregulation; emotions management*

c. Substance use

☐ Abuses alcohol	☐ Began drinking at an early age
☐ Drinks on a regular basis	☐ Has a history of drinking binges
☐ Has combined the use of alcohol & drugs	☐ Drinks to excess during leisure time
☐ Drinks to excess in social situations	☐ Drinks to relieve stress
☐ Drinking interferes with employment	☐ Drinking interferes with marital/family
☐ Drinking interferes with social relations	☐ Drinking has resulted in law violations
☐ Drinking interferes with health	☐ Abuses drugs (solvents, prescriptions etc)
☐ Began using drugs at an early age	☐ Uses drugs on a regular basis
☐ Has gone on drug-taking sprees	☐ Has combined the use of different drugs
☐ Uses drugs during leisure time	☐ Uses drugs in social situations
☐ Uses drugs to relieve stress	☐ Drug use interferes with employment
☐ Drug use interferes with martial/family	☐ Drug use interferes with social relations
☐ Drug use has resulted in law violations	☐ Drug use interferes with health
- ☐ Not present
☐ Some presence
☐ Very present
☐ Unable to rate

Comments:

- *Problems with drugs and/or alcohol*

d. Threat perception

- ☐ Not present
☐ Some presence
☐ Very present
☐ Unable to rate

Comments:

- *Cognitive distortions regarding others' intentions; threatened egotism (cause for aggression); "world out to get me"; attributions of hostile intent*

e. Intelligence

☐ Finds learning difficult	☐ Has learning disabilities
☐ Physical problems interfere with learning	☐ Has memory problems
☐ Has concentration problems	☐ Has problems with reading
☐ Has problems with writing	☐ Has problems with numeracy
☐ Has difficulty comprehending instructions	

- ☐ Not present
☐ Some presence
☐ Very present
☐ Unable to rate

Comments:

• *Verbal intelligence, level of education*

f. Impulsivity

☐ Unable to recognize problem areas	☐ Unable to generate choices
☐ Unaware of consequences	☐ Goal setting is unrealistic
☐ Impulsive	☐ Narrow & rigid thinking
☐ Poor conflict resolution	☐ Manages time poorly
☐ Takes risks inappropriately	☐ Thrill-seeking
☐ Non-reflective	☐ Is not conscientious

- ☐ Not present
☐ Some presence
☐ Very present
☐ Unable to rate

Comments:

• *Poor self-regulation/decision-making; aspect of antisocial personality disorder and psychopathy*

g. Sexual deviance

☐ Has difficulty performing sexually	☐ Sexual identity problem
☐ Inappropriate sexual preferences	☐ Sexual attitudes are problematic

- ☐ Not present
☐ Some presence
☐ Very present
☐ Unable to rate

Comments:

• *Sexual crime, sexual fantasies, paraphilia, "living off avails"*

h. Instrumentality, callousness

- ☐ Has disregard for others ☐ Socially unaware
☐ Incapable of understanding feelings of others ☐ Manipulative

- ☐ Not present
☐ Some presence
☐ Very present
☐ Unable to rate

Comments:

• *Indifferent towards other people; antisocial*

i. Criminal attitudes

☐ Negative towards law	☐ Negative towards police
☐ Negative towards courts	☐ Negative towards corrections
☐ Negative towards community supervision	☐ Negative towards rehabilitation
☐ Employment has no value	☐ Marital/family relations have no value
☐ Interpersonal relations have no value	☐ Values substance abuse
☐ Basic life skills have no value	☐ Personal/emotional stability has no value
☐ Elderly have no value	☐ Women/men roles are unequal
☐ Ethnically intolerant	☐ Intolerant of other religions
☐ Intolerant of disabled persons	☐ Disrespectful of personal belongings
☐ Disrespectful of public property	☐ Disrespectful of commercial property
☐ Supportive of domestic violence	☐ Supportive of instrumental violence
☐ Lacks direction	☐ Non-conforming

- ☐ Not present
☐ Some presence
☐ Very present
☐ Unable to rate

Comments:

j. Mental disorder

- ☐ Mentally deficient

- ☐ Not present
☐ Some presence
☐ Very present
☐ Unable to rate

Comments:

• *Consider FAS/FAE here*

2. How many of these factors are present? Some presence: _____
(#)

Very present: _____
(#)

3. How aware is the offender of the negative effect of these factors on self-regulation?

- ☐ Not very aware
- ☐ Somewhat aware
- ☐ Very aware
- ☐ Unable to rate

a. Specify.

- 'Very aware' and disinhibitors are 'very present', score as 'neutral'
- 'Somewhat aware' and disinhibitors are 'very present', score as 'aggravating'

4. Overall, how does the presence/strength of disinhibitors relate to statistical risk for this offender – corroborating, mitigating, or aggravating?

- ☐ Aggravating (-1) ☐ Corroborating (0) ☐ Mitigating (+1) ☐ Insufficient info.

a. Rationale:

- Consider the number of factors that are very present and whether or not the offender is aware of the impact on criminal activity; consider the number of factors that are contributing and/or considerable need

D. Responsivity Issues

☐ Insufficient information in file

1. List completed programs:

- Completed, not in progress

2. Has ethnicity/culture been addressed in terms of assessment/programming?
☐ Yes ☐ No ☐ Not applicable ☐ Unable to rate

a. Specify.

- *Consider assessments used and types of programs referred*

3. Has gender been addressed in terms of assessment/programming?
☐ Yes ☐ No ☐ Not applicable ☐ Unable to rate

a. Specify.

- *Consider assessments used and types of programs referred*

4. Has age been addressed in terms of assessment/programming?
☐ Yes ☐ No ☐ Not applicable ☐ Unable to rate

a. Specify.

5. Have learning disabilities (LD) and fetal alcohol syndrome (FAS) been addressed in programming?
☐ Yes ☐ No ☐ Not applicable ☐ Unable to rate

a. Specify.

6. Was the program intensity and dosage consistent with the offender's risk level?
☐ Yes ☐ No ☐ Not applicable ☐ Unable to rate

a. Specify.

- *If recommended programs target identified risk/needs, code as 'yes'; i.e. high-risk offender in high intensity program*

7. Overall, were responsivity issues considered? ☐ Yes ☐ No ☐ Unable to rate

- Score 'yes' if referrals and recommendations were appropriate

8. How does this relate to the static risk estimate?

☐ Aggravating (-1) ☐ Corroborating (0) ☐ Mitigating (+1) ☐ Insufficient info.

a. Rationale:

- Did consideration of responsivity factors mitigate risk – e.g. personal growth, reduction of risk by appropriately targeting risk/need factors

E. Change

☐ Insufficient information in file

1. What are the offender's proximal risk factors? (E.g., quits job, increased interpersonal conflicts, deterioration in affect, change in acquaintances?) ☐
Unable to rate

- What is the offender's pattern of offending/offence cycle

2. Did the offender participate fully in programs?

☐ Yes ☐ No ☐ Unable to rate

- Consider nature of problems – looking for signs/indications of full investment

3. How has the offender's institutional adjustment been during the sentence?

- ☐ No problem
☐ Some problem
☐ Major problem
☐ Unable to rate

- Minor institutional charges, score as 'some' but also consider the length of incarceration – consider the number of minor institutional charges over period of incarceration (i.e. life sentences), could be scored as 'no problem', unless it is a consistent pattern of behaviour; as a result, NOTE that no problem may not imply absolutely no problem
- Involuntary transfer to another institution, score as 'very'

4. If there is limited change as a function of program involvement, is this due to mitigating factors such as FAS or LD?

☐ Yes ☐ No ☐ Not applicable ☐ Unable to rate

5. Is there evidence of positive offender change?

☐ Yes ☐ No

☐ Unable to rate

Comments:

6. Is there evidence of negative offender change?

☐ Yes ☐ No

☐ Unable to rate

Comments:

7. Is there evidence that the offender has increased motivation?

☐ Yes ☐ No

☐ Unable to rate

Comments:

8. Has the offender increased awareness of risk situations?

☐ Yes ☐ No

☐ Unable to rate

Comments:

9. Has the offender improved skills to deal with risk situations upon release?

☐ Yes ☐ No

☐ Unable to rate

Comments:

- *There should be sufficient opportunity to demonstrate skills have been learned; consider whether or not there is concrete evidence*

10. If change does not occur, such as in cases of FAS or LD, does this preclude a positive recommendation?

☐ Yes ☐ No ☐ Not applicable

☐ Unable to rate

11. Overall, how do change factors relate to the offender's risk?

☐ Aggravating (-1) ☐ Corroborating (0) ☐ Mitigating (+1) ☐ Insufficient info.

a. Rationale:

F. Release Plan☐ Insufficient information in file

1. Has the offender submitted a release plan? ☐ Yes ☐ Not found in file
- *Has the offender submitted an application outlining release plans in detail*

2. Is the release plan realistic? ☐ Yes ☐ No ☐ Unable to rate

a. Comment.

- *Given their case specific factors/abilities, consider whether the plans are achievable for the offender*

3. Does the offender have insurance factors in place in case of lapses, such as pro-social friends? ☐ Yes ☐ No ☐ Unable to rate

a. Comment.

- *Are there identified supports in the community? Are these supports in area of requested release?*
- *Consider how these supports are assessed by the CMT (i.e. positive/negative influence)?*
- *Consider the number and quality of the support*

4. Is it likely that the offender would seek assistance in times of need?

☐ Yes ☐ No ☐ Unable to rate

a. Comment.

- *Consider whether or not there is evidence that the offender would seek help in times of need and/or whether the offender has learned this through programming*
- *Score 'yes' if there is evidence to suggest they are likely to seek assistance*

5. Is the release plan sufficient for this offender?

☐ Yes ☐ No ☐ Unable to rate

a. Comment.

- Does CMT support release?
- Has the offender been approved for placement at a community facility?
- Does the police service in the release area support release?
- Have appropriate safeguards been put in place to reduce risk (i.e. conditions of release)?
- Has there been sufficient programming to address risk/need areas?

6. How does the release plan relate to the estimate of static risk?

☐ Aggravating (-1) ☐ Corroborating (0) ☐ Mitigating (+1) ☐ Insufficient info.

a. Rationale:

- If not realistic and not sufficient, score as 'aggravating'
- If realistic but not sufficient, score as 'neutral'
- If realistic and sufficient, score as 'mitigating'
- Also, consider supports available

G. Risk Management

☐ Insufficient information in file

1. What impact can this offender's situational factors have on the risk estimate?

☐ Aggravating (-1) ☐ Corroborating (0) ☐ Mitigating (+1) ☐ Insufficient info.

a. Rationale:

- Based on conditional probability – are risk management issues being attended to (i.e. what happens if offenders are released, have things been addressed or not?)
- If risk is not manageable (i.e. needs not addressed/insufficient programming taken), score as 'aggravating'
- If the next logical step is release, score as 'neutral' (i.e. if offender "needs" to be released for success)
- If risk is manageable/conditions are acceptable, score as 'mitigating'

H. Case-Specific Factors☐ Insufficient information in file

1. Is there anything that seems salient for this particular offender that may influence/affect risk, change, release planning or risk management that has not been considered? ☐ Yes ☐ No ☐ Unable to rate

a. Comment.

- *Consider whether there is anything additional that should be considered (e.g. necrophilia)*

2. How great an impact would be appropriate for these factors to have?

- ☐ None
☐ Minor
☐ Moderate
☐ Great
☐ Not applicable

a. Comment.

- *How much influence should this factor be given in the assessment of risk*

3. To what extent have case-specific factors been used as an override in an attempt to accommodate the type of offender?

- ☐ Not at all
☐ Somewhat
☐ Frequently
☐ Not applicable
☐ Unable to rate

- *Is there any evidence in the file that this factor has been considered in the assessment of the offender?*

4. What impact might case-specific factors have on risk?

☐ Aggravating (-1) ☐ Corroborating (0) ☐ Mitigating (+1) ☐ Insufficient info.

a. Rationale:

- *Unless there is something unique to consider, this should be scored as 'corroborating' (i.e. neutral)*

III. STATISTICAL RISK ESTIMATE AND ADJUSTMENT

1. Is there a statistical estimate available? ☐ Yes ☐ No
 a. If no, identify reason for missing information (where possible):

2. Statistical estimate:

	Score/Level	Source*	Date
Level of intervention: Static			
Level of intervention: Dynamic			
Reintegration Potential			
SIR-R1			
CRS			

3. Has anything changed that might alter that score? ☐ Yes ☐ No ☐ Unable to rate
 a. If yes, specify.

- Identify any changes from original rating (e.g. security, motivation, Reintegration Potential etc.); do not include cascading through system

4. Is the SIR-R1 risk estimate consistent with the rest of the information available on the case? ☐ Yes ☐ No ☐ Not applicable
 a. If no, specify.

5. Is the offender part of a unique group for which the SIR-R1 does not apply?
☐ Yes ☐ No

6. Is the offender's risk level considered too aggravating to warrant a positive release decision? ☐ Yes ☐ No ☐ Unable to rate

- E.g. has the offender previously breached parole? How serious was the offence?

7. Adjustment☐ Insufficient information in file

- a. Criminal History adjustment: _____ [from Criminal History Q5]
- b. Special Populations adjustment: _____ [from Special Populations Q5]
- c. Disinhibitors adjustment: _____ [from Disinhibitors Q4]
- d. Responsivity Issues adjustment: _____ [from Responsivity Issues Q7]
- e. Change adjustment: _____ [from Change Adjustment Q11]
- f. Release Plan adjustment: _____ [from Release Plan Q5]
- g. Risk Management adjustment: _____ [from Risk Management Q1]
- h. Case Specific Factors adjustment: _____ [from Case Specific Factors Q4]

Total Adjustment Score: _____ [sum a to h]

IV. NPB DECISION

1. Day Parole Eligibility: _____
(dd/mm/yy)

2. Full Parole Eligibility: _____
(dd/mm/yy)

3. Statutory Release: _____
(dd/mm/yy)

4. Warrant expiry date: _____
(dd/mm/yy)

5. Accelerated Parole Review:

☐ Yes ☐ No

☐ Day Parole

☐ Not directed

☐ Directed

☐ Paper/file review

Date: _____
(dd/mm/yy)

☐ Hearing

Date: _____
(dd/mm/yy)

☐ Full Parole

☐ Not directed

☐ Directed

☐ Paper/file review

Date: _____
(dd/mm/yy)

☐ Hearing

Date: _____
(dd/mm/yy)

a. Comments:

6. Type of conditional release:

☐ UTA ☐ Grant ☐ Deny ☐ Not actioned

☐ Paper/file review Date: _____
(dd/mm/yy)

☐ Hearing Date: _____
(dd/mm/yy)

☐ Day Parole ☐ Grant ☐ Deny

☐ Paper/file review Date: _____
(dd/mm/yy)

☐ Hearing Date: _____
(dd/mm/yy)

☐ Full Parole ☐ Grant ☐ Deny

☐ Paper/file review Date: _____
(dd/mm/yy)

☐ Hearing Date: _____
(dd/mm/yy)

a. Reason(s) for decision:

- *Document Reasons for Decision to grant/deny release*

7. Were any conditions imposed? ☐ Yes ☐ No ☐ Not applicable ☐ Unable to rate
a. Specify.

- *Document all conditions imposed on release*

1

Appendix B: Model of Structured Correctional Release Decision-Making

Figure B-1

Overview of the Structured Decision-Making Model

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Appendix C: Calculation of Offender Reintegration Potential Score

Table C-1

Convergence of 3 Classification Measures to Obtain Reintegration Potential Score

Reintegration Potential	Level of Intervention: Static Factors	CRS	SIR-R1	Level of Intervention: Dynamic Factors*
	Low (1)	Min (1)	Very good/Good (1)	Low (1)
	Med (2)	Med (2)	Fair (2)	Med (2)
	High (3)	Max (3)	Fair to Poor/Poor (3)	High (3)

Potential Combinations to Yield Score on Reintegration Potential

High	1, 1, 1 1, 1, and 1, 2 or 3 2, 2, 1 2, 2, 2
Moderate	2, 2, and 1, 2 or 3 1, 2, 3
Low	3, 3, 3 3, 3, and 1 or 2

*Note: for females and Aboriginal offenders, SIR-R1 is not applicable, thus

Reintegration Potential is calculated using Level of Intervention Based on Dynamic Factors

Examples to Interpret Table

Example 1 (1, 1, and 1, 2 or 3). A male, non-Aboriginal offender who scores Low on Static (1), Low on SIR-R1 (1; Very Good/Good) and Maximum on CRS, would be categorized as having a High Reintegration Potential.

Example 2 (3, 3, 3). A female offender who scores High on Static (3), High on Dynamic (3) and Maximum on CRS (3), would be categorized as having a Low Reintegration Potential.

CRIMES AGAINST THE PERSON

1st degree murder

2nd degree murder

Aggravated assault

Assault – threats of violence/use of force/with weapon/CBH

Attempt murder – firearm

Disguise with intent

Forcible confinement

Manslaughter

Possession prohibited/restricted firearm with ammunition

Possession weapon for dangerous purpose

Robbery/with threats of violence

Use imitation firearm in commission of offence

Discharge firearm with intent

Utter threat to cause death or serious harm

CRIMES AGAINST PROPERTY

Break and enter and commit mischief/with intent/possess burglary instruments

Fraud under/over

Make counterfeit money/possess counterfeit instruments

Mischief in relation to property

Personation with intent

Possession of stolen credit card

Possession property obtained by crime under/over

Public mischief – false report/make false statement

Take motor vehicle without consent

Theft under/over

Unlawfully in a dwelling house

Utter forged document

CRIMES AGAINST PUBLIC MORALS AND DECENCY

Exercise control -compel movement/prostitution

Soliciting – stop motor vehicle/stop person

NARCOTICS

Possession of schedule I/II substance/for purpose of trafficking

Production of schedule I/II substance

Traffic in schedule I/II substance

CRIMES AGAINST PROPERTY WITH VIOLENCE

Possess explosive substances/possess explosive substance to endanger life

Store firearm contrary to regulations

LIQUOR AND TRAFFIC OFFENCES

Drive with more than 80 mg in blood

Fail to provide breath sample

Fail to stop at accident with person

Impaired driving/impaired driving causing death

Offence under highway traffic act

Offence under Motor Vehicle Act

Operate motor vehicle while disqualified

CRIMES AGAINST PUBLIC ORDER AND PEACE

Assault peace officer

Cause disturbance public place

Fail to appear/comply/attend court

Fail to comply with conditions of undertaking/recognizance

Operate motor vehicle – flight

PROBATION AND PAROLE VIOLATION

Fail to comply with probation order

SEXUAL OFFENCE

Invitation to sexual touching

Sexual assault

Sexual interference

OTHER

Attempt all other indictable offences
Attempts/accessories
Conspiracy
Conspire to commit indictable offence
Escape and unlawfully at large without excuse
Offence under YOA
Prison breach

Adapted from Public Safety and Emergency Preparedness Canada with permission

Appendix E: AUC Curves from ROC Analysis

Figure E-1

Total Adjustment Score and Outcome

Figure E-2

Unadjusted Reintegration Potential and Outcome

Figure E-3

Crude Adjustment to Reintegration Potential and Outcome

Figure E-4

Sample Adjustment to Reintegration Potential and Outcome

Figure E-5

Unadjusted SIR-R1 (Categories) and Outcome

Figure E-6

Percentage Adjustment to SIR-R1 and Outcome