PSYCHOPATHY, CRIMINAL HISTORY, AND RECIDIVISM

by

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Abstract

This dissertation has three main parts. In the first part, the construct of psychopathy is described, its theoretical relevance for predicting recidivism is examined, and the literature on The Hare Psychopathy Checklist-Revised (PCL-R; Hare, 1980, 1991) and recidivism is briefly reviewed. The association between psychopathy and recidivism (general, violent) was examined in five samples (N > 800 inmates) of provincial and federal male inmates who were incarcerated in British Columbia between 1964 and 1995. Results were consistent across samples and across measures and indicated that psychopathy was positively associated with recidivism. These findings indicate that psychopathy is important for identifying inmates who are at risk to be reconvicted.

In the second part of the dissertation, a comprehensive and empirically-based set of crime categories was developed. Crimes were sorted into 200 descriptive categories and then collapsed into broader categories using frequency counts and factor analysis. Results indicated that the four most frequently occurring crime categories (break and enter, fraud, theft, possession of illegal property) accounted for more than half of all convictions, whereas the remaining 25 crime categories accounted for less than half of all convictions.

In the third part of the dissertation, PCL-R scores, frequency counts for the crime categories, and basic demographic variables, were entered into a stepwise discriminant function analysis to predict general recidivism (yes, no) and into another discriminant function analysis to predict violent recidivism. The percentage of general recidivists who were correctly classified (81.3%) was similar in magnitude to the base rate of general recidivism (81.1%). In terms of violent recidivism, five variables (PCL-R scores, two age
variables, previous convictions for robbery and for assault) emerged as important predictors. Scores on each of these five predictors were assigned weights, and the weights were summed together to form a violence risk score. Higher scores on the violence risk scale identified inmates who were at higher risk to be convicted of violent recidivism. Scores on the risk instrument correctly classified 62.2% of inmates into violent (yes, no) recidivism groups. These results held-up under cross-validation; in an independent sample of 124 inmates, 64.5% of inmates were correctly classified. The findings indicate that the violence risk scale has promise as a measure for identifying inmates who are at risk to be convicted of future violence.
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1. Introduction

1.1. Psychopathy And Recidivism

Criminal justice research on risk assessment has been criticized for its use of predictor variables that are atheoretical, lack a conceptual framework, and are narrow in focus. Only recently have concerted efforts been devoted to studying clinical variables derived from basic theories of antisocial behavior (e.g., Monahan & Steadman, 1994a, 1994b). Selecting theoretically relevant predictors is important because researchers maximize the chances that their results will cross-validate on different samples and that observed associations between predictor variables and outcome variables will be consistent with expectations (Ghiselli, Campbell, & Zedeck, 1981; Nunnally, 1978; Wiggins, 1973). One theoretically and clinically relevant construct for assessing risk for committing future antisocial behavior is psychopathy.

Psychopathy is a theoretically relevant predictor variable and presumably is an important predictor of recidivism because of the persisting and enduring constellation of interpersonal, affective, and behavioral characteristics that define the disorder (Harpur & Hare, 1994; Litwack & Schlesinger, 1987; Widiger & Trull, 1994). Psychopaths are interpersonally manipulative and exploitive; they are callous, with shallow, poorly integrated affective experiences; and they are impulsive, often violating societal rules and conventions (Cleckley, 1976; Hare, 1991; McCord & McCord, 1964). These distinctive interpersonal, affective, and behavioral characteristics are first observed in childhood (Frick, 1998; Frick, O'Brien, Wootton, & McBurnett, 1994; McBurnett & Pfiffner, 1998) and are well-defined by
early adolescence (Forth & Burke, 1998). Many of the characteristics that define psychopathy—lack of empathy, impulsivity, little capacity for close emotional bonds, and so forth—are associated with antisocial and aggressive behaviors (Miller & Eisenberg, 1988). Taken together, these factors indicate that psychopathy should be an important predictor of recidivism.

The Hare Psychopathy Checklist (PCL; Hare, 1980) and The Hare Psychopathy Checklist-Revised (PCL-R; Hare, 1991) are two measures of psychopathy that have virtually the same psychometric properties and external correlates, are highly correlated, and for all practical purposes are interchangeable (see p. 1, Hare, 1991). Consequently, they are referred to here as the “PCL/PCL-R.”

In this section, only studies defining psychopathy with the PCL/PCL-R are reviewed. This is done for three reasons. First, the PCL/PCL-R is the standard assessment measure of psychopathy used in current clinical and research practice. Second, there is poor agreement among various instruments that ostensibly measure psychopathy (Hare, 1985). Third, there is a large body of laboratory research and applied clinical work supporting the reliability and validity of the PCL/PCL-R in forensic contexts (Hare, 1996; Cooke, Forth, & Hare, 1998).

A good deal of empirical research among diverse samples has examined the association between the PCL/PCL-R and recidivism. These include samples of male federal offenders (Hart, Kropp, & Hare, 1988a; Hemphill, 1992; Hemphill, Templeman, Wong, & Hare, 1998; Serin, 1996; Serin & Amos, 1995; Serin, Peters, & Barbaree, 1990; Zamble & Palmer, 1996), adolescent offenders (Brandt, Kennedy, Patrick, & Curtin, 1997; Forth, Hart, & Hare, 1990; Gretton, 1998; Gretton, McBride, O'Shaughnessy, & Hare, 1995; Toupin,
Mercier, Déry, Côté, & Hodgins, 1996), female offenders (Loucks, 1995; Salekin, Rogers, Ustad, & Sewell, 1998; Zaparniuk & Paris, 1995), forensic psychiatric patients (Harris, Rice, & Cormier, 1991; Harris, Rice, & Quinsey, 1993, 1994; Heilbrun et al., 1998; Hill, Rogers, & Bickford, 1996; Rice & Harris, 1992, 1995a, 1995b; Rice, Harris, & Cormier, 1992; Wintrup, Coles, Hart, & Webster, 1994), civil psychiatric patients (Douglas, Ogloff, & Nicholls, 1997), Black offenders (Hemphill, Newman, & Hare, 1997), Francophone offenders (Ross, Hodgins, & Côté, 1992), and sex offenders (Gretton et al., 1995; Quinsey, Rice, & Harris, 1995; Rice, Harris, & Quinsey, 1990; Rice & Harris, 1997).

Hemphill, Hare, and Wong (1998) recently reviewed studies involving over 1,200 male inmates. They concluded that there is a clear and robust association between psychopathy and recidivism and that it is among the strongest predictors of recidivism. They provided an estimate of the magnitude of the association between the PCL/PCL-R and recidivism. General recidivism rates (%) for inmates classified into low, medium, and high PCL/PCL-R groups were 39.7, 54.9, and 74.1. The corresponding rates for violent recidivism were 20.2, 21.4, and 45.7. These findings indicate that psychopaths are at particularly high risk to be reconvicted for a violent offense and that those offenders in the high PCL/PCL-R group are clearly differentiated from other offenders. Other researchers who have reviewed the literature (Hart, 1998a; Hart & Hare, 1996, 1997; Salekin, Rogers, & Sewell, 1996) have reached similar conclusions.

Of particular theoretical and practical interest is the ability of the PCL/PCL-R to predict recidivism beyond that of other predictor variables. Sechrest (1963) considers the
demonstration of incremental predictive validity crucial for evaluating the utility of any psychometric instrument intended to assist decision makers.

Researchers have used three methods to determine whether the PCL/PCL-R contributes unique information to the prediction of outcome, beyond that offered by key criminal history and demographic variables. First, researchers have presented associations between the PCL/PCL-R and recidivism and also between other predictor variables and recidivism. They have then (informally) compared the magnitude of the associations between the sets of predictors and recidivism and concluded that the PCL/PCL-R contributes important information to the prediction of outcome (e.g., Harris et al., 1991, 1993; Quinsey et al., 1995; Rice, Harris, & Quinsey, 1990; see also Serin, 1996). The study by Harris et al. (1991) will be described here to illustrate this method. These researchers compared the predictive validity of the PCL-R with that of a multivariate combination of 16 variables and found that PCL-R scores alone correctly classified violent recidivists as accurately as did the other set of predictor variables.

Second, researchers have deleted items from the PCL/PCL-R associated with criminal history and then computed associations between the PCL/PCL-R and recidivism. Researchers who have used this procedure have found that the magnitude of the association between PCL/PCL-R scores and recidivism is essentially the same regardless of whether or not criminal history items of the PCL/PCL-R are excluded (e.g., Harris et al., 1991; Serin, 1996).

Third, the most powerful way of determining whether PCL/PCL-R scores contribute unique information to the prediction of recidivism beyond that made by other variables is to conduct hierarchical regression analyses. In these analyses, researchers enter criminal history
and demographic variables into the analyses and permit PCL/PCL-R scores to enter only if they contribute unique variance to the prediction of outcome. All researchers who have reported these analyses (Hart et al., 1988a; Harris et al., 1991; Heilbrun et al., 1998; Rice, Harris, & Quinsey, 1990; Ross et al., 1992) have found that PCL/PCL-R scores contribute unique variance to the prediction of recidivism beyond that made by previously entered criminal history variables.

Hemphill, Hare, et al. (1998) statistically tested differences between the magnitude of correlations between PCL/PCL-R scores and recidivism, and the magnitude of correlations between personality disorders and recidivism. They found that recidivism was more strongly correlated with PCL/PCL-R scores than with either antisocial personality disorder diagnoses or any personality disorder diagnoses for the studies originally conducted by Hart, Kropp, and Hare (1988b; see also Hare, 1991, p. 61), Harris et al. (1991, 1993), and Quinsey et al. (1995). Personality disorder diagnoses were assessed according to criteria listed in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1980).

In another series of analyses, Hemphill, Hare, et al. (1998) compared the magnitude of the association between PCL/PCL-R scores and recidivism with the magnitude of the association between actuarial risk scales (Andrews, 1982; Gottfredson & Bonds, 1961; Harris et al., 1993; Hoffman, 1983; Hoffman & Beck, 1974; Nuffield, 1982) and recidivism. The actuarial scales were constructed specifically to predict recidivism. They concluded that, across studies (Hart et al., 1988b; Hemphill, 1992; Rice & Harris, 1992; Serin, 1996), general recidivism was correlated as strongly with PCL/PCL-R scores as it was with the actuarial risk
scales. In contrast, they concluded that, across studies (Harris et al., 1993; Hemphill, 1992; Rice & Harris, 1992; Serin, 1996), violent recidivism was correlated more strongly with PCL/PCL-R scores than it was with the actuarial risk scales.

Another study, available since these analyses were conducted, also indicated that PCL-R scores predicted general recidivism as accurately as did an actuarial risk instrument designed to predict recidivism. Zamble and Palmer (1996) found that both the PCL-R and the actuarial risk instrument (Nuffield, 1982) were considerably more accurate at identifying recidivists than was the National Parole Board of Canada. This finding is interesting because the National Parole Board of Canada considered the results from the actuarial risk instrument when making their release decisions and nonetheless chose to use their clinical discretion and override the risk information provided by the actuarial risk instrument. (It is common for actuarial methods to be more accurate at statistically combining information and to make more accurate predictions than clinicians [Grove & Meehl, 1996]. Clinicians, however, can serve as important sources of information that, when statistically combined, improves prediction accuracy. See Wiggins, 1973, for a discussion.)

To summarize these findings, researchers have found that the PCL/PCL-R routinely makes a significant contribution towards predicting recidivism beyond that made by key demographic variables, criminal history, and personality disorder diagnoses. Across studies, PCL/PCL-R scores were as strongly associated with general recidivism and were more strongly associated with violent recidivism, than were actuarial risk scales designed specifically to predict recidivism.
Despite the impressive body of research examining the association between psychopathy and recidivism, there have been few large-scale studies with long followup periods that have examined criminal behaviors of psychopaths. Such prospective studies are very time-consuming and expensive to conduct. Researchers typically follow inmates for no more than a few years (see p. 144 of Hemphill, Hare, et al., 1998). Indeed, studies with the longest "followup" times (e.g., Gretton, 1998; see the review by Rice, 1997, of the Penetanguishene followup studies) have not been true prospective studies but have been based on ratings of previously collected collateral file information; psychopathy ratings were made without clinical interviews.

1.2. Criminal History And Recidivism

In addition to PCL/PCL-R scores, criminal history variables are consistently among the most important predictors of future criminal behavior (Klassen & O'Connor, 1994; Monahan, 1981; Steadman, 1987). This is true even in studies that measure diverse variables such as childhood history, adult adjustment, criminal history, and psychological functioning (e.g., Harris et al., 1993). Indeed, predictor variables in actuarial instruments used by the National Parole Board of Canada (Nuffield, 1982, 1989; see Bonta, Harman, Hann, & Cormier, 1996, for a recent revalidation) and previously by the United States Parole Commission (Hoffman, 1983; Hoffman & Beck, 1974, 1985) were derived almost exclusively from criminal history variables.

The association between past violent behavior and future violent behavior is less consistent, however. In Canada, Nuffield (1982) sought to identify predictor variables that
would be associated with violent recidivism. The combined construction and validation samples involved 2,475 male inmates. After conducting the statistical analyses, Nuffield suggested in her highly influential document, *Parole decision-making in Canada: Research towards decision guidelines*, that “assumptions about previous convictions for violent crimes being good indicators of violent recidivism may be unfounded” (p. 55). Nuffield recommended that her instrument designed to predict violent recidivism be abandoned, and instead recommended that The National Parole Board Of Canada adopt her instrument designed to predict general recidivism, the Statistical Information On Recidivism scale. They apparently agreed with Nuffield’s recommendations, and today the Statistical Information On Recidivism scale is widely administered to assess risk of general recidivism among federal inmates.

Nuffield (1982) seems to have concluded that violent recidivism cannot be predicted with any degree of accuracy because of the low base rate of violence, which was 12.6% for her construction sample and 13.8% for her validation sample. However, it is unclear whether Nuffield’s lack of success for predicting violent recidivism (see also Bonta et al., 1996) is because violent recidivism cannot be accurately predicted or because other aspects of her study interfered with her ability to detect violent recidivism. Nuffield’s study, for example, used a relatively short three-year followup period. Approximately 70% (389 of 544) of offenders who recidivated during the followup period were reconvicted for nonviolent crimes (see Table 4 in Nuffield, 1982). If these offenders received lengthy custodial sentences, then their opportunities to commit a violent offense during the three-year followup period were significantly reduced. Perhaps a longer followup period is necessary so that inmates have an
adequate opportunity in the community to be convicted for violent crimes. Indeed, contemporary research suggests that with long (e.g., 10-year) followup periods the base rate for violent recidivism is sufficiently high that violent recidivism can be predicted accurately (see Rice, 1997, for a summary of this research).

1.3. **Current Study**

There were three main goals for the current study. The first goal was to conduct a prospective study with a long followup period that examined the association between psychopathy and recidivism. Results from several independent research samples were examined to determine the generalizability of the results across samples of both provincial and federal inmates. Psychopathy was expected to be positively associated with higher and faster rates of recidivism. Differences among psychopathy groups were expected to be pronounced for violent recidivism.

The second goal was to develop a comprehensive and empirically-derived set of crime categories. Researchers typically code and examine only a few, rationally developed, broad crime categories. It is unclear, therefore, how frequently or infrequently specific crimes occur, and whether a more detailed system of coding criminal convictions would be useful.

The third goal was to combine scores on measures of psychopathy, criminal convictions, and basic demographic variables, to predict recidivism. As a theoretically relevant predictor, psychopathy was expected to emerge as an important predictor variable. Predicting violent recidivism was of particular interest from both a practical and a theoretical viewpoint. Given Nuffield's (1982) statement that past and future violent convictions appear
unrelated, we wanted to determine whether this was or was not the case. It seems plausible that the poor association Nuffield (1982) found was the result of her short three-year followup period rather than the lack of a reliable association. A long followup period might increase the base rate of violent recidivism to a sufficiently high rate that an association between past and future violent convictions is detected. It is intuitively appealing that past convictions for violence are associated with future convictions for violence (e.g., Ouellette & Wood, 1998). Given the long followup period in the current study, convictions for past violent crimes were expected to be associated with convictions for future violent crimes. If there is such an association, then past violent convictions should emerge as important predictors of future violent convictions and as important variables for assessing risk for committing future violence.

2. Method

2.1. Participants

All participants were male inmates serving time in correctional facilities over the past 30 years. Each had volunteered to participate in one or more research projects investigating the biological and personality correlates of criminal behavior. The inmate population was primarily White when these research projects were conducted. A previous analysis of inmates who have volunteered to participate in studies conducted by our laboratory indicated that they were representative of the White inmate population on a number of important demographic characteristics and criminal history variables (cf. Hart et al., 1988a). Moreover,
the characteristics of the research samples were similar to those found in a random sample of
315 male inmates who were selected because they represented Canadian federal inmates
housed in the Prairie Region (Wong, 1985). Approximately 50 inmates per year were
interviewed and assessed during each year in which psychopathy assessments were
conducted (see Figure 1).

2.2. Samples

Inmates were assessed in four correctional facilities in British Columbia during six
time periods. Sample sizes, with the years and correctional facilities in which the inmates
were assessed indicated in parentheses, were: 83 (British Columbia Penitentiary, 1964 -
77 (Oakalla, 1985 - 1986), and 504 (Matsqui, 1986 - 1995).

In Canada, inmates who receive a sentence of less than two years serve their time in
provincial institutions, and those who receive a sentence of two or more years serve their
time in federal institutions. The British Columbia Penitentiary was a federal maximum
security institution, and Oakalla was a provincial institution; they no longer are in operation.
Matsqui and Mission are federal medium security institutions. Approximately 80% of the
research participants came from federal institutions.
2.3. Procedure

2.3.1. Assessing Psychopathy

Over the past 30 years our laboratory has used four methods to assess psychopathy: global 1-3 point ratings, global 1-7 point ratings, the PCL (Hare, 1980), and the PCL-R (Hare, 1991). For the most part, except for the Oakalla (1974 - 1977) sample who was assessed with both the 3-point and the 7-point global ratings, each of the six samples described above were assessed using only one of these four assessment methods. Despite these different methods, all four share common features: they were designed to measure the conceptual framework of psychopathy perhaps most clearly exemplified by Cleckley (1976) in The Mask of Sanity; they identify psychopaths by clinical ratings rather than by inmates' self-reports; they are based on behaviors that occur across the lifespan; and they rely on both a semi-structured clinical interview and a review of extensive collateral file information to arrive at a rating. These different assessment methods are highly associated with each other (Hare, 1985).

The two earliest measures of psychopathy were based on global or impressionistic ratings of the construct, and the two more recent measures of psychopathy are based on explicit diagnostic criteria. For the first global measure of psychopathy, each inmate was assigned to a low, medium, or high psychopathy group. For the second global measure of psychopathy, each inmate was ordered along a 7-point continuum. Despite the subjective nature of these global or impressionistic ratings, raters achieved adequate levels of reliability (Hare, 1985; Hare & Cox, 1978). There are several important limitations of these global or
impressionistic ratings, however. Even though raters in some studies may agree on the relative ordering and classification of inmates, it is unclear exactly what factors were used by the raters to arrive at their ratings. Indeed, different sets of raters might emphasize different characteristics of the psychopath and, accordingly, might assign inmates to different psychopathy groups. Another significant limitation of global ratings is that raters must be thoroughly familiar and experienced with the construct of psychopathy; the ratings are only as good as the raters' familiarity and experience.

Because of the significant limitations of global or impressionistic ratings, Hare (1980; 1991) developed explicit criteria to assess psychopathy. The PCL-R is a refined version of the PCL: Two items (2 and 22) were deleted from the PCL and several item descriptions were modified. Each PCL/PCL-R item describes behaviors and inferred personality traits and is rated on a three-point scale: 2 indicates that the item definitely applies; 1 indicates that it may or may not apply, or that it applies to a certain extent; and 0 indicates that it definitely does not apply to the inmate. Items within each scale are summed. Total scores on the 22-item PCL can range from 0 to 44, and total scores on the 20-item PCL-R can range from 0 to 40. PCL/PCL-R scores represent the degree to which an individual fits the description of the prototypical psychopath. The PCL/PCL-R has clearly demonstrated reliability and validity in forensic samples (Hare, 1996).

2.3.1.1. Identifying Groups

For inmates rated on psychopathy using the 7-point global measure, the PCL, or the PCL-R, researchers have often classified inmates into low, medium, and high psychopathy
groups. For the current study, and consistent with the classification procedures previously used in our laboratory, we used the following scores to place inmates into three groups. On the 7-point global measure, inmates with scores of 6 or 7 were assigned to a high psychopathy group, those with scores of 1 or 2 were assigned to a low psychopathy group, and those with scores of 3, 4, or 5 were assigned to a medium psychopathy group. On the PCL, inmates with scores of 33 or higher were assigned to the high psychopathy group, those with scores between 22 and 33 were assigned to the medium psychopathy group, and those with scores lower than 22 were assigned to the low psychopathy group. On the PCL-R, inmates with scores of 30 or more were assigned to the high psychopathy group (see Hare, 1991, p. 17), those with scores between 20 and 30 were assigned to the medium psychopathy group, and those with scores less than 20 were assigned to the low psychopathy group.

2.3.1.2.Selecting A Single Measure From Several Measures

Many inmates had psychopathy ratings on more than one measure. Because one rater sometimes made several ratings on a single inmate, these psychopathy ratings were not always independent. For each inmate who had several psychopathy ratings, we used the following hierarchical procedure to place him into a psychopathy group. If the inmate had a valid PCL-R score, then the PCL-R score was used. If the inmate did not have a valid PCL-R score but did have a valid PCL score, then the PCL score was used. If the inmate did not have a valid PCL-R or PCL score, but did have a 7-point global rating, then the 7-point global rating was used. Finally, if the inmate was missing all but the 3-point global rating, then the 3-point rating was used.
We used this hierarchical procedure for assigning inmates to psychopathy groups for several reasons. First, the PCL-R is the standard measure of psychopathy used in current clinical and research practice, so PCL-R scores were preferred over the three other measures. Second, the PCL-R and the PCL were preferred over global ratings because the PCL-R and PCL have explicit diagnostic criteria, psychometrically sound test items, and permit separate analyses for subcomponents of psychopathy. Finally, the 7-point global rating was preferred over the 3-point global rating because raters were required to make finer distinctions among psychopathy characteristics when they made the former ratings than when they made the latter ratings.

Of the 1,178 inmates with valid psychopathy ratings, the proportions classified with the various psychopathy methods were as follows: 47.0% (n = 554) were classified by PCL-R scores, 24.7% (n = 291) by PCL scores, 5.3% (n = 63) with 7-point global rating scores, and 22.9% (n = 270) by 3-point global rating scores.

2.3.1.3. Identifying An Assessment Date

Some participants were involved in several research projects from our laboratory across the years and received multiple independent assessments at different times. For each individual with multiple assessments, we needed to establish a single psychopathy assessment date to identify the followup period after release from prison. For inmates who were assessed two or more times by our laboratory, we used the same hierarchical selection criteria as those described above to classify inmates into groups. That is, PCL-R ratings (if available) superseded PCL ratings, PCL ratings (if available) superseded 7-point global
ratings, and 7-point global ratings (if available) superseded 3-point global ratings. If inmates were assessed several times using the same measure of psychopathy, we selected the earliest assessment date to increase the length of follow-up after release from prison. All 1,203 inmates described above represent independent assessments after duplicate psychopathy assessments were eliminated.

2.3.1.4. Computing PCL/PCL-R Factor Scores

The PCL/PCL-R contains two correlated factors that have distinct patterns of associations with other variables. PCL/PCL-R Factor 1 describes a constellation of interpersonal and affective traits commonly considered fundamental to most clinical descriptions of the psychopath, whereas PCL/PCL-R Factor 2 describes a chronically unstable, antisocial, and socially deviant lifestyle (Cooke, 1995; Hare et al., 1990; Harpur, Hakstian, & Hare, 1988; Harpur, Hare, & Hakstian, 1989; Templeman & Wong, 1994). The correlation between general recidivism and PCL/PCL-R Factor 2 typically is stronger than the correlation between general recidivism and PCL/PCL-R Factor 1, but both Factors contribute equally to the prediction of violent recidivism (Hemphill, Hare, et al., 1998). PCL Total and Factor scores were computed using the procedures described by Hare (1980) and Harpur et al. (1988). PCL-R Total and Factor scores were computed using the procedures described by Hare (1991).
2.3.1.5. Averaging Scores To Increase Reliability

We wanted to ensure that all raw psychopathy item and total scores had been accurately entered into the computer. Therefore, before any psychopathy analyses were conducted for the current study, we double-checked the psychopathy scores entered into various computer files against every raw rating protocol that we could locate. Errors that we identified were corrected in the computer data file.

Many participants in the current study received psychopathy ratings from two or more independent raters. For example, 315 inmates received two independent PCL-R ratings. If available, we averaged psychopathy ratings across raters because averaged ratings are more reliable than ratings from any single rater. In terms of the 3-point global ratings, if two raters disagreed on the assignment of an inmate to the low, medium, or high psychopathy group, we assigned the inmate to the medium group.

2.3.1.6. Calculating Psychometric Characteristics

Means and standard deviations for PCL/PCL-R Total and Factor scores are presented in Table 1. These values are very similar to those reported in The Hare Psychopathy Checklist-Revised Manual (Hare, 1991).

Insert Table 1 about here

The proportion of inmates assigned to the low, medium, and high psychopathy groups differed by assessment method. Approximately 30% of inmates assessed with the PCL, the
PCL-R, and the 7-point global rating scale, were assigned to the high psychopathy group, whereas more than 40% of inmates assessed with the 3-point global rating were assigned to the high psychopathy group (see Table 1).

Measures of reliability for PCL and PCL-R scores are presented in Table 2. Overall, alpha coefficients, interrater reliability coefficients, and intraclass correlation coefficients (Shrout & Fleiss, 1979) exceeded .80 for PCL/PCL-R Total and Factor 1 and 2 scores. Intraclass correlation coefficients for averaged PCL/PCL-R ratings were more reliable than were intraclass correlation coefficients for a single rater. Mean inter-item correlation coefficients ranged from .23 to .44. These values exceed the .20 value that Briggs and Cheek (1986, 1988) suggest is consistent with a homogeneous scale.

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Insert Table 2 about here

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Chi-square statistics, phi coefficients, and kappa coefficients indicate that inmates could be reliably classified into two (low, high) or three (low, medium, high) psychopathy groups. For example, Burke and Regier (1994) indicate that kappa coefficients between .40 and .75 are considered good, and both kappa coefficients in Table 2 exceeded .50.
2.3.2. Coding Criminal Records

2.3.2.1. Obtaining Criminal Records

We submitted 1,203 inmate identification numbers to the Correctional Service of Canada (CSC) to obtain criminal records for each inmate. CSC collected the criminal records in two batches, on December 18 and 19, 1996. We attempted to verify that the criminal records we received were associated with the correct inmate by checking each name on each criminal record against the names on our master list. Eleven were eliminated from the study either because the names or aliases on their criminal record did not match the names on our master list or because the inmates had been deported immediately after release. Inmates were excluded for the latter reason because they would not have had an opportunity to be reconvicted in Canada. However, by far the most common reason that an inmate was excluded from our study was because the criminal record associated with the inmate identification number was listed by the CSC computer as “Not On File” (see Table 3). CSC was unable to clarify the reasons as to why an offender might have this designation associated with his criminal record. In the Results section we examine how representative the obtained criminal records were compared with those requested.

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Insert Table 3 about here

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2.3.2.2. Distinguishing Criminal History From Recidivism

Criminal convictions following release from prison were coded from official criminal records obtained from CSC. Criminal records were divided into two portions for each inmate according to the date that he received his psychopathy assessment. The first portion, referred to here as “criminal history,” included convictions that appeared on the criminal record up to and including each inmate’s release from prison following his psychopathy assessment. The second portion, referred to here as “recidivism,” included convictions that appeared on the criminal record subsequent to each inmate’s first release from prison following his psychopathy assessment. The distinction between the terms “criminal history” and “recidivism,” illustrated in Figure 2, is important because later in this dissertation convictions for “criminal history” will be used to predict convictions for “recidivism.”

2.3.2.3. CrimeWare Computer Program

All criminal records were processed using CrimeWare, a specialized computer program. CrimeWare was developed by Optima Research Inc. (Templeman, 1995) to process information on criminal records. It extracts information such as conviction types, dates, and disposition types and lengths. This extracted information is then converted into spreadsheet form for data analysis. Whenever available on the criminal records, release dates are used to determine dates of release from custody. Otherwise, release is estimated as two-thirds of the
custodial sentence length. This two-thirds release estimate is consistent with time that an inmate is released into the community on Mandatory Supervision. During the remaining one-third of the sentence the inmate is typically supervised in the community.

Criminal records obtained for Matsqui inmates assessed between 1969 and 1971 were not processed with CrimeWare computer software. Consequently, other than to report the percentage of criminal records obtained and scores on psychopathy, we eliminated this sample from all subsequent analyses. Other inmates were excluded for a variety of other reasons. Two were eliminated because they had French criminal records that could not be processed by the software; four were eliminated because they did not have birthdates, which are required for computing some Criminal Career Profile (Hemphill, Templeman, et al., 1998; Templeman, 1995) indices and age at first conviction; one was eliminated because the criminal record that was obtained was for another inmate; and four others were eliminated because their psychopathy assessment dates did not correspond with custodial sentences listed on the criminal record.

2.3.3. Defining Recidivism

Recidivism was defined as a new conviction or set of convictions that appeared on the official criminal record during the followup period. The followup period differed for each inmate, and it represented the time period after the inmate was first released following the psychopathy assessment until December, 1996, when the criminal records were obtained. Inmates were followed for up to 30 years. Three types (general, violent, sexual) of recidivism were defined by four measures.
2.3.3.1. Types Of Recidivism

Three types of recidivism, which were not mutually exclusive, were coded from these criminal records: general, violent, and sexual. General recidivism was the most broadly defined type of recidivism, and included any new conviction during the followup period that appeared on the inmate's criminal record. For example, convictions for a new offense or violations of conditional release were coded as general recidivism. Crime categories and subcategories that comprise general recidivism are listed in Appendix 2 and are represented by crime codes 1 to 29, inclusive, in the rightmost column. Violent recidivism was the second most broadly defined type of recidivism, and included a new conviction during the followup period for the following crime categories: murder, sexual offenses, assault, threatening behavior, kidnapping, robbery, use or possession of a weapon, and arson (see crime codes 1 to 11, inclusive, in Appendix 2). Sexual recidivism was the most narrowly defined type of recidivism, and included new convictions during the followup period for sexual offenses that did or did not involve physical contact (see crime codes 2 and 3 in Appendix 2).

Sexual recidivism was eliminated from further analyses because of the low base rate. Only 5.3% (45 of 844) of inmates were convicted of any sexual offense during the followup period. Most of these convictions were for offenses involving physical contact. For example, 37 inmates were convicted for one or more sexual offenses that involved physical contact, whereas 10 inmates were convicted for offenses that did not involve physical contact or that involved prostitution or procuring.
2.3.3.2. Measures Of Recidivism

Researchers lack a systematic, generally agreed upon way of operationalizing, measuring, and combining criminal behaviors (see Blumstein, Cohen, Roth, & Visher, 1986; Hare, McPherson, & Forth, 1988; Monahan & Steadman, 1994b). Consequently, convictions during the followup period were combined in four different ways for each (general, violent) type of recidivism. First, recidivism was coded in a binary (yes, no) fashion. Inmates who were convicted of one or more offenses during the followup period were considered to have recidivated, whereas those who were not convicted during the followup period were considered to have not recidivated. Second, the number of convictions during the followup period was summed together for each inmate to form a single number. Compared with the first method, this method better distinguishes inmates who have committed one offense from those who have committed more than one offense. Third, the number of different types of conviction categories, from the 28 crime categories in Appendix 2, was tabulated for each inmate. Scores could range from 0 to 28. (The “miscellaneous” crime category was not included in this sum because the category was composed primarily of convictions for which the crime could not be determined.)

Fourth, the Criminal Career Profile (CCP) slope (Templeman, 1995; Wong, Templeman, Gu, Andre, & Leis, 1998) was computed for each inmate. The CCP slope is a single number for each inmate that represents the proportion of time that an inmate spends in prison relative to the proportion of time that the inmate spends out of prison (see Hemphill, Templeman, et al., 1998, for a detailed description of this procedure). Larger CCP slope
values indicate that the inmate spent proportionately more time in jail than smaller CCP slope values. CCP slopes simultaneously measure both general recidivism and violent recidivism. Two measures of CCP slope were computed for each inmate. For the first measure, the slope was computed using the time interval between date of release following the psychopathy assessment and the date the criminal records were obtained. This represents the prospective followup period. For the second measure, the slope was computed using the time interval between the age at first conviction and the date the criminal records were obtained. This represents each inmate’s pattern of criminal offending across his entire criminal record.

3. Results

3.1. Representativeness Of Obtained Criminal Records

In this section, we examine how those inmates for whom we obtained criminal records differ from those for whom we could not obtain criminal records.

3.1.1. Samples

We successfully obtained 80.3% of the overall criminal records that were requested. The percentage of successfully obtained criminal records varied according to sample, $\chi^2 (df = 5, N = 1,203) = 131.18, p < .001$. There was a strong positive correlation between sample, ranked (1 to 6) according to year of assessment, and the percentage of criminal records obtained, $r = .97, p < .005$. We obtained proportionately more criminal records for inmates who were assessed more recently. For example, we received more than 90% of the criminal records we requested for inmates assessed between the mid-1980s and the mid-1990s,
whereas we received just over half for those assessed between the mid 1960s and the mid 1970s (see Table 3).

3.1.2. Age

Age at psychopathy assessment was computed for each inmate, when these dates were available, by subtracting his date of birth from his age at psychopathy assessment. Inmates for whom we were able to obtain criminal records were approximately two years younger at their psychopathy assessment dates than were those for whom we were not, $F (1, 1190) = 10.74, p = .001$. These values were, respectively, 28.90 (SD = 7.36, $n = 960$) years-old and 30.76 (SD = 9.34, $n = 232$) years-old. Similarly, inmates for whom we obtained criminal records were approximately 8 1/2 years younger at the data collection date than those for whom we were unable to obtain criminal records, $F (1, 1187) = 121.56, p < .001$. These values were, respectively, 42.03 (SD = 10.04, $n = 958$) and 50.59 (SD = 12.66, $n = 231$). (Age at data collection date was computed for each inmate by subtracting his date of birth from the date that CSC obtained the criminal records. All criminal records were obtained on either December 18 or 19, 1996.)

3.1.3. Race

Race was coded, whenever possible, from official inmate identification sheets. If this information was not available from the official records, we coded race from interviewer’s notes or from other collateral file information. We were unable to code race for 16.4% (197 of 1,203) of the inmates. Across all six samples, 85.8% of inmates were White. We obtained
criminal records for 82.7% of White offenders and 88.8% of non-White offenders, and these proportions were not significantly different, $\chi^2 (df = 1, N = 1,006) = 3.30, p > .05$.

### 3.1.4. Psychopathy

In terms of psychopathy groups, we obtained criminal records for 73.3% ($n = 329$) of the low group, 84.7% ($n = 458$) of the medium group, and 80.1% ($n = 391$) of the high group. These values differed significantly overall, $\chi^2 (df = 2, N = 1,178) = 15.71, p < .001$. Chi-squares were computed between each pair of psychopathy groups to determine which groups differed. Significantly fewer criminal records were obtained for inmates assigned to the low psychopathy group: The percentage of criminal records obtained for the low psychopathy group was significantly lower than the percentage of criminal records obtained for the medium psychopathy group, $\chi^2 (df = 1, N = 787) = 15.68, p < .001$, and for the high psychopathy group, $\chi^2 (df = 1, N = 720) = 4.66, p = .03$. There was no significant difference between the percentage of criminal records obtained for the medium and the high psychopathy groups, $\chi^2 (df = 1, N = 849) = 3.19, p = .07$.

We repeated the above analyses for each sample. This was done to gain a better understanding of the percentage of criminal records that were obtained for the three psychopathy groups. Chi-square analyses between psychopathy group (low, medium, and high) and success in obtaining criminal records (yes, no) were conducted separately for each sample. There were no significant differences for five of six samples between the percentages of criminal records we obtained and the three psychopathy groups (all $p$s between .16 and .99). The only significant association was for the Mission sample, $\chi^2 (2, N = 290) = 8.28, p = \ldots$
.02. (See Table 4 for the percentages of inmates for whom we obtained criminal records for each sample and for each psychopathy group.)

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Insert Table 4 about here

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In summary, inmates for whom we obtained criminal records were representative of the sample from which they were drawn in terms of percentage of White inmates and—except for the Mission sample—the percentage of inmates who were assigned to the three psychopathy groups. However, inmates for whom we obtained criminal records tended to be younger at the psychopathy assessment date, younger at the data collection date, and assessed more recently, than those for whom we did not obtain criminal records.

### 3.2. **Demographic and Release Details**

#### 3.2.1. Percentage Not Yet Released

Of the 899 offenders with criminal records who had been processed by CrimeWare (Templeman, 1995) computer software, 55 were eliminated because they had not yet been released from custody. Most of the subsequent analyses, described below, were conducted on the remaining 844 offenders.

#### 3.2.2. Ages And Length Of Followup

Inmates were an average 29.80 (SD = 7.95, N = 844) years-old when they were released from prison following the psychopathy assessment. The five samples differed
significantly overall on mean age, $F(4, 839) = 19.16, p < .001$. Scheffé pairwise comparisons indicated that both Oakalla samples were significantly younger than the Matsqui and Mission samples, the two federal institutions. Mean ages at release are presented in Table 5.

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Insert Table 5 about here

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Mean age at data collection (i.e., December, 1996) varied across samples, $F(4, 839) = 126.99, p < .001$, and eight of the ten Scheffé pairwise comparisons were significant. Mean length of followup differed across samples, $F(4, 839) = 1020.34, p < .001$, and all ten Scheffé pairwise comparisons were significant. Mean age at data collection and length of followup for the five samples are presented in Table 5. Because the samples differed on age and on length of followup, most of the further analyses will be presented separately by sample.

### 3.3. Psychopathy And Recidivism

#### 3.3.1. Overall Recidivism Rates

Most (83.5%, or 705 of 844) inmates received a new conviction on their criminal history during the followup period, and half (49.8%, or 420 of 844) received a conviction for a violent offense. (As indicated by the rightmost column in Table 12, the majority of new convictions were for property-related offenses.) Intercorrelations among the different measures of recidivism are presented in Table 6. These measures were moderately correlated,
and the overall intercorrelations were smaller for general recidivism than for violent recidivism. Intercorrelations among measures 1 to 4 in Table 6 represent correlations among the different measures of general recidivism (range = .27 to .75), and intercorrelations among measures 5 to 7 in Table 6 represent correlations among the different measures of violent recidivism (range = .53 to .79).

3.3.2. Correlational Analyses

We computed correlations between psychopathy and the various measures of recidivism (see Table 7). Across the five samples, psychopathy was measured in four different ways: 3- and 7-point global ratings, the PCL (Hare, 1980), and the PCL-R (Hare, 1991). To get an indication of the magnitude of the overall association between psychopathy and recidivism, we computed an average correlation coefficient across the five samples for each type (general, violent) and measure of recidivism. These averages were computed by converting each raw correlation between psychopathy and recidivism in Table 7 to Fisher \( z \) values, weighting the correlations by their \( N - 3 \) degrees of freedom, averaging these values within each type (general, violent) and measure of recidivism, and converting each resulting average \( z_r \) value to \( r \) (see Rosenthal, 1991, formula 4.13). The mean correlations for psychopathy and general recidivism ranged between .13 and .25, and the mean correlations for psychopathy and violent recidivism ranged between .18 and .22 (see Table 7).
Mean correlations were computed between PCL/PCL-R Factor scores and recidivism. In general, PCL/PCL-R Factor 2 scores correlated significantly with general recidivism, whereas PCL/PCL-R Factor 1 scores did not. A similar, although less pronounced, pattern of results was found for violent recidivism.

3.3.3. Group Analyses

3.3.3.1. Dichotomous Measure Of Recidivism

The percentages of inmates in each psychopathy group who were reconvicted of anything (i.e., general recidivism) during the followup period are presented separately for each sample in Table 8. For all samples combined, there was a significant association between the percentage of inmates receiving a new conviction and psychopathy group. Following this significant association, we computed comparisons for each pair of psychopathy groups. The high group did not differ significantly from the medium group, $\chi^2$ (df = 1) = .68, $p = .41$. However, the high group differed from the low group, $\chi^2$ (df = 1) = 17.24, $p < .001$, and the medium group differed from the low group, $\chi^2$ (df = 1) = 13.44, $p < .001$. As indicated in Table 8, two of five samples demonstrated a statistically significant association between psychopathy group and general recidivism.
The above analyses were repeated for violent recidivism. There was a significant overall association between the three psychopathy groups and violent recidivism (see Table 8). All three groups differed significantly: the high from the medium, \( \chi^2 (df = 1) = 4.17, p = .04 \), the high from the low, \( \chi^2 (df = 1) = 26.24, p < .001 \), and the medium from the low, \( \chi^2 (df = 1) = 12.64, p < .001 \). As indicated in Table 8, three of five samples demonstrated a statistically significant association between psychopathy group and violent recidivism.

### 3.3.3.2. Number Of Convictions

Means for the number of convictions for general recidivism and for violent recidivism are presented in Table 9. For all five samples combined, the high psychopathy group received significantly more convictions for both general recidivism and violent recidivism. The mean number of convictions for the high group differed significantly from the low group in two of five samples for general recidivism and in two of five samples for violent recidivism. The mean number of convictions for the medium group differed significantly from the low group in one sample for violent recidivism.
3.3.3.3. Different Crime Categories

Means for the number of different types of crimes committed by the low, medium, and high psychopathy groups are presented in Table 10. For all five samples combined, the high psychopathy group committed significantly more different types of crimes than did the low psychopathy group, and this was true for both general recidivism and violent recidivism. The mean number of convictions for different types of offenses differed overall among the psychopathy groups for three of five samples for general recidivism and for four of five samples for violent recidivism.

Insert Table 10 about here

3.3.3.4. CCP Slope

Mean values for both measures of CCP slope were compared among the low, medium, and high psychopathy groups. Across all five samples combined, the mean value for the high psychopathy group was larger than the mean value for the low psychopathy group (see Table 11) for both CCP measures. Means among the three psychopathy groups differed for three of five samples (see Table 11) for both CCP measures. Scheffé pairwise comparisons indicated that the high psychopathy group reliably differed from the low psychopathy group.
3.3.3.5. Survival Analyses

Failure was estimated across time for the three psychopathy groups using survival analysis (Morita, Lee, & Mowday, 1989; Schmidt & Witte, 1988). Across all five samples combined, there was a significant difference among the survival curves for the three psychopathy groups, Wilcoxon (Gehan) statistic ($df = 2, N = 828) = 13.13, p = .001$ (see Figure 3). Pairwise comparisons revealed that the high and low psychopathy groups differed, Wilcoxon (Gehan) statistic ($df = 1) = 12.07, p < .001$, as did the medium and the low psychopathy groups, Wilcoxon (Gehan) statistic ($df = 1) = 7.40, p = .007$. However, the high and the medium psychopathy groups did not differ significantly, Wilcoxon (Gehan) statistic ($df = 1) = 1.74, p = .19$. Median survival times, or the times at which half the inmates are estimated to be reconvicted, were 1.25 years, 1.51 years, and 2.17 years, respectively, for the high, medium, and low psychopathy groups.

Survival curves differed significantly across the five samples (see Figure 4), Wilcoxon (Gehan) statistic ($df = 4, N = 844) = 32.08, p = < .001$, indicating that the rate of receiving a new conviction, and the time to first reconviction, were different for the five
samples. Seven of ten pairwise comparisons were significant. Because of these differences, survival curves for the low, medium, and high psychopathy groups are presented separately for each sample in Figures 5 to 9. Using Wilcoxon (Gehan) statistics (df = 2), survival curves among the three psychopathy groups differed significantly for the following samples: British Columbia Penitentiary, 5.95, \( p = .05 \); Mission, 10.88, \( p = .004 \); and Matsqui, 8.21, \( p = .02 \). Pairwise comparisons indicated that the high psychopathy group differed significantly from the low psychopathy group in all three samples. Only one of the six other pairwise comparisons was significant (\( p < .05 \)): Survival curves for the low and medium groups differed for the Matsqui sample, 6.79, \( p = .009 \).

3.4. **Identifying Crime Categories**

Considerable effort was devoted to constructing a detailed coding system for criminal offending. Criminal records from the current samples and from other samples were processed through CrimeWare computer software and all unique conviction descriptions that appeared on the criminal records were obtained. Then, the conviction descriptions were sorted into more than 200 different crime categories and subcategories; these offense groupings represented 20 broad crime categories (See Appendix 1). At this point, the aim was to specify in detail the particular offenses without attempting to collapse offenses into broader crime categories. (Crime categories are often collapsed by researchers into broader categories.
because detailed crime categories are cumbersome to analyze and interpret.) The Criminal Code of Canada (Martin’s annual criminal code, 1992; Pocket criminal code, 1987) and various dictionaries (Gifis, 1984; Yogis, 1995; Webster’s ninth new collegiate dictionary, 1989) were consulted to group the crimes into the 200 detailed and the 20 broad crime categories. The 200 crime categories were collapsed by combining infrequently occurring crime categories and by factor analysis.

3.4.1. Collapsing Subcategories Of Crimes Using Frequency Counts

The 200 detailed crime categories were collapsed into broader crime categories by tabulating and examining frequency counts for each detailed crime category (see Appendix 2; frequency counts are presented separately for the number of convictions on the criminal record that appeared up to and including the date of the psychopathy assessment and those that appeared after the date of the psychopathy assessment.). Approximately 20% of the 200 detailed crime categories never appeared on any criminal records, and these categories were eliminated. In addition, it quickly became apparent that some distinctions made among the 200 crime categories were not particularly useful. For example, convictions beginning with the phrases “attempted to commit” or “conspiracy to commit” were relatively infrequent relative to convictions for offenses that were committed. Similarly, the distinction between sexual offenses committed against children and sexual offenses committed against adults was rarely explicated in the conviction description listed on the criminal record, so these categories were collapsed. The frequency counts for these aggregated categories were again examined, and items similar in content were resorted into 29 different crime categories.
“Possession” of drugs and weapons were each maintained as separate crime categories. The 29 collapsed crime categories are presented in Appendix 2. (In the Results section we describe the use of factor analytic techniques to further collapse 28 of the 29 crime categories into fewer crime categories.)

We present in Table 12, in descending order of magnitude, the number of convictions for each of the 29 crime categories. A total of 24,017 convictions appeared on the criminal records for the 899 inmates whose criminal records were obtained and processed. Next to the frequency counts in Table 12 is a column that indicates the percentage of the total convictions represented by each crime category. The cumulative percentages also appear in Table 12, and they indicate that the first four crime categories (break and enter, fraud, theft, possession of illegal property) accounted for more than half the convictions on the criminal record, whereas the remaining 25 categories accounted for the other half.

The percentages of inmates who received one or more convictions for each of the 29 crime categories are presented in the two rightmost columns of Table 12 for the periods of time up to and including the psychopathy assessment and subsequent to the psychopathy assessment. More than two-thirds of inmates received a conviction for break and enter and for theft or attempted theft before their psychopathy assessments, and approximately one-third received convictions for these crime categories after their psychopathy assessments.
3.4.2. Collapsing Crime Categories Using Factor Analysis

The following analyses were conducted only on the two contemporary federal inmate samples from Mission and Matsqui (1986 - 1995 sample), which comprised approximately 75% of all inmates. The other samples were excluded from the factor analyses and the discriminant function analyses below for three reasons. First, their sample sizes were considered too small for exploratory statistical analyses. Second, proportionately fewer criminal records were obtained from these samples, so those for whom we obtained criminal records may not be representative in terms of criminal history of the sample from which they were drawn. Third, we were primarily interested in obtaining results that would generalize to contemporary samples of federal inmates.

3.4.2.1. Transforming Criminal History Variables

Frequency counts for most of the 29 crime categories in Table 12 were positively skewed, and some were markedly skewed. Outliers, or individuals with extreme values on one or more variables, can unduly influence the results of test statistics. The decision to transform or not to transform test scores was, therefore, carefully considered before conducting the factor analyses.

Variable transformations are recommended so that the statistical results are less influenced by the impact of outliers and so that scores more closely meet assumptions of multivariate analyses (i.e., that each variable is normally distributed and has a linear and homoscedastic relationship with other variables). Put simply, transformations are often important because they improve results from data analyses.
Variable transformations have a number of significant limitations, however. The new variables that result from a set of variable transformations are often more difficult to interpret. For example, among the best solutions for dealing with severely positively skewed data is to take the value “1” and to divide by the variable (p. 86, Tabachnick & Fidell, 1989). However, the rank-ordering of variables becomes reversed and the numbers no longer have absolute meaning. Moreover, if all the variables are skewed in the same direction—as is the case with the current criminal history data set—then transformations do not tend to improve the analyses much (p. 84, Tabachnick & Fidell, 1989).

Given the modest improvements in data analyses that might be provided by transforming all the positively skewed variables, and given the importance in the current context of retaining the absolute meaning of scores on variables, scores for all inmates were not transformed. However, we wanted to reduce the impact that a few with extremely high scores might have on the data analyses. Consequently, descriptive statistics were computed for each of the 28 crime categories. (The “miscellaneous” crime category was not included in the factor analysis because it was primarily composed of crimes that could not be identified.) For each variable, the value two standard deviations above the mean was computed and any values with decimals were rounded upwards to achieve a whole number. Then, inmates who had committed more crimes than this value had their number of crimes recoded to this whole number. Descriptive statistics were computed again, and frequency histograms were examined for each variable. The category “fraud” still had a number of inmates with highly skewed scores. Values for those inmates were again recoded to two standard deviations.
above the mean and the histogram plots reexamined. At this point, no more fraud scores were considered unduly problematic for the statistical analyses.

### 3.4.2.2. Factor Analysis

Principal components analysis with varimax rotation was conducted on the correlation matrix for the 28 crime categories after transforming the variables according to the procedures described above. Unfortunately, there is no clear rule or set of rules governing the number of factors to extract from a data set, and different criteria often produce conflicting results (Hakstian, Rogers, & Cattell, 1982). We considered four aspects when choosing the number of factors to extract. First, the scree plot (Cattell, 1966) was examined. It suggested an 8-factor solution because of a marked discontinuity in slope between the eighth and ninth eigenvalues. Second, The Kaiser-Guttman rule of the number of eigenvalues greater than 1 indicated a 10-factor solution. Third, the maximum-likelihood method indicated that a 10-factor solution adequately represented the data, \( \chi^2 (df = 143, N = 693) = 161.44, p = .14 \). Fourth, factor loadings from the criminal history variables were examined for several solutions with varying numbers of factors. The 10-factor solution seemed most interpretable. After considering these aspects, we chose to extract ten factors from our 28 criminal history variables. The criminal history variables, sorted in magnitude for each factor by their factor loadings, are presented in Table 13.

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Insert Table 13 about here

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Of the ten factors, two were not interpreted or used in subsequent analyses. These two factors were not used because: (1) they had low correlations between or among items; (2) one of the criminal history categories loaded negatively on the factor; and (3) they were not easily interpreted. “Factor 7,” for example, was composed of the crime categories “Interfering With The Judicial Process and Obstruction Of Justice” and “Theft Or Possession Of A Stolen Motor Vehicle.” The correlation between these two crime categories was $r (N = 693) = -0.04$. Similarly, the crime category “Murder And Deaths” loaded negatively on “Factor 8,” and it correlated $r = -0.09$ with the category “Sexual Offenses Involving Physical Contact” and $r = -0.06$ with the category “Sexual Offenses Involving No Physical Contact Or Prostitution”.

Results from the factor analyses indicate that, other than for the first two Factors, the criminal history factors were defined by 1 to 3 crime categories. These findings suggest that the 28 criminal history categories that were factored do not coalesce to form clear and distinct groups reflecting multiple categories of crimes.

### 3.4.2.3. Factor Interpretations

Because few items define each factor, interpretations are provided below for only the first two factors. The titles of the other factors are relatively self-explanatory in terms of the crime categories that define them (see Table 13).

Inmates who score high on Factor 1, the “Theft And Defies Authority” Factor, receive convictions for stealing and other property-related offenses. They defy authority by violating release conditions imposed by the courts, and when they are sentenced to custodial sentences they further defy authority by escaping from lawful custody.
Inmates who score high on Factor 2, the "Aggressive And Inconsiderate Of Others" Factor, are convicted for a range of petty and serious criminal behaviors. These crimes are characterized by assaultive behaviors that sometimes result in serious injury to victims, and by relatively aimless behaviors that disturb others and that interfere with their peace. Loitering, vandalism, possessing weapons, and failing to attend court, all characterize this Factor.

3.5. Predicting Recidivism From Many Predictor Variables

3.5.1. Selecting Predictor Variables Using Discriminant Function Analyses

3.5.1.1. Description

Discriminant Function Analysis (DFA) is a statistical procedure in which a set of predictor variables is used to predict group membership. For the current study, the goal of the DFA was to use a number of variables to predict recidivism (yes, no) status. Stepwise DFA was selected for the analyses. This procedure selects variables to enter the analyses based on statistical grounds, and as with many multivariate statistical techniques can unduly capitalize on chance associations between variables. Consequently, to better estimate the magnitude of the association between the predictor variables and recidivism, the solution was subjected to cross-validation.

All 693 inmates from the two contemporary federal samples were first sorted according to their Fingerprint Services (FPS) inmate identification number. Fifty-five had not
been released from prison and were eliminated, as were 16 who did not have PCL/PCL-R scores. Of the remaining 622 inmates, every fifth case was set aside to cross-validate the DFA solution obtained from the other 80% of cases. This left a total of 498 inmates on which to conduct the DFA.

### 3.5.1.2. **Predictor Variables**

Seventeen predictor variables were selected for inclusion in each of two DFAs. The predictor variables included the criminal history factors identified above (see additional details below), age at release following psychopathy assessment, age at the followup date, age at first conviction, CCP slope for the period of time up to and including psychopathy assessment, and psychopathy scores.

In terms of criminal history factors, Factors 1, 2, 3, 4, 5, 6, 9, and 10 from Table 13 were computed by simply summing items that defined the factors. A criminal history variable for sexual offenses was formed by summing the two sexual offense crime categories, and the following criminal history categories were entered by themselves: “Interfering With The Judicial Process and Obstruction Of Justice,” “Theft Or Possession Of Stolen Motor Vehicle,” and “Murder And Deaths” (see Appendices 1 and 2 for further details of these crime categories). In all, 12 separate criminal history variables were entered into the DFA.

PCL or PCL-R scores were available for most inmates. To make the 22-item PCL and the 20-item PCL-R Total scores more directly comparable, 22-item PCL Total scores were multiplied by 0.9091 (i.e., 20 / 22) before they were entered into the DFA.
3.5.1.3. Results

Two stepwise DFAs were conducted, one for general recidivism and one for violent recidivism, using the 17 predictor variables described above. Multivariate analyses were conducted to ensure that each selected variable contributed unique information to the prediction of recidivism. Results from the DFA predicting general recidivism will be described first.

The general recidivism base rate for the sample of 498 inmates was 81.1%. Ten predictor variables of the 17 entered the DFA equation. The order in which they entered the DFA to predict general recidivism, with their point-biserial correlations with general recidivism (yes, no) in parentheses, was: (1) age at first conviction (r = -.37), (2) PCL/PCL-R scores (r = .30), (3) age at release following psychopathy assessment (r = -.31), (4) the Theft/Defies Authority Factor (r = .28), (5) age when the criminal records were obtained (r = -.21), (6) the Drug Convictions Factor (r = .12), (7) Aggressive / Inconsiderate Of Others Factor (r = .17), (8) the Stealing With Confrontation Factor (r = .09), (9) the Fraud Factor (r = .12), and (10) the Arson Factor (r = .06). These ten variables remained in the final DFA solution, and this combination of ten variables correctly classified 81.3% of inmates into general recidivism (yes, no) groups. The accuracy of this classification was essentially the same as that which could be achieved by predicting that everyone would fail (i.e., the 81.1% general recidivism base rate).

Standardized discriminant function coefficients, sorted in descending order of absolute magnitude, are presented in Table 14. These coefficients are presented here to
determine the weight that each predictor variable was assigned before the predictor variables were combined. For applied clinical and prediction purposes, the predictor variables should be weighted according to the modified Burgess method described in the next section below (also see Table 15).

The variables that were assigned the largest weights in the DFA analysis used to predict general recidivism were associated with age (see Table 14). Both age at release and age at first conviction were assigned negative weights. These negative weights indicate that younger inmates tend to be reconvicted more often than do older inmates, and that inmates who receive their first convictions at earlier ages tend to be reconvicted more often than do inmates who receive their first convictions at later ages. The positive weight for age at the time the criminal record were obtained likely reflects, at least in part, the higher and faster general recidivism rate for the Matsqui (1986 – 1995) sample than for the Mission (1978 – 1985) sample (see Figure 4). Nonviolent and violent criminal history variables and PCL/PCL-R scores were all positively associated with general recidivism.

\[ \text{Insert Table 14 about here} \]

The violent recidivism base rate was 47.6%. Five predictor variables entered and remained in the DFA equation predicting violent recidivism. The order in which the variables entered the DFA, with their point-biserial correlations with violent recidivism (yes, no) in parentheses, was: (1) PCL/PCL-R scores \( r = .27 \), (2) age at release following the psychopathy assessment \( r = -.26 \), (3) the Stealing With Confrontation Factor \( r = .12 \), (4)
age when the criminal records were obtained ($r = -.13$), and (5) the Aggressive / Inconsiderate Of Others Factor ($r = .16$). These five predictor variables correctly classified two-thirds (66.7%) of the inmates into violent recidivism (yes, no) groups. Both types of classification errors occurred at a similar rate. The number who were classified as recidivists but who did not violently recidivate (false positive) was 97, the number who were classified as not recidivating but who did recidivate (false negative) was 69, the number who were correctly classified as not recidivating was 164, and the number who were correctly classified as recidivating was 168. As indicated by the discriminant function coefficients in Table 14, and consistent with the findings for general recidivism, the variables assigned the largest weights in the DFA used to predict violent recidivism were age at release and age at the time the criminal records were obtained. PCL/PCL-R scores and two measures of violent criminal history were assigned weights of similar magnitude for the prediction of violent recidivism.

3.5.2. Combining Predictor Variables Using Modified Burgess Weights

3.5.2.1. Description of Modified Burgess Weights

One criticism of multivariate statistical techniques such as DFA is that results are less strong when applied to new samples than when applied to the sample in which they were initially derived. A major reason for this “shrinkage” or reduction in predictive power among new samples is that prediction weights are identified by statistical means. These differential weightings of variables are associated with the optimal statistical solution for the
One method of empirically identifying weights for predictor variables that holds up much better under cross-validation than multivariate statistical techniques is the modified Burgess method (e.g., Nuffield, 1982; Harris et al., 1993). Using this statistical technique, the percentage of inmates who are not reconvicted is identified for each level of each predictor variable. Weights are determined separately for each level of each predictor variable by subtracting the percentage of inmates who did not fail for that level from the percentage of inmates who did not fail across the sample. The result is divided by five, and values are rounded downwards to the nearest whole number (see the numerical example below). Negative weights are associated with a lower probability of recidivism, whereas positive weights are associated with a higher probability of recidivism.

Weights were identified among the construction sample (N = 498) separately for each of the five variables that predicted violent recidivism. Before weights were computed, continuous predictor variables (PCL/PCL-R scores, age at release following the psychopathy assessment, age when the criminal histories were obtained) were divided into five portions with equal numbers of inmates. The percentage of inmates who were not reconvicted was identified for each level of the two criminal history variables: the Aggressive / Inconsiderate Of Others Factor, and the Stealing With Confrontation Factor. Within each of these variables, several levels were collapsed for one of two reasons. First, levels were collapsed if computed weights were identical across adjacent levels. Second, levels were collapsed if an increasing (or decreasing) trend in weights was disrupted. This often occurred because too few inmates
comprised a single level of the variable and therefore the estimates of failure were considered unstable.

3.5.2.2. Example Of The Weighting Technique

A numerical example is provided here using this modified Burgess weighting technique for PCL/PCL-R scores. First, inmates were divided into five PCL/PCL-R groups with approximately 100 individuals assigned to each group. Second, the percentage of inmates who did not fail within each of the five levels was computed. Percentages who did not fail for each level of the PCL/PCL-R groups, in ascending order of PCL/PCL-R scores, were: 73.5%, 56.7%, 49.0%, 47.3%, and 35.9%. The overall rate of inmates who were not convicted for violent offenses was 52.4%, and this value was subtracted separately for each PCL/PCL-R level. Resulting values were divided by five and rounded downwards. Consequently, the weights for the five PCL/PCL-R levels were, respectively, -4, 0, 0, +1, and +3. The second and third levels were the same and were collapsed together. This resulted in four weights assigned to the PCL/PCL-R scores.

3.5.2.3. Validation And Cross-Validation Of Predictor Variables And Risk Weights

For each inmate, weights were determined for the five variables that predicted violent recidivism, and the weights were summed. Scores could range from -12 to +11, with lower scores reflecting less risk to be violently reconvicted and higher scores reflecting greater risk to be violently reconvicted (see Table 15).
Point-biserial correlations were computed between the total score on the violence risk scale and violent recidivism (yes, no). Also, a median-split on the risk scale was used to divide inmates into low- and high-risk groups, and the percentage correctly classified was computed. These analyses were conducted for both the construction sample of 498 inmates and for the validation sample of 124 inmates.

The correlation between the violence risk scale and violent recidivism (yes, no) was $r = .36$ for the construction sample and $r = .29$ for the validation sample. The percentage of inmates who were correctly classified into both violent recidivism (yes, no) groups was 62.2% (310 of 498) for the construction sample, and 64.5% (80 of 124) for the validation sample.

### 3.5.3. Determining Failure Rates (%) For Inmates Classified By Scores On The Violence Risk Scale

Inmates from the two contemporary federal samples ($N = 622$) were classified into five groups based on their scores on the violence risk scale. Attempts were made to assign equal numbers of inmates to each group. The percentage of inmates in each of the five groups who were convicted for violent recidivism is presented in Figure 10. Those with the lowest scores on the violence risk scale are at the lowest risk to be reconvicted, and those with the highest scores on the violence risk scale are at the highest risk to be reconvicted.
4. Discussion

4.1. Summary and Strengths Of The Current Study

There are three main parts to this dissertation. In the first part, the association between psychopathy and recidivism was examined using several measures of recidivism. In the second part, independent dimensions of criminal history variables were identified. In the third part, these criminal history dimensions, along with psychopathy scores and basic demographic information, were entered into statistical analyses to select independent predictors for assessing risk to be reconvicted.

The association between psychopathy and criminal reconvictions was examined in five samples of male offenders who took part in various research projects and were assessed on psychopathy between 1964 and 1995. Approximately 80% (966 of 1,203) of the criminal records requested from CSC were obtained, and 899 of the criminal records were coded and used for the current study. More criminal records were obtained for inmates who were assessed more recently. The racial composition and psychopathy scores of the offenders for whom complete criminal records were obtained were similar to those for whom complete records were not available. The criminal activities of the offenders in each sample were prospectively followed for up to 30 years.
Over the years, four different assessment procedures were used to assess offenders for psychopathy: 3-point global ratings, 7-point global ratings, the PCL (Hare, 1980), and the PCL-R (Hare, 1991). In each case, clinical interviews and reviews of collateral file information were used to assess psychopathy. Each procedure permitted the placement of each offender into one of three (low, medium, high) psychopathy groups. Approximately one-third were assigned to each of the low, medium, and high psychopathy groups. The psychometric properties of the PCL and the PCL-R were similar to those found with other samples of correctional inmates.

Several measures of both general recidivism and violent recidivism were examined. These measures included a dichotomous (yes, no) measure of recidivism, the number of convictions received during the followup period, and the number of different types of convictions. Also, Criminal Career Profile (CCP) slopes were computed for the followup period and across the entire criminal record (Templeman, 1995; see also Hemphill, Templeman, et al., 1998, and Wong et al., 1998, for a description). Each CCP slope measure represents a single value for each offender indicating the proportion of time that he has spent in prison relative to the proportion of time that he has spent outside prison. The larger the CCP value the more severe the criminal record. There is some evidence to suggest that CCP slope is a particularly sensitive measure of recidivism (Hemphill, Templeman, et al., 1998). Within each type of recidivism (general, violent) category, the correlations among the different measures of recidivism were only moderate in magnitude.

Results indicated that psychopathy scores were positively associated with recidivism. Pairwise comparisons revealed that offenders in the high psychopathy group consistently had
higher recidivism rates than did those in the low psychopathy group. Average correlations between psychopathy and recidivism ranged from .13 to .25 for general recidivism and from .18 to .22 for violent recidivism. The magnitudes of these associations are somewhat lower than those found in a recent meta-analysis involving over 1,200 inmates from seven independent research groups (Hemphill, Hare, et al., 1998).

PCL/PCL-R Factor 2—the social deviance facet of psychopathy—tended to be correlated more strongly with general recidivism than did PCL/PCL-R Factor 1—the interpersonal/affective facet of psychopathy. PCL/PCL-R Factors 1 and 2 made a more similar contribution to the prediction of violent recidivism than they did to the prediction of general recidivism. This pattern of results is consistent with the results of other studies in which correlations were computed between the PCL/PCL-R Factors and recidivism (Hemphill & Hare, 1996; Hemphill, Hare, et al., 1998).

Crimes were sorted into more than 200 descriptive categories and then frequency counts were examined for each crime category. Then, crimes were combined into 29 broader crime categories. Frequency counts indicated that the four most frequently occurring crime categories (break and enter, fraud, theft, possession of illegal property) accounted for more than half of all convictions, whereas the remaining 25 crime categories accounted for less than half of all convictions. These crime categories were further combined into ten crime categories based on results from a principal components factor analysis with varimax rotation.

These criminal history categories, along with psychopathy scores and basic demographic information, were entered into a stepwise discriminant function analysis to
predict general recidivism (yes, no) and into another to predict violent recidivism. Of the 17 predictor variables entered into the first analysis, ten were selected to predict general recidivism. These ten predictors correctly classified 81.3% of the inmates, a value similar in magnitude to the 81.1% base rate of general recidivism. In terms of violent recidivism, five predictor variables were selected. Two-thirds of the inmates were correctly classified using these five variables, better than the violent recidivism base rate of 47.6%. Findings held-up under cross-validation.

The current study has a number of important strengths. First, because results were examined in several correctional facilities and time periods with relatively large numbers of inmates, the results will be more likely to generalize to other samples of inmates. Second, several measures of recidivism were used to assess both general recidivism and violent recidivism. Results were generally consistent across recidivism measures, thereby increasing our confidence that the results are robust. Third, and perhaps the most significant strength, is the long prospective followup period.

Inmates were followed-up for more than ten years on average and some were followed-up for more than 30 years. This period is considerably longer than the followup times typically available in correctional research. This long followup period means that most individuals who were assessed had been released from prison, and that we can generalize our results to many of the most serious or persistent offenders in our samples. This point is important because short followup periods can pose a major problem in recidivism research if the most serious offenders have not yet been released. With short followup periods, often researchers can only generalize their results to inmates who have been released or selected as
good candidates for release by parole boards; they cannot generalize their results to inmates who have received long sentences or who have not been released and studied in the followup investigations.

4.2. **Possible Reasons For Smaller Associations Between Psychopathy And Recidivism**

The magnitudes of the associations between psychopathy and recidivism tended to be smaller in the current samples than are typically found (e.g., Hemphill, Hare, et al., 1998; Salekin et al., 1996), particularly for the provincial samples. A number of somewhat related reasons could explain these smaller associations.

4.2.1. **Poor Institutional File Information May Influence Psychopathy Ratings**

Good collateral information obtained from institutional files is essential for conducting valid psychopathy assessments (Hare, 1991; see also Hart, Cox, & Hare, 1995; Roy, 1988). Institutional files from provincial institutions tended to be much less comprehensive than were the institutional files from federal institutions. This includes information from psychological and psychiatric reports, past and current social history, and details regarding the index offense.

Data from two of five samples were from provincial institutions. Consequently, the impact of less comprehensive provincial files could have influenced the validity of the psychopathy ratings. The psychopathy ratings were reliable, as was described earlier.
However, reliable psychopathy ratings do not guarantee valid psychopathy assessments. Indeed, Hare (1998) emphasizes that highly reliable psychopathy ratings can be made that nonetheless lack validity.

There is some evidence that psychopathy ratings from at least one of our provincial samples were not typical of those obtained from other institutions. The Oakalla 1985 - 1986 sample was the only provincial sample in our study with PCL/PCL-R ratings. In their paper examining the factor structure of the PCL-R, Hare et al. (1990) concluded that PCL-R item scores from this Oakalla sample “did not produce a [factor] solution congruent with any of the other four samples” (p. 340). Consequently, Hare et al. excluded this sample from pooled-factor solutions. These findings suggest that the psychopathy ratings from provincial samples may differ in important ways from psychopathy ratings from federal samples. Perhaps the file information from these provincial samples was not detailed enough to provide psychopathy assessments that were as valid as those obtained from the federal institutions. Taken together, these results suggest that psychopathy can be a useful predictor of recidivism provided that institutional files are sufficiently detailed and that raters are sufficiently trained to make reliable and valid psychopathy ratings.

4.2.2. Obtained Criminal Records Are Not Representative

Two factors suggest that many of the criminal records we obtained are not representative of the inmate samples from which they were drawn. First, we obtained far fewer criminal records for inmates who were assessed more than 15 or 20 years ago than for those who were assessed less than 15 years ago. For the British Columbia Penitentiary
sample, for example, we obtained criminal records for just over half (57.8%) of those requested (see Table 3). Given that we do not know why the records are listed as “Not On File” by the CSC computer system, it is difficult to determine the likely bias of the records obtained and the implications for interpreting the results.

Second, inmates for whom we obtained criminal records for the two provincial samples are not likely to be representative of the inmates who were initially assessed by our laboratory. We were only able to request criminal records from CSC for inmates who had been issued FPS identification numbers. FPS identification numbers are only issued to inmates who have served time in federal correctional facilities. Approximately half of our provincial inmates did not have FPS numbers, and we therefore did not request criminal records for them. For those inmates serving time in provincial institutions at the time of their psychopathy assessment, we do not know how representative those with FPS numbers were relative to those without FPS numbers. It seems reasonable to expect that inmates who have been given sentences of two years or longer had more serious patterns of criminal offending than did those who have received sentences of less than two years. The possibility that the provincial offenders for whom we obtained criminal records were particularly persistent and serious offenders is supported by the results of the survival analyses. The two Oakalla samples were reconvicted at the fastest and highest rate relative to the other three samples. One way to determine if our provincial inmates adequately represented those whom we initially assessed on psychopathy would be to obtain, code, and compare provincial criminal records for all inmates.
Because of the above problems of unrepresentative criminal records obtained for older and provincial samples, results from the two contemporary federal samples should be given more weight when the results are interpreted. Despite the nonrepresentative nature of the obtained criminal records, the pattern of results for the older samples and for the provincial samples was similar to the pattern of results for the two contemporary federal samples. The above considerations notwithstanding, inmates from provincial samples and from samples studied more than 15 or 20 years ago represent a small (< 25%) proportion of our entire sample.

4.2.3. Matsqui (1986 - 1995) PCL-R Ratings Are Of Questionable Reliability And Validity

For the recidivism analyses, the medium and high PCL-R groups for the Matsqui (1986 - 1995) sample were much more similar to each other than were the medium and high PCL groups for the Mission sample (see Tables 8 to 11, and Figures 7 and 9). The similar recidivism findings for these two groups is unexpected, particularly for violent recidivism, in which the medium and high PCL-R groups are typically distinguished clearly from each other (Hemphill, Hare, et al., 1998; Salekin et al., 1996). The poor discrimination between the medium and high PCL-R groups in the Matsqui (1986 - 1995) sample might reflect the quality of the PCL-R ratings and a “drift” in assessment standards that has occurred in our laboratory in more recent years.

PCL ratings at Mission were conducted by a core set of raters who were carefully trained and clinically experienced, whereas PCL-R ratings at Matsqui (1986 - 1995) were
conducted by many raters who were less trained and clinically experienced. The impact on
the reliability and validity of the PCL-R scores from using poorly trained raters who
conducted few assessments for relatively short periods of time is unclear. However, if the
lack of discrimination between the medium and high PCL-R groups in the Matsqui sample
reflects the quality of the PCL-R ratings, then it emphasizes the importance of using properly
trained and qualified ratings for making applied clinical decisions.

Despite the potential for the PCL-R scores for the Matsqui (1986 - 1995) sample to be
of poorer quality than those for the Mission sample, it is important to emphasize that these
scores still emerged in the discriminant function analyses as among the best predictors of
both general recidivism and violent recidivism. Had the PCL-R ratings been conducted by
better trained and more experienced raters, then there likely would have been an even
stronger association between PCL-R scores and recidivism.

4.2.4. Inmates Who Did Not Recidivate Were Purged From The
Computerized Database Of Criminal Records

As discussed below in section 4.3.2.2.1., there is some evidence to suggest that some
criminal records for inmates from the current study were purged from the computerized
database if they were not reconvicted during the followup period. This means that
proportionately more criminal records for the low PCL/PCL-R group than for the high
PCL/PCL-R group were not obtained. The result on the research findings of this selective
attrition would be to increase the percentage of inmates in the low PCL/PCL-R group who
had reoffended and to reduce the differences in recidivism among the three PCL/PCL-R
groups. Consequently, differences among the psychopathy groups found in the current study likely represent conservative estimates of the actual differences in recidivism that exist among the three PCL/PCL-R groups.

4.3. Limitations Of The Current Study

There are three important limitations to the current study. First, the current samples were constricted in that they were composed of male inmates, most of whom were White, from British Columbia. This could limit the generalizability of the findings to samples different from those of the current samples. Second, there is evidence to suggest that the inmates who were prospectively followed-up are not perfectly representative of those who were initially assessed. Several potential biases that may influence the representativeness of the composition of the samples are explored. These biases consistently indicate that the results from the current study probably underestimate the true association that exists between the predictor variables and recidivism. Third, there are important limitations to exclusively coding recidivism from criminal records. These limitations are examined and areas for future research are discussed.

4.3.1. Sample Compositions Were Constricted

The current samples were all composed of male inmates, the majority of whom were White, from British Columbia. Despite important differences in crime rates between men and women (Johnson, 1986), among different races, and among geographical areas in Canada (e.g., Carrington & Moyer, 1994; Fedorowycz, 1997; Statistics Canada, 1996), there are three
reasons that the results from the current study will likely apply to offenders other than those studied here.

First, the association between psychopathy and recidivism has been found in diverse samples. These include forensic and civil samples, psychiatric and nonpsychiatric samples, samples of men and women, samples of adolescents, and samples of Blacks and First Nations individuals (see reviews by Hart, 1998a; Hemphill, Hare, et al., 1998; Salekin et al., 1996).

Second, similar patterns of criminal convictions have been observed in other samples of offenders. Violent crimes, for example, make up only a small proportion of all criminal offenses (Nuffield, 1982; Statistics Canada, 1996). And, even though men and women are charged with crimes at very different rates, their pattern of charges are remarkably similar. If the 19 crime categories that Johnson (1986) presents are rank-ordered from most to least common for men (see Table 1.4 in Johnson, 1986) and for women (see Table 1.3), and a correlation is computed between these sets of values, then the resulting correlation is $r = .91$. The number and percentage of charges for prostitution, the one offense that might be expected to yield among the largest discrepancy, was similar for both men and women. Between 1975 and 1984, women received 11,481 charges and men received 6,512 charges for prostitution. These values represent 1.3% of women's charges and 0.1% of men's charges.

Third, variables identified here as important predictors of violent recidivism—psychopathy, age, past history of violent convictions—make theoretical and intuitive sense. (However, cutpoints or particular variable weights [see Table 15] that help clinicians identify individuals who are at high or low risk to reoffend might need to be modified according to
the sample). Moreover, similar variables predict reoffending among different institutional settings (Bonta, Law, & Hanson, 1998; Harris et al., 1993; Monahan & Steadman, 1994b; Rice & Harris, 1992, 1997; Rice, Harris, Lang, & Bell, 1990). All of these factors, combined with results from the current study that were generally consistent across samples and institutions, suggest that the current results will apply to other samples.

4.3.2. Inmates Who Were Followed-Up May Not Be Representative Of Those Who Were Initially Assessed

Among the inmates who were initially assessed for the current study, there are two main sources of potential bias that may influence the representativeness of the inmates who were prospectively followed. First, inmates who were released may not be representative of those who were assessed. Second, inmates for whom criminal records were obtained may not be representative of those who were assessed.

4.3.2.1. Inmates Who Were Released May Represent A Biased Sample

The first source of potential bias concerns the composition of inmates who were released relative to the inmates who were initially assessed. This source of bias is particularly important for samples that are obtained from federal correctional institutions and that have short followup periods. Inmates serving federal terms have been sentenced to at least two years and many inmates have been sentenced to periods of time that are considerably longer. Approximately 24% of males and 37% of females incarcerated in federal institutions are
serving sentences for homicide or attempted murder, and another 18% of males and 11% of females are serving sentences for sexual assault or serious assault (Robinson, Porporino, Millson, Trevethan, & MacKillop, 1998). Of these inmates who have been sentenced to lengthy terms, many will not have been released by the end of the followup period (e.g., Hemphill, 1992) and will therefore have been excluded from the followup study. The exclusion of inmates who are serving the longest sentences is often a problem whenever recidivism is defined as a new conviction following release from prison.

4.3.2.2. Inmates For Whom Criminal Records Were Obtained May Represent A Biased Sample

The second source of potential bias concerns the unrepresentative nature of the criminal records that were obtained and coded. In particular, inmates with no criminal activities recorded on their criminal records for a period of time may have had their records removed from the computerized database; results indicated that inmates who were first assessed several decades ago had proportionately fewer criminal records on file than those who were first assessed more recently; and inmate groups may systematically die at different rates and therefore may have their criminal records removed from the database at different rates.

4.3.2.2.1. Inactive Criminal Records Are Likely Purged

Criminal records were obtained for over 80% of the inmates for whom the records were requested, and most of the remaining 20% of the criminal records were not available because they were listed by CSC as "Not on file" (see Table 3). It seems reasonable to expect
that many criminal records were not available because the inmates' criminal records had become inactive for a period of time during the followup period and were subsequently purged from the computerized database. Perhaps the inmates who were purged from the database had not been convicted of new offenses during the followup period or perhaps they had been officially pardoned. In any case, if the inactive criminal records were purged, then proportionately more criminal records should be available for those inmates who committed a new offense during the followup period than for those who did not commit a new offense. This means that the recidivism rates for the samples in the current study should be higher than the recidivism rate for a nationally representative sample of federal inmates.

Recidivism rates are consistent with this expectation and indicate that the criminal records that were obtained for the current study represent a disproportionately high percentage of recidivists. General recidivism rates at three years, estimated from survival analyses, were 72.8% for the Matsqui (1986 - 1995) sample and 60.0% for the Mission (1978 - 1985) sample. These rates are higher than the 48.7% general recidivism rate found at three years for a federal sample of 3,267 male inmates (Bonta et al., 1996).

The percentages of criminal records that were not obtained for the low, medium, and high psychopathy groups are also consistent with the view that more criminal records were missing for inmates who were not reconvicted during the followup period. For example, previous research for the Mission sample found that the low PCL group reoffended at the lowest rate and that the high PCL group reoffended at the highest rate (Hart et al., 1988a). Results for the current study presented earlier (see Table 4) indicated that proportionately fewer criminal records were obtained for inmates in the low PCL group than for those in the
medium or the high PCL groups. Taken together, these findings suggest that proportionately fewer criminal records were obtained for inmates who did not reoffend during the followup period.

4.3.2.2.2. Older Samples Have Higher Attrition Rates

The long followup period is both a strength and a weakness of the current study. On the one hand, the long followup period increases the probability that many serious and persistent criminal offenders will have been released by the time the current study was conducted. On the other hand, the long followup period is associated with a relatively high attrition rate for inmates who were initially assessed many years ago (see Table 3). This high attrition rate is of potential concern if it is not random across groups and if it influences the generalizability of the findings.

4.3.2.2.3. Death Rates May Differ Among Groups

One important factor to consider when conducting prospective followup studies, particularly for researchers who use long followup periods or who study older inmates, is the impact that nonrandom deaths within groups may have on the interpretation of research results.

Some inmates who have died may have their criminal records removed from the computerized database after a period of time. If the criminal records are not available, then it is difficult to determine whether or not the inmates have been convicted of new offenses during the followup period. Consequently, it is also difficult to determine the impact that this might have on the interpretation of the research results.
In contrast, other inmates who have died may still have their criminal records available in the computerized database. Unfortunately, criminal records often do not indicate whether or not an inmate has died. It is therefore difficult to distinguish noncriminal behaviors from death for inmates who are not reconvicted over long periods of time. Given that many inmates are reconvicted relatively quickly after release, binary measures of general recidivism may be influenced little by inmates who die. However, death rates may influence interpretations of reconvictions for continuous measures such as the number of offenses committed, or for offenses such as violent or sexual offenses that often first occur many years after release from prison.

If there are differential death rates among psychopathy groups during followup periods—and this seems quite plausible--then this could be of potentially significant concern because it might influence the interpretation of results regarding the differences in recidivism among the psychopathy groups. Psychopaths are impulsive risk-takers who are much more likely than are nonpsychopaths to engage in activities that might place them at higher risk of dying accidentally or by their own negligence. Therefore, psychopaths might die younger than nonpsychopaths. Consequently, psychopaths may appear to have desisted from crime if researchers rely exclusively on their criminal records. It would be very useful to determine which inmates in our samples were dead or alive when the criminal records were requested, and for those inmates who died to obtain the dates of death and to incorporate these dates into the statistical analyses. If psychopaths die at higher rates than do nonpsychopaths, then the results from the current study may provide conservative estimates of the true differences that exist among the psychopathy groups.
4.3.3. Recidivism Was Coded From Criminal Records

The many indices of criminal history and recidivism were coded from criminal records. However, criminal records have several significant limitations: only crimes that come to official attention are included, conviction information provides few details regarding the context of offenses and may in fact be misleading, and many psychopaths’ crimes may go undetected because of their nomadic lifestyles.

4.3.3.1. Only Crimes That Result In Convictions Are Coded

Convictions that appear on criminal records are clearly not representative of all crimes. Rather, they represent crimes that are identified or reported by citizens to the police, that police investigate and lay charges, that lawyers prosecute, and that courts and the judicial system convict (for examples of this “winnowing effect” at various stages of the criminal justice system, see Dutton, 1987, and Hood & Sparks, 1970). White collar crime is greatly underrepresented, even though the monetary value involved in the crimes may be considerable.

Even the most serious of crimes are not accurately represented by conviction statistics. For example, in Detroit in 1972, 20 husbands were convicted of killing their wives and 9 wives were convicted of killing their husbands. These official conviction statistics would belie the fact that more wives in Detroit in 1972 actually killed their husbands, but proportionately more wives’ cases than husbands’ cases were dismissed without a trial (p. 15, Daly & Wilson, 1988). Similarly, more than 100 solved homicides in 1980 in Miami, Florida were not prosecuted, even though many were committed against victims who were “neither
armed nor threatening" (p. 15, Daly & Wilson, 1988). These findings clearly illustrate that conviction statistics do not exactly reflect criminal behaviors.

**4.3.3.2. Conviction Titles Can Be Misleading**

It is difficult to determine the actual nature and context of convictions when they are tabulated from criminal records. More serious offenses are commonly plea bargained to lesser offenses, and conviction names are not particularly revealing. Consequently, simply categorizing offenses by their offense titles may not accurately identify what happened during the offense. For example, an individual convicted of theft also might have engaged in a good deal of threatening and violent behavior. Conversely, an individual convicted of assault might have engaged in relatively trivial behavior that caused little or no psychological or physical harm to the victim. A researcher using descriptive titles to categorize an offense would typically code the first offense as a nonviolent “theft” and the second offense as a violent “assault”.

To circumvent this limitation of little or misleading information conveyed by offense titles, researchers may obtain detailed information regarding the offenses. Police reports, sentencing information and judges’ comments, and victim impact statements can all provide valuable sources of information regarding the context of the offense. However, coding information of this type is not practical for large-scale research projects spanning decades. As a compromise, researchers often code detailed information from the index or current offense and supplement this with criminal records for coding past offenses.
4.3.3.3. Psychopaths' Crimes May Go Undetected

Psychopaths lead a nomadic lifestyle and roam from place to place without any clear plans or direction (Hare, 1991; for empirical evidence, see Cooke, 1998). Therefore, compared to nonpsychopaths, psychopaths who move from one jurisdiction to another are much more difficult to track. Crimes committed by psychopaths in other jurisdictions might not be captured by one conviction data base but might be captured by other conviction data bases. This situation is particularly problematic for researchers who rely on official estimates of recidivism but who do not have access to centralized computer databases and cooperation among neighboring regions. Fortunately, at least in principle, Canada has an integrated system of maintaining criminal convictions. The fact that psychopaths are nomadic suggests that recidivism estimates derived from official convictions will yield conservative estimates of failure rates for psychopaths relative to those of nonpsychopaths.

Taken together, these factors indicate that there are clear limitations to coding recidivism from official statistics. However, there are strengths and weaknesses to all indices of criminal and antisocial behavior, from self-reports and large-scale surveys to official conviction information (O'Brien, 1985). Using information derived from a variety of approaches helps us gain a better understanding of the full magnitude of antisocial and criminal behaviors.

The nonrepresentative nature of criminal convictions means that results from the current study are most directly applicable to crimes that culminate in convictions. The
findings will not apply well to offenders such as arsonists or to non-White offenders who are poorly represented or to crimes that do not result in official convictions.

4.4. Implications Of The Findings For Clinical And Research Practice

The current study has six implications for clinical and research practice. First, results are consistent with the view that psychopathy is an important factor for assessing risk to be reconvicted. Second, in addition to measuring static risk factors such as psychopathy, clinicians might improve assessments of risk by considering dynamic variables. Third, researchers should consider using multiple indices to measure recidivism. Fourth, broad measures of criminal behavior seem to adequately represent conviction details available on criminal records. Fifth, researchers should tailor the length of study followup to the type (general, violent, sexual) of recidivism measured. Sixth, violent recidivism can be accurately predicted provided that followup periods are sufficiently long.

4.4.1. Psychopathy Is An Important Risk Factor

Results from the current study support the large body of literature (for reviews, see Hart & Hare, 1997; Hemphill, Hare, et al., 1998; Salekin et al., 1996) indicating that psychopathy is an important factor for assessing risk to be reconvicted and that it may be particularly important for assessing risk to commit future violence. Indeed, Hart (1998b) has concluded that “Psychopathy must be considered a central part of any comprehensive assessment of risk for violence because it is empirically related to future violence, it is theoretically important in the explanation of violence, and it is pragmatically relevant in
making decisions about risk management. Indeed, psychopathy is such a robust and important risk factor for violence that failure to consider it may constitute professional negligence” (p. 133).

4.4.2. Risk Assessments Can Be Improved By Including Dynamic Predictors Of Theoretical Importance

The PCL/PCL-R is designed to measure a static or stable constellation of personality characteristics. Each psychopathy assessment is based on information that has accumulated for a particular individual across his or her lifetime. As a personality disorder, psychopathy represents an enduring pattern of interpersonal, affective, and behavioral characteristics exhibited in a wide range of social and personal contexts and that are inflexible and maladaptive. Consequently, transient changes in behavior will not influence a psychopathy rating of a particular individual. It is because of the presumed stability of the construct that ratings of psychopathy are considered useful predictors of offending even decades after release from prison.

Even though static variables are among the best predictors of recidivism (Blumstein et al., 1986), the accuracy and quality of risk assessments can perhaps be improved by assessing dynamic variables that can change across time and that reflect contextual circumstances. In recent years, researchers and clinicians have emphasized the importance of conducting comprehensive assessments to identify criminogenic needs of inmates and then to select intervention strategies that are tailored to the particular criminogenic needs, abilities, and social and familial environments of inmates (Andrews, Bonta, & Hoge, 1990; Bonta,
Psychopathy, Criminal History, And Recidivism

1996; Hoge & Andrews, 1996; Zamble & Porporino, 1990). These investigators posit a causal relationship between dynamic risk factors and reoffending, and they contend that recidivism rates will decrease if these risk factors are addressed directly.

Zamble and Porporino (1990) empirically demonstrated the importance of assessing both static and dynamic factors when assessing risk for recidivism. In prison, they interviewed 133 inmates on three occasions over one and a half years. They quickly discovered that most inmates they interviewed could not cope effectively with everyday problems (e.g., relationships, money), and that their efforts to cope often exacerbated problems. Rarely did inmates employ deliberate, systematic problem-solving approaches; instead, they acted impulsively and vengefully. Zamble and Porporino followed-up 77 of these inmates for one year. Static variables such as number of convictions, previous time spent in prison, and early age at first conviction, were important predictors of recidivism. Moreover, dynamic variables such as living life day-by-day, spending little time in the institutional cell, and thinking frequently about the past, were associated with recidivism. They interpreted these findings within a coping skills deficit framework.

In a more recent study, Zamble and Quinsey (1997) selected a group of male federal inmates (N = 311) from the Ontario region who were reconvicted for a serious offense or offenses following a previous prison term. Responses from these inmates to structured clinical interviews and to questionnaires were compared with another group of inmates (N = 36) who were not reconvicted during their period of parole supervision. Compared with the nonrecidivists, recidivists reported experiencing more problems with interpersonal conflict, substance abuse, and financial resources, and rated these problems as more severe, than did
nonrecidivists. On a set of hypothetical vignettes designed to measure coping skills, recidivists provided responses consistent with the view that they coped less effectively with diverse problems, and exacerbated problems or created new problems, than did nonrecidivists. These poorer coping skills, combined with regular substance abuse, lifestyle instability, increasingly dysphoric emotions following release from prison, and failure to clearly anticipate negative consequences for their criminal behavior, were associated with an increased risk to be reconvicted. These differences on dynamic measures between recidivists and nonrecidivists were maintained even after statistically controlling for age, total number of criminal convictions, and social desirability.

Particular antecedents were associated with different types of crimes. For example, inmates who were convicted for assaults reported problems with interpersonal conflicts, impulsiveness, and limited self-awareness, whereas inmates who were convicted for robberies reported problems with finances, dysphoric emotions, and substance abuse (Zamble & Quinsey, 1997; see also Agnew, 1990; Howell, Reddon, & Enns, 1997).

Taken together, these results indicate that theoretically derived dynamic variables, such as those offered by the coping skills deficit framework, offer considerable promise for improving assessments of risk to reoffend. Static risk factors such as psychopathy may help clinicians identify individuals who are at risk to reoffend, but dynamic variables may have more direct implications for clinical interventions, rehabilitation programs, and release supervision.
4.4.3. Multiple Indices Of Recidivism Should Be Measured

Investigators have frequently suggested that researchers use several sources of information to identify the criterion variables of antisocial and violent behavior. In addition to obtaining information from criminal records, for example, researchers might supplement this with information obtained from collateral informants and self-report measures. The importance of using several sources of information is illustrated by the study conducted by Klassen and O'Connor (1987, cited in Monahan & Steadman, 1994a). They found that predictive accuracy could be increased by 27.8% by including patient self-reports of violence. These findings indicate that many false positive prediction "errors" may actually be correct predictions of violent behavior.

Results from the current study indicate that not only are several measures of recidivism desirable from different sources of information, but that several measures of recidivism are desirable from one source of information. The various measures of recidivism coded from criminal records were not highly correlated in the current study. For example, intercorrelations among the four measures of general recidivism ranged from .27 to .75, and intercorrelations among the three measures of violent recidivism ranged from .53 and .79 (see Table 6). Despite the fact that all measures were coded from the criminal records, the poor intercorrelations indicate that each measure of recidivism is clearly not redundant with respect to the others. Despite this, many researchers prefer to use binary (yes, no) outcome measures because of their simplicity and because of their contention that "simple dichotomies
of outcome have been found to perform as well as more sophisticated methods among correctional populations . . .” (p. 322, Harris et al., 1993).

The relatively small intercorrelations among each of these ostensibly similar measures of recidivism has important implications for research. These findings suggest that researchers should use several measures of recidivism when conducting research. This is particularly likely to be true when base rates of recidivism are very high or very low because the range of recidivism scores is restricted. For example, even though the rate of general recidivism in the current study was almost 85%, we obtained a correlation of .75 between the number of convictions and number of different crime categories for which inmates were convicted. Continuous measures rather than dichotomous measures of recidivism are more likely to yield statistically significant results for samples with base rates that deviate substantially from 50%.

4.4.4. Broad Categories Adequately Reflect Criminal Convictions

Our analyses of frequency counts for detailed crime categories suggest that relatively “crude” or broad measures of criminal behaviors are probably sufficient for studying criminal behaviors that are derived from criminal records. More detailed crime categories may be unnecessary because a small number of broad crime categories account for the vast majority of offending and because many detailed crime categories occur infrequently. Moreover, as discussed previously, conviction descriptions on criminal records often do not accurately reflect the nature of the crimes. Broad categories of criminal convictions may capture the
essence of the criminal behavior almost as accurately as more detailed coding schemes but with greater parsimony.

Detailed coding schemes of recidivism or criminal behavior will likely require access to much more information than is available from criminal records. In fact, detailed coding schemes may be necessary to gain a better understanding of subgroups of offenders. For example, researchers and clinicians who work with sexual offenders would benefit from information derived not only from criminal records but also from self-report measures and interviews with sexual offenders and collateral informants. The goal of this type of research would be to reveal subgroups of sexual offenders who have particular patterns of sexual fantasies, factors that place them at risk to reoffend, opportunities to reoffend, and reoffending patterns. Clinicians could then develop and implement appropriate intervention and management strategies.

4.4.5. Researchers Should Tailor Length Of Study Followup To The Type (General, Violent, Sexual) Of Recidivism Measured

Results from the current study indicate that—at least for binary (yes, no) measures of recidivism coded from criminal records—the appropriate length of followup for a research study depends to a large extent on the type (e.g., general, violent, sexual) of recidivism that the researcher is interested in measuring. Studies involving general recidivism as the criterion variable will require far shorter followup periods than will studies involving violent recidivism or sexual recidivism as the criterion variable.
Inmates tend to be first reconvicted quickly—often within one year—after they are released from prison (e.g., Hart et al., 1988a; Hemphill, 1992; Leschied, Austin, & Jaffe, 1988; Ross et al., 1992; Serin & Amos, 1995; Visher, Lattimore, & Linster, 1991). For example, in their federal sample of 311 male recidivists, Zamble and Quinsey (1997) found that almost two-thirds were reconvicted within six months and that more than 80% were reconvicted within one year. The survival curves in Figures 3 to 9 indicate that few inmates are first reconvicted beyond five years. Taken together, these findings indicate that followup periods of one year are appropriate for researchers who are interested in measuring general recidivism from criminal records, and that few gains in statistical power are achieved by extending followup periods beyond five years.

Survival curves in Figures 3 to 9 estimate times taken for inmate groups to be first reconvicted. Given that the vast majority of convictions tend to be for nonviolent offenses (see Table 12), the survival curves primarily estimate times taken to be first reconvicted of nonviolent offenses. Results from the current study indicate that researchers interested in studying violent recidivism will require much longer followup periods than those interested in studying general recidivism.

During a 3-year followup period, Nuffield (1982) found that the base rate of violent recidivism was less than 15%. For the current study, during an average 11-year followup period and using a similar definition of violent recidivism, the base rate was approximately 50%. Quinsey et al. (1995; see Figure 1 in their paper) found violent recidivism base rates of similar magnitudes, and across time they found a clear monotonic and linear trend for inmates to receive their first conviction for violent recidivism many years after release. Taken
together, these findings indicate that researchers interested in studying violent recidivism should have followup periods lasting at least five years for the base rate to be sufficiently high (e.g., ≥ 30%) to permit statistical analyses to distinguish among groups.

Researchers interested in measuring sexual recidivism will require long followup periods and will probably be restricted to studying previously identified sexual offenders. Indeed, in a quantitative review of sexual offenders, Hanson and Bussière (1998) found a sexual recidivism base rate of less than 15% (13.4%, N = 23,393) during an average followup period of four or five years. Among general samples of inmates, the base rate of sexual recidivism is expected to be considerably lower (e.g., 5.3% across samples in the current study).

In summary, researchers measuring recidivism coded from criminal records will probably require different lengths of followup depending on the type (general, violent, sexual) of recidivism that they are studying. It is recommended that researchers studying general recidivism followup inmates between one and five years, those studying violent recidivism followup inmates for more than five years, and those studying sexual recidivism followup previously identified sexual offenders for more than five years.

4.4.6. Violence Can Be Predicted

Nuffield’s (1982) statements that recidivism cannot be predicted with sufficient accuracy among large samples of Canadian federal offenders, and that past violent behaviors do not predict future violent behaviors, was overly pessimistic. Results from the current study indicate that violent recidivism can be predicted accurately provided that followup periods
are sufficiently long. In fact, convictions for past violent behaviors—along with psychopathy scores and age variables—were among the best predictors of future violent behaviors. Two-thirds of inmates were correctly classified into violent (yes, no) groups in the construction and cross-validation samples using five weighted predictor variables.

The conclusion that violent recidivism can be predicted is consistent with that of contemporary research on the prediction of violence, as is the conclusion that past violent behavior is among the most important predictors of future violence (e.g., Harris et al., 1993; Rice & Harris, 1997). However, the direction of the association between past violence and recidivism in the current study is in the opposite direction of that found by researchers who constructed the Violence Risk Appraisal Guide (VRAG; Harris et al., 1993; Rice & Harris, 1997). The VRAG is among the best-constructed and best-validated actuarial instruments designed to predict violent recidivism. These researchers found a negative correlation ($r = -.16$) between degree of victim injury in the index offense and violent recidivism, and a negative correlation ($r = -.11$) between having a female victim in the index offense and violent recidivism. As Hemphill, Hare, et al. (1998) contend, these inverse associations would seem to apply best to inmates who commit violent crimes within a domestic context and to apply poorly to inmates who commit violent predatory crimes with little emotional involvement against strangers. These counterintuitive findings emphasize the importance of selecting predictor variables that make theoretical sense rather than simply selecting predictor variables that have a statistical association with recidivism.
5. References


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Table 1

Descriptive Statistics (Means, Standard Deviations) of The Hare Psychopathy Checklist Scales And Subscales, And The Percentage Of Inmates Assigned To Each Psychopathy Group

<table>
<thead>
<tr>
<th>Psychopathy measure</th>
<th>1-3 global (n = 270)</th>
<th>1-7 global (n = 63)</th>
<th>PCL (n = 291)</th>
<th>PCL-R (n = 554)</th>
<th>All (N = 1,178)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous psychopathy analyses (means, standard deviations)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td>--</td>
<td>26.98 (8.41)</td>
<td>24.94 (6.95)</td>
<td>--</td>
</tr>
<tr>
<td>Factor 1</td>
<td>--</td>
<td>--</td>
<td>10.98 (3.96)</td>
<td>9.29 (3.58)</td>
<td>--</td>
</tr>
<tr>
<td>Factor 2</td>
<td>--</td>
<td>--</td>
<td>13.94 (5.08)</td>
<td>12.25 (3.41)</td>
<td>--</td>
</tr>
<tr>
<td>Group psychopathy analyses (% in each group)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>44.1</td>
<td>22.2</td>
<td>26.8</td>
<td>21.3</td>
<td>27.9</td>
</tr>
<tr>
<td>Medium</td>
<td>13.7</td>
<td>46.0</td>
<td>41.2</td>
<td>49.1</td>
<td>38.9</td>
</tr>
<tr>
<td>High</td>
<td>42.2</td>
<td>31.7</td>
<td>32.0</td>
<td>29.6</td>
<td>33.2</td>
</tr>
</tbody>
</table>

Note: Standard deviations are enclosed in parentheses. PCL = Psychopathy Checklist (Hare, 1980); PCL-R = Psychopathy Checklist-Revised (Hare, 1991); -- = not applicable.
Table 2

Reliabilities Of The Hare Psychopathy Checklist And The Hare Psychopathy Checklist-Revised Scales And Subscales

<table>
<thead>
<tr>
<th>Reliability measure</th>
<th>PCL</th>
<th>PCL-R</th>
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<tr>
<td>Alpha coefficient</td>
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<tr>
<td>Total</td>
<td>.90</td>
<td>.85</td>
</tr>
<tr>
<td>Factor 1</td>
<td>.84</td>
<td>.84</td>
</tr>
<tr>
<td>Factor 2</td>
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<td>.74</td>
</tr>
<tr>
<td>Mean interitem correlation coefficient</td>
<td>(n = 291)</td>
<td>(n = 554)</td>
</tr>
<tr>
<td>Total</td>
<td>.29</td>
<td>.23</td>
</tr>
<tr>
<td>Factor 1</td>
<td>.37</td>
<td>.40</td>
</tr>
<tr>
<td>Factor 2</td>
<td>.39</td>
<td>.25</td>
</tr>
<tr>
<td>Interrater correlation coefficient</td>
<td>(n = 315)</td>
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</tr>
<tr>
<td>Total</td>
<td>n/a</td>
<td>.81</td>
</tr>
<tr>
<td>Factor 1</td>
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<td>.71</td>
</tr>
<tr>
<td>Factor 2</td>
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<td>.80</td>
</tr>
<tr>
<td>Intraclass correlation coefficient--single rating</td>
<td>(n = 315)</td>
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</tr>
<tr>
<td>Total</td>
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<td>.80</td>
</tr>
<tr>
<td>Factor 1</td>
<td>n/a</td>
<td>.71</td>
</tr>
<tr>
<td>Factor 2</td>
<td>n/a</td>
<td>.80</td>
</tr>
<tr>
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</table>

Intraclass correlation coefficient—averaged rating (n = 315)

<table>
<thead>
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<th>Total</th>
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<th>.90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>n/a</td>
<td>.85</td>
</tr>
<tr>
<td>Factor 2</td>
<td>n/a</td>
<td>.90</td>
</tr>
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Group analyses for three and two psychopathy groups (n = 315)

Chi-square

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</thead>
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<td>Three groups (df = 4)</td>
<td>n/a</td>
<td>214.97*</td>
</tr>
<tr>
<td>Two groups (df = 1)</td>
<td>n/a</td>
<td>127.58*</td>
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Phi

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</thead>
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<td>Three groups (df = 4)</td>
<td>n/a</td>
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<td>Two groups (df = 1)</td>
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Kappa

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<td>Three groups (df = 4)</td>
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<td>.54</td>
</tr>
<tr>
<td>Two groups (df = 1)</td>
<td>n/a</td>
<td>.64</td>
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</table>

Note: PCL = The Hare Psychopathy Checklist (Hare, 1980); PCL-R = The Hare Psychopathy Checklist-Revised (Hare, 1991); n/a = data not available to conduct analyses.

*p < .001.
Table 3

**Number And Percentage Of Criminal Records Obtained For Each Sample Relative To Those Requested**

<table>
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<tr>
<th>Assessment years</th>
<th>Institutions</th>
<th>No. criminal histories</th>
<th>Wrong inmate, could not verify, deported</th>
<th>FPS Sheet &quot;Not On File&quot;</th>
<th>Criminal records obtained (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964 - 1968</td>
<td>BC Pen.</td>
<td>83</td>
<td>3</td>
<td>32</td>
<td>57.8</td>
</tr>
<tr>
<td>1969 - 1971</td>
<td>Matsqui</td>
<td>92</td>
<td>0</td>
<td>41</td>
<td>55.4</td>
</tr>
<tr>
<td>1974 - 1977</td>
<td>Oakalla</td>
<td>156</td>
<td>0</td>
<td>52</td>
<td>66.7</td>
</tr>
<tr>
<td>1978 - 1985</td>
<td>Mission</td>
<td>291</td>
<td>0</td>
<td>59</td>
<td>79.7</td>
</tr>
<tr>
<td>1985 - 1986</td>
<td>Oakalla</td>
<td>77</td>
<td>3</td>
<td>11</td>
<td>81.8</td>
</tr>
<tr>
<td>1986 - 1995</td>
<td>Matsqui</td>
<td>504</td>
<td>5</td>
<td>31</td>
<td>92.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
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<td><strong>11</strong></td>
<td><strong>226</strong></td>
<td><strong>80.3</strong></td>
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*Note: FPS = Fingerprint Services; BC Pen. = British Columbia Penitentiary.*
Table 4

Percentage Of Criminal Records Obtained For Each Sample And Psychopathy Group Relative To Those Requested

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<td>Psychopathy group</td>
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<td>Oakalla</td>
<td>Mission</td>
<td>Oakalla</td>
<td>Matsqui</td>
</tr>
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<tr>
<td>Low</td>
<td>32</td>
<td>59.4</td>
<td>36</td>
<td>50.0</td>
<td>65</td>
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<td>Medium</td>
<td>12</td>
<td>50.0</td>
<td>12</td>
<td>66.7</td>
<td>42</td>
<td>59.5</td>
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<td>High</td>
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<td>59.0</td>
<td>44</td>
<td>56.8</td>
<td>49</td>
<td>73.5</td>
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### Table 5

Descriptive Statistics (Means, Standard Deviations) Of Age At Release, Length Of Followup, And Age At The Date Of Data Collection, For Five Samples

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</thead>
<tbody>
<tr>
<td>BC Pen.</td>
<td>28.95 (6.91)</td>
<td>24.75 (5.85)</td>
<td>31.81 (9.05)</td>
<td>26.43 (6.49)</td>
<td>30.54 (7.39)</td>
</tr>
<tr>
<td>Oakalla</td>
<td>28.08 (5.13)</td>
<td>21.01 (1.50)</td>
<td>13.84 (3.80)</td>
<td>10.50 (0.47)</td>
<td>5.86 (2.55)</td>
</tr>
<tr>
<td>Mission</td>
<td>57.26 (5.28)</td>
<td>45.94 (6.22)</td>
<td>45.96 (8.00)</td>
<td>37.17 (6.62)</td>
<td>36.68 (7.57)</td>
</tr>
</tbody>
</table>

**Note:** Sample ns are, respectively, 42, 101, 223, 63, and 415. BC Pen. = British Columbia Penitentiary.
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<tr>
<th>Types and measures of recidivism</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<td>.34</td>
<td>.53</td>
<td>.27</td>
<td>.44</td>
<td>.24</td>
<td>.35</td>
</tr>
<tr>
<td>2. Number of convictions</td>
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<td>.36</td>
<td>.30</td>
<td>.36</td>
<td>.35</td>
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<td>3. Number of categories</td>
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<td>.37</td>
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<td>.40</td>
<td>.60</td>
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<td>4. CCP slope during followup</td>
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<td>.31</td>
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<td>Violent recidivism</td>
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<td>5. Dichotomous (yes, no) measure</td>
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<td>6. Number of convictions</td>
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<td>7. Number of categories</td>
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Note: CCP = Criminal Career Profile (Templeman, 1995; Wong et al., 1998). N = 844.
Table 7

Correlations Between Psychopathy Scores (Total, PCL/PCL-R Factors 1 and 2) And Measures Of General Recidivism And Violent Recidivism For Five Samples

<table>
<thead>
<tr>
<th>Measure of recidivism and sample</th>
<th>Psychopathy measure</th>
<th>Total psychopathy score</th>
<th>PCL/PCL-R Factors</th>
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<tbody>
<tr>
<td></td>
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<td>3-point global</td>
<td>42 .12 .46</td>
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</tr>
<tr>
<td>Oakalla 1974 - 1977</td>
<td>3-point global</td>
<td>58 .06 .66</td>
<td></td>
</tr>
<tr>
<td>Oakalla 1974 - 1977</td>
<td>7-point global</td>
<td>43 .25 .11</td>
<td></td>
</tr>
<tr>
<td>Mission 1978 - 1985</td>
<td>22-item PCL</td>
<td>221 .35 &lt;.001 .17* .42**</td>
<td></td>
</tr>
<tr>
<td>Oakalla 1985 - 1986</td>
<td>20-item PCL-R</td>
<td>59 -.08 .55 -.08 -.11</td>
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</tr>
<tr>
<td>Matsqui 1986 - 1995</td>
<td>20-item PCL-R</td>
<td>401 .18 &lt;.001 .08 .30**</td>
<td></td>
</tr>
<tr>
<td>Average (weighted)</td>
<td>824</td>
<td>.21&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.10</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----</td>
<td>----------------</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Number of convictions</strong></td>
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<td></td>
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<td>BC Pen. 1964 - 1968</td>
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<tr>
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<td>.25</td>
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### Psychopathy, Criminal History, And Recidivism

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<td>.14</td>
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**Violent recidivism**

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**Number of convictions**
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<td>&lt;.001</td>
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<td>43</td>
<td>.17</td>
<td>221</td>
<td>.36</td>
<td>&lt;.001</td>
<td>.24**</td>
<td>.38**</td>
<td>.07</td>
<td>.11</td>
<td>.06</td>
<td>.07</td>
<td>.13</td>
<td>.22*</td>
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<td>Average (weighted)</td>
<td>42</td>
<td>.16</td>
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<td>.33</td>
<td>43</td>
<td>.17</td>
<td>221</td>
<td>.36</td>
<td>&lt;.001</td>
<td>.24**</td>
<td>.38**</td>
<td>.07</td>
<td>.11</td>
<td>.06</td>
<td>.13</td>
<td>.22*</td>
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</table>
Note: PCL = The Hare Psychopathy Checklist (Hare, 1980); PCL-R = The Hare Psychopathy Checklist-Revised (Hare, 1991); BC Pen. = British Columbia Penitentiary.

The correlation from each study was weighted by its N - 3 degrees of freedom (see Rosenthal, 1991, formula 4.13).
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<td>Recidivism rate (%)</td>
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<td>BC Pen. 1964 - 1968</td>
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<td>Recidivism rate (%)</td>
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<td>Oakalla 1974 - 1977</td>
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<td>95.8</td>
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<tr>
<td>Mission 1978 - 1985</td>
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<td>Oakalla 1985 - 1986</td>
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<td>Recidivism rate (%)</td>
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<td>Matsqui 1986 - 1995</td>
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<td>Recidivism rate (%)</td>
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**Note:** BC Pen. = British Columbia Penitentiary
Table 9

Mean Number Of Convictions For General Recidivism And Violent Recidivism During The Followup Period For The Low, Medium, and High Psychopathy Groups For Five Samples

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</tr>
<tr>
<td>Overall</td>
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<td>n</td>
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<td>355</td>
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<td>BC Pen. 1964 - 1968</td>
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<td>Mean</td>
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</tr>
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<tr>
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<td>12.79</td>
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<td>11.24</td>
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<tr>
<td>n</td>
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<td>24</td>
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<tr>
<td><strong>Mission 1978 - 1985</strong></td>
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<tr>
<td>Mean</td>
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<td><strong>Matsqui 1986 - 1995</strong></td>
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<td>Mean</td>
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Note: BC Pen. = British Columbia Penitentiary; L = low psychopathy group; M = medium psychopathy group; H = high psychopathy group.
Table 10

Mean Number of Crime Categories Convicted For During The Followup Period For The Low, Medium, and High Psychopathy Groups For Five Samples And For General Recidivism And Violent Recidivism

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<td>Medium</td>
</tr>
<tr>
<td>Overall</td>
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<tr>
<td>Mean</td>
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<tr>
<td>Oakalla 1974 - 1977</td>
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<td>24</td>
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<tr>
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</tr>
<tr>
<td>Mean</td>
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<td>3.96</td>
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<tr>
<td>SD</td>
<td>2.91</td>
<td>3.50</td>
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<tr>
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</tr>
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<tr>
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<td>n</td>
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<td>Matsqui 1986 - 1995</td>
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</tr>
<tr>
<td>n</td>
<td>74</td>
<td>203</td>
</tr>
</tbody>
</table>

**Note:** BC Pen. = British Columbia Penitentiary; L = low psychopathy group; M = medium psychopathy group; H = high psychopathy group
### Table 11

**Mean Slopes Of The Criminal Career Profiles During The Followup Period And Across The Entire Criminal Record For The Low, Medium, and High Psychopathy Groups For Five Samples**

<table>
<thead>
<tr>
<th>Institution</th>
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<th>Pairwise</th>
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<td>High</td>
<td>Low</td>
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<td>Overall</td>
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<td></td>
</tr>
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<td>Mean</td>
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<td>14.41</td>
<td>15.69</td>
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<td>Mean</td>
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<td>8.18</td>
<td>15.62</td>
<td>(2, 39)</td>
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<td>15.86</td>
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<td>13.70</td>
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<td>n</td>
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<td><strong>Mission 1978 - 1985</strong></td>
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<td>79</td>
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<tr>
<td><strong>Oakalla 1985 - 1986</strong></td>
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<td>124</td>
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Note: BC Pen. = British Columbia Penitentiary; L = low psychopathy group; M = medium psychopathy group; H = high psychopathy group.
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<thead>
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<th>Crime category code and description</th>
<th>Number of convictions</th>
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<th>% after assessment</th>
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<td>17.43</td>
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<td>52.76</td>
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<td>92.83</td>
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<td>11.5</td>
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<td>18. Fraud--To Obtain Accommodation, Food, Transportation</td>
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<td>56</td>
<td>0.23</td>
<td>99.68</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>03. Sexual Offenses--Prostitution, No Physical Contact</td>
<td>44</td>
<td>0.18</td>
<td>99.86</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>11. Arson</td>
<td>30</td>
<td>0.12</td>
<td>100.00</td>
<td>2.3</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>24,017</strong></td>
<td><strong>100.00</strong></td>
<td><strong>100.00</strong></td>
<td><strong>n/a</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** See Appendix 1 for a detailed list of the crime codes and offenses that comprise each crime category. Crime categories are sorted in descending order by number of convictions. n/a = not applicable.
Table 13

Criminal History Factors And Factor Pattern Loadings For 28 Criminal History Variables

<table>
<thead>
<tr>
<th>Criminal history factor and criminal history variable</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>Five</th>
<th>Six</th>
<th>Seven</th>
<th>Eight</th>
<th>Nine</th>
<th>Ten</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1 -- Theft And Defies Authority Factor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Break and enter</td>
<td>.69</td>
<td>-.09</td>
<td>-.16</td>
<td>.03</td>
<td>-.17</td>
<td>-.13</td>
<td>.12</td>
<td>.08</td>
<td>-.01</td>
<td>.18</td>
</tr>
<tr>
<td>Escape</td>
<td>.65</td>
<td>.13</td>
<td>.06</td>
<td>-.11</td>
<td>.10</td>
<td>.21</td>
<td>-.14</td>
<td>-.09</td>
<td>-.08</td>
<td>.00</td>
</tr>
<tr>
<td>Theft</td>
<td>.63</td>
<td>.16</td>
<td>.09</td>
<td>.13</td>
<td>.22</td>
<td>-.02</td>
<td>.05</td>
<td>.00</td>
<td>.08</td>
<td>-.13</td>
</tr>
<tr>
<td>Possession of property</td>
<td>.62</td>
<td>-.16</td>
<td>.20</td>
<td>.09</td>
<td>-.04</td>
<td>-.07</td>
<td>.32</td>
<td>-.02</td>
<td>.02</td>
<td>-.09</td>
</tr>
<tr>
<td>Court (Post)</td>
<td>.48</td>
<td>.31</td>
<td>-.07</td>
<td>.01</td>
<td>.27</td>
<td>.13</td>
<td>-.03</td>
<td>.02</td>
<td>-.05</td>
<td>.03</td>
</tr>
<tr>
<td>Factor 2 -- Aggressive and Inconsiderate Of Others Factor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assault</td>
<td>-.01</td>
<td>.75</td>
<td>.09</td>
<td>.07</td>
<td>.01</td>
<td>.06</td>
<td>.18</td>
<td>.05</td>
<td>-.01</td>
<td>-.01</td>
</tr>
<tr>
<td>Assault--Physical Harm</td>
<td>.00</td>
<td>.65</td>
<td>.06</td>
<td>-.15</td>
<td>-.04</td>
<td>-.11</td>
<td>.11</td>
<td>.02</td>
<td>.12</td>
<td>-.11</td>
</tr>
<tr>
<td></td>
<td>.06</td>
<td>.57</td>
<td>.04</td>
<td>.16</td>
<td>-.06</td>
<td>.01</td>
<td>-.30</td>
<td>.03</td>
<td>-.10</td>
<td>.05</td>
</tr>
<tr>
<td>----------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>------</td>
<td>-----</td>
<td>------</td>
<td>-----</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>Loitering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vandalism</td>
<td>.18</td>
<td>.46</td>
<td>.11</td>
<td>.10</td>
<td>.00</td>
<td>.00</td>
<td>.40</td>
<td>-.03</td>
<td>.02</td>
<td>.15</td>
</tr>
<tr>
<td>Possession weapon</td>
<td>.12</td>
<td>.37</td>
<td>-.07</td>
<td>.03</td>
<td>.05</td>
<td>.15</td>
<td>-.12</td>
<td>-.22</td>
<td>.30</td>
<td>.06</td>
</tr>
<tr>
<td>Court (Pre)</td>
<td>.25</td>
<td>.35</td>
<td>.04</td>
<td>.34</td>
<td>.16</td>
<td>-.01</td>
<td>.35</td>
<td>.06</td>
<td>.07</td>
<td>-.06</td>
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</table>

**Factor 3 -- Driving Convictions Factor**

<table>
<thead>
<tr>
<th></th>
<th>-.06</th>
<th>.02</th>
<th>.75</th>
<th>.06</th>
<th>.03</th>
<th>-.13</th>
<th>-.06</th>
<th>.07</th>
<th>.10</th>
<th>.10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving suspended</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dangerous driving</td>
<td>.25</td>
<td>.06</td>
<td>.72</td>
<td>-.02</td>
<td>-.07</td>
<td>-.03</td>
<td>.07</td>
<td>-.09</td>
<td>.00</td>
<td>-.09</td>
</tr>
<tr>
<td>Driving impaired</td>
<td>-.10</td>
<td>.15</td>
<td>.58</td>
<td>.00</td>
<td>.17</td>
<td>.14</td>
<td>.27</td>
<td>.06</td>
<td>-.12</td>
<td>.15</td>
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</table>

**Factor 4 -- Drug Factor**

<table>
<thead>
<tr>
<th></th>
<th>-.10</th>
<th>-.03</th>
<th>.01</th>
<th>.80</th>
<th>-.04</th>
<th>-.13</th>
<th>-.07</th>
<th>-.14</th>
<th>-.05</th>
<th>-.03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug possession</td>
<td>.12</td>
<td>.14</td>
<td>.02</td>
<td>.71</td>
<td>.02</td>
<td>.07</td>
<td>.17</td>
<td>.02</td>
<td>.03</td>
<td>-.05</td>
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</table>

**Factor 5 -- Fraud Factor**

<table>
<thead>
<tr>
<th></th>
<th>.01</th>
<th>.04</th>
<th>.02</th>
<th>.01</th>
<th>.80</th>
<th>-.05</th>
<th>-.02</th>
<th>.04</th>
<th>.02</th>
<th>-.02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraud--Food</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fraud</td>
<td>.13</td>
<td>-.09</td>
<td>.04</td>
<td>.00</td>
<td>.75</td>
<td>.03</td>
<td>.04</td>
<td>-.05</td>
<td>.00</td>
<td>.00</td>
</tr>
</tbody>
</table>

**Factor 6 -- Stealing With Confrontation Factor**
<table>
<thead>
<tr>
<th></th>
<th>Robbery</th>
<th>Weapon use</th>
<th>Obstruction</th>
<th>Theft of car</th>
<th>Factor 7--(Factor not interpreted)</th>
<th>Factor 8--Sexual Offending Factor (“Murder and Deaths” category excluded)</th>
<th>Factor 9--Kidnapping Factor</th>
<th>Factor 10--Arson Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.02</td>
<td>.02</td>
<td>-.05</td>
<td>.00</td>
<td>.02</td>
<td>.82</td>
<td>-.07</td>
<td>-.09</td>
</tr>
<tr>
<td></td>
<td>.01</td>
<td>.00</td>
<td>-.01</td>
<td>-.04</td>
<td>-.06</td>
<td>.69</td>
<td>.05</td>
<td>-.06</td>
</tr>
<tr>
<td>Obstruction</td>
<td>.13</td>
<td>.11</td>
<td>.17</td>
<td>.06</td>
<td>.01</td>
<td>-.02</td>
<td>.63</td>
<td>-.12</td>
</tr>
<tr>
<td>Theft of car</td>
<td>.41</td>
<td>.09</td>
<td>.33</td>
<td>-.06</td>
<td>.06</td>
<td>.01</td>
<td>-.51</td>
<td>-.17</td>
</tr>
<tr>
<td>Sex With Contact</td>
<td>-.16</td>
<td>.04</td>
<td>.01</td>
<td>-.14</td>
<td>-.11</td>
<td>-.06</td>
<td>-.18</td>
<td>.68</td>
</tr>
<tr>
<td>Sex With No Contact</td>
<td>.09</td>
<td>.03</td>
<td>.00</td>
<td>.01</td>
<td>.08</td>
<td>-.10</td>
<td>.06</td>
<td>.67</td>
</tr>
<tr>
<td>Murder</td>
<td>-.19</td>
<td>.15</td>
<td>-.01</td>
<td>-.38</td>
<td>-.08</td>
<td>-.33</td>
<td>-.09</td>
<td>-.41</td>
</tr>
<tr>
<td>Kidnapping</td>
<td>-.07</td>
<td>.02</td>
<td>.06</td>
<td>.03</td>
<td>-.08</td>
<td>.12</td>
<td>-.13</td>
<td>.07</td>
</tr>
<tr>
<td>Threatening</td>
<td>.02</td>
<td>.06</td>
<td>-.03</td>
<td>.07</td>
<td>.14</td>
<td>-.09</td>
<td>.24</td>
<td>-.09</td>
</tr>
<tr>
<td>Arson</td>
<td>-.04</td>
<td>.00</td>
<td>.09</td>
<td>-.07</td>
<td>-.04</td>
<td>-.08</td>
<td>-.04</td>
<td>-.07</td>
</tr>
</tbody>
</table>
Note: Factor loadings were computed using principal components factor analysis with varimax rotation. Criminal history variables within each factor are sorted in descending order of magnitude by their absolute factor loadings. Absolute loadings $\geq .35$ are underlined. $N = 693$. 

Psychopathy, Criminal History, And Recidivism
<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>General recidivism</th>
<th>Violent recidivism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at release following the PCL/PCL-R assessment</td>
<td>-.97</td>
<td>-1.27</td>
</tr>
<tr>
<td>Age when the criminal record was obtained</td>
<td>.60</td>
<td>.80</td>
</tr>
<tr>
<td>Age at first conviction</td>
<td>-.31</td>
<td></td>
</tr>
<tr>
<td>Theft / Defies Authority Factor</td>
<td>.30</td>
<td>.41</td>
</tr>
<tr>
<td>Drug Convictions Factor</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td>Aggressive / Inconsiderate Of Others Factor</td>
<td>.24</td>
<td></td>
</tr>
<tr>
<td>Stealing With Confrontation Factor</td>
<td>.24</td>
<td></td>
</tr>
<tr>
<td>Fraud Factor</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>Arson Factor</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>PCL/PCL-R score</td>
<td>.17</td>
<td>.39</td>
</tr>
</tbody>
</table>

Table 14

Predictor Variables And Standardized Discriminant Function Coefficients For General Recidivism and For Violent Recidivism
Aggressive / Inconsiderate Of Others Factor .38

Note: Discriminant function coefficients are sorted in descending order of absolute magnitude. PCL = Psychopathy Checklist (Hare, 1980); PCL-R = Psychopathy Checklist-Revised (Hare, 1991). N = 498.
### Table 15

**Scoring Sheet For The Violence Risk Scale**

<table>
<thead>
<tr>
<th>Risk variable</th>
<th>Raw score</th>
<th>Weight</th>
<th>Score (i.e., associated weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Psychopathy Checklist-Revised score</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 19</td>
<td>-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 to 28</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 to 31</td>
<td>+1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 to 40</td>
<td>+3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age (years-old) at release</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 23</td>
<td>+2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 to 27</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 to 36</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37+</td>
<td>-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of convictions for robbery, unlawful or forcible seizure, attempted robbery or forcible seizure, conspiracy to rob, using a weapon, careless or dangerous use of a weapon</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 or 3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4+</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age (years-old) when criminal record obtained</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 46</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47 to 76</td>
<td>-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of convictions for any assaults, causing bodily harm (CBH) or injury, wounding, CBH by criminal negligence, injuring or killing animals, resist arrest, theft with violence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 5</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>+1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7+</td>
<td>+4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUM OF ALL FIVE SCORES**

Note: The percentages of inmates falling within each group who would be expected to violently reoffend (based on N = 622) are as follows:
- 18.4% for those with scores between -12 and -4
- 38.5% for those with scores between -3 and -1
- 57.0% for those with scores between 0 and +1
- 61.3% for those with scores between +2 and +3
- 63.5% for those with scores between +4 and +11
Figure 1. Number Of Psychopathy Assessments (N = 1,203) Conducted Each Year Between 1964 And 1995.
Criminal History (Predictor Variables) (Retrospective)

Index Offense

Recidivism (Criterion Variables) (Prospective)

Date Of Birth

Psychopathy Assessment

Death

Figure 2. Distinguishing Retrospective Criminal History Measures From Prospective Recidivism Measures.
Figure 3. Survival Curves (General Recidivism) For The Low, Medium, And High Psychopathy Groups For Five Samples Combined.
5) BC Penitentiary 1964 - 1968, n = 42
4) Mission 1978 - 1985, n = 223
3) Matsqui 1986 - 1995, n = 415
2) Oakalla 1974 - 1977, n = 101
1) Oakalla 1985 - 1986, n = 63

Figure 4. Survival Curves (General Recidivism) For Five Samples.
Figure 5. Survival Curves (General Recidivism) For The Low, Medium, And High Psychopathy Groups For The British Columbia Penitentiary (1964 - 1968) Sample.
Figure 6. Survival Curves (General Recidivism) For The Low, Medium, And High Psychopathy Groups For The Oakalla (1974 - 1977) Sample.
Figure 2. Survival Curves (General Recidivism) For The Low, Medium, And High Psychopathy Groups For The Mission (1978 - 1985) Sample.
Figure 8. Survival Curves (General Recidivism) for the Low, Medium, and High Psychopathy Groups for the Oakalla (1985 - 1986) Sample.
Figure 9. Survival Curves (General Recidivism) For The Low, Medium, And High Psychopathy Groups For The Matsqui (1986 - 1995) Sample.
Figure 10. Percentage Of Inmates (N = 622), Classified By Their Scores On The Violence Risk Scale, Who Were Convicted Of A Violent Crime During The Followup Period.
Appendix 1

Detailed Crime Codes and Crime Descriptions For Conviction Categories
1. Murder And Deaths
   1.1 Against Others
      1.1.1 Murder
         • murder
         • first degree murder
         • capital murder
         • second degree murder
         • noncapital murder
      1.1.2 Manslaughter
         • manslaughter
      1.1.3 Attempted Murder
         1.1.3.1 Attempted Murder
            • attempted murder
         1.1.3.2 Intended To Kill
            • causing bodily harm with intent to end life
            • set trap with intent to cause death or bodily harm
         1.1.3.3 Endangered Life
            • discharge firearm with intent to endanger the life
            • causing bodily harm (with intent) to endanger life
            • administer noxious thing with intent to endanger life
            • endanger life by discharging firearm
            • wilful damage endangering life
            • mischief endangering life
      1.1.4 Counselling and Conspired To Murder
         • counselling to commit murder
         • conspiracy to commit murder
      1.1.5 Accessory To Murder
         • accessory after the fact to murder
         • accessory after the fact of manslaughter
      1.1.6 (Accidental) Deaths
         1.1.6.1 Criminal Negligence
            • cause death by criminal negligence
            • criminal negligence causing death
         1.1.6.2 Motor Vehicle
            • dangerous operation of a motor vehicle causing death
         1.1.6.3 Impaired Driving
            • impaired driving causing death
            • driving while ability impaired causing death
   1.2 Against Self
      • attempted suicide

2. Dangerous Offenders
   2.1 Dangerous Sexual Offender
      • application for preventive detention as a dangerous sexual offender
   2.2 Dangerous Offender
• application for preventive detention as a dangerous offender

3. Sexual Offences

3.1 Against Children Or Vulnerable Individuals

3.1.1 Physical Contact

3.1.1.1 Extrafamilial

• sexual contact with a child
• indecent assault on a 13 year-old boy
• assault with intent to have sexual intercourse with girl
• sexual intercourse with female not wife and under 14 years old
• sexual interference
• sexual assault and sexual interference
• break and enter and commit sexual interference
• sexual interference with female under 14 years of age
• (sexual) intercourse (assault) with female (person) under 14 (16) years of age
• sexual intercourse with female between 14 and 16 years of age
• sexual touching
• touch for sexual purpose

3.1.1.2 Intrafamilial

• incest
• sexual intercourse with female under 14 years and incest
• sexual intercourse with foster daughter (stepdaughter) (stepdaughter or female employee)
• abduction of female and acts of gross indecency
• attempted incest and incest

3.1.1.3 Vulnerable Individuals

• intercourse with an imbecile
• sexual intercourse (sex) with feeble minded (female)
• indignity to dead body

3.1.2 Attempted, Intended, Or Threatened Physical Contact

3.1.2.1 Extrafamilial

• attempted sexual intercourse with female under 14 years of age
• attempted sexual assault on female under 14 years of age
• attempted sexual interference

3.1.2.2 Intrafamilial

• attempted incest

3.1.3 Prostitution And Procuring

• living on avails of juvenile prostitution
• living on avails of prostitution of youth
• living on the avails of prostitution of a person under the age
• juvenile prostitution
• procuring youth for sex
• parent or guardian procuring

3.1.4 No Physical Contact
• possession of child pornography
• exposure to person under 14 years of age
• sexual counselling child
• invitation to sexual touching

3.2 Against Adults
3.2.1 Physical Contact

3.2.1.1 Aggravated, With Weapon Used Or Present, With Threats

3.2.1.1.1 Aggravated Sexual Assault and Cause Bodily Harm
• choke to assist sexual assault
• sexual assault causing bodily harm
• causing bodily harm (to complainant) while committing sexual assault
• break and enter and commit sexual assault causing bodily harm
• aggravated sexual assault
• break and enter and commit aggravated sexual assault

3.2.1.1.2 Weapon Used
• sexual assault with a weapon
• use weapon in committing a sexual assault
• break and enter and commit sexual assault with a weapon

3.2.1.1.3 Weapon Present
• sexual assault while carrying a weapon
• sexual assault threatening use of weapon
• sexual assault with threats to use weapon
• threaten to use weapon in committing sexual assault

3.2.1.1.4 Threats
• sexual assault with threats (to a third party)

3.2.1.2 Without Threats and/or Weapon
3.2.1.2.1 Sexual/Indecent Assault
• assault with intent to commit gross indecency
• rape (without consent)
• rape and overcoming resistance
• rape and gross indecency
• sexual assault (on a female) (on a male)
• sexual assault and assault
• party to the offence of sexual assault
• sexual intercourse (with a female) without consent
• sexual intercourse
• indecent assault (on a male) (on a female)
• sexual intercourse with a female not being his wife without consent
• sexual intercourse with person not his wife
• anal intercourse
• buggery
• bestiality
• buggery or bestiality (and gross indecency)

3.2.1.2.2 While Committing Another Offence
• break and enter and commit rape
• break and enter and commit sexual (indecent) assault (on female)
• break and enter in a dwelling house and commit indecent assault on a female

3.2.2 Attempted, Intended, Or Threatened Physical Contact

3.2.2.1 Attempted
• attempted anal intercourse
• attempted buggery (or bestiality)
• attempted indecent assault (on a female)
• attempted rape
• attempt to commit sexual assault
• attempted rape and assault causing bodily harm
• attempted rape and robbery with violence
• attempted sexual assault with threat of a weapon
• attempted sexual assault with a weapon
• break and enter and commit attempted rape

3.2.2.2 Intended
• administer stupefying drug with intent to commit sexual assault
• assault with intent to commit buggery
• break and enter with intent to commit indecent assault on female

3.2.2.3 Threatened
• uttering threats and gross indecency

3.2.3 Prostitution, Procuring, Bigamy, and Bawdy House

3.2.3.1 Soliciting/Prostitution
• soliciting
• engaging in prostitution
• aiding and abetting prostitution
• aiding and abetting female to engage in prostitution
• aiding in prostitution
• communicate for the purpose of (engaging in) prostitution
• communicate to engage in prostitution
• attempt to live off the avails of prostitution
• attempt to obtain sexual services
• live off avails
• live off (on) the avails of prostitution

3.2.3.2 **Procuring**
• attempt to procure
• procuring for the purpose of gaining control
• procuring
• sexual exploitation

3.2.3.3 **Bigamy**
• bigamy

3.2.3.4 **Bawdy House**
• found in common bawdy house
• keep a (common) bawdy house
• permitting use of place as common bawdy house
• knowingly conceals a person in a common bawdy house
• householder permitting sexual activity

3.2.3.5 **Procuring An Abortion**
• attempt to procure an abortion

3.2.4 **No Physical Contact**
3.2.4.1 **Telephone Calls**
• (make) indecent telephone calls
• obscene telephone calls

3.2.4.2 **Pornography**
• possession of obscene pictures for purpose of distribution
• make obscene matter
• use of mail to deliver obscene mail

3.2.4.3 **Exposure/Nudity**
• indecent exposure
• nudity

3.2.4.4 **Indecent Act**
• indecent act
• (wilfully) do an indecent act
• indecent acts (in public place) (with intent) (to insult)
• (acts of) (party to the offence of) gross indecency

4. **Physical Assaults And Threats**
4.1 **Assault Cause Bodily Harm**
4.1.1 **Aggravated**
• aggravated assault
4.1.2 **Cause Bodily Harm**
• cause bodily harm
• assault causing bodily harm
• unlawfully cause bodily harm
• assault causing bodily harm and possession of a weapon
• possession of a weapon and assault causing bodily harm
• aggravated assault causing wound
• wounding

4.1.3 Cause Bodily Harm With Intent
• (assault) causing bodily harm with intent
• causing injury with intent
• causing bodily harm with intent (to wound) (to disfigure) (to maim) (to wound maim or disfigure)
• wounding with intent

4.1.4 Cause Bodily Harm While Commit Other Offences
• break and enter and commit aggravated assault
• break and enter and commit assault causing bodily harm
• possession of stolen property over $200 and assault causing bodily harm

4.1.5 Use A Weapon
• assault with a weapon
• assault with a weapon and mischief

4.1.6 Overcoming Resistance / Choke To Assist Self To Commit An Offence
• overcoming resistance
• overcoming resistance to commission of an (indictable) offence
• overcome resistance to commission of the offence choking
• choke to overcome resistance (to an offence)
• choke
• choke with intent

4.1.7 Intent To Harm
• assault with intent to wound
• assault with intent to harm

4.1.8 Criminal Negligence
• causing bodily harm by criminal negligence
• criminal negligence causing bodily harm

4.2 Assault Not (Clearly) Cause Bodily Harm

4.2.1 Assault
• assault
• assault with intent
• common assault
• unlawfully commit assault

4.2.2 Spousal Assault
• spousal assault

4.2.3 Assault Peace Officer/ Resist Arrest
• assaulting a peace officer
• assault a peace (police) officer (with intent)
• assault a peace officer with intent to resist arrest
• assault with intent to (resist arrest) (resist lawful arrest) (prevent detention)
• assault with intent to resist arrest or prevent the lawful arrest
• assault person aiding a peace officer
• resist arrest
• resist a peace officer
• resist or obstruct public or peace officer
• assault by resisting arrest

4.2.4 Assault While Commit Other Offences
• assault with intent to commit an indictable offence
• assault with intent to commit robbery
• assault with intent to commit theft
• assault with intent to steal
• break and enter and (commit) assault
• break and enter with intent and assault
• break and enter with intent to commit assault bodily harm
• break and enter and commit mischief and assault
• break and enter and commit assault with a weapon
• assault and theft
• common assault and carry a concealed weapon
• theft with violence
• theft under $1,000 and assault
• assault with intent to steal
• possession of property obtained by crime over $1,000 and assault
• obstruct peace officer and assault
• common assault and cause disturbance
• mischief and assault
• driving while and assault

4.2.5 Administer Noxious Thing
• administer noxious thing
• administer noxious thing with intent
• administer noxious thing with intent to aggrieve

4.3 Extortion and Intimidation
• extortion
• extortion with intent
• intimidation
• attempted extortion
• conspire to extort money
• conspire to commit extortion

4.4 Forceful Prison Break
• prison breach with violence
• break out after committing assault

4.5 **Injuring or Killing Animals**
• cruelty to animals
• injure animal
• injuring or endangering other animals
• causing unnecessary suffering to animals
• kill dog
• killing cattle
• unlawfully kill animal
• killing, injuring or endangering other animals
• killing, injuring or endangering other animals and possession of a weapon

4.6 **Threats and Harassment**

4.6.1 **Threats To Injure or Kill**
• threatening to cause death or injury
• threatens damage or injury
• threat of death or bodily harm
• threaten to shoot peace officer
• utter threats to kill
• uttering threats of death
• uttering threats to cause death or bodily harm
• threats to injure

4.6.2 **Threats**
• threats
• threatening
• (writing) threatening letters
• assault by threatening
• utter a threat
• uttering threats
• uttering threats serving
• uttering threats and carrying a concealed weapon

4.6.3 **Threats by Telephone**
• make threatening phone calls
• threatening telephone calls (to cause death or injury)
• threatening letters or telephone calls to cause death
• threatening letters and (or) telephone calls
• utter threats by telephone
• uttering threats by telephone
• harassing telephone calls

4.6.4 **False Messages (To Harass)**
• false messages
• convey false message
• false telephone messages
4.6.5 Watching Individual To Intimidate
- watching and besetting
- watch and beset

4.6.6 Harassment
- criminal harassment

4.7 Attempted or Conspiracy To Commit
- attempt to commit assault
- attempt to assault peace officer
- attempted assault on female
- council to commit aggravated assault
- conspiracy to commit assault (causing bodily harm) (with intent to steal)
- conspiracy to assault peace officer
- traps likely to cause bodily harm
- attempt to choke (and strangle) (or strangle another person) (suffocate or strangle another person) (with intent) (strangle or suffocate with intent)
- attempt to choke with intent to overcome resistance
- attempt to overcome resistance to commission of an offence
- break and enter with intent to commit assault bodily harm

5. Kidnap, Abduction, Hijack

5.1 Against Children
5.1.1 Committed
- abduct(ion) (of a person [child] [female] under 14 [16] years of age) (of female under 16 years of age)
- abduction
- abduction of female

5.1.2 Attempted
- attempted abduction

5.2 Against Adults
5.2.1 Committed
5.2.1.1 Hostage Taking
- hostage taking
- take hostage and utter threats

5.2.1.2 Kidnapping, Seizing
- kidnapping (with intent)
- kidnapping with intent to hold for ransom
- break and enter and commit kidnapping
- forcibly seize a person
- confines forcibly seizes another person

5.2.1.3 Confine, Detain
- forcible confinement
- unlawful confinement
- unlawfully confine (another person) (female)
- forcibly detain
• detain female against her will
• (gain) exercise control

5.2.2 Attempted or Conspiracy To Commit
• attempted kidnapping
• attempted unlawful confinement
• conspiracy to (commit) kidnapping
• conspiracy to commit forcible confinement

6. Robbery

6.1 Committed

6.1.1 Robbery
• robbery
• armed robbery
• assault and robbery
• assault with intent to rob
• robbery (with violence) (while armed) (while armed with offensive weapon) (with threats of violence) (and carrying a concealed weapon) (and possession of a weapon) (with intent to steal)
• robbery with violence for the purpose of extorting

6.1.2 Forcible Seizure
• forcible seizure
• unlawful seizure
• (unlawfully) forcibly seize
• without lawful authority forcibly seizes
• forcible seizure and false pretences

6.1.3 While Commit Other Offence
• break and enter and theft and robbery
• break and enter and commit robbery

6.2 Attempted, Conspiracy To Commit, or Accessory

6.2.1 Attempted
• attempted (armed) robbery
• attempt to commit (armed) robbery
• attempted robbery while armed (with offence weapon)
• attempted robbery with violence
• attempted forcible seizure

6.2.2 Conspiracy
• conspire to robbery
• conspiracy to commit (armed) robbery
• conspiracy of armed robbery
• counselling to commit armed robbery
• counselling another person to commit robbery
• counselling armed robbery not committed

6.2.3 Masked or Disguised
• disguised with intent to commit robbery
6.2.4 Accessory
- accessory to commit indictable offence of robbery
- accessory after the fact to armed robbery
- party to offence of armed robbery

7. Weapons Offences
7.1 Firearms and Explosives
7.1.1 Use
7.1.1.1 Explosives
- using explosive
- causing injury with explosives
7.1.1.2 Use Firearm
- using a firearm
- (unlawful) use of a firearm (during commission of an offence) (while committing an indictable offence)
- using a firearm to commit an (indictable) offence
- use a firearm while committing an (indictable) offence
- using a firearm during commission of an (indictable) offence
- using firearm while committing (armed) robbery
- use of firearm while attempting to commit robbery
- using a firearm during flight (and after committing an indictable)
- use firearm during flight after committing or attempting
7.1.1.3 Careless or Dangerous Use of Firearm
- careless use of a firearm (or ammunition)
- use firearm without reasonable precautions
- dangerous use of a firearm (while committing an indictable offence)
- use a firearm in a dangerous manner
- use firearm in a manner dangerous to others
- handle firearm in a dangerous manner
- careless handling of a firearm (or ammunition)
- careless handling or use of firearm
- fail to use reasonable care in handling an explosive
- point a firearm (at another person)
- unlawfully point firearm
- point pistol
- discharge a firearm (dangerous to public) (with intent)
  (with intent to wound)
- discharge firearm without permission

7.1.2 Possession
7.1.2.1 Explosives
- possession of an explosive (substance)
- possession of explosive without lawful excuse
• possession of a bomb

7.1.2.2 Firearms
• carry firearm
• possession of a firearm (dangerous to public peace) (in a manner that is dangerous to the safety)
• possession of restricted firearm
• possession of firearms or ammunition
• possession of firearm during commission of an indictable offence
• restricted weapon in a motor vehicle
• possession of a sawed-off (shotgun) (rifle)
• sawed off shotgun
• have firearm in a motor vehicle
• firearm dangerous to public peace

7.1.2.3 Firearms While Prohibited
• possession of (weapon and) ammunition while prohibited
• possession of weapons or ammunition while prohibited
• possession of firearm (or ammunition) while prohibited (by order) (from doing)
• possession of firearm during order prohibiting possession of firearm
• firearm prohibition
• application for firearm prohibition

7.1.2.4 Firearms Without Firearms Acquisition Certificate
• acquire (obtain) a firearm without (a firearms acquisition) certificate
• acquire a firearm while not the holder of firearms acquisition
• borrow firearm without a firearms acquisition certificate
• deliver firearm to person without firearm acquisition certificate
• delivery of restricted weapon to person without a permit
• possession of a restricted weapon
• possession of an unregistered weapon
• possession of an unregistered restricted weapon
• possession of an (unregistered) (unregistered restricted) firearm
• possession of a weapon (firearm) without a firearms acquisition certificate
• possession of a firearm while not the holder of a firearms acquisition certificate
• possession of restricted weapon other than place indicated on registration
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- firearm elsewhere than dwelling house without permit
- fail to comply with firearm permit
- fail to register a restricted weapon
- unregistered firearm in dwelling
- unregistered restricted weapon
- have revolver without a permit
- possession of firearm knowing serial number is altered
- attempt to sell firearm to person without firearms acquisition certificate

7.1.2.5 Careless Storage
- careless storage of a firearm
- unsafe storage of a firearm
- use or store firearm in a careless manner

7.2 Not Firearms or Explosives

7.2.1 Use

7.2.1.1 Use Weapon
- use offensive weapon while (during commission of) committing an indictable offence
- use weapon during commission of an offence

7.2.1.2 Careless Use Of Weapon
- careless use of a weapon

7.2.2 Possession

7.2.2.1 Prohibited
- possession of prohibited
- possession of a prohibited weapon (in motor vehicle)
- possession of a weapon while prohibited (by order)
- prohibited weapon in motor vehicle
- occupant of motor vehicle in which there is a prohibited weapon

7.2.2.2 Concealed
- possession of a concealed weapon
- carrying a concealed weapon
- attempted theft over $200 and carry concealed weapon

7.2.2.3 Possession
- possession of a (n offensive) weapon
- possession of a weapon dangerous to public (peace)
- possession of weapon for a purpose dangerous to public peace
- possession of a weapon dangerous to others
- possession of an offensive volatile substance
- illegal possession of weapon
- possession of imitation weapon
- carry a weapon
- possession of a dangerous weapon
• carrying a weapon dangerous to public peace
• carrying a weapon for purpose dangerous to public peace
• (have) weapon dangerous to public peace
• have weapon
• weapon dangerous
• unlawful possession of a weapon
• possession of switchblade knife
• possession of a weapon and mischief

8. Arson

8.1 Committed

8.1.1 Arson
• arson
• set fire
• set fire to (other) substance
• arson causing damage to property
• wilfully set fire
• wilfully cause a fire
• unlawfully and wilfully set fire
• arson with disregard for human life

8.1.2 While Commit Other Offences
• break and enter and commit arson
• arson for fraudulent purposes
• arson and mischief

8.1.3 Negligence
• set fire by negligence

8.2 Attempted And Conspiracy To Commit
• attempted arson
• conspire to commit arson
• conspiracy of arson

9. Controlled or Restricted Substances

9.1 Trafficking, Importing/Exporting, Selling

9.1.1 Committed

9.1.1.1 Trafficking
• trafficking in drugs
• traffic in a controlled drug (F&D Act)
• traffic in a restricted drug (F&D Act)
• trafficking in substance purported to be a controlled drug
• trafficking in heroin
• trafficking in LSD
• trafficking in marijuana
• trafficking in MDA Food & Drugs Act
• trafficking in mescaline Food & Drugs Act
• unlawfully traffic in narcotics
• traffic in a substance held to be a narcotic
• trafficking in a narcotic (NC Act)

9.1.1.2 Importing/Exporting
• importing and (or) exporting a narcotic
• import a narcotic (into Canada)

9.1.1.3 Possession for Trafficking
• possession of a controlled drug for the purpose of trafficking
• possession of a restricted drug for the purpose of trafficking
• possession of a narcotic for the purpose of trafficking
• unlawful possession of narcotics (heroin) for the purpose of trafficking
• possession for purpose of selling a schedule food drug contrary to...
• possession of heroin for trafficking
• possession of LSD for the purpose of trafficking (FD Act)
• possession of MDA for the purpose of trafficking
• possession of speed for the purpose of trafficking

9.1.1.4 Selling
• unlawfully sell prescription drug
• sell drugs without prescription
• deal in forged prescriptions
• unlawfully sell a drug (F&D Act)
• unlawfully sell drugs Food and Drugs Act
• selling a prescription drug (Schedule F F&D Act)
• sells F schedule drugs
• unlawfully sell a drug under Schedule F Sec. 26 F&D Act
• unlawfully sell a schedule “F” drug (food and drug regulations) (F&D Act)

9.1.2 Conspiracy To Traffic, Import/Export, Sell
• conspiracy to traffic in a controlled drug
• conspiracy to traffic in (heroin) (narcotic) (restricted drug)
• conspiracy to import (or export) a narcotic

9.2 Cultivation and Breach of F&D Act, NC Act
• unlawfully obtain a prescription
• obtain prescription without revealing existence of prescription
• failure to disclose prescriptions
• double doctoring
• breach of the Food and Drug Act
• FD Act
• NC Act
• cultivation of a narcotic (Sec. 6)
• cultivate marijuana
• unlawfully have or sell manufactured tobacco, cigars

9.3 Possession
• possession of a restricted drug (F&D Act)
• (illegal) possession of drugs
• unlawful possession (of a drug)
• possession of cannabis resin
• possession of diacetylmorphine hydrochloride
• (unlawful) possession of heroin
• possession of LSD
• possession of marijuana
• possession of a narcotic and dangerous drugs
• possession of a narcotic
• illegal possession of a narcotic
• possession of a narcotic NC Act
• unlawful possession of a narcotic
• possession of toxic substance (Indian Act)

9.4 Intoxication
• intoxicated on a(n Indian) reserve (Indian Act)
• unlawfully intoxicated on an Indian reserve
• possession of intoxicants on reserve
• possession of a still

10. Driving Offences
10.1 Intoxication
10.1.1 Causing Bodily Harm
• impaired driving causing bodily harm
• driving while (ability) impaired causing bodily harm
10.1.2 More Than 80 mgs In Blood
• drive (driving) with more than (over) 80 mgs of alcohol in blood
• care or control (with) over 80 mgs
• care or (and) control (of motor vehicle) with (excess of) (more than) 80 mgs of alcohol in blood
• care or control of a motor vehicle with more than
• navigate (operate) a vessel with more than 80 mgs of alcohol in blood
10.1.3 Drive While Impaired
• impaired driving
• drive while ability (impaired)
• care and (or) control (of motor vehicle) (of a vehicle) while (ability) impaired
• care or control while ability impaired
• care or control while driving while ability impaired
• driving a motor vehicle while ability impaired
• operate vessel while ability impaired
• driving while intoxicated

10.1.4 Fail To Provide Breath Sample
• fail to provide (breath) sample
• fail to supply breath sample
• fail to comply with demand to provide sample
• refuse breath sample
• refuse to provide sample (of breath)
• refuse to provide breath test
• refuse (refusal) to give (to provide) breath sample
• fail or refuse to provide (breath) sample
• fail to (refuse to) provide breath sample for roadside screening device
• refuse to provide breath sample at (for) roadside test (roadside testing alert)

10.1.5 Criminal Negligence
• drive while ability impaired and criminal negligence in motor

10.2 Dangerous Use Or Operation
10.2.1 Cause Bodily Harm
• dangerous operation causing bodily harm
• dangerous driving causing bodily harm
• dangerous operation of motor vehicle causing bodily harm

10.2.2 Not Cause Bodily Harm
• dangerous driving (of motor vehicle)
• dangerous operation of (a motor vehicle)
• dangerous operation of a vessel
• drove on aircraft area of airport

10.3 Fail To Stop At Scene of An Accident
• fail to stop
• fail to stop at scene of accident
• fail to remain
• fail to remain at scene (of an accident)
• fail to stop after accident
• fail to stop at the scene of a vessel accident
• accessory after the fact of failing to stop at the scene of an accident
• fail to give name and address at scene of an accident

10.4 Drive While Disqualified or License Suspended
10.4.1 License Suspended or Disqualified
• drive (while) under suspension
• driving while right to obtain suspended
• driving a motor vehicle while licence suspended
• drive while (license) suspended
• drive while prohibited
• drive (driving) while disqualified
10.4.2 No License & Miscellaneous
- drive without operator’s licence (Sec. 6 Indian Reserve Traff...)
- drive

10.5 Criminal Negligence
- criminal negligence in operation of (a motor vehicle) (an auto) (vehicle)
  (a motor vehicle causing bodily harm)
- fail to appear and criminal negligence in a motor vehicle
- break and enter with intent and criminal negligence in the operation of
  a...

11. Fraud
11.1 Committed
11.1.1 Fraud
- fraud
- fraud (under $200) (under $1,000) (under $5,000) (over $200)
  (over $1,000) (over $5,000)
- obtain execution of valuable security by fraud
- theft under $1,000 and fraud
- defraud
- did and abet a criminal breach of trust

11.1.2 False Pretences
11.1.2.1 False Pretences
- false pretences
- false pretences (under $50) (under $200) (under $1,000)
  (under $2,000) (under $5,000) (over $50) (over $200) (over
  $1,000)
- fraud and false pretences
- false pretences (with intent) (with intent to defraud)
- false
- uttering and false pretences
- uttering
- uttering and theft
- theft by person required to account (over $200)
- attempted false pretences (over $200) and false
  pretences (under $50) (over $200)
- unlawful possession of stolen credit card and false
  pretences under

11.1.2.2 Obtain Or Possess
- obtain property by false pretences
- obtain by false pretences
- obtain monies by false pretences over $200
- obtain cash by false pretences
- possession of property obtained by crime (over $1,000)
  and false pretences
- possession of goods obtained by false pretences
11.1.2.3 While Committing Other Crimes
- theft (over $200) and false pretences
- theft over $200 and attempted false pretences
- break and enter and theft and false pretences

11.1.3 Credit Card Or Obtain Credit

11.1.3.1 Use
- use a (stolen) credit card
- use (of) credit card (obtained by crime)
- illegal use (stolen) of credit card
- unlawfully use a (stolen) credit card
- improper use of credit card
- use and possess stolen credit card
- use credit card knowing same was obtained by commission of a ...
- use credit card obtain by commission of an offence
- fraudulent use of credit
- fraudulent use of a (stolen) credit card (obtained by crime)
- unlawful use of a (stolen) credit card (obtained by crime)
- unauthorised use of credit card
- use a cancelled credit card
- fraud of credit card
- misuse of credit card

11.1.3.2 Theft
- theft of credit card
- stealing credit card
- unlawfully steals a credit card
- theft or forgery of credit card obtained by crime

11.1.3.3 Obtain Or Possess Credit Card
- (unlawfully) dealing with stolen credit card
- possession of credit card (obtained by crime)
- unlawful possession of a (stolen) credit card
- possession of stolen credit card
- possession or use of stolen credit card
- possession of credit
- fraudulently obtain credit
- obtain credit by fraud
- deal with (stolen) credit card

11.1.4 Forgery

11.1.4.1 Forgery
- forgery
- forgery with intent
- forgery and false pretences
- utter forgery
• deal in forgery
• deal(ing) with (forgery) theft under ($200) and forgery

11.1.4.2 Of Credit Cards
• unlawfully forge a credit card
• forgery of a credit card

11.1.4.3 Of Currency
• possession of counterfeit money
• uttering counterfeit (currency) (money)

11.1.4.4 False Documents
• make false document
• making forged document
• drawing document without authority
• uttering forged document (without authority)
• uttering forged documents and false pretences
• use a forged document
• deal (in) (with) a forged document
• cause a person to act upon a forged cheque
• cause person to act on a forged document
• falsely endorse a document

11.1.4.5 Possession Of Instruments
• possession of forgery instruments
• possession of forgery tools
• possession of instruments used for forgery
• possession of instruments for (of) forgery

11.1.5 False Information
11.1.5.1 Representations Or Statements
• fraudulent concealment
• false statement in writing
• (make) false statement
• make false representation
• false information
• not being permitted knowingly makes false statement
• publish false company balance sheet and income statement
• false statement to procure Firearms Acquisitions Certificate
• false statement to obtain FAC
• false statement to procure passport

11.1.5.2 False Name
• acknowledge bail in false name
• acknowledging instrument in false name

11.1.6 Impersonation
11.1.6.1 Impersonation
• fraudulent personation
• fraudulently personate (with intent)
• fraudulently personate a (living) person
• impersonation
• personation (with intent)
• personate with intent (to gain)
• personation and breach of recognizance

11.1.6.2 Peace Officer
• impersonate peace (police) officer
• personate peace officer
• personating a peace officer
• falsely represent peace officer

11.1.7 To Obtain Accommodation, Food and Transportation
• obtain accommodation by fraud
• obtain (food) (lodging) (food and lodging) by fraud
• obtain transport(ation) by (fraud) (false pretences)
• obtain food, lodging and telephone calls by fraud
• transportation by fraud
• fraud transportation
• fraud in relation to fares
• refuse to pay taxi
• fraudulently obtain food and lodging and false pretences
• fraudulently obtain (accommodation) (food) (lodging) (food and [or] lodging) (transportation)
• fraudulently obtaining transportation by land

11.2 Attempted or Conspiracy To Commit
11.2.1 Attempted—Fraud
• attempted (to commit) fraud (under $1,000) (under $200) (under $1,000) (over $200) (over $1,000)
• attempted fraud
• attempt to defraud

11.2.2 Attempted—False Pretences
• attempted false pretences (under $200) (under $1,000) (under $5,000) (over $200) (over $1,000)
• attempt to obtain (money) by false pretences (over $50)
• attempted uttering

11.2.3 Attempted—Credit Cards
• attempt to use (stolen) credit card
• attempted (fraudulent) use of credit card (obtained by crime)
• conspiracy to use a stolen credit card
• attempt to obtain goods with worthless cheque

11.2.4 Attempted—Forged Documents/Forgery
• attempt to forge a document
• attempt to deal (in) forged documents
• forgery--attempt to deal with
• attempt to deal with forgery
• attempt to utter a forged document
• attempt to use forged document
• attempted (utter) forgery
• attempt person to use forged document

11.2.5 Attempted—Accommodation, Food, Transportation
• attempt to fraudulently obtain food and lodging
• attempt to obtain lodging fraudulently
• attempt to fraudulently obtain transportation

11.2.6 Conspiracy
• conspire to (commit) fraud
• conspiracy to fraud (over $1,000)
• conspiracy to forge and utter cheques

12. Break and Enter

12.1 Committed

12.1.1 Theft
• break and enter and (commit) theft (under $1,000) (over $200)
• break and enter and theft (of) (in) (from) dwelling house
• break and enter and commit an indictable offence
• housebreaking and theft
• shopbreaking and theft

12.1.2 Forcible Entry
• forcible entry
• forcible entry and causing a disturbance
• shopbreaking (with intent)
• housebreaking

12.1.3 Enter Building
• break and enter (with intent) (with intent to steal) (with intent to
commit an indictable offence)
• break and enter and commit (mischief)
• unlawfully enter dwelling (house) (house with intent)
• (being) unlawfully in dwelling (house)
• break and enter dwelling house (with intent)
• break and enter and commit indictable offence
• break and enter and attempt safecracking
• break and enter and safeblowing
• break with intent
• break and enter with intent and carry a concealed weapon

12.1.4 Break Out of Dwelling
• break out
• breaking out
• break out of dwelling
• breaking out of a business
• break out ([and] [after] committing theft) (after committing an indictable offence)
• break out and (commit) theft

12.1.5 Possession Of Instruments
• possession of break-in instruments
• possession of housebreaking (instruments [with intent]) (tools)
• possession of instruments for housebreaking
• possession of burglary tools
• possession of instruments for breaking into coin devices
• possession of instruments (used) for breaking into coin-operated (device) (machine)
• possession of instruments for coin machines
• possession of safebreaking instruments

12.1.6 Disguised or Masked
• disguised while committing an offence
• face masked or disguised while committing an offence
• masked while committing offence
• commit indictable offence while masked
• face masked with intent
• face masked while committing offence
• mask face with intent to commit indictable offence
• disguised with intent (to commit an indictable offence)
• intent to commit an indictable offence while masked

12.2 Attempted or Conspiracy To Commit
12.2.1 Attempted
• attempted break and enter (with intent)
• unlawful attempt to break and enter
• attempt to commit break and enter with intent
• attempted break and enter dwelling house with intent
• attempted break and enter with intent to commit an indictable offence
• attempted forcible entry
• attempted break and enter and theft
• attempted shopbreaking
• attempted break and enter with intent and mischief

12.2.2 Conspiracy
• conspiracy to commit break and enter (and theft) (with intent)
• conspiracy of break and enter and commit
• conspiracy to break and enter with intent

13. Theft and Attempted Theft
13.1 Committed
13.1.1 Motor Vehicle
13.1.1.1 Motor Vehicle
• theft of a motor vehicle (over $200)
• take motor vehicle (without [owner's] consent)
• take vehicle without (owner's) consent

13.1.1.2 Automobile
• theft of auto (over $50) (over $200)
• take auto
• take auto without (owner's) consent
• theft of car
• theft of auto and fraud
• theft of auto and false pretences (under $200)
• theft of auto obtained by false pretences
• selling etc master automobile key

13.1.1.3 Truck or Motorcycle
• theft of truck (over $200)
• theft of motorcycle under $50

13.1.1.4 Boat
• take boat and motor without consent
• take vessel without consent
• theft of vessel without consent

13.1.2 Theft
13.1.2.1 Theft
• theft (under $25) (under $50) (under $100) (under $200)
  (under $1,000) (under $5,000) (over $25) (over $50) (over $200)
  (over $1,000) (over $5,000)
• theft (over $200) and attempted theft
• (theft by) conversion (under $1,000) (over $200)
• crime under $1,000
• theft and possession of narcotics
• theft over $200 and attempted false pretences

13.1.2.2 Of Animals
• unlawful possession of wildlife
• theft of cattle
• theft of horse

13.1.2.3 From Mail
• theft of (from) mail
• unlawfully did steal a quantity of letters

13.1.2.4 Of Telecommunications
• theft of telecommunications (service)

13.2 Attempted or Conspiracy To Commit
13.2.1 Motor Vehicle
• attempted theft of (motor) vehicle
• attempted theft of auto (over $200)
• attempt to take auto without consent (over $200)

13.2.2 Theft
13.2.2.1 Attempted
Psychopathy, Criminal History, And Recidivism

- attempted theft (under $50) (under $200) (under $1,000) (under $5,000) (over $50) (over $200) (over $1,000) (over $5,000)
- attempt to commit theft under $5,000
- attempt to steal
- attempted theft from auto
- attempt to commit theft (under $1,000)
- attempted theft of cattle
- attempted theft (under $200) (under $1,000) and mischief

13.2.2.2 Conspiracy
- conspiracy to (commit) theft (over $200)

14. Possession of Illegal Property

14.1 Committed

14.1.1 Motor Vehicle
- possession of stolen (motor) vehicle
- possession of stolen car
- possession of stolen truck
- possession of (a stolen) auto (over $200)
- possession of stolen property (auto)

14.1.2 Property

14.1.2.1 Property
- possession (over $50)
- possession of stolen property (under $50) (under $200) (under $1,000) (over $50) (over $200) (over $1,000) (over $5,000)
- possession of stolen property obtained by crime
- possession of goods obtained by crime
- possession of stolen goods (under $50)
- possession of property over $200
- possession of property obtained
- possession of property obtained by crime (under) (under $50) (under $200) (under $1,000) (under $5,000) (over $200) (over $1,000) (over $5,000)
- possession of proceeds of crime
- retain stolen property
- unlawfully did have in his possession one key
- possession of stolen property over $200 and failure to appear

14.1.2.2 Imported
- possession of goods unlawfully imported
- possession of smuggled goods of value for duty $200 or over
- bring stolen goods into Canada
- bringing into Canada property obtained by crime
• importation of stolen property

14.1.2.3 Mail
• possession of mail
• possession of stolen mail

14.1.2.4 Clothing
• possession of stolen clothing

14.2 Attempted or Conspiracy To Commit
• conspiracy to possess property obtained by crime (over $1,000)

15. Escape
15.1 Committed
15.1.1 Escape & Break Out
• escape (custody) (lawful custody) (prison)
• unlawful escape
• breaking out of jail
• prison break
• break prison (with intent)
• forcibly break out (of prison) (of jail)
• forcibly break out with intent to escape
• forcible break out of cell
• break prison by force
• break out of prison by force
• escape lawful custody and cause a disturbance

15.1.2 Prison Breach
• prison breach (with intent)
• breach of prison

15.1.3 Unlawfully At Large
• unlawfully at large
• being unlawfully at large

15.2 Attempted or Conspiracy To Commit
• attempt to escape (from prison) (custody) (from lawful custody)
• attempted prison break
• attempted break prison
• attempted prison breach (with intent to escape)
• conspire to prison breach
• conspiracy to commit prison breach (with intent)
• convey instrument into prison to facilitate escape
• intent to set at liberty himself and others confined

15.3 Accessory and Assist
• assist escape (custody)
• assist escape from lawful custody
• assist person to escape
• accessory after the fact of an escape
• rescue or permitting escape
16. Interfering With The Judicial Process and Violating Miscellaneous Acts

16.1 Perjury and Contempt Of Court
   16.1.1 Perjury
   • perjury
   • perjury at immigration inquiry
   • conspiracy to commit perjury
   • conspire to perjury
   16.1.2 False Statements
   • false statement in extra-judicial proceedings
   16.1.3 Contradictory Evidence
   • witness give contradictory evidence
   • giving contradictory evidence in court
   16.1.4 Miscellaneous
   • fabricating evidence
   • contempt of court
   • misconduct of officers executing process
   • attempted bribery

16.2 Uncooperative Witness
   • fail to appear as witness
   • witness refused to be sworn
   • subsequent refusal to testify as a witness

16.3 Violation of Immigration Act
   • violation of Immigration Act
   • breach of Immigration Act
   • return to Canada after being deported (Immigration Act)
   • unlawfully enter Canada after previously being deported
   • illegally return to Canada without permission from Minister
   • return without Minister’s consent
   • enters Canada without approval
   • enter Canada by means of false document
   • unauthorized employment of visitors sec 96 Immigration Act
   • possession of forged passport

16.4 Violation of Miscellaneous Acts
   • fail to comply with duties (Bankruptcy Act)
   • breach of Income Tax Act
   • wilfully evade payment of taxes
   • breach of the Indian Act
   • breach of Radio Act
   • interfere with radio communications
   • possession radio apparatus without licence Radio Act
   • establish radio station without licence--Radio Act
   • breach of the Railway Act
   • breach of Unemployment Insurance Act
17. Obstruction of Justice

17.1 Committed

17.1.1 Obstruct
- obstruction
- obstruct (obstructing) justice
- obstruct person in lawful seizure
- obstruct a peace (police) officer
- wilfully obstruct peace officer
- obstruct or resist peace officer
- fail to comply with demand of a peace officer

17.1.2 Misleading Information
- intent to mislead
- mislead a peace officer
- mislead police officer
- intent to mislead a peace officer
- give false and misleading information to peace officer

17.2 Attempted
- attempt to obstruct (the course of) justice
- attempt to obstruct a peace officer

18. Court Obligations

18.1 Presentencing

18.1.1 Failure To Appear

18.1.1.1 Failure To Appear
- fail to appear
- fail to appear (in) court
- fail to attend
- fail to attend court
- fail to attend court after appearance notice
- fail to appear for trial
- disobey (an) appearance notice

18.1.1.2 For Fingerprinting
- fail to appear for fingerprinting

18.1.1.3 On Own Recognizance / Undertaking
- fail to appear on (a recognizance) (own recognizance) (an undertaking) (on condition of undertaking)
- fail to attend court after recognizance
- fail to appear while at large on recognizance
- fail to appear on undertaking recognizance
- being at large on recognizance
- condition of recognizance

18.1.2 Fail To Comply
- fail to comply
- fail to comply with
- fail to comply with appearance notice
• fail to comply with an order
• fail to comply with (condition of) recognizance
• fail to comply with (undertaking) (conditions of undertaking) (a
court undertaking) (terms of undertaking) (undertaking of justice)

18.1.3 Fail To Pay Bail
• abscond bail
• skip bail

18.1.4 Breach
• breach of recognizance
• breach of undertaking
• disobey undertaking

18.2 Postsentencing—Violations Of Conditional Release

18.2.1 Parole—Revoked
• parole revocation
• parole revoked

18.2.2 Parole
• parole violator

18.2.3 Mandatory Supervision
• Mandatory Supervision suspended
• Mandatory Supervision violator
• statutory (release) violator

18.2.4 Released on Mandatory Supervision
• (released on) Mandatory Supervision

18.2.5 Fail To Comply
• fail to comply with alert demand
• fail to comply with court condition
• fail to comply with demand
• fail to comply with disposition [sec 26 YO Act]
• fail to comply with duties
• fail to comply with (probation) (probation order) (condition of
probation order)

18.2.6 Court Order
• disobey court order
• disobeying order of court
• fail to obey court order

18.2.7 Breach of Juvenile Delinquent’s Act
• breach of the Juvenile Delinquent’s Act

18.2.8 Breach or Violation Of Probation
• violation of probation
• fail probation order
• failed probation order
• breach of
• breach of bond
• breach (of probation [specific offence listed]) (of conditions) (of probation order)

19. Miscellaneous

19.1 Vandalism and Damage

• damage(s)
• damage (not more than $50) ([to] property [under $50]) (to private property)
• damage to public property
• wilful damage (under $50) (over $50) (to [private] property [under $50])
• malicious damage
• mischief by wilful damage
• damage to property over $50
• attempted damage to property over $50

19.2 Mischief

19.2.1 Mischief

• mischief
• commit mischief
• mischief (under $50) (under $1,000) (under $5,000) (over $50) (over $1,000) (over $5,000)
• public mischief (with intent)
• mischief to (private) (public) (other) property
• mischief in relation to public (private) property
• attempted (public) mischief
• attempted mischief to private property

19.2.2 Fire Alarm

• false fire alarm
• false alarm of fire

19.3 Riot

• riot
• take part in riot

19.4 Loitering, Trespassing, and Prowling

• loitering
• loitering on private property
• loiter by (at) night
• trespass
• trespass at (by) night (Railway Act)
• vagrancy
• prowling
• prowl at (by) night
• prowl at night near dwelling house

19.5 Disturb the Peace

• disturbance
• creating a disturbance
• (cause) causing a disturbance
• cause a disturbance in a public place
• disturbing the peace
• cause a disturbance (by being drunk) (by fighting)
• disturbance by fighting
• disturb religious worship

19.6 Common Nuisance
• common nuisance

19.7 Gambling
• recording bets
• cheating at play
• lottery
• offence in relation to lotteries

19.8 Contributing To Delinquency
• contribute to juvenile delinquency
• contributing (JD Act)
• corrupting children

19.9 Miscellaneous
• fail to carry migratory game bird permit while hunting
• illegal use of a military uniform
• operated lobster boat--no fishing license
• non-support
• fail to provide necessities

20. Miscellaneous--Cannot Tell What Is Offence

20.1 Attempted
• attempt to commit a criminal offence
• attempt to commit a summary offence
• attempt to commit an indictable offence

20.2 Counselling To Commit
• counselling
• counsel to commit an offence

20.3 Conspiracy To Commit
• conspiracy
• conspire to commit an offence
• conspiracy to commit an indictable offence

20.4 Accessory
• accessory after the fact
• accessory after the fact to commit an indictable offence
• accessory after the fact in the commission of an indictable
• accessory after the fact (to the commission of an offence) (to a criminal
offence)

20.5 Criminal Negligence
• criminal negligence

20.6 Miscellaneous
• causing
• cc
• contravene
• p
• fail
• fail to
• R
• retaining
• use of
• viol
Appendix 2

Twenty-Nine Crime Categories, Crime Category Codes, And Number Of Convictions For Each Category Before And After Psychopathy Assessments
<table>
<thead>
<tr>
<th>Detailed crime category code (see Appendix 1), and detailed crime category and subcategories</th>
<th>Number convictions before assessment (N = 899)</th>
<th>Number convictions after assessment (N = 844)</th>
<th>Sum of convictions before and after assessment</th>
<th>Crime code</th>
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<tr>
<td>01. Murders and Deaths</td>
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<td>01.1.1. Murder</td>
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<td>02. Sexual Offenses—Physical Contact</td>
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<td>02.1. Dangerous Sexual Offender</td>
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<tr>
<td>03. Sexual Offenses—Prostitution, Procuring, and Sexual Offenses Involving No Physical Contact</td>
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<td>03.2.3.1. Soliciting, Prostitution</td>
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<td>04. Physical Assaults</td>
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<td>04.1.1. Aggravated</td>
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<td>04.1.2. Causing Bodily Harm</td>
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<td>72</td>
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<td>04.1.3. Causing Bodily Harm With Intent</td>
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<td>Offense</td>
<td>04.1.4. CBH While Commit Another Offense</td>
<td>04.1.5. Use A Weapon</td>
<td>04.1.7. Intent To Harm</td>
<td>04.1.8. CBH By Criminal Negligence</td>
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<td>04.1.7. Intent To Harm</td>
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<td>04.1.8. CBH By Criminal Negligence</td>
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<td>04.5. Injuring Or Killing Animals</td>
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<th>04.2.1. Assault</th>
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<td>04.2.4. Assault While Commit Another</td>
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<th>04.3. Extortion and Intimidation</th>
<th>04.4. Forceful Prison Break</th>
<th>04.6.1. Threats To Injure Or Kill</th>
<th>04.6.2. Threats</th>
<th>04.6.3. Threats By Telephone</th>
<th>04.6.4. False Message (To Harass)</th>
<th>04.6.6. Harassment</th>
<th>04.7. Attempted Or Conspiracy To Commit</th>
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18. Fraud--To Obtain Accommodation, Food, Transportation

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19. Break and Enter

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20. Theft and Attempted Theft

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21. Theft Or Possession Of Stolen Motor Vehicle

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<td>14.2. Attempted Or Conspiracy To Commit</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>23. Escape</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.1.1. Escape and Break Out</td>
</tr>
<tr>
<td>15.1.2. Prison Breach</td>
</tr>
<tr>
<td>15.1.3. Unlawfully At Large</td>
</tr>
<tr>
<td>15.2. Attempted Or Conspiracy To Commit</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>24. Interfering With The Judicial Process and Obstruction Of Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.1.1. Perjury</td>
</tr>
<tr>
<td>16.1.2. False Statements</td>
</tr>
<tr>
<td>16.1.4. Miscellaneous</td>
</tr>
<tr>
<td>16.3. Violation Of Immigration Act</td>
</tr>
<tr>
<td>16.4. Violation Of Miscellaneous Acts</td>
</tr>
<tr>
<td>17.1.1. Obstruct</td>
</tr>
<tr>
<td>17.1.2. Misleading Information</td>
</tr>
<tr>
<td>17.2. Attempted</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>25. Failure To Fulfill Court Obligations--Predisposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.1.1.1. Failure To Appear</td>
</tr>
<tr>
<td>18.1.1.2. For Fingerprinting</td>
</tr>
<tr>
<td>18.1.1.3. On Own Recognizance/Undertaking</td>
</tr>
<tr>
<td>18.1.2. Fail To Comply</td>
</tr>
<tr>
<td>18.1.3. Fail To Pay Bail</td>
</tr>
<tr>
<td>18.1.4. Breach</td>
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<td><strong>Total</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>26. Failure To Fulfill Court Obligations--Postdisposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.2.2. Parole</td>
</tr>
<tr>
<td>18.2.3. Mandatory Supervision</td>
</tr>
<tr>
<td>18.2.5. Fail To Comply</td>
</tr>
<tr>
<td>18.2.6. Court Order</td>
</tr>
<tr>
<td>18.2.7. Breach Of Juvenile Delinquent’s Act</td>
</tr>
<tr>
<td>18.2.8. Breach Or Violation Of Probation</td>
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<td><strong>Total</strong></td>
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</table>
### 27. Vandalism and Mischief

<table>
<thead>
<tr>
<th>Category</th>
<th>N1</th>
<th>N2</th>
<th>N3</th>
<th>N4</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.1. Vandalism and Damage</td>
<td>72</td>
<td>8</td>
<td>80</td>
<td>27</td>
</tr>
<tr>
<td>19.2.1. Mischief</td>
<td>375</td>
<td>191</td>
<td>566</td>
<td>27</td>
</tr>
<tr>
<td>19.2.2. Fire Alarm</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>449</td>
<td>200</td>
<td>649</td>
<td>27</td>
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</table>

### 28. Loiter, Trespass, And Disturb The Peace

<table>
<thead>
<tr>
<th>Category</th>
<th>N1</th>
<th>N2</th>
<th>N3</th>
<th>N4</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.4. Loitering, Trespassing, and Prowling</td>
<td>69</td>
<td>8</td>
<td>77</td>
<td>28</td>
</tr>
<tr>
<td>19.5. Disturb The Peace</td>
<td>98</td>
<td>22</td>
<td>120</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>167</td>
<td>30</td>
<td>197</td>
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</tbody>
</table>

### 29. Miscellaneous

<table>
<thead>
<tr>
<th>Category</th>
<th>N1</th>
<th>N2</th>
<th>N3</th>
<th>N4</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.7. Gambling</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>29</td>
</tr>
<tr>
<td>19.8. Contributing To Delinquency</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>29</td>
</tr>
<tr>
<td>19.9. Miscellaneous</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>20.1. Attempted</td>
<td>6</td>
<td>2</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td>20.3. Conspiracy To Commit</td>
<td>27</td>
<td>0</td>
<td>27</td>
<td>29</td>
</tr>
<tr>
<td>20.4. Accessory</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>20.5. Criminal Negligence</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>20.6. Miscellaneous</td>
<td>15</td>
<td>1</td>
<td>16</td>
<td>29</td>
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<tr>
<td>Total</td>
<td>58</td>
<td>7</td>
<td>65</td>
<td>29</td>
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</tbody>
</table>

Total number of convictions: 16,547

Note: CBH = Causing bodily harm; FAC = Firearms Acquisition Certificate; F&C Act = Food and Drug Act; NCA = Narcotics Control Act. Detailed crime categories from Appendix 1 that resulted in no convictions were not included here.