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**The Relationships Between Criminal History, Mental Disorder, and Recidivism
Among Federally Sentenced Female Offenders**

by

Kelley Blanchette

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of
the requirements for the degree of

(Master of Arts)

Department of Psychology

Carleton University
Ottawa, Ontario
January, 1996

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**"THE RELATIONSHIPS BETWEEN CRIMINAL HISTORY, MENTAL
DISORDER, AND RECIDIVISM AMONG FEDERALLY SENTENCED FEMALE
OFFENDERS"**

submitted by **Kelley Blanchette, B.A.**

in partial fulfilment of the requirements for

the degree of Master of Arts

Chair

Thesis Supervisor

January, 1996

Abstract

To examine the prevalence and nature of mental disorder among female offenders, an interview-based instrument, the Diagnostic Interview Schedule (DIS), was administered to 76 federally sentenced women. A multi-wave longitudinal design was used to gather case-specific information at admission, while incarcerated and post-release. Case and criminal history information, actuarial measures and mental health diagnoses (lifetime) were recorded and related to a variety of institutional adjustment (i.e., disciplinary infractions, temporary absences, program participation, discretionary release) and post-release outcome (i.e., revocations, convictions) criteria. Institutional adjustment measures were also related to post-release outcome. A set of eleven predictor variables was generated from a systematic exploration of inter-rater reliability estimates, a series of correlational analyses (simple and partial) and relevance to the investigation. These included: diagnosis of severe mental disorder, antisocial personality, alcohol dependence, drug dependence, employment status prior to offence, history of reliance on social assistance, highest level of education, number of previous convictions, past incarcerations, admitting offence violent, and alcohol/drugs used prior to offence. Stepwise regression analyses revealed that only criminal history variables met the level of significance required for prediction of institutional misconducts and time spent in segregation. However, in addition to criminal history, level of education made a significant contribution to the prediction of violent misconducts. Similarly, for post-release outcome, only criminal history variables predicted revocations of conditional release and new convictions (any, violent). It is noteworthy that mental health diagnoses made relatively little contribution to the prediction of institutional adjustment and post-release outcome.

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Introduction

There is currently a paucity of research pertaining to female offender assessment, and virtually none converging on the issues of criminal history, mental health, and recidivism. In North America, the number of women against whom criminal charges are laid is increasing (Boe, 1992; Hatch & Faith, 1989), which illustrates the importance of obtaining more information that is relevant to the criminal behaviour patterns of this group. Most researchers attempting to isolate factors associated with criminality have used male samples, and results tend to be generalized to the female offender population. This is true despite evidence that there are indeed gender differences in the correlates to criminality and recidivism (e.g., Bonta, Pang, & Wallace-Capretta, 1995; Bureau of Justice Statistics, March 1994).

While the total population of incarcerated female offenders in Canada is growing (Boe, 1992), statistics show that female offenders still comprise only about 9% of those serving time in provincial custody, and less than 3% of those in federal custody (Canadian Centre for Justice Statistics, 1993). The total population of male and female inmates incarcerated under federal jurisdiction in Canada is over 14,000: approximately 300 of those are women (Correctional Service of Canada, 1995a). The disparity in the numbers of male and female inmates is evidenced in other countries as well: a profile of inmates in the United States and in England and Wales showed that more than 90% of the inmate populations in each country were male (Bureau of Justice Statistics, October 1994).

A partial explanation for this disparity comes from data presented in the United Nations Survey of Crime Trends (1994). Reported results include the ratio of: (a) males

suspected, prosecuted, convicted, and imprisoned per 100,000 male inhabitants to: (b) the corresponding figure for females in selected countries in Europe and North America. In examining these ratios, moving from persons suspected to persons prosecuted, convicted, and imprisoned, the ratios increase in favour of men. For example, in Canada, for every one woman suspected and prosecuted, there are six men subject to the same. However, this ratio increases to 1:9 for those incarcerated for their offences. On average, women receive shorter sentences than men. The great majority of women sentenced to provincial terms of incarceration serve six months or less, and almost 40% of these women serve 14 days or less (Shaw, 1994).

There are two plausible explanations for these findings. The first is that women are committing relatively fewer serious offences, and are therefore less likely to be sentenced to incarceration. Alternatively, women are filtered out of the criminal justice system at all stages of the process. Support for the latter comes from a statistical review of female offenders in Canada by Hatch and Faith (1989). These authors included victimization data in their review, and indicated that it served to support the information provided by official statistics. They concluded that women probably commit about 10% of all serious (violent) crime in Canada. In spite of the fact that women commit fewer violent crimes, there is still a discernible under-representation of female offenders serving time in custody.

Conversely, women are over-represented in the mental health system. Females represent two-thirds of those who seek psychiatric help (Michell, 1988). This difference cannot be attributed solely to the notion that women are more likely to seek help, because results from several household surveys have shown that women are, in fact, more likely to

be diagnosed with a psychiatric disorder (D'Arcy, 1982; Eaton, Kramer, Anthony, Dryman, Shapiro, & Locke, 1989; Leaf, Weissman, Myers, Tischler, & Holzer, 1984). Accordingly, Statistics Canada (1988) (cited in Burstow, 1992) reported that about two-thirds of Canadian women have mental health problems, compared with nearly one-third of men.

Rogers and Bagby (1992) conducted an investigation into the use of pretrial diversion of offenders with mental disorder. The objective of the study was to see if any discernible patterns emerged regarding recommendations for outpatient and inpatient treatment of those offenders designated 'mentally disordered'. It is noteworthy that gender differences were observed regarding recommendations for civil commitment, where such recommendations were made nearly four times more often for women than for men (38% and 10%, respectively). The authors suggest that the propensity to involuntarily hospitalize women is based on "paternalistic (i.e., 'protect' them from prison) and/or punitive (i.e., 'force' treatment) objectives" (p.414).

It is arguable that behaviour defined as "criminal", or that defined as "mentally disordered" are both manifestations of the same phenomenon: the practice of labeling and attempting to 'remedy' behaviour that is socially undesirable, or "deviant". Consider, for example, a social definition of criminal behaviour: "Criminal behavior refers to actions that violate the norms of custom and tradition..." (Andrews & Bonta, 1994, p.23). Similarly, many have argued that this same terminology is used to define mentally disordered behaviour, which ultimately serves to preserve the status quo and to promulgate patriarchy (Burstow, 1992; Caplan, 1992; Larkin & Caplan, 1992). Whether a particular act is labeled "criminal", or labeled "mentally disordered", it is a part of a broader category of behaviour

that society calls "deviant". Andrews and Bonta (1994) state that "the essence of deviant acts is that their occurrence places the actor at risk for interventions by figures of authority, control, regulation, and assistance" (p.23). As such, the mental health and the criminal justice systems are deeply intertwined.

It is a well-documented fact that those with mental disorders are over-represented in the prison population (e.g. Abram, 1990; Brownstone & Swaminath, 1989; Freeman & Roesch, 1989; Hodgins & Côté, 1993; Neighbors et al., 1987; Strick, 1989). It has also been demonstrated that, within the penal system, the prevalence of mental disorder varies with institutional security level. Specifically, those in treatment centres exhibit more mental health problems than those in security units, who, in turn, show more pathology than offenders in the general population (Motiuk & Porporino, 1991). Also, for most disorders, prisoners in maximum-security facilities show higher rates of disorder than those in medium-security institutions, followed by prisoners in minimum-security prisons (Neighbors et al., 1987). While the over-representation of those with mental disorders in the penal system is clearly established, the reasons for this relationship are still ambiguous.

The advent of psychotropic medications in the 1950s precipitated a large-scale "deinstitutionalization" movement (Allodi, Kedward, & Robertson, 1977), whereby psychiatric patients were discharged from hospitals and released into the community. There is increasing concern that those patients formerly treated within the mental health system are now being managed by the criminal justice system (Borzecki & Wormith, 1985). Zitrin, Hardesty, Burdock, and Drossman (1976) purport that those who are mentally ill have a

higher propensity for criminal behaviour. Others, however, (e.g. Lamb & Grant, 1983; Teplin, 1985) suggest that people with psychiatric diagnoses are being criminalized.

Steadman, Monahan, Duffee, Hartstone, and Robins (1984) report that "[a]t the end of 1968, there were 399,000 patients in state mental hospitals and 168,000 inmates in state prisons. Within a decade, the hospital population fell 64%... while the prison population rose 65%" (p.475). This suggests that many of those who were released from the psychiatric hospitals were apprehended by the criminal justice system, and incarcerated in state prisons. Adler (1983) reviewed the research on population shifts between psychiatric hospitals and the criminal justice system, exploring specifically the issues concerning confinement of former mental patients within the correctional setting. The author concluded that:

findings suggest that the deinstitutionalization movement, marked by stringent requirements for hospitalization in mental hospitals, and less onerous criteria for fitness to be discharged, has created a socially marginal class of people who are increasingly becoming a burden on our lock-ups and jails (p.225).

Canadian researchers have published similar findings. Allodi et al. (1977) reported that between 1969 and 1973, a reduction in Toronto psychiatric inpatient facilities was accompanied by a significant increase in the number of persons in jail with prior psychiatric hospitalization. Borzecki and Wormith (1985) reported a 138% increase in the number of psychiatric discharges across Canada between 1962 and 1978. Concomitantly, the Canadian federal offender population increased from 7,156 (Department of Justice Canada, 1962) to 9,369 (Solicitor General Canada, 1978) over the same time period.

The Prevalence of Mental Health Problems in the General Population

Epidemiological research has reported that about 30 to 40 percent of the general population has experienced at least one psychiatric disorder in their lifetime, and that the rate for females, across many diagnoses, exceeds that for males (Bland, Orn, & Newman, 1988; Robins et al., 1984; Wells, Bushnell, Hornblow, Joyce, & Oakley-Browne, 1989).

To ascertain the prevalence of mental disorder in a household sample, Bland et al. (1988) interviewed 3,258 randomly selected adult residents of Edmonton, Alberta. The Diagnostic Interview Schedule (DIS) was used to generate diagnoses. Briefly, the DIS uses objective diagnostic criteria described in the Diagnostics and Statistical Manual (DSM, version III) of the American Psychiatric Association (APA, 1980), to determine the prevalence of a wide variety of psychiatric diagnoses. While the DIS provides diagnoses on a lifetime basis, it also allows for alternative diagnostic approaches for some mental disorders, such as with or without pre-emptions by other diagnoses, with or without severity criteria, and recency of disorder through lifetime, six-month, two-week, or current prevalence estimates.

Bland et al. (1988) presented lifetime prevalence rates ignoring DIS exclusion criteria. This procedure allows for the possibility that each subject may fulfill the criteria for more than one diagnosis, and no diagnosis can preclude or pre-empt any other diagnosis. Results showed that overall, for the entire sample, the most common lifetime diagnosis was alcohol abuse / dependence, followed by phobia and major depressive episode. Excluding substance use disorders, the overall lifetime prevalence rate for any disorder was found to be 33.8%. Men were more likely to be diagnosed with substance use disorders and

antisocial personality , and women were more likely to have had major depressive episode, dysthymia, or phobias. Removal of substance use disorders from the data showed that, overall, women exhibited slightly higher rates of mental health problems than men.

Wells et al. (1989) conducted the first New Zealand community-based study to determine the prevalence of a wide variety of psychiatric disorders. Researchers administered the DIS to a sample of 1,498 household adults aged 18 to 64 from Christchurch, New Zealand. Again results were presented with diagnostic exclusions ignored. The overall lifetime prevalence rate for all disorders was reported as 65.8%. The magnitude of this figure can be explained by the fact that some additional diagnoses were included, such as sexual dysfunction (reported in this study to affect 43.9% of the women surveyed), and mild cognitive impairment. For the entire sample, the highest lifetime prevalence rates found were for generalized anxiety (31%), alcohol abuse / dependence (19%), and major depressive episode (13%). Concordant with the findings reported by Bland et al. (1988), men showed higher rates of substance abuse, and women showed higher rates of affective disorders and most anxiety disorders.

In a large epidemiological survey, Robins et al. (1984) reported lifetime prevalence rates for 15 DSM-III psychiatric diagnoses evaluated in three large household samples in the United States: New Haven ($n = 3,058$), Baltimore ($n = 3,481$), and St. Louis ($n = 3,004$). These investigators employed the DIS, and reported results without exclusion criteria applied. Overall lifetime prevalence rates for any of the disorders (males and females combined) covered were: 28.8% in New Haven, 38.0% in Baltimore, and 31.0% in St. Louis. Again, females were more likely to be diagnosed with depression and anxiety

disorders, and males were more likely to exhibit antisocial personality and substance use disorders.

The Prevalence of Mental Health Problems in Offender Populations

Studies using the DIS to investigate the prevalence of psychiatric disorders in prison populations have reported much higher rates of pathology. Neighbors et al. (1987) noted that early efforts to determine the prevalence of psychiatric disorders among prison inmates were often deficient due to inadequate sample sizes, and methodologically flawed due to the use of unstandardized assessment instruments. Partially as an antidote to these suggestions, these authors conducted a large-scale survey of the prevalence of mental disorders within the Michigan State prison system. A sample of 1,240 (97% male) inmates was selected for this study, and subsequently two surveys were conducted to assess the mental health of the respondents: the first employed the DIS administered by trained lay interviewers with no clinical background, and the second used professional mental health clinicians.

As expected, results from both surveys yielded rates of disorder far higher than those found in the general population. The reported DIS lifetime prevalence of alcohol abuse was 46.5%, and that of antisocial personality was reported at 50.1%, a rate about *fifteen times* higher than that found in the general population. Concordant with the general population studies, men showed higher rates of alcohol abuse / dependence, and women were more likely than men to be diagnosed with depression and most anxiety disorders. Noteworthy, however, is the fact that the most common diagnoses for women (excluding psychosexual dysfunction) were phobia, antisocial personality, and alcohol abuse / dependence, in that respective order.

Findings reported by Abram (1990) concur with those presented by Neighbors et al. (1987). Abram used the DIS to explore the prevalence of mental disorder in 688 male detainees in pretrial detention for misdemeanor charges. The lifetime prevalence of antisocial personality was 49.9%, while those of alcohol abuse and drug abuse were 49.1%, and 31.1%, respectively. Again, these rates are much higher than those found in household samples.

In 1988, the Correctional Service of Canada (CSC) commissioned a national survey to assess the prevalence, nature, and severity of mental health problems among federally sentenced male offenders. The final report (Motiuk & Porporino, 1991) provides precise information on the prevalence rates for the major categories of mental disorder at national and regional levels, as well as across a variety of offender categories.

The design of the survey involved the systematic selection of all male inmates in CSC custodial facilities with the exception of: High Maximum Security Units, Regional Psychiatric Centres, and Regional Treatment Centres. Of the 9,801 inmates targeted for sampling, 2,812 were actually selected in five CSC regions (i.e. Atlantic, Quebec, Ontario, Prairies, Pacific). With an overall response rate of 68.5%, a total of 2,185 DIS interviews were conducted with inmates.

Prevalence rates were measured and reported with respect to two parameters: temporal reference, and breadth of diagnostic criteria. The temporal references used were: lifetime, within the last year, or within the last two weeks. Breadth of diagnostic criteria was either wide (diagnostic exclusions ignored) or stringent (severe and exclusive). The observed rates of mental disorder varied highly, dependent upon these two parameters. This

fact should provide a cautionary note to researchers regarding the dangers of comparing rates of disorder across different studies. Using stringent diagnostic criteria, the diagnostic exclusions are applied and results will likely reflect lower rates of disorder than if the exclusions had been ignored (i.e. wide diagnostic criteria). Similarly, for most disorders, results reflecting lifetime prevalence estimates will yield higher rates of illness than one year estimates, which, in turn, are generally higher than two-week estimates. For comparative purposes, only *lifetime* prevalence rates according to *wide* criteria will be reviewed in the present paper.

Results reported by Motiuk and Porporino (1991) showed that an extremely large percentage (75.4%) of the sample was diagnosed as having had antisocial personality at some point in their lives. Further, 70.1% of the participants were diagnosed with alcohol abuse disorder, and a full 53.7% were diagnosed with drug abuse. Prevalence rates for schizophrenia, depressive episode, phobia, generalized anxiety disorder, and panic disorder were also elevated compared to general population surveys.

The discrepancy between these rates and those reported by Neighbors et al. (1987) and by Abram (1990) may be due to the fact that all of the participants in this sample were federally incarcerated. In Canada, offenders under federal jurisdiction are generally serving longer sentences than those under provincial jurisdiction. Porporino and Motiuk (1995) found that offenders with mental disorders have significantly longer prison sentences, and Wormith and McKeague (1994) showed that offenders with mental disorders evidenced longer periods of probation than their non-disordered counterparts.

Hodgins and Côté (1990) drew a random sample of 650 federal male inmates residing in Québec institutions. Of these, 495 inmates (76.2%) agreed to take part in a DIS interview. Results were reported such that each inmate could receive only one diagnosis of a major mental disorder (i.e. organic brain syndrome, schizophrenia, schizophreniform disorder, major depression, or bipolar disorder), which means that for these disorders only, the diagnostic exclusion criteria were applied. The rationale behind this procedure was that it allowed for a better estimate of the number of inmates requiring treatment.

Results indicated that about one-quarter (22.7%) of the inmates in the sample had suffered, or were currently suffering from, a major mental disorder, and less than five percent of the sample presented none of the disorders evaluated by the DIS. The majority (57%) showed problems with drug or alcohol abuse and /or dependence, while 33.9% showed problems with both. The lifetime prevalence of schizophrenia and schizophreniform disorders was observed to be about seven times as high as that reported in samples of non-incarcerated males. The lifetime prevalence rate of antisocial personality was also very high, manifest in 46.6% of the respondents.

In one of the few studies pertaining to female offenders, Daniel, Robins, Reid, and Wilfley (1988) determined the six-month and lifetime prevalence of psychiatric disorders among 100 offenders consecutively admitted to prison. Diagnostic data on each of the inmates was obtained with version III of the DIS and all of the interviews were conducted at an American Classification Centre. Convicted women spent approximately four weeks at the Missouri Classification Centre before being assigned to one of two prisons. The

psychiatric interviews were conducted during the latter part of this four week period and all were conducted by the same interviewer.

Results showed that of the 100 women surveyed, ninety percent received at least one Axis I diagnosis and sixty-seven percent of the women received more than one diagnosis. Unlike females in the general population, however, the most common diagnosis in this sample of offenders was alcohol abuse and / or dependence (36%), followed by drug abuse disorders (26%), and antisocial personality (29%). This pattern adheres more closely to that observed in male samples than that observed in female samples.

The authors compared the lifetime prevalence rates of disorders found in this sample with that reported by Robins et al. (1984) for females in the St. Louis portion of their study. They considered this to be the most appropriate comparison group, since most of the prisoner subjects had come from the metropolitan areas of St. Louis and Kansas City. Statistical analyses revealed that schizophrenia, major depression, substance use disorders, and antisocial personality were all significantly more prevalent in the prison sample.

In 1989, the Correctional Service of Canada (CSC) conducted a mental health survey at Prison for Women, the only maximum security facility for female offenders in the country. At the time of the survey, there were 130 women housed in the institution. Trained interviewers administered the DIS, and reported results were based on completed interviews with 77 women.

Overall, only 5% of the sample showed no evidence of disorder, whereas almost 50% of the sample showed evidence of having multiple disorders. Thirteen percent of the women surveyed were diagnosed with schizophrenia; a rate about *ten times* that found in

the general population, and almost twice that found by Daniel et al. (1988) in their sample of incarcerated women. One third of the sample had suffered from post-traumatic stress disorder, and about half had experienced a depressive episode. Antisocial personality, alcohol and drug abuse / dependence, phobia, generalized anxiety disorder, and psychosexual dysfunction were each reported to affect over half of the women in the sample.

It is interesting to note that the two most common disorders in this sample of incarcerated women were antisocial personality and alcohol abuse / dependence. This adds support to results reported by Daniel et al. (1988) and by Neighbors et al. (1987). It is observed that in samples of incarcerated males (e.g. Hodgins & Côté, 1990), the lifetime prevalence rates of mental disorders are greatly elevated compared to rates observed in non-incarcerated males. However, the overall pattern observed in the prevalence rates does not vary greatly. Conversely, incarcerated females differ from their non-offending counterparts on two levels. First, the rates of disorder are tremendously elevated in prison samples; second, the observed *pattern* of disorders differs as well. In samples of non-incarcerated women, anxiety and depressive disorders predominate, whereas in samples of female offenders, antisocial personality, and alcohol and drug abuse / dependence prevail.

Table 1 reports selected findings from the studies that have just been reviewed. Unless otherwise specified, all of the figures provided reflect lifetime prevalence rates of DSM-III disorders, using wide DIS criteria (i.e. exclusion criteria ignored). To simplify comparison across different samples, the research review and corresponding table include only those studies which employed the DIS as the assessment instrument. Results have been

divided into male and female samples to reflect the different patterns of diagnoses that appear to be dependent upon gender.

Table 1

Lifetime Prevalence Rates of DIS / DSM-III Disorders for General and Offender

Populations

Study (authors, year)	Population	Schizophrenia (%)	PTSD (%)	OCD (%)	APD (%)	Bipolar disorder (%)
Robins et al (1984)	1,322 male adults: household sample, (U.S.A).	1.2	n/a	2.6	4.9	n/a
Bland et al (1988)	1,330 male adults: household sample, (Canada)	0.5	n/a	2.8	6.5	n/a
Wells et al. (1989)	504 male adults: household sample, (New Zealand)	0.3	n/a	1.0	4.2	n/a
Abram, K. (1990)	688 male detainees in pretrial detention for misdemeanor charges (U.S.A)	n/a	n/a	n/a	49.9	n/a
Neighbors et al. (1987)	1203 male offenders in the Michigan prison system (U.S.A.)	2.8	5.3	5.8	51.5	0.6
Hodgins, S. & Côté, G (1990)	495 federally sentenced males (Canada)	6.3 **	5.9	4.3	46.6	1.6 **
Motuk, L. & Porporino, F (1991)	2,185 federally sentenced males (Canada)	4.9	n/a	n/a	75.4	3.5
Robins et al (1984)	2,159 female adults : household sample, U.S.A.	1.9	n/a	3.3	0.7	n/a
Bland et al.(1988)	1,928 female adults : household sample (Canada)	0.6	n/a	3.1	0.8	n/a
Wells et al (1989)	994 female adults: household sample, (New Zealand)	0.4	n/a	3.4	1.9	n/a
Neighbors et al (1987)	48 female offenders in the Michigan prison system (U.S.A.)	2.9	19.7	2.4	21.9	0.0
Daniel et al. (1988)	100 females consecutively admitted to the Missouri correctional system (U.S.A.)	7.0	n/a	6.0	29.0	2.0
Correctional Services of Canada (1989a)	77 federally sentenced females (Canada)	13.0	29.9	14.3	59.7	7.8

Table cont'd

Study (authors, year)	Population	Depressive episode (%)	Alcohol abuse (%)	Drug abuse (%)	Phobia (%)	GAD (%)	Panic disorder (%)
Robins et al. (1984)	1,322 male adults: household sample (U.S.A.)	2.3	24.9	7.1	14.5	n/a	1.2
Bland et al. (1988)	1,330 male adults: household sample (Canada)	5.9	29.3	10.6	6.1	n/a	0.8
Wells et al. (1989)	504 male adults: household sample (New Zealand)	8.8	32.0	7.2	3.4	27.1	0.9
Abram, K. (1990)	688 male detainees in pretrial detention for misdemeanor charges (U.S.A.)	3.9	49.1	31.1	n/a	n/a	n/a
Neighbors et al. (1987)	1203 male offenders in the Michigan prison system (U.S.A.)	5.9	47.9	n/a	20.4	22.0	1.6
Hodgins, S. & Côté, G. (1990)	495 federally sentenced males (Canada)	22.7 **	50.4 **	35.6 **	20.5	43.7	0.6
Motiuk, L. & Porporino, F. (1991)	2,185 federally sentenced males (Canada)	21.4	70.1	53.7	28.3	46.7	3.7
Robins et al. (1984)	2,159 female adults : household sample, U.S.A.	4.9	4.2	4.4	25.9	n/a	1.6
Bland et al. (1988)	1,928 female adults : household sample (Canada)	11.4	6.7	3.2	11.7	n/a	1.7
Wells et al. (1989)	994 female adults: household sample, (New Zealand)	16.3	6.1	4.1	12.8	35.1	3.4
Neighbors et al. (1987)	48 female offenders in the Michigan prison system (U.S.A.)	11.3	19.9	n/a	31.2	20.9	2.9
Daniel et al. (1988)	100 females consecutively admitted to the Missouri correctional system (U.S.A.)	21.0	36.0	26.0	24.0	n/a	2.0
Correctional Services of Canada (1989a)	77 federally sentenced females (Canada)	49.4	62.3	57.1	62.3	55.8	13.0

Note. ** Diagnostic exclusions applied.
PTSD = Post-Traumatic Stress Disorder
OCD = Obsessive Compulsive Disorder
GAD = Generalized Anxiety Disorder
APD = Antisocial Personality Disorder

As Table 1 illustrates, federally sentenced women show higher rates of mental disorder than: men and women in the general population, male and female offenders at lower levels of security, and federally sentenced males.

It is not surprising that the federally sentenced women exhibit higher lifetime prevalence rates than women in the general population. This finding is consistent with results reported in comparable male populations. For reasons that are still uncertain, both male and female offender populations show higher rates of illness than their respective counterparts in the general population. Perhaps a partial answer to this complex question comes from results of an investigation conducted by Leaf et al. (1984). These authors conducted an inquiry into the social factors related to psychiatric disorder. Results showed that the most important factors related to having any current psychiatric diagnosis included being young (i.e. between 18 and 44), poor, and socially isolated. It is conceivable that offender populations are more likely to possess these characteristics, which, if not properly controlled, would skew results in the observed direction.

As noted earlier, overall, females exhibit slightly higher rates of disorder than males. This appears to be true for both offender and non-offender samples. It may be because females are more likely to report symptoms, or it may involve something as complex as how we, as a society, choose to define what is "mentally ill", and what is "normal" (Landrine, 1987; Larkin & Caplan, 1992).

There may be several explanations as to why the sample surveyed by CSC showed rates of disorder so much higher than subjects surveyed by Daniel et al. (1988). A reasonable possibility for the observed disparity, as previously discussed, might be that all of the women interviewed by CSC were under federal jurisdiction, and all of them were serving sentences of at least two years in a maximum security facility. Conversely, a

significant portion of those sampled by Daniel et al.(1988) were serving shorter dispositions, for less serious crimes such as theft, prostitution, and traffic violations.

Recall that Wormith and McKeague (1994) demonstrated that disordered offenders are imposed significantly longer prison sentences than their non-disordered counterparts. More specifically, these investigators found that the length of the prison sentence was significantly and positively related to the number of criteria met for mental illness. Porporino and Motiuk (1995) reported that, despite matching offenders on criminal history variables, those with major mental disorders were sentenced to longer periods of incarceration and served relatively longer proportions of their respective sentences. Motiuk and Porporino (1991) also demonstrated that the prevalence rates of specific mental disorders varied significantly across variables such as time served, sentence length, and offence type, though the relationship was not as consistent. Finally, Neighbors et al. (1987) showed that inmates residing in maximum security institutions were more often diagnosed than those residing in either medium or minimum security facilities.

Mental Health, Criminal Behaviour, and the Treatment of Offenders with Mental Disorder
within the Correctional System

While there is evidence to suggest that there exists a strong relationship between mental health and incarceration, the reasons for this relationship are still obscure. Perhaps there is some bias in the criminal justice process that serves to spuriously inflate the rate of incarceration of offenders with mental disorders. Alternatively, maybe the dynamics of the criminal justice process (e.g. arrest, trial, sentencing) simply exacerbate the symptomatology, thus increasing the observed rate of mental health problems among those who come into contact with the correctional system. Finally, it is arguable that the over-representation of offenders with mental disorders is reflective of a *true* situation in which people with mental health problems are predisposed to criminality.

In order to examine the effects of exposure to the jail environment, Gibbs (1987) administered the SCL (Symptoms Check List)-90 to a sample of jail prisoners for three different time periods. Briefly, the SCL-90 was designed to measure changes in symptoms of psychopathology. It is composed of 90 items that cluster into nine subscales or symptom dimensions: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. The average item score is called the Global Severity Index (GSI), which provides a good single indicator of the current level or depth of disorder, and is appropriate for use when a single summary measure is required (Gibbs, 1987).

Although the SCL-90 is usually self-administered, the protocol was modified for this investigation. Instead of self-administration, the items were read to the subjects. A second

modification involved changing the time period for which symptom ratings were made.

Normally, the subjects are asked to rate how much they have been bothered by each symptom (not at all, a little bit, moderately, quite a bit, extremely) during the past week.

Because the author was interested in measuring symptoms at three points in time, a different approach, described below, was used.

Within 72 hours of confinement, the SCL-90 was administered to a sample of jail prisoners ($N = 339$). At this time, each subject was asked to rate symptoms since they had been confined, as well as those a week prior to incarceration. The instrument was administered again to those who were still confined ($N = 102$) after five days of incarceration, at which time the respondents were asked to rate their symptoms since the initial interview.

Results showed that for most symptom dimensions and for the overall level of psychopathology (GSI), the initial inside scores (i.e. within the first 72 hours of confinement) were significantly greater than the outside (i.e. the week before incarceration) scores. The increase in the depression, anxiety, obsessive-compulsive, and GSI dimensions were especially prominent. The data further indicated that the symptom severity diminishes with time incarcerated, as evidenced by a decrease in symptom severity between the initial assessment and the second assessment, five days later. However, the decline in symptom severity between initial and follow-up ratings was not nearly as pronounced as the increase from street to jail. This pattern was observed for those subjects with a history of psychiatric hospitalization, as well as for those without.

Gibbs (1987) concluded that:

The data challenge the conventional view that a disproportionate number of jail prisoners exhibit symptoms of psychological and psychiatric disorders because they are mentally ill before they enter jail... [and] jail can have considerable effects on symptom levels, and these effects are not restricted to those who we normally view as susceptible (p.288).

There are several limitations to this investigation. The most obvious methodological problem lies in the fact that the subjects, upon initial confinement, were asked to retrospectively rate their symptoms on the "outside" - i.e. the week before confinement. It is very likely that the stressful situation of imprisonment would bias retrospective rating, such that life, prior to incarceration, would appear to have been happier and less problematic. Secondly, there is a possibility that those subjects who were still incarcerated after five days (and therefore completed the second assessment) were somehow different from those who were no longer incarcerated. It may have been advantageous to only test subjects that would definitely be confined for the duration of the study. A third problem comes from the fact that the SCL-90 was designed to be self-administered, and for a one-week symptom severity assessment. Rather than allowing the subjects to self-administer the SCL-90, researchers read the questions to the respondents, and scored them according to their verbal reply. Further, rather than the standard one-week assessment, symptom severity was assessed for the week preceding incarceration, for the first 72 hours of confinement, and for the five days following initial confinement. The author acknowledged that "[i]t is possible that the change in protocol for use in jail may have had a response effect" (p.297), though it is impossible to determine how the results may have been affected.

The results of this investigation might also have enhanced credence if a more direct and comprehensive measure of psychiatric disorder had been used. The author (Gibbs, 1987) suggests that it may be beneficial for future research to use the Diagnostic Interview Schedule, in conjunction with the DSM-III classification criteria. This would provide for a clearer representation of how the jail environment affects, or does not affect, psychopathology and symptom severity.

In this vein, there is some evidence that challenges the findings reported by Gibbs (1987). Since the DIS elicits prevalence rates across different points in time, a comparison of the current, two-week, and lifetime estimates of psychiatric disorder should provide an indication of the effects of the jail environment on mental health. Generally, current rates of disorder are lower than two-week rates, which, in turn, are lower than lifetime prevalence rates. If the prison environment exacerbates symptoms, or somehow "creates" mental disorder, then one would expect that the current (or two-week) prevalence rates would be about the same, or only marginally lower than lifetime prevalence rates in incarcerated samples.

Unfortunately, two-week prevalence rates are rarely reported. In one epidemiological study using the DIS with a general population sample, the average difference between two-week and lifetime prevalence rates for all disorders was 16 % (Myers et al., 1984). In the survey conducted by CSC (1989) with federally incarcerated women, the average difference between two-week and lifetime prevalence rates for seventeen DSM-III disorders was 19%. In this sample, there were huge disparities between two-week and lifetime prevalence rates for alcohol abuse / dependence and drug abuse

dependence (61 and 56 percentage points, respectively). It is likely that the unavailability of these substances while incarcerated (or hesitancy to report usage) results in this observed disparity, spuriously inflating the overall difference between two-week and lifetime estimates. Removal of these two disorders from the analysis still revealed an average 14% difference between two-week and lifetime prevalence rates. This difference is remarkably similar to that reported by Myers et al. (1984), and provides support for the suggestion that the prison environment does not increase psychopathology or exacerbate symptoms. It seems likely, then, that offenders with mental disorders who are incarcerated incurred these mental health problems before (and not as a result of) incarceration.

To determine the incidence of crime and violence among people with mental disorders, Zitrin et al. (1976) studied the arrest rates of 867 male and female patients from the Bellevue catchment area who were discharged from the psychiatric division of the Bellevue hospital. For each subject, criminal arrest records were obtained for the two years before admission to the study and for the two years following admission to the study. The researchers classified the various types of offences as follows: violent offences involving bodily harm (e.g. murder, assault, forcible rape, sexual abuse), violent offences involving the potential for harm (e.g. robbery, weapons possessions, burglary, possession of burglar's tools, arson, inciting to riot), and nonviolent offences (misdemeanors).

Of the 867 psychiatric patients in the sample, 202 (23.3%) had been arrested during the two years before and the two years after their admission into the study (i.e., during the four year period of interest). One hundred and seventeen of those (13.5%) had been charged with a non-violent offence only, while the remainder (9.8%) had been charged with

a violent offence. Some interesting results emerged when the investigators classified the subjects according to primary diagnosis at the time of discharge from the hospital. In the sample as a whole, as well as in the group arrested for a violent offence, almost half of the patients were schizophrenic. Additionally, differences appeared for this diagnostic group in relation to *type* of crime. Schizophrenics were under-represented in the group of those arrested for non-violent offences, but constituted over two-thirds of the group (21 out of 30) arrested for violent crimes involving bodily harm.

Those with a diagnosis of alcohol or drug dependence were highly over-represented in all crime categories. The proportion of alcoholic and drug-dependent patients who had been arrested for any type of offence was twice as large as the corresponding proportion in the total sample. While alcoholics and drug abusers constituted only 7% and 6% of the patient sample, respectively, together they accounted for nearly one-third of all arrests.

The authors found that the arrest rates for the patient sample for the two years preceding and for the two years following admission into the study were higher than the arrest rates for the general population of the Bellevue catchment area as well as for those 4,601 cities in the United States. This relationship was found to exist for both violent and non-violent offences. Although the authors did not report the statistical significance of the observed differences, the results of this study appear to indicate that those with mental disorder(s), compared to those with no known psychiatric diagnosis, are more likely to commit both non-violent and violent crimes. Further, this finding seems to be independent of whether or not there is a history of psychiatric hospitalization.

In a study with a similar design, Sosowsky (1980) compared the annual arrest rates of 301 state mental hospital patients to those of the local county (San Mateo County) population. Criminal histories were obtained for the 301 patients admitted to, and released from, the Napa State Hospital between 1972-1975. This data was compared to that from the general population arrest rates for the same year, for San Mateo County, California (i.e. one of the counties served by the hospital). Patient arrests were analysed before hospitalization and for a maximum 6½ year follow-up period; through December, 1978.

Results indicated that one hundred and twenty-four (41%) of the 301 patients were arrested within the follow-up period. Fifty-three percent of the patients had been arrested before hospitalization. Of those, 56% ($n = 90$) were subsequently arrested. A large proportion of the 141 patients without a previous arrest history were also subsequently arrested (24%, or $n = 34$) within the follow-up period. The most striking finding was that the overall arrest rate of the former psychiatric patients was *five times* higher than that of the general county population. Further, patients who entered the hospital without a criminal record were subsequently arrested about three times as often as the average citizen, and five times as often for violent crime. Findings are in agreement with those reported by Zitrin et al. (1976), and lend support to the notion that those with mental disorders commit, and are subsequently arrested for, more crimes than those in the general population.

The research reports by Zitrin et al. (1976), and by Sosowsky (1980) are problematic in two ways. First, both studies used hospitalized psychiatric patients to represent all people with mental disorders. Although these investigators attempted to control for this confound by looking at arrest rates both before and after hospitalization,

there remains a possibility that those people with mental disorders who are to be later hospitalized are different from those who aren't. Neither of the research reports specified whether the samples had been voluntarily, or involuntarily hospitalized. It seems likely that those people who are hospitalized (especially involuntarily) are more likely to be at risk for violence and / or criminal behaviour. Secondly, the differential arrest rates of the patient samples might be revealing more about the criminal justice process than they are about criminal behaviour by those with mental disorders. Teplin (1984;1985) suggests that by using arrest data as the sole indicator of propensity for crime, such studies eliminate those criminal incidents that result in the presence of the police, but do not culminate in arrest.

Support for this contention comes from data presented by Teplin (1984). In a naturalistic observational study, 283 randomly-selected police officers in a large northern city (standard metropolitan area over 1,000,000) were observed in their working interactions with citizens for 2,200 hours over a 14-month period. The observers included the author, as well as five clinical psychology graduate students. Though observations were conducted at all hours of the day, evening and weekends were over-sampled in order to collect a maximum amount of data within a minimum amount of time. Data were collected in two busy urban police precincts, which included residents from all socioeconomic levels, ranging from the lowest to the very wealthy. All types of police-citizen encounters were observed and coded, regardless of whether there was a mental health component or not. This was necessary for the collection of data on situations unrelated to mental health, to be used for baseline comparisons.

The presence of mental disorder was ascertained by the fieldworker via a symptoms checklist that lists the major characteristics of severe mental disorder. Included were items such as confusion / disorientation, withdrawal / unresponsivity, paranoia, inappropriate or bizarre speech and / or behaviour, and self-destructive behaviours. It was assumed that this method would correctly identify those people who were visibly suffering from severe forms of mental disorder (e.g. schizophrenia, major affective disorders, etc.). A person was defined as mentally disordered if he or she possessed at least one of these traits, and was also given a global dummy rating of 'mentally disordered' by the fieldworker. In determining the global rating, the environmental context, as well as extrapsychiatric cues, were taken into account. In addition, the definition of mental disorder was made conservatively, to minimize false positives (Type 1 error). In order to ensure that this method accurately discriminated between those who did, and those who did not, exhibit signs of severe mental disorder, a validity study was undertaken. Briefly, the results of the measure used in this police-citizen encounter investigation were compared to those using the DIS. Results showed that the two measures were highly correlated. There was 93.4% agreement between the two measures as to the presence or absence of severe mental disorder (i.e. psychosis).

Data recording was collected in two ways: quantitatively, and qualitatively. The quantitative data was coded with an instrument that was designed specifically for this particular study; the "incident coding form" (Teplin, 1984). The incident coding form was completed for every encounter between a police officer and a citizen that involved at least three verbal exchanges. The instrument was designed to record concrete behaviours and descriptive categories central to the police officers' handling of all citizen encounters, and all

field workers were given three months of specialized training for use of this instrument. In an extensive pilot test prior to data collection, the instrument proved to be extremely reliable; interrater reliability exceeded 97%. For the collection of qualitative data, each fieldworker was given a dictaphone to record a narrative of the shift after the observation period. These data were recorded according to a specified format that included general shift information, impressionistic data regarding the impression of the officer, and a complete narrative of all police-citizen encounters. The narrative detailed the reasoning underlying the officers' discretionary judgments in relation to their handling of the situations.

Overall, 1800 pages of qualitative information were recorded with respect to 1382 police-citizen encounters, involving 2555 citizens. It was determined that traffic offences and public service incidents both had overall incidents of arrest too low to permit meaningful comparisons (arrest rates of 0.95, and 0.0%, respectively), and therefore data in relation to these encounters were omitted from the analyses. The resultant data base consisted of 884 police-citizen encounters involving 1798 citizens. Additionally, only a portion of the encounters fulfilled the criteria for possible arrest: first, there had to be a suspect (defined by police) present at the scene, and secondly, there had to be tangible evidence of the citizen's wrongdoing such that he or she was defined by police to be a suspect. Of the 1798 citizens involved in encounters with the police, 506 were defined as suspects. The results of the study described an analysis of the arrest rates of these 506 individuals.

The major question that was addressed in this investigation was whether the presence of psychiatric symptoms affected the probability of arrest. Of the 506 suspects, 30

(5.9%) were considered by the fieldworkers to be mentally disordered. Results showed that the probability of being arrested was nearly 20% greater for those who were considered to be mentally disordered. While 14 (46.7%) of the citizens showing signs of disorder were arrested, only 133 of the 476 (27.9%) of those showing no signs of disorder were arrested. Further, this result was still significant when the investigators controlled for type of incident. Offence types were divided into five categories: violent personal crimes, interpersonal conflict, major property crimes (felonies), minor property crimes (misdemeanors), public health, safety, or decency violations, and violations of public order. Findings demonstrated that arrest rates were higher for those designated as mentally disordered in all offence categories, except interpersonal conflict. Teplin (1984) concluded that these results provide some preliminary evidence that "the mentally ill are being criminalized" (p.801).

In another study of the arrest patterns of mentally disordered offenders, Robertson (1988) asked 91 mentally 'disordered', and 76 'normal' criminally offending men about the circumstances of their offence and arrest. Offenders were divided into four groups: schizophrenics ($n = 61$), offenders suffering from affective disorders, usually of psychotic intensity ($n = 30$), offenders with an established criminal history of violence, but with no known psychiatric illness ($n = 35$), and offenders with no known history of mental disorder and no known history of violence ($n = 41$). The offenders with mental disorder(s) were selected on the basis of present state as reported by prison doctors, and most had also been interviewed and assessed by a psychiatrist. All groups were matched for age, and all subjects were selected from the same remand centre. Data were collected through a self-

report interview in which the subjects were asked to provide details regarding the circumstances of their offence, arrest, and detention.

Results indicated that the major differences found in regard to arrest were between the psychiatric (i.e. schizophrenic and affectively disordered) and (both) normal groups. The vast majority of the men with mental disorder (86%) were arrested on the day of the offence, and they were much more likely than their normal counterparts to be arrested at the scene of the offence, and by a police constable, as opposed to a detective. While only 10% of the men with disorder(s) were arrested by CID officers (where cases involved detective work), the comparable rate for the normal offenders was 55%. A part of this discrepancy might be explained by the fact that the disordered offenders were more likely to have presented themselves to the police after having committed the offence.

Upon examination of the personal circumstances of the offenders at the time of arrest, some important between-group differences were found. Of the 61 schizophrenic subjects, only two claimed to be married, but neither were living with their wives at the time of the offence. Only 20% of the affectively ill group lived with a spouse, compared with about 50% of the 'normal' subjects. Further, a large number (43%) of the offenders with schizophrenia reported being homeless at the time of the offence. With these data, the social isolation of the groups with mental disorders (especially the schizophrenics) is highlighted.

Robertson (1988) concluded from these findings that:

the social incompetence and debilitated state of these men [i.e. offenders with mental disorder] made them more vulnerable to detection and detention... it is proposed that this increased vulnerability is large enough to make it very difficult indeed to compare the rate of criminal offending of the mentally ill with that of the general population (p.316).

Together, these studies (Robertson, 1988; Teplin, 1984) help to elucidate the findings reported by Zitrin (1976), and by Sosowsky (1980). While the two latter investigations showed that those with mental disorder are more likely to be criminally convicted than 'normals', results reported by Teplin (1984) and by Robertson (1988) suggest that the reasons for this over-representation are not as apparent as they may seem. Ostensibly, the over-representation of offenders with mental disorder is indicative of a higher relative crime rate for that group. However, Robertson (1988) showed that offenders with disorder are more likely to present themselves to police, and to remain at the scene of the offence. Further, Teplin illustrated that even when controlling for the police-citizen encounter and the nature of the offence, those with mental disorders are more likely to be arrested.

In a unique research project, Porporino and Motiuk (1995) undertook an inquiry into the prison careers of mentally disordered offenders. These authors were particularly interested in determining whether the criminal and prison careers of offenders with mental disorder differed from the careers of their counterparts without disorders. The investigation was subdivided into two related issues. The first question addressed whether there were differences in how individuals with mental disorders react to imprisonment (e.g., rule infractions and other disruptive behaviour) in comparison to their non-disordered counterparts. The second queried differences in how the correctional system responds to offenders with disorders, as opposed to those without (e.g., discretionary decision-making such as security placement or granting of temporary passes).

The study followed a sample of federally incarcerated offenders, who had previously been diagnosed by the DIS as having experienced a severe mental disorder (see Porporino and Motiuk, 1995). The sample of offenders with mental disorders consisted of 36 federally sentenced adult male offenders who met stringent diagnostic criteria for psychosis: either manic episode ($n = 21$), schizophrenia ($n = 13$), or schizophreniform disorder ($n = 2$). A matched group of 36 offenders who did not meet the diagnostic criteria for having a major psychotic disorder were included for the purpose of conducting comparative analyses. The person-by-person matching was based on age, type of major admitting offence (i.e., offence for which the inmate received the longest sentence), and length of sentence.

Data were gathered on the entire study sample of 72 inmates from a variety of sources. General demographic information (e.g., age), current offence characteristics (e.g., type), and correctional process variables (e.g., admission and release dates) were obtained through the Correctional Services of Canada (CSC) automated Offender Information System. For each subject, a complete offence history (e.g., criminal convictions, dispositions) was acquired through the Canadian Police Information System. An automated Security Incident System, available through CSC, yielded data on all recorded incidents during each offender's period of federal supervision (i.e., institutional infractions such as possession of contraband, inmate assault). Finally, CSC's automated Parole Supervision System (PSS) provided data on suspension warrants for those offenders who were released on community supervision.

Comparative analyses revealed that the offenders with disorder did not differ significantly from those without disorder on any of the matching variables. However,

despite the fact that the samples had been matched for major admitting offence, there was a tendency for those with disorders to have received longer sentences. This discrepancy could not adequately be explained by criminal history variables, because there were no significant between-group differences in mean number of prior convictions, or in mean number of prior violent convictions.

The investigators also compared custody level, since it reflects the correctional system's response to perceived risk. Generally, those offenders who are perceived to be higher risk are held at higher security levels, while transfers to minimum security reflect a preparatory response to consideration for release. In comparing the offenders with disorders to those without in regards to custody level, some interesting findings emerged. At the time of the DIS interview (1988), no overall differences in the levels of security were found. However, subsequently, a trend emerged in which fewer offenders with mental disorder had moved downward in custody level, and more had been transferred upward.

Institutional infractions were assessed by classifying all recorded instances as violent (e.g., prison assault), escape, possession of contraband, general behavioural disruption, or other. Analyses revealed no significant differences between the two groups in relation to the mean number and types of institutional infractions. This finding is especially noteworthy in light of the fact that, as reported above, those with mental disorders tended to be viewed as higher risk, and were less likely to be transferred to lower custody levels.

The investigators also inquired into whether between-group differences existed in regards to the granting of temporary absences. Briefly, temporary absences are generally granted to offenders for either of two types of reasons: 1) escorted absences for essential

medical or administrative purposes, or 2) unescorted absences as a precursor to release to assist in gradual re-integration to society. Results showed that there were no significant between-group differences in the proportions of offenders who were granted absences. However, there was some evidence that offenders without disorders were granted a greater number of both escorted and unescorted absences.

An ostensible comparison of the prison releases for the two groups showed that there were no significant differences in the release rates. Within the 24 month follow-up period, offenders with major psychiatric disorders were released at approximately the same rate as their non-disordered counterparts (67% and 75%, respectively). However, closer perusal of the release data revealed some clear and significant between-group differences. While the offenders with mental disorders were more likely to be released on mandatory supervision, their matched counterparts were more likely to be released on parole. Notably, while parole is typically granted (at the discretion of the National Parole Board) to offenders who are considered safe release risks after one-third of the sentence has been served, mandatory supervision release normally occurs after two-thirds of the sentence is served. Accordingly, in comparing differences in average time served prior to release, and in the average proportion of sentence served, there was a trend for those with disorders to serve more time prior to release, and to have served a relatively greater portion of their sentences.

In one final analysis, the authors sought to determine whether there were differences between the two groups on post-release outcome measures. To conduct this examination, four outcome measures were used: suspension warrant executed, re-admission to federal

custody, re-admission with a new offence, and re-admission with a new violent offence.

Data was collected for two follow-up periods (i.e., 6 and 24 months), for the purpose of examining both early and more sustained post-release outcome.

Results showed that there were no significant between-group differences in relation to early (6 month) post-release outcome, though there was a trend for more of the offenders without disorders to be returned to custody for either a new offence, or for a new violent offence. Data for the extended follow-up period of 24 months, however, did show some significant differences in post-release outcome. It was revealed that offenders with a major mental disorder were significantly more likely to be suspended during their period of community supervision, while those without disorder were significantly more likely to return to federal custody with a new offence. Specifically, most (85.7%) of those in the "with" disorders group were re-admitted for revocations without a new offence, while the majority of those "without" disorders (54.5%) were re-admitted for a new offence.

The authors further combined all four measures of post-release outcome (hereafter referred to as recidivism) to probe whether the same factors predicted recidivism for the offenders with major mental disorder, as for those without. The independent variables included: age at admission, age at (DIS) survey, number of prior and number of total convictions, major depression, anxiety disorder, psychosexual dysfunction, antisocial personality, alcohol use / dependence, and drug use / dependence. Data revealed that, for the group without major psychiatric disorders (i.e. without schizophrenia, schizophreniform, or manic episode), none of these factors were significantly related to re-admission. For the group "with" disorders, the only variable found to be significantly related to re-admission

was number of prior convictions. In light of evidence that subjects in this latter group were more likely to be re-admitted for revocations without a new offence, the authors suggested that when lengthy criminal history combines with major mental disorder, the resultant response is a biased presumption of greater risk (Porporino & Motiuk, 1995).

Collectively, the research appears to indicate that the correctional process is biased against those with severe and / or apparent mental disorders. This seems to be true at all stages of the criminal justice system, from the first contact with police (Teplin, 1984), through sentencing (Porporino & Motiuk, 1995; Wormith & McKeague, 1994), the perceptions of correctional officers (Kropp, Cox, & Eaves, 1989), and to the granting of temporary absence or release (Porporino & Motiuk, 1995). Specifically, offenders with major mental disorders were more likely to be arrested, sentenced to longer periods of incarceration, and were more likely to be held in higher security institutions. Further, they were less likely to be granted temporary absences and parole, and, upon release, were more likely to be re-admitted for a revocation *without* a new offence. These findings persevered despite evidence that the types of offences committed, and institutional comportment did not differ significantly between groups. It thus appears that while offenders with mental disorders do not respond differentially to the criminal justice process (see also Hodgins & Côté, 1993), the system responds differentially to these individuals; with austerity through a biased presumption of greater risk.

Factors Associated with Recidivism

Most research on the predictors of recidivism have focused on male offenders.

Within this group, some variables that have been found to aid in the prediction of recidivism are: age (younger offenders tend to re-offend more often), marital status (those who are married are less likely to re-offend), criminal history (the more prior convictions, the more there are likely to be in the future), and index crime (those convicted of break and enter, other property offences, and robbery re-offend more than those convicted of weapons offences, sex offences, or drug offences) (Bonta, Lipinski, & Martin, 1993; DeJong, Virkkunen, & Linnoila, 1992).

In a novel attempt to determine some predictors of recidivism in female offenders, Belcourt, Nouwens, and Lefebvre (1993) examined the patterns of re-offending in a very large sample of federally sentenced women. The sample included all women who had served their first sentence in a federal institution and were released within the ten-year period between January 1, 1978 and December 31, 1988. These 968 offenders were followed up until the 30 of June, 1993 to determine whether they were re-admitted to federal custody at any time during their release.

The definition of recidivism in this study was very broad: a recidivist was defined as anyone who was released into the community and subsequently re-admitted to a federal institution, for any reason, including re admissions for technical violations of release conditions. Despite this broad definition of recidivism, only 213 (22%) of these offenders were found to recidivate within the follow-up period, and half (49.8%) of those were re-admitted for technical violations of their release conditions. Another 25.4% of the 213

recidivists were re-admitted with a new warrant of committal, which means that their previous sentence had ended and they were no longer on conditional release, then they committed a new offence and were returned to federal custody for that new offence. About one-fifth (21.1%) of the recidivists had their release revoked for a new offence while on conditional release, and the last 3.8% were re-admitted for other reasons. Most of those who recidivated (63.6%) did so within two years of release, and over 85% of the recidivists were re-admitted within five years of release.

Surprisingly, race was found to be strongly associated with recidivism. Native offenders were over-represented in the group of offenders who were re-admitted. While the native women comprised 14% of the sample as a whole, they accounted for 27% of the recidivists. As with samples of male offenders, age was also found to be associated with recidivism, with younger offenders more likely to return to federal custody than older offenders. Recidivism was also found to be associated with original admitting offence, with manslaughter offenders highly over-represented in those who returned to federal custody; although they accounted for only 13.5% of the original sample, they represented 21.1% of those re-admitted. Women with drug-related offences were under-represented in the proportion of those who were re-admitted, while those with robbery and property-related offences were over-represented.

Finally, release type was related to recidivism in that offenders released on parole fared much better than those released on mandatory supervision. While offenders released on full parole comprised almost two-thirds of the total sample (64.3%), they represented less than half of those re-admitted (46.5%). Conversely, offenders released on mandatory

supervision comprised about 24% of the sample, but made up about 44% of the recidivists. This finding is consistent with other research in the area of release type and recidivism (e.g., Bonta et al., 1993; Nouwens, Motiuk, & Boe, 1993).

Long, Sultan, Kiefer, and Schrum (1984) sought to compare the psychological profiles of the female first offender and the recidivist. A partial rationale behind this study was to gain insight into the psychological / environmental factors which might contribute to recidivism in female offenders. Sixty-one female inmates admitted to the North Carolina Correctional Center for Women during July and August 1983, served as subjects. All of the women who were admitted to this facility during the specified time period were asked to participate, and over 90% agreed. The majority (45) of the women were first time offenders, and the remaining 16 had served one or more previous prison sentences.

Data was obtained through a questionnaire which was administered to the subjects within 72 hours of their admission to the facility. The entire battery of questions required approximately one hour to complete. The questionnaire included a total of 13 items pertaining to demographic data. Items queried subjects regarding their age, education, ethnic / racial background, marital status, number of children, employment history, previous prison terms, and history of physical or sexual abuse, both as children and as adults. A second portion of the questionnaire involved completion of the Beck Depression Inventory (BDI), which is a 21 item scale designed to reflect current mood. The scale is completed by having the subject rate each item according to how she / he feels "right now". The next 13-item scale, the Prison Adjustment Questionnaire (PAQ) addressed three areas of adjustment to prison life: social / emotional functioning, psychosomatic functioning (i.e. physical

complaints), and, for smokers only, level of smoking. A final portion of the instrument was devoted to the Spielberger State-Trait Anxiety Scale, which was designed to assess both immediate and long term levels of anxiety.

Analyses of variance were performed to determine whether the first-time offenders differed significantly from the re-offenders on any of the demographic or psychological variables included. Results showed that, overall, the similarities between groups were more striking than the differences. Both groups were considered at least moderately depressed, as reflected in scores on the BDI, and were also found to be very comparable in each of the other measures of psychological state. Differences did emerge in marital status and number of children, where first offenders were more likely to be married and to have children. Further, the first offender was less likely to have been abused on each dimension, this difference was significant for adult sexual abuse. The authors concluded that the female first offender differs from the recidivist in some demographic variables, but not in the psychological variables.

Knowledge that has been gained through research on the correlates of re-offending provides practical aid in the development of risk prediction scales. The Statistical Information on Recidivism (SIR) scale (Nuffield, 1982) is one such instrument. The SIR is commonly used by the Correctional Service of Canada to assist in the parole decision-making process. Briefly, the SIR scale is a collection of 15 items, which together provide a composite total score. The total score can range anywhere from -30 to +27, and provides an estimate for the probability that the offender will re-offend within two years after release. It is important to note that the SIR scale items pertain to demographic and criminal history

information, and, more importantly, not a single item queries mental health issues. Research has shown that the SIR scale provides a good estimate of release risk prediction for male inmates (Hann & Harman, 1988), and a somewhat less accurate prediction of recidivism in female samples (Hann & Harman, 1989).

In attempting to elucidate the relationship between mental disorder and criminality / recidivism, many researchers select only offenders with particular disorders (e.g., antisocial personality , alcohol abuse / dependence), against which to compare those without such disorders. This becomes problematic for two main reasons. The first problem is conceptual: In examining only one disorder (or a select few), and finding an increased risk of recidivism in groups of offenders diagnosed as such, many researchers surreptitiously conclude that "mentally disordered" offenders are more likely to recidivate. This conclusion, however, is too broad when we stop to consider that *particular* disorders are more conclusively linked to recidivism than others. For instance, while antisocial personality disorder (e.g., DeJong et al., 1992; Harris, Rice, and Quinsey, 1993) and alcohol abuse (e.g., DeJong et al., 1992; Hobbs, 1991; Zamble, 1993) have repeatedly been associated with higher reoffending, there is little or no evidence of this same relationship with other disorders (e.g., psychotic disorders, affective disorders, phobic disorders). A second problem in attempting to isolate the effects of one, or a few mental disorders comes from the fact that different types of disorder are often found to co-occur (Abram, 1990; Abram & Teplin, 1991; Côté & Hodgins, 1990).

While there is a dearth of research pertaining to correlates of recidivism in female offenders, what is available is confusing and contradictory. Further, there is still no research

concluding that mental disorder is a definitive risk factor in either first-time offending, or in recidivism. Some complications to this issue come from the fact that there are many possible ways to define "mental disorder", as well as many ways to define "recidivism" (see, for example, Nouwens et al., 1993). This highlights the importance of providing clear and explicit operational definitions of these terms in research reports of this nature.

Rationale for the Present Investigation

A partial goal of this research was to contribute to the sparse body of knowledge on female criminality and recidivism. Relevant information was obtained through a longitudinal follow-up of the federally sentenced women who were interviewed with the DIS by the Correctional Service of Canada in 1989.

Within the sample of women in the present study, it was expected that the same risk factors operate to predict recidivism for both the mentally disordered and non-disordered groups. *If* the disordered offenders are found more likely to recidivate (as defined by return to custody for any reason), it was expected that they would differ from the non-disordered group *quantitatively* on the predictor variables. This suggests that, while the same variables might operate to predict recidivism in both groups, the disordered offenders are more likely to possess these risk characteristics.

A review of the published research has indicated that the results of post-release outcome studies, as they pertain to offenders with mental disorder, depend in part upon how the researchers define "disorder", and how they define "recidivism". While the present research was concerned with investigating whether or not a diagnosis of mental disorder

could aid in the prediction of post-release outcome, it was expected that manipulation of the operational definitions of "recidivism" and of "mental disorder" would render differing results in post-release outcome measures. In this vein, the following hypotheses were yielded:

It was expected that offenders with mental disorders would show significantly different recidivism rates than those without, dependent upon how mental disorder was defined. The research that is available has indicated that offenders with major mental disorders (i.e. psychoses) are not at higher risk for reconvictions. However, they appear to be more likely to have their parole or statutory release revoked for minor technical violations.

Conversely, if "mental disorder" is more broadly defined to include those offenders with antisocial personality and / or substance use disorder, it was expected that their recidivism rate would be significantly higher than those without disorder, regardless of how "recidivism" is defined.

In light of the fact that so many offenders with mental health problems are currently being held in penal institutions, it is important to understand how criminal offence patterns might be influenced by the presence or absence of particular disorders. This information will contribute to a body of knowledge that will aid in the management and rehabilitation of offenders, which, in the long term, provides protection to society through a greater ability to predict risk.

Method

Participants

At the time of the mental health survey, there were one hundred and thirty women (excluding day parolees) incarcerated at Prison for Women in Kingston, Ontario. Every attempt was made to interview all offenders, but despite these efforts, refusals occurred. Signed refusals were obtained from 16 women who had received an explanation for the study but still declined to participate. Another sixteen women originally agreed to participate, then either did not show up for the interview, or relayed through a staff member that they did not want to participate.

There were eight women who could not complete the interview in English, and one woman was an in-patient at a psychiatric hospital, and therefore could not participate. Three women who were working days outside of the institution could not be included due to a shortage of staff on evening shift, and no available interview space.

The study sample thus consisted of 86 women. Four of the subjects were lost from the sample due to being released within two weeks of the commencement of the interviews. Five of the interviews were broken off or incomplete because the participants became too upset by the questions or found the interview too long and tedious.

One of the seventy-seven women who completed the interview was dropped from the study when it was determined that she was actually a provincial offender (i.e., sentence less than two years) who was serving her sentence at the Prison for Women through the federal-provincial Exchange of Services Agreement. The remaining seventy-six participants who completed interviews represent a cross-section (57 %) of the population at Prison for

Women. At the time of the survey, they ranged in age from 20 to 54 years, with a mean age of 32.9. The follow-up data was collected for these 76 women, though recidivism data was unavailable for 10 participants who, as of May, 1995, had not been released. For those released, time at risk ranged from 4 days to 5.8 years, with a mean of approximately 2 years.

A comparison between participants in the study and the overall population at Prison for Women (Correctional Service Canada: Population Profile Report, October, 1989b) is provided in Table 2.

Table 2

Percentage Distribution of Demographic Traits and Federal Offence History: Comparison of Participants in the Present Study to the Population at Prison for Women (1989)

Variable	Study Sample (N = 76)	Population (N = 152)
Mean Age (years)	32.9 (SD 8.2)	33.6 (SD 8.9)
	% (n/76)	% (n/N)
<u>Race</u>		
Caucasian	74.0 (54) ^a	74.3 (113/152)
Aboriginal	13.7 (10)	9.8 (15)
Black	4.1 (3)	7.2 (11)
Other	8.2 (6)	7.8 (13)
<u>Marital Status</u>		
Single	39.2 (29) ^b	55.2 (84/150)
Married / Common law	37.9 (28)	28.2 (43)
Sep. / Div. / Widowed	23.0 (17)	14.9 (23)
<u>Aggregate Sentence</u>		
< 3 years	15.8 (12)	21.6 (33/152)
3 < 6 years	30.2 (23)	30.2 (46)
6 < 10 years	15.8 (12)	15.0 (23)
10 < 20 years	10.5 (8)	8.4 (13)
Life	27.6 (21)	24.3 (37)
<u># of Previous Federal Terms</u>		
None	82.9 (63)	80.2 (144/152)
One	13.2 (10)	13.8 (24)
Two or more	3.9 (3)	5.7 (12)

Note. ^a There were 3 missing cases for variable "race", therefore percentages are based on a sample size of 73. ^b There were 2 missing cases for variable "marital status", therefore percentages are based on a sample size of 74.

Based on data presented in Table 2, it appears that the study sample is relatively representative of the population of federally sentenced offenders at Prison for Women in

1989. Noteworthy, however, is the fact that the study sample consists of a slightly higher percentage of married offenders, and fewer offenders serving sentences of less than three years, out more offenders serving life sentences. The disparity in sentence length can be explained by the fact that the Population Profile report includes those women who are on day parole, as well as those who are serving provincial terms at Prison for Women through the federal-provincial Exchange of Service Agreement. Both of these groups were intentionally omitted from the study sample. This fact warrants attention when interpreting results.

Materials

Diagnostic Interview Schedule. The instrument that was used to assess mental health was the Diagnostic Interview Schedule (DIS), version III-A, developed by L.N. Robins and J.E. Helzer (1985). The DIS was designed for research with large samples and provides current, two-week, six-month, and lifetime prevalence figures for various diagnoses according to criteria from three different systems: (1) the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) of the American Psychiatric Association (1980); (2) the Feighner criteria, published in 1972, from the Washington University Department of Psychiatry; and (3) the Research Diagnostic Criteria (RDC), published by Spitzer et al. in 1978. Studies that have tested the DIS have reported it to be a reliable and valid instrument (Helzer et al., 1985; Helzer, Spitznagel, & McEvoy, 1987; Wittchen et al., 1989).

The DIS is a structured interview with set probe patterns to reduce interviewer discretion in coding, and can be administered by properly trained lay interviewers within one

to two hours, dependent upon the degree of pathology evidenced by the respondent. To allow making diagnoses by computer, the interview covers each criterion in the form of one or more precoded, closed-ended questions. A major advantage of this instrument is that it is completely self-contained (i.e., no other instruments or outside information necessary for diagnosis), and the interview(s) can be entered into the computer immediately after editing for errors, thus providing for prompt classification of results.

All diagnoses provided by the DIS are made on a lifetime basis first, then the interview inquires into the recency of the last symptom experienced. As such, the interview can distinguish whether the disorder is current, or present within the last two weeks, the last month, the last six months, or the last year. It further ascertains the age at which the first symptom appeared, the age at which the last symptom was present, and whether medical care was ever sought for (symptoms of) the disorder. It also affords the opportunity to either use or ignore diagnostic hierarchies, thus making it possible to compare different methods for establishing diagnoses. The disorders covered by the DIS, and a brief description of each, are shown in Appendix A.

Data for the follow-up portion of the study was obtained from several different sources: official criminal history records, automated databases, and institutional files which include case management and program participation information.

Criminal Records. A complete official criminal history was obtained from the Canadian Police Information Centre (CPIC) records. These records provided documentation of all offences for which the individual has been convicted, including conviction dates, and sentences issued.

Institutional Files. The institutional files provided a large portion of the data for this investigation. These files are comprised primarily of court orders, police reports, criminal records, presentence investigations, progress summary reports, and case management documentation.

Automated Data.

Parole Supervision System. The Parole Supervision System (PSS) is an electronic database which provides sentence management data on federal offenders who are under community supervision. The PSS database provided information regarding dates of release, types of release (e.g. full parole, day parole, mandatory supervision), and dates of suspension or revocation of release.

Offender Information System. The National Headquarters of the Correctional Service of Canada began developing this database in 1974. In subsequent years, it grew to include more and more variables pertaining to federal offenders. The OIS database provided demographic information such as birthdate, race, and marital status, as well as information pertaining to criminal history such as: admitting offence, term identification, aggregate sentence, parole eligibility dates, actual release dates, release type, and warrant expiry date.

Assessment Instruments.

Statistical Information on Recidivism. Information collected on recidivism of the sample was used to test the predictive validity of the Statistical Information on Recidivism Scale (SIR). The SIR scale (see Appendix B) was developed by Nuffield (1982), and is used primarily for parole decision-making in Canada. From a sample of 2,500 randomly selected Canadian Federal Penitentiary inmates, Nuffield gathered information pertaining to: the

offender's index offence, prior criminal history, social characteristics, and parole board decision. Statistical analyses revealed that 15 risk-related factors were significantly associated with the decision to either grant or refuse parole.

The Statistical Information on Recidivism score provides an estimate of the probability that an individual will re-offend within two years after release. Each offender's total score on the SIR scale is a simple summation of item scores, with total scores ranging from -30 (very high risk) to +27 (very low risk). This scale is reported to accurately predict release outcome for male offenders (Hann & Harman, 1988; Motiuk & Porporino, 1989), and has proven to be somewhat indicative of release risk for females, though its value is considerably less than that for males (Hann & Harman, 1989). In the present investigation, it was determined that three SIR scale items could not be reliably scored, and therefore were eliminated from the measure. These items were: employment status at the time of arrest, number of dependents, and current marital status.

Case Management Strategies. Case Management Strategies (originally named Case Management Classification; CMC) was developed in the mid 1970s by Lerner and Arling, two psychologists employed by the Wisconsin Department of Corrections. It is an assessment instrument that was originally developed for the purpose of providing probation officers with information that would aid in case-appropriate intervention. While the CMS considers a variety of information sources, the major component of the CMS assessment method is a semi-structured interview with questions that have been developed to elicit attitude information about the offence, the offender's background, and about present plans and problems. The instrument takes about 45 minutes to administer.

The CMS interview is generally conducted as a component of the offender intake process. The interview record is a standardized 71-item schedule surveying offender attitudes, objective history, behavioural observations, and officer impressions of contributing factors (see Appendix C). The interview is scored in a check-off format and the resultant scores can be used to differentiate offenders into one of four groups: (1) Selective Intervention, (2) Casework Control, (3) Environmental Structure, and (4) Limit Setting.

The Selective Intervention (SI) offender is described as having generally pro-social values and a stable lifestyle. He or she tends to be in pursuit of the same goals as the non-criminal population, and is likely to seek out non-criminal associates. This type of offender is unlikely to have had a prior criminal record, and the current offence is often attributable to a fairly specific stressful life event (e.g. collapse of a relationship). Even with minimal intervention, this type of offender is the least likely to re-offend.

The Casework Control (CC) offender is characterized by generalized instability and disturbances that are evident in many aspects of his / her life. His / her attitude towards authority and adherence to treatment is problematic. He or she is often involved with drug / alcohol abuse, and is most likely to consider or attempt suicide. The CC offender is often involved in institutional misconduct, though their offence pattern is not consistent: it tends to include both misdemeanors and felonies.

Environmental Structure (ES) offenders are often severely lacking in basic social and living skills. This type of offender is described as being gullible and easily persuaded into criminal activity, and there is a strong tendency for him or her to have below average

intelligence. ES offenders usually also present with considerable vocational, educational, and employment deficits.

The characteristic feature of the Limit Setting (LS) offender is his / her anti-social and pro-criminal value system. LS offenders typically have extensive criminal records, and have served multiple prison terms. This type of offender is also very manipulative and resistant to change regarding his or her lifestyle and value system. LS offenders usually function well in prison (i.e. "easy time") because they are adept at dealing with the system.

Force -- Field Analysis. The Force-field Analysis of Needs (FFA) was also obtained through the institutional files (see Appendix D). The purpose of FFA is to assess and prioritize the offender's needs using file information collected through the CMS interview. Force-field Analysis is comprised of 15 possible criminogenic factors: present offence, offence pattern, response to supervision, academic / vocational skills, employment pattern, financial management, marital / family relations, companions, emotional stability, alcohol use, drug use, mental ability, health, sexual behaviour, and values / attitudes. These factors are rank-ordered to enable identification of the strongest forces acting to either promote or inhibit law-abiding behaviour for each particular offender. Subsequently, three or four of the most important factors are prioritized according to strength, speed, alterability, and interdependency into an order in which the offender should receive intervention. Strength refers to the strongest forces acting to either promote or inhibit law-abiding behaviour on the part of the offender; alterability concerns the extent to which these forces may be modified; speed refers to the extent to which the forces can be manipulated to achieve

quick, short-range results; interdependency estimates which forces are primary in the sense that progress in that area will tend to have positive effects in other areas.

Procedure

The investigation followed a multi-wave longitudinal design, including four stages of data collection. The first wave of data comprises the results of the mental health survey that was conducted at Prison for Women by CSC in 1989. For all analyses in the present investigation, only diagnoses based on lifetime prevalence estimates were used.

A comprehensive coding manual was prepared specifically for the second, third, and fourth waves of the study, which included the collection of data: a) pertaining to criminal history and case management / file information (e.g., demographic data, case history), b) regarding institutional adjustment and in-program performance, and c) pertaining to the recidivism follow-up portion of the investigation. The coding manual is shown in Appendix E.

Information for the second and third waves of the study (i.e., that pertaining to case and criminal history, institutional adjustment, and in-program performance) was achieved through a systematic case file review at Prison for Women. All case file reviews were conducted using a structured case-file review protocol.

The fourth and final wave of the study involved the collection data pertaining to post-release outcome. Objective information regarding and release was obtained through the aforementioned automated data bases. The post-release outcome measures include: return to custody for any reason, revocations of conditional release for minor technical

violations, convictions for new non-violent offences, and convictions for new violent offences.

To ensure reliability in rating estimates, a second rater independently rated a random subsample ($n = 10$) of cases on all variables. Correlation coefficients were computed for continuous variables, and kappa for categorical variables. The reliability criterion was set at .70, and any variables not reaching this criterion were dropped from the analyses.

Analyses

Intercorrelations between the various predictor variables (e.g., demographic and offence characteristics, case and criminal history variables, DIS categories, SIR scores, CMS groupings, needs identified by FFA) were computed to obtain a manageable set of uncorrelated components on which to compare groups.

A series of correlational and chi-square analyses were performed to determine whether offenders with a major mental disorder differed significantly from those without a major mental disorder on any of the vital predictor variables. Subsequently, partial correlations were executed between those predictor variables and outcome measures, controlling for time at risk in the community.

Stepwise multiple regression analyses were performed to determine: a) whether case history, criminal history, and mental disorder contribute significantly to the prediction of institutional adjustment and / or failure upon release, and b) the relative importance of each in predicting institutional adjustment and post-release outcome.

Results

Inter-rater Reliability of Case History Variables. Examination of inter-rater reliability estimates using the kappa coefficient for categorical variables and the Pearson Correlation Coefficient for continuous variables revealed that the following case history data was not reliably coded from file information: history of childhood abuse (emotional, physical, sexual), lived with parents to age 16, emotional or sexual abuse in adulthood, partner had alcohol / drug problems, partner had criminal history, living situation in the year prior to the offence, financial or emotional problems in the year prior to the offence, and number of previous psychiatric admissions.

Consequently, these variables were eliminated from analyses beyond the descriptive and correlational level. Inter-rater reliability estimates for the remaining case history variables were quite high, with kappa coefficients ranging from .72 to 1.0, and correlation coefficients ranging from .87 to 1.0.

Inter-rater Reliability of Criminal History Variables. All continuous variables relating to current offence and criminal history showed exceptionally high reliability ratings, ranging from $r = .89$ to $r = 1.0$. Further, only four categorical variables showed unsatisfactory inter-rater reliability estimates. These were degree of physical harm to victim in other admitting offence(s) (i.e., excluding most serious), age of victim(s), relationship of victim(s) to offender, and motivation for offence. Again, these variables were eliminated from higher level analyses.

Inter-rater Reliability of Institutional Adjustment and In-program Performance

Variables. Reliability ratings for all continuous variables yielded acceptable correlations, ranging from $r = .70$ to $r = 1.0$. Categorical variables that were shown to have inadequate kappa coefficients were: reasons for escorted and unescorted temporary absences, spent time in protective custody, type of work performed while incarcerated, percentage of time working/ in school/treatment, types of treatment received while incarcerated, and frequency of contact with family/ friends while incarcerated. These items were dropped from higher analyses.

Inter-rater reliability of Release and Post-release Variables. There was 100% inter-rater agreement on day parole and full parole eligibility dates, 70% agreement on statutory release date, and 100% agreement on the first release date. Correlations for continuous variables were high, ranging from $r = .86$ to $r = 1.0$. Although there was one categorical variable for which reliability did not meet criterion (special conditions on release: $\kappa = .62$), it was decided to retain this data due to 90% agreement. The somewhat low kappa coefficient can be explained by the extremely low base rate of participants who were *not* required to abide by special conditions upon release.

Means and Frequency Distributions.

Case History. Means and frequencies of case history variables are shown in Table 3.

Due to the nature of this data, there were missing values for each of the variables.

Frequency distributions are based subsamples.

Table 3

Means and Percentage Distribution of Case History Variables

Variable	<u>M</u> (SD)
Highest level education (grade)	10.0 (2.5)
Longest period of employment (months)	28.8 (34.2)
	<u>% (n / N)</u>
Lived with parents until age 16	50.0 (29 / 58)
Victim of abuse in childhood	61.2 (41 / 67)
Caregiver had alcohol/drug problem	50.9 (28 / 55)
Caregiver had psychiatric problem	18.6 (8 / 43)
Caregiver had criminal history	22.9 (11 / 48)
Lived alone at time of offence	30.9 (21 / 68)
Married at time of offence	37.9 (28 / 74)
Partner had alcohol / drug problem	75.7 (28 / 37)
Partner had criminal history	74.4 (29 / 39)
Victim of abuse in adulthood	58.7 (27 / 46)
Employed at the time of offence	26.6 (17 / 64)
Financial problems in year prior	60.0 (24 / 40)
Relied on social assistance in year prior	55.9 (33 / 59)

As expected, the majority of the participants had been abused before the age of 16, and over 50% had been raised in an environment where the parent or primary caregiver had a substance abuse problem. Moreover, almost one quarter of the participants were raised with a parent or caregiver who had a documented criminal history.

Prior to the current period of incarceration, most of these women were either married, or had been married at some point in time. Overwhelmingly, approximately seventy-five percent were married to, or living common-law with, a partner who had a criminal history. It is not surprising that, as Table 3 shows, most participants had education, employment, and financial difficulties prior to incarceration.

Criminal History. Approximately eighty-three percent of the participants had never served a prior federal term of incarceration. However, the majority (56.6%) have been incarcerated (either provincially or federally) in the past. Means and frequencies of criminal history variables are shown in Table 4.

Table 4

Means and Percentage Distribution of Criminal History Variables

Variable	<u>M</u> (SD)
Age at admission (years)	30.7 (8.1)
Age at survey (years)	32.9 (8.2)
Age at first non-violent conviction (years)	21.6 (5.9)
Age at first violent conviction (years)	25.9 (8.1)
Number of previous convictions	11.4 (14.0)
Aggregate sentence (months)	65.3 (40.5)
	% (<u>n</u> / 76)
Previous non-violent convictions	64.5 (49)
Previous violent convictions	30.3 (23)
Has served provincial term	55.3 (42)
Has served federal term	17.1 (13)
Ever incarcerated	56.6 (43)
<u>Admitting Offence:</u>	
Homicide	47.4 (36)
Robbery	21.1 (16)
Other Violent	9.2 (7)
Drug Offence	11.8 (9)
Property / Fraud Offence	9.2 (7)
Other Non-violent	1.3 (1)
Admitting offence violent	80.3 (61)
Used alcohol in current offence	40.7 (24) ^a
Used drugs in current offence	42.3 (22) ^b

Note. ^a N = 59. ^b N = 52.

It is noteworthy that almost 50% of the study sample are homicide offenders. The next most frequent admitting offence was robbery (21.1%), followed by drug offences (11.8%). Twenty-one of the 76 participants were serving life sentences. Excluding those participants, aggregate sentence length ranged from 24 to 180 months, with a mean of 65.3 months.

Institutional Adjustment and In-program Performance. Values for items measuring institutional adjustment and in-program performance were non-missing for the majority of the sample. Percentage distributions for these variables are located in Table 5.

Table 5

Percentage Distribution of Institutional Adjustment and In-program Performance Variables

Variable	% (n / N)
Any institutional charges	54.9 (39 / 71)
Violent institutional charges	30.0 (21 / 70)
Spent time in segregation	52.2 (35 / 67)
Participation in any institutional programs	87.1 (61 / 70)
Granted escorted temporary absences	88.9 (56 / 63)
Granted unescorted temporary absences	51.6 (33 / 64)

As indicated in Table 5, the vast majority of these women participated in institutional programs. It is also interesting to note that, while most offenders were granted escorted temporary absences, unescorted temporary absences were much less common.

SIR Scale Groupings, FFA Needs, and CMS Classifications. All Statistical

Information on Recidivism Scales were scored by the primary researcher. Three items that could not be reliably coded for every subject were eliminated: 1) marital status at the time of arrest, 2) number of dependents, and 3) employment status prior to arrest.

Case Management Strategies classifications and Force-field Analysis of Needs were transcribed from institutional files, and were available for 67 and 70 participants, respectively. Three of the 15 items listed by FFA were eliminated from analyses: 1) present offence, 2) offence pattern, and 3) response to supervision. These items are static in nature, and therefore are not criminogenic needs (Andrews & Bonta, 1994). A frequency distribution of SIR scale risk groupings, CMS classifications, and FFA needs are shown in Table 6.

Table 6

Percentage Distribution of Statistical Information on Recidivism Scale Groupings, CMS
Classifications, and Force-field Analysis of Needs

Variable	% (n / N)
<u>SIR scale risk groupings:</u>	
Very good	44.7 (34 / 76)
Good	19.7 (15)
Fair	10.5 (8)
Poor	11.8 (9)
Very poor	13.2 (10)
<u>Case Management Strategies Classifications:</u>	
Environmental Structure	6.0 (4 / 67)
Limit Setter	13.4 (9)
Casework Control	47.8 (32)
Selective Intervention	32.8 (22)
<u>Force-field Analysis of Needs:</u>	
Academic / vocational skills	71.4 (50 / 70)
Employment	70.0 (49)
Financial management	55.7 (39)
Marital / family relations	68.6 (48)
Companions	60.0 (42)
Emotional stability	80.0 (56)
Alcohol use	51.4 (36)
Drug use	58.6 (41)
Mental ability	12.9 (9)
Health	18.6 (13)
Sexual behaviour	11.4 (8)
Values / attitudes	32.9 (23)

Statistical Information on Recidivism scores ranged from -14 to +19, with a mean score of 3.25 ($SD = 8.6$). Interestingly, almost half of the sample scored in the Very Good risk category. According to Case management Strategies, only four participants classified as Environmental Structure, while almost 80% fell into either the Casework Control or

Selective Intervention Classifications. Force-field Analysis showed emotional stability to be the most frequent need for these participants. Not surprisingly, academic skills and education were also among the most frequently cited needs.

Mental Disorder. As mentioned previously, the frequency of mental disorder in this offender population is much higher than in the general population, and is also elevated in comparison to other offender populations (refer to Table 1). While Table 1 shows the percentage distribution of selected disorders without exclusion criteria applied, Table 7 outlines the percent distribution of selected disorders *with* exclusion criteria applied.

Table 7

Percentage Distribution of DIS / DSM Disorders with Stringent Criteria

Disorder	% (n / 76)
Any major mental disorder	17.1 (13)
Major depression	32.9 (25)
Generalized anxiety disorder	19.7 (15)
Psychosexual dysfunction	34.2 (26)
Antisocial personality	36.8 (28)
Alcohol use / dependence	63.2 (48)
Drug use / dependence	50.0 (38)

Note here that 'Any major mental disorder' includes only those participants who met stringent (lifetime) diagnostic criteria for either schizophrenia, schizophreniform disorder, or mania. In comparing data in Table 7 to that in Table 1, it quickly becomes evident that, while exclusion criteria drastically affects the percentage distribution of some disorders (e.g., generalized anxiety, antisocial personality), it appears to have little or no effect on other diagnoses (e.g., alcohol / drug use / dependence). The minute increase in

percentage of those with alcohol use / dependence disorder *without* exclusion criteria can be explained by the fact that one subject was lost from the study: while results in Table 1 are based on $n = 77$, those in Table 7 are based on $n = 76$.

Conditional Release. Subjects were followed from first release after the DIS survey (September, 1989) until May 01, 1995. Of the 76 participants who completed the mental health interview, there were 10 who had not been released from the institution as of that date. Further, while most participants were granted discretionary release by either day parole ($n = 48$) or full parole ($n = 7$), approximately 15% were not released until completion of two-thirds of their sentence (i.e., statutory release). Release information is presented in Table 8.

Table 8

Percentage Distribution of Release Variables

Variable	% ($n / 76$)
Any release	86.8 (66)
Discretionary release	72.4 (55)

Time Incarcerated. Time incarcerated was calculated as: time from admission until first release, including day parolees. For those who had not been released as of May 01, 1995, the time incarcerated was calculated as: time from admission to May 01, 1995. For the entire sample, the average amount of time incarcerated was 3.6 years (i.e., 1300 days, $SD = 1216$), with a range of 4.7 months to 15.6 years. For the sixty-six offenders who had been released as of the May 01, 1995, the average time incarcerated was 2.7 years (i.e., 971

days, $SD = 812$). For the ten offenders who had not been released as of the cut-off date, the mean time incarcerated was 9.5 years.

Post-release Outcome. When recording post-release outcome, it became obvious that many participants were re-incarcerated several times, and for a diversity of reasons. Percent distributions of post-release outcome are presented in tabular form below.

Table 9

Percentage Distribution of Post Release Outcome Variables

Variable	% ($n / 66$)
Return to custody for any reason	59.1 (39)
Revocation for technical violation	43.9 (29)
Any new conviction	43.9 (29)
New violent conviction	16.7 (11)

Every return to custody occurred before warrant expiry, whether it was for a simple technical violation, or conviction for a new offence. When recidivism was defined as 'return to custody for any reason', almost 60% of those who were released classified as recidivists. It is somewhat surprising that new convictions were just as likely to occur as revocations for technical violations.

Intercorrelations / Correlations between predictor variables. Intercorrelations / correlations between all predictor variables were performed to delineate the strength and direction of those relationships. Intercorrelations among criminal history / institutional adjustment variables are located in Appendix F. Intercorrelations among needs identified by

FFA, case history variables, and DIS / DSM disorders (stringent criteria) are located in Appendix G, Appendix H, and Appendix I, respectively.

Correlations between needs identified by FFA and selected DIS / DSM disorders are located in Appendix J. As expected, there is a strong positive relationship between alcohol use identified by FFA, and alcohol use / dependence, as diagnosed by the DIS. The same applies to drug use as a need or disorder. It is also not surprising that a DIS diagnosis of antisocial personality is strongly associated with values / attitudes as identified by FFA. Overall, 3 of the 13 disorders listed appear to be positively associated with a high number needs: antisocial personality disorder, alcohol use / dependence, and drug use / dependence.

Correlations between needs identified by FFA and case history variables are shown in Appendix K. Correlations between FFA needs and criminal history / institutional adjustment variables are shown in Appendix L. Selected DIS / DSM disorders, with exclusion criteria applied, are correlated with case history variables and criminal history / institutional adjustment variables in Appendix M and Appendix N, respectively. Finally, Appendix O shows simple correlations between case history and criminal history / institutional adjustment variables.

Correlational analyses were performed with a smaller, more manageable sets of variables to determine whether offenders with particular diagnoses differed from those without diagnoses on any pertinent predictor variables. Thirteen criminal history variables were selected out, and simple correlations were calculated with seven DIS / DSM diagnoses. Table 10 shows the results of these analyses.

Table 10

Correlations Between Criminal History and Diagnoses

Variable	1	2	3	4	5	6	7
Age at admission	-.20	-.12	.20	-.02	-.20	-.16	-.36**
Age at time of survey	-.18	-.13	.20	-.05	-.26*	-.16	-.35**
Age at first non-violent conviction	-.09	-.19	.11	-.02	-.35**	-.29*	-.38**
Age at first violent conviction	-.15	.01	.05	-.14	-.32*	-.26*	-.31*
Number of previous convictions	-.03	.08	.03	.08	.29*	.03	.30**
Previous non-violent convictions	-.03	.17	.09	.01	.40***	.17	.30**
Previous violent convictions	.23*	-.03	.03	.13	.21	.21	.26*
Has served provincial term	.06	.01	-.02	.04	.30**	.25*	.37***
Has served federal term	.07	.05	-.05	.04	.23*	.13	.17
Ever incarcerated	.12	.05	-.03	.02	.28*	.27*	.40***
Admitting offence violent	-.04	.21	-.17	.01	.10	.24*	.03
Used alcohol in current offence	.22	-.09	.10	.18	.09	.57****	.06
Used drugs in current offence	.07	.16	.17	-.06	.48***	.39**	.48***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, **** $p < .0001$.

1 = Any major mental disorder 4 = Psychosexual dysfunction 6 = Alcohol use / dependence

2 = Major depression 5 = Antisocial personality 7 = Drug use / dependence

3 = Generalized anxiety disorder

As Table 10 indicates, the disorders that appear to be most highly correlated with criminal history risk variables are: alcohol use / dependence, drug use / dependence, and antisocial personality. Of interest, however, is the significant relationship between presence

of a major mental disorder and history of violent convictions. Moreover, despite this association, there is virtually no relationship between major mental disorder and violence used in the admitting offence. Further, there are only weak relationships between major mental disorder and the remaining criminal history risk variables.

Fourteen case history variables were selected for correlational analyses with diagnoses. Together, these variables address the issues of abuse in childhood and in adulthood, living and marital situation at the time of conviction, and education, employment, and financial problems. The results of these analyses are presented in Table 11.

Table 11

Correlations between Case History and Diagnoses

Variable	1	2	3	4	5	6	7
Level of education	-.21	.07	-.22	-.26*	-.16	-.46****	-.05
Lived with parents until age 16	-.14	-.07	.00	-.36**	-.40**	-.56****	-.38**
Victim of abuse in childhood	.08	.10	-.04	.30*	.25*	.55****	.11
Caregiver had alcohol / drug problem	.27*	.18	-.10	.25	.25	.64****	.35**
Caregiver had psychiatric problem	.11	-.14	.13	.53***	-.01	.25	-.06
Caregiver had criminal history	.20	-.09	-.09	.40**	.14	.40*	.35*
Lived alone at time of offence	.03	-.01	-.10	-.13	.25*	.02	.08
Married at time of offence	-.08	.01	-.08	-.17	-.06	-.16	-.19
Partner had alcohol / drug problem	.22	-.01	-.09	.15	.39*	.47**	.14
Partner had criminal history	.00	.04	-.30	.21	.37*	.25	.28
Victim of abuse in adulthood	.06	.06	-.09	.08	-.02	.32*	-.26
Employed at the time of offence	-.24	.09	.02	-.16	-.26*	-.36**	-.37**
Financial problems in year prior	.10	.11	-.12	-.02	.17	.33*	.31
Relied on social assistance in year prior	.31*	.03	-.15	.23	.16	.48****	.30*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, **** $p < .0001$.

1 = Any major mental disorder

5 = Antisocial personality

2 = Major depression

6 = Alcohol use / dependence

3 = Generalized anxiety disorder

7 = Drug use / dependence

4 = Psychosexual dysfunction

Case history variables also appear to be most strongly associated with the substance abuse / dependence disorders, and with antisocial personality. Only two case history variables were found to be significantly correlated with a diagnosis of a major mental disorder: caregiver had alcohol / drug problem, and reliance on social assistance at the time of the offence. As Table 11 shows, there are no case history variables that show a significant association with major depression or with generalized anxiety disorder.

Next, the needs identified by Force-field Analysis, Statistical Information on Recidivism scores, and Case Management Strategies Classifications were correlated with diagnoses. The relationships between these variables are shown in Table 12.

Table 12

Correlations between FFA Needs, SIR Scale Score, CMS Classifications, and Diagnoses

Variable	1	2	3	4	5	6	7
<u>FFA Needs:</u>							
Academic / vocational	.29*	.04	.02	.19	.09	.34**	.14
Employment	.30*	.06	-.04	.01	.37**	.38**	.30*
Financial management	-.05	-.05	.05	.16	.15	.02	.05
Marital / family	.06	-.05	-.02	.10	.07	.16	.08
Companions	-.02	.07	.21	-.02	.33**	.33**	.43***
Emotional stability	.04	-.03	-.09	.06	.16	.09	.23
Alcohol use	.37**	.07	-.05	.16	-.02	.50****	.14
Drug use	.23	.16	-.20	.06	.41***	.49****	.69****
Mental ability	.05	.00	.11	.08	-.12	.19	-.14
Health	.08	.14	-.25*	-.11	-.06	.11	.24*
Sexual behaviour	.07	.27	-.19	-.16	.00	-.02	.08
Values / attitudes	.00	.16	-.07	-.12	.53****	.06	.38**
SIR Scale score:	-.15	-.14	.00	-.09	-.38***	-.40***	-.51****
<u>CMS Classifications:</u>							
Environmental Structure	.21	.21	-.12	-.05	-.06	-.06	.18
Limit Setter	-.06	-.08	.13	-.09	.23*	.11	.12
Casework Control	.04	.14	-.02	.34**	.18	.43****	.27*
Selective Intervention	-.29*	-.14	-.02	-.22	-.31**	-.53****	-.41***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, **** $p < .0001$.

- 1 = Any major mental disorder 5 = Antisocial personality
 2 = Major depression 6 = Alcohol use / dependence
 3 = Generalized anxiety disorder 7 = Drug use / dependence
 4 = Psychosexual dysfunction

As Table 12 demonstrates, the diagnoses that are most highly related to FFA needs, SIR scale scores, and CMS classifications are the substance use disorders and antisocial personality. It is noteworthy that the majority of the disorders listed correlate negatively with the SIR score. These relationships are only significant for the substance use disorders, and antisocial personality.

In order to identify the relationships between diagnoses and institutional adjustment / in-program performance, relevant variables were dichotomized, and correlational analyses were performed. Dependent variables for this analysis included: institutional charges, violent institutional charges, and involuntary placement in segregation. Table 13 below delineates the results of these analyses.

Table 13

Correlations between DIS / DSM Diagnoses and Institutional Adjustment

Variable	Any Institutional Charges	Violent Institutional Charges	Placement in Segregation
Any major mental disorder	-.08	.09	.06
Major depression	.18	.03	.16
Generalized anxiety disorder	-.09	-.09	-.14
Psychosexual dysfunction	-.02	.03	.06
Antisocial personality	.25*	.18	.19
Alcohol use / dependence	.25*	.03	.19
Drug use / dependence	.21	.09	.25*

Note. * $p < .05$.

As Table 13 demonstrates, the diagnoses of antisocial personality or alcohol use disorder are positively and significantly associated with having institutional charges. Those with drug use disorder were significantly more likely to have spent time, involuntarily, in administrative segregation. Major mental disorder, major depression, generalized anxiety disorder, and psychosexual dysfunction each appear to have little or no relationship with institutional adjustment.

Diagnoses were also correlated with dichotomous in-program performance variables to determine whether there exists any significant relationship between disorder(s) and: participation in institutional programs, having been granted escorted temporary absences, or having been granted unescorted temporary absences. Table 14 outlines these associations.

Table 14

Correlations between DIS / DSM Diagnoses and in-program Performance

Variable	Participation in any institutional programs	Granted escorted temporary absences	Granted unescorted temporary absences
Any major mental disorder	.08	-.12	.07
Major depression	-.01	.04	.31*
Generalized anxiety disorder	.18	-.10	-.22
Psychosexual dysfunction	.18	-.27*	-.05
Antisocial personality	.07	-.08	-.02
Alcohol use / dependence	.42**	-.17	.28*
Drug use / dependence	.18	-.16	.13

Note. * $p < .05$, ** $p < .01$.

Since treatment for substance abuse is the most commonly accessed treatment at Prison for Women, it is not surprising to find that those with alcohol use / dependence are more likely to have participated in institutional programs. While Table 14 demonstrates a trend towards the denial of escorted temporary absences to those with diagnoses, the only participants for which this negative association is significant are those with psychosexual dysfunction.

Chi-Square Analyses. To substantiate the findings demonstrated in correlational analyses in Tables 13 and 14 above, chi-square analyses were performed with institutional adjustment and in-program performance variables between the following groups: 1) those with major mental disorder (disordered) and those without (non-disordered), 2) those with antisocial personality (APD) and those without (non-APD), those with alcohol use / dependence disorder (alcohol dependent) and those without (non-dependent), and, finally, those with drug use / dependence disorder (dependent) and those without (non-dependent). The results of these analyses are located in Tables 15 to 18 (inclusive) that follow.

Table 15

Percentage Distribution of Institutional Adjustment and In-program Performance:

Comparison between Mentally Disordered* and Non-Disordered Offenders

Variable	Total % (n/N)	Disordered % (n/N)	Non-Disordered % (n/N)	χ^2
Any institutional charges	54.9 (39/71)	46.2 (6/13)	56.9 (33/58)	n.s.
Violent institutional charges	30.0 (21/70)	38.5 (5/13)	28.1 (16/57)	n.s.
Spent time in segregation	52.2 (35/67)	58.3 (7/12)	50.9 (28/55)	n.s.
Participation in institutional programs	85.5 (47/55)	90.9 (10/11)	84.1 (37/44)	n.s.
Granted escorted temporary absences	88.9 (56/63)	80.0 (8/10)	90.6 (48/53)	n.s.
Granted unescorted temporary absences	51.6 (33/64)	60.0 (6/10)	50.0 (27/54)	n.s.

Note. The familywise error rate was held at .05 by testing each comparison at $p = .05/6 = .008$.

* Offenders who meet stringent diagnostic criteria for schizophrenia, schizophreniform disorder, or mania.

Table 16

Percentage Distribution of Institutional Adjustment and In-program Performance:

Comparison between Participants with Antisocial Personality Disorder (APD) and those without Antisocial Personality Disorder (Non-APD)

Variable	Total % (n/N)	APD % (n/N)	Non-APD % (n/N)	χ^2
Any institutional charges	54.9 (39/71)	72.0 (18/25)	45.7 (21/46)	n.s.
Violent institutional charges	30.0 (21/70)	41.7 (10/24)	23.9 (11/46)	n.s.
Spent time in segregation	52.2 (35/67)	65.2 (15/23)	45.5 (20/44)	n.s.
Participation in institutional programs	85.5 (47/55)	88.9 (16/18)	83.8 (31/37)	n.s.
Granted escorted temporary absences	88.9 (56/63)	85.0 (17/20)	90.7 (39/43)	n.s.
Granted unescorted temporary absences	51.6 (33/64)	50.0 (11/22)	52.4 (22/42)	n.s.

Note. The familywise error rate was held at .05 by testing each comparison at $p = .05/6 = .008$.

Table 17

Percentage Distribution of Institutional Adjustment and In-program Performance:

Comparison between Alcohol - Dependent and Non - Dependent Participants

Variable	Total % (n/N)	Alcohol Dependent % (n/N)	Non- Dependent % (n/N)	χ^2
Any institutional charges	54.9 (39/71)	64.4 (29/45)	38.5 (10/26)	n.s.
Violent institutional charges	30.0 (21/70)	31.1 (14/45)	28.0 (7/25)	n.s.
Spent time in segregation	52.2 (35/67)	59.1 (26/44)	39.1 (9/23)	n.s.
Participation in institutional programs	85.5 (47/55)	97.1 (33/34)	66.7 (14/21)	0.6
Granted escorted temporary absences	88.9 (56/63)	84.6 (33/39)	95.8 (23/24)	n.s.
Granted unescorted temporary absences	51.6 (33/64)	62.5 (25/40)	33.3 (8/24)	n.s.

Note. The familywise error rate was held at .05 by testing each comparison at $p = .05/6 = .008$.

Table 18

Percentage Distribution of Institutional Adjustment and In-program Performance:Comparison between Drug - Dependent and Non - Dependent Participants

Variable	Total % (n/N)	Drug Dependent % (n/N)	Non- Dependent % (n/N)	χ^2
Any institutional charges	54.9 (39/71)	65.7 (23/35)	44.4 (16/36)	n.s.
Violent institutional charges	30.0 (21/70)	34.3 (12/35)	25.7 (9/35)	n.s.
Spent time in segregation	52.2 (35/67)	64.7 (22/34)	39.4 (13/33)	n.s.
Participation in institutional programs	85.5 (47/55)	92.3 (24/26)	79.3 (23/29)	n.s.
Granted escorted temporary absences	88.9 (56/63)	83.9 (26/31)	93.8 (30/32)	n.s.
Granted unescorted temporary absences	51.6 (33/64)	58.1 (18/31)	45.5 (15/33)	n.s.

Note. The familywise error rate was held at .05 by testing each comparison at $p = .05/6 = .008$.

As indicated in Tables 15 to 18, the results of chi-square analyses, with correction for multiple comparisons, reveal that only one between-group difference remains statistically significant: alcohol dependent participants were more likely to have participated in treatment while incarcerated. While percentage distributions show trends in the same direction as outlined in the previous correlational analyses, chi-square analyses show no other significant between-group differences in institutional adjustment and in-program performance variables.

While diagnosis (any) appears to have little relationship with institutional adjustment, correlational analyses revealed even more scarce between-group differences in release and discretionary release. See Table 19 for results of these analyses.

Table 19

Correlations between DIS / DSM Diagnoses and Release

Variable	Any Release	Discretionary Release
Any major mental disorder	.07	.12
Major depression	-.14	-.13
Generalized anxiety	.00	.08
Psychosexual dysfunction	.12	.14
Antisocial personality	.14	.11
Alcohol use / dependence	.03	.02
Drug use / dependence	.16	-.03

Chi-square analyses substantiated the findings outlined in Table 19, where no significant between-group differences were found.

Disordered and non-disordered groups were further subdivided to determine comorbidity rates with antisocial personality and substance use disorders. Further, percentage distributions were computed for comorbid diagnoses and release, re-admission, and new offence data. Results of these computations are located in Table 20.

Table 20

Co-morbidity, Release and Re-admission Rates

Diagnoses	N	%	<u>Released</u>		<u>Re-admission</u>		<u>Re-admission with offence</u>	
			n	%	n	%	n	%
<u>Non-disordered +</u>								
Non-APD + Non-alcohol / drug	31	49.2	25	80.6	7	28.0	6	24.0
Non-APD + Alcohol / drug	5	7.9	4	80.0	3	75.0	3	75.0
APD + Non-alcohol / drug	11	17.5	10	90.9	7	70.0	4	40.0
APD + Alcohol / drug	16	25.4	15	93.8	12	80.0	9	60.0
Subtotal	63	100.0	54	85.7	29	53.7	22	40.7
<u>Disordered +</u>								
Non-APD + Non-alcohol / drug	5	38.5	4	80.0	3	75.0	1	25.0
Non-APD + Alcohol / drug	7	53.8	7	100.0	6	85.7	5	71.4
APD + Non-alcohol / drug	0	0.0	0	0.0	0	0.0	0	0.0
APD + Alcohol / drug	1	7.7	1	100.0	1	100.0	1	100.0
Subtotal	13	100.0	12	92.3	12	83.3	7	58.3

Note. APD = Antisocial personality disorder.

Partial Correlation Coefficients. A measure of time at risk was calculated to enable computation of unbiased (partial) correlation coefficients between predictors and post-release outcome measures. Time at risk was defined as time between release and first revocation / return to custody (for those who had their release revoked or were convicted of a new offence), or, time between release and May 01, 1995 (for those who did not return to custody).

Time at risk ranged from 4 days to 5.8 years, with a mean of approximately 2 years (24.3 months). The mean time at risk for those who did not return to custody was approximately 4 years, with a range of 20 months to 5.8 years. The mean time at risk for

technical violations was approximately 7.5 months. Mean times at risk for new non-violent convictions, and for new violent convictions were 8.0 and 4.8 months, respectively.

Correlation coefficients were calculated between various predictor variables and the four outcome measure, controlling for time at risk in the community. Simple correlations between time at risk in the community and the four post-release outcome measures ranged from $r = -.84$ to $r = -.38$. All correlations between the covariate and dependent variables were statistically significant ($p < .0003$).

Results of partial correlation analyses between criminal history and post-release outcome are shown in Table 21.

Table 21

Partial Correlations between Criminal History and Post-release Outcome

Variable	Return for any reason	Revocation: technical violation	Any new conviction	New violent conviction
Age at admission	-.24	-.06	-.18	-.20
Age at time of survey	-.25*	-.06	-.19	-.20
Age at first non-violent offence	-.08	.03	-.07	-.11
Age at first violent offence	-.30*	-.20	-.14	-.19
Number of previous offences	.27*	.05	.27*	.06
Previous non-violent offences	.24	.02	.25*	.06
Previous violent offences	.18	.17	.15	.02
Has served provincial term	.56****	.14	.30*	.18
Has served federal term	.20	.09	.27*	.05
Ever incarcerated in past	.58****	.18	.33**	.16
Admitting offence violent	-.19	-.02	-.28*	.15
Use of alcohol in current offence	.20	.18	-.02	-.18
Use of drugs in current offence	-.04	-.03	.11	-.11

Note. * $p < .05$, ** $p < .01$, **** $p < .0001$.

Despite statistically controlling for variance accounted for by time at risk in the community, there remains a strong, statistically significant relationship between past incarcerations and return to custody for any reason. It is therefore not surprising to find that number of previous offences is also significantly correlated with this measure of post-release outcome. Also, as shown in Table 21, there is a negative relationship between age at the time of the survey, age at first violent offence, and revocation for any reason.

Considering that almost half of the criminal history variables correlate significantly with revocation for any reason, it is somewhat surprising to find that none of the predictor variables showed a significant association with revocation for technical violation. Moreover, while the variables related to age demonstrated a negative relationship with new violent convictions, these associations were not statistically significant.

Finally, Table 21 demonstrates that there are a number of criminal history variables that maintain a significant association with failure upon release due to conviction for a new offence. In particular, variables associated with previous offences and previous incarcerations show significant relationships with convictions for new offences. The partial correlation analysis revealed a significant negative association between violence used in the admitting offence, and new convictions incurred post-release.

The second series of partial correlation analyses examined relationships between case history variables and post-release outcome measures, again controlling for time at risk in the community. Results of these analyses are presented in Table 22.

Table 22

Partial Correlations between Case History and Post-release Outcome

Variable	Return for any reason	Revocation: technical violation	Any new conviction	New violent conviction
Lived with parents until age 16	-.18	-.24	-.09	-.09
Victim of abuse in childhood	-.01	-.07	-.16	.00
Caregiver had alcohol / drug problem	.28*	.21	.11	-.04
Caregiver had psychiatric problem	-.25	-.16	-.30	-.13
Caregiver had criminal history	-.11	-.25	-.04	.19
Lived alone at time of offence	.03	-.12	-.09	.13
Married at time of offence	.10	-.11	-.10	-.04
Partner had alcohol / drug problem	.23	.15	-.03	-.09
Partner had criminal history	.11	.10	.07	.12
Victim of abuse in adulthood	.00	-.15	-.24	.04
Level of education	-.22	-.37**	.00	.11
Employed at the time of offence	-.10	-.09	-.12	-.06
Financial problems in year prior	.34*	-.03	.41*	.00
Relied on social assistance in year prior	.12	.16	-.02	.05

Note. * $p < .05$, ** $p < .01$.

As shown in Table 22, none of the case history variables are significantly correlated with new violent convictions (post-release). While most case history variables show virtually no relationship with new convictions (includes non-violent), in general, those with financial problems in the year prior to admission were more likely to have their release revoked for any reason, and were more likely to re-offend post-release. Level of education was negatively associated with revocations for technical violations, though was not significantly correlated with any of the other post-release outcome measures. Finally, it is noteworthy that the *negative* relationship between caregiver psychiatric problems and new

convictions approached significance ($p = .06$), and the *positive* relationship between caregiver's alcohol / drug problems and technical violations was significant at $p < .05$.

Force-field Analysis of Needs, Statistical Information on Recidivism Score, and Case Management Strategies Classifications were correlated with the four measures of post-release outcome, again controlling for time at risk in the community. Table 23 shows the results of these analyses.

Table 23

Partial Correlations between FFA Needs, SIR Score, Case Management Strategies Classification and Post-release Outcome

Variable	Return for any reason	Revocation: technical violation	Any new conviction	New violent conviction
<u>FFA Needs:</u>				
Academic / vocational	.13	.17	.01	-.13
Employment	.43***	.27*	.22	-.02
Financial management	.18	.09	.25	.21
Marital / family	.15	.05	.11	.07
Companions	.27*	.16	.41**	.11
Emotional stability	-.13	-.09	-.07	-.02
Alcohol use	.23	.13	.02	-.02
Drug use	.18	.17	.05	.11
Mental ability	.07	.20	.03	-.02
Health	.16	.12	-.03	.23
Sexual behaviour	.01	.04	.01	.12
Values / attitudes	.21	.09	.30*	.12
SIR Scale score:	-.49****	-.16	-.52****	-.24
<u>CMS Classifications:</u>				
Environmental Structure	-.11	-.13	.04	.06
Limit Setter	.16	.33**	-.07	-.11
Casework Control	.21	.07	.16	.01
Selective Intervention	-.26*	-.17	-.12	.08

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, **** $p < .0001$.

Generally, those who had employment problems / needs were more likely to return to custody, and were more likely to have their release revoked for a technical violation. Not surprisingly, those who had companions or values / attitudes identified as a problem or weakness were more likely to be convicted for a new offence.

The SIR score demonstrated statistically strong negative relationships with return to custody for any reason, and with convictions for new offences. While the direction of the relationship between SIR score and post-release outcome remained stable across all four dependent measures, for technical violations and new violent convictions, statistical significance at $p < .05$ was not met.

Chi-square analyses were performed to determine whether the five prognostic categories (i.e., very good risk to poor risk) showed significant discrimination to post-release outcome. Probability levels for chi-square analyses of prognostic category by return to custody (any), new offences, and new violent offences were each less than .001, and $p < .002$ for technical violations. While small cell sizes were problematic in these analyses, the SIR demonstrated predictive accuracy, both by total score, and by prognostic category. Results of these chi-square analyses are presented in tabular form in Appendix P.

Finally, while CMS classification and post-release outcome were generally unrelated, offenders designated as "Limit Setters" were more likely to have their release revoked for technical violations, while "Selective Intervention" offenders were less likely to return to custody (any reason).

2

PM-1 3 1/2" x 4" PHOTOGRAPHIC MICROCOPY TARGET
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PRECISIONSM RESOLUTION TARGETS

Seven categories of DIS / DSM diagnoses were correlated with the various measures of post-release outcome, again partialing out variance accounted for by time at risk in the community. Results are presented in Table 24.

Table 24

Partial Correlations between DIS / DSM Diagnoses and Post-release Outcome

Variable	Return for any reason	Revocation: technical violation	Any new conviction	New violent conviction
Any major mental disorder	.13	.16	.02	-.08
Major depression	.14	.11	.05	.00
Generalized anxiety disorder	-.18	-.10	.06	-.11
Psychosexual dysfunction	-.31*	-.21	-.11	.11
Antisocial personality	.27*	.13	.06	.08
Alcohol use / dependence	.31*	.24	.13	.01
Drug use / dependence	.30*	.08	.23	.17

Note. * $p < .05$.

While none of the categories of disorders were substantially correlated with technical violations, new convictions, or new violent convictions, some significant correlations were found between four disorders and return to custody. While psychosexual dysfunction showed a negative relationship with this variable, antisocial personality, alcohol use / dependence and drug use / dependence were positively correlated with return to custody. All of these associations were statistically significant.

To determine whether institutional adjustment was related to post-release outcome, the three dichotomous predictor variables were correlated with post-release outcome measures. Again, time at risk in the community was partialled out of the equation. Results are located in Table 25.

Table 25

Partial Correlations between Institutional Adjustment and Post-release Outcome

Variable	Return for any reason	Revocation: technical violation	Any new conviction	New violent conviction
Any institutional charges	.04	.16	-.05	-.01
Violent institutional charges	-.17	.08	-.03	.00
Spent time in segregation	.05	-.14	.05	.10

While none of the relationships in the above table are statistically significant, perhaps what is most remarkable is the fact that some of the correlations are negative. Note especially the magnitude of the (negative) relationship between violent institutional charges and return to custody (any reason). Although statistical significance was not achieved, this correlation implies that those who had violent institutional charges were *less* likely to return to custody after release.

The last set of partial correlations that was performed examined the relationships between in-program performance variables and post-release outcome measures, while controlling for time at risk in the community. Data from these analyses are located in Table 26.

Table 26

Partial Correlations between In-program Performance and Post-release Outcome

Variable	Return for any reason	Revocation: technical violation	Any new conviction	New violent conviction
Participation in any institutional programs	.20	-.08	-.05	-.02
Granted escorted temporary absences	-.17	.01	-.01	.00
Granted unescorted temporary absences	-.14	.02	-.10	-.19

As demonstrated in Table 26, in-program performance is only minimally related to post-release outcome. None of the partial correlations in this set of analyses were statistically significant.

Stepwise Regression Analyses. The following stepwise multiple regression analyses were performed: a) case history, criminal history, and diagnoses predicting institutional adjustment variables, b) diagnoses predicting post-release outcome variables, c) institutional adjustment and in-program performance predicting post-release outcome variables, and, d) case history, criminal history, and diagnoses predicting post-release outcome variables

Stepwise regressions for variables predicting institutional adjustment To determine which items were most important in predicting institutional adjustment, eleven variables relating to case and criminal history, and DIS / DSM diagnosis were selected out and regressed on: institutional misconducts, violent institutional misconducts, and time in segregation. The eleven variables were chosen based upon several factors: inter-rater reliability estimates, relevance to the current hypotheses, and results of preliminary correlational and chi-square analyses.

Predictor variables included: diagnosis of severe mental disorder, antisocial personality, alcohol dependence, drug dependence, employment status prior to offence, history of reliance of social assistance, highest level of education, number of previous offences, past incarcerations, admitting offence violent, and alcohol / drugs used prior to offence.

To account for incomplete data, missing values were replaced with their respective variable means. All values for mental health data were non-missing. One of the criminal history variables had 14 missing cases: use of alcohol / drugs prior to the offence. The mean was .49, which was added to substitute missing values. The number of previous offences ranged from 0 to 57, plus one case for which the value was 217. Due to the fact that this

was an extreme outlier ($M = 13.5$, $SD = 27.0$), its value was changed to 57, the next highest number of previous offences. The three case history variables had contained missing data. The 12 missing cases for employment status were replaced with the mean of .27; the 17 missing cases for reliance on social assistance were replaced with the mean of .56; the 12 missing cases for level of education were replaced with the mean of 10.0.

The first analysis regressed the eleven aforementioned predictors on institutional misconducts: both violent and non-violent. There were five missing cases for the dependent variable, which were replaced with the mean of .55. Results of the stepwise regression analysis are shown in Table 27.

Table 27

Summary of Hierarchical Regression Analysis for Variables Predicting Institutional Misconducts (N = 76)

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Number of previous offences	.01	.00	.29
Step 2			
Number of previous offences	.01	.00	.29
Admitting offence violent	.37	.12	.31
Step 3			
Number of previous offences	.01	.00	.29
Admitting offence violent	.32	.12	.27
Used drugs / alcohol in commission of offence	.26	.11	.24

Note. $R^2 = .17$ for Step 1; $R^2 = .26$ for Step 2; $R^2 = .32$ for Step 3. $p < .05$.
No other variable met the .05 significance level for entry into the model.

Although variables entered into the model consisted of a combination of case history, criminal history, and diagnoses, only criminal history variables met the .05 significance level for prediction of institutional misconducts.

To ascertain the relative importance of variables predicting violent institutional misconducts, the same 11 predictors were regressed on this dependent variable. There were six missing cases for the dependent variable, which were replaced with the mean of .30. Results of this regression are presented in Table 28.

Table 28

Summary of Hierarchical Regression Analysis for Variables Predicting Violent Institutional Misconducts (N = 76).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Admitting offence violent	.32	.12	.29
Step 2			
Admitting offence violent	.31	.12	.28
Highest level of education	-.04	.02	-.22

Note. $R^2 = .09$ for Step 1; $R^2 = .14$ for Step 2. $p < .05$.

No other variable met the .05 significance level for entry into the model.

Despite the fact that 11 variables were entered into the regression model, only two variables were found to reach statistical significance in predicting violent institutional misconducts: violence used in the admitting offence, and highest level of education

The last analysis for variables predicting institutional adjustment involved regression of the 11 predictor variables on time in administrative segregation. The nine missing cases for the dependent variables were replaced with the mean of .52. Results are presented in tabular form below.

Table 29

Summary of Hierarchical Regression Analysis for Variables Predicting Placement in Administrative Segregation (N = 76).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Admitting offence violent	.40	.13	.34
Step 2			
Admitting offence violent	.39	.12	.33
Number of previous offences	.01	.00	.30
Step 3			
Admitting offence violent	.34	.12	
Number of previous offences	.01	.00	.30
Used drugs / alcohol in commission of offence	.25	.11	.29

Note $R^2 = .11$ for Step 1; $R^2 = .18$ for Step 2; $R^2 = .24$ for Step 3. $p < .05$.

No other variable met the .05 significance level for entry into the model.

As with the first regression analysis, the criminal history variables were the only ones to meet significance of $p < .05$, despite the fact that case history and diagnostic variables were also entered into the equation. Moreover, the same three variables accounted for the majority of variance in institutional misconducts and placement in segregation.

Stepwise regressions for diagnoses predicting post-release outcome. The next series of analyses involved regressing seven diagnoses on post-release outcome measures. The seven DIS / DSM diagnoses included: major mental disorder, major depression, generalized anxiety disorder, psychosexual dysfunction, antisocial personality, alcohol use / dependence, and drug use / dependence. All values for both independent and dependent measures were non-missing.

Regressions are based on $N = 66$; ten of the participants had not been released as of the cut-off date of May 01, 1995. Statistics for the regressions of disorder on return to custody (any reason), revocation for technical violations, new convictions, and new violent convictions are located in Tables 30, 31, 32, and 33, respectively.

Table 30

Summary of Hierarchical Regression Analysis for Disorders Predicting Return to Custody for Any Reason ($n = 66$).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Drug abuse / dependence disorder	.38	.11	.39
Step 2			
Drug abuse / dependence disorder	.31	.12	.32
Alcohol abuse / dependence disorder	.24	.12	.24

Note. $R^2 = .15$ for Step 1; $R^2 = .20$ for Step 2. $p < .05$. No other variable met the .05 significance level for entry into the model.

Table 31

Summary of Hierarchical Regression Analysis for Disorders Predicting Revocation for
Technical Violation (n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Alcohol abuse / dependence disorder	.36	.12	.35

Note. $R^2 = .12$ for Step 1. $p < .05$. No other variable met the .05 significance level for entry into the model.

Table 32

Summary of Hierarchical Regression Analysis for Disorders Predicting New Conviction
(n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Drug abuse / dependence disorder	.34	.17	.34

Note. $R^2 = .12$ for Step 1. $p < .05$. No other variable met the .05 significance level for entry into the model.

Table 33

Summary of Hierarchical Regression Analysis for Disorders Predicting New Violent
Conviction (n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Drug abuse / dependence disorder	.19	.09	.26

Note. $R^2 = .07$ for Step 1. $p < .05$. No other variable met the .05 significance level for entry into the model.

Concordant with the partial correlation analyses, the substance abuse disorders appear to be most highly related to post-release outcome measures. As demonstrated by Tables 30 to 33 (inclusive), the only variables that met the .05 significance level for entry into the regression equations were alcohol use / dependence, and drug use / dependence. It is noteworthy that, although the partial correlation analysis showed a significant relationship between antisocial personality and revocation, this predictor appears relatively insignificant in the hierarchical regression.

Together, the substance abuse disorders account for 20% of the variance in all returns to custody. While alcohol abuse / dependence explains the highest proportion of variance in revocations for technical violations, drug abuse / dependence appears to be the best predictor of new convictions and new violent convictions.

Stepwise regressions for institutional adjustment and in-program performance predicting post-release outcome. The third series of stepwise analyses regressed institutional adjustment and in-program performance variables on the four measures of post-release outcome. The predictor variables included: institutional charges, violent institutional charges, time in segregation, participation in institutional programs, escorted temporary absences, and unescorted temporary absences. Because there were missing values for each of the predictor variables, means were computed (for the subsample of released offenders, $n = 66$), and inserted to supplement them.

There were two missing cases for misconducts and violent misconducts, their respective means were .52 and .29. There were six missing cases for time in segregation, and each was replaced with the subsample mean of .50. The 18 missing values for program

participation were supplemented with the variable mean of .85. Finally, the 12 missing cases for escorted and unescorted temporary absences were replaced with their means of .91 and .58, respectively.

All six predictor variables were entered into each of the four regression equations. Results are presented in Tables 34 to 37 (inclusive) in the following sequence: variables predicting any return to custody, variables predicting revocation for a technical violation, variables predicting new convictions, and variables predicting new violent conviction.

Table 34

Summary of Hierarchical Regression Analysis for Institutional Adjustment and In-program Performance Variables Predicting Return to Custody for Any Reason (n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Spent time in administrative segregation	.50	.11	.48

Note. $R^2 = .24$ for Step 1 $p < .05$. No other variable met the .05 significance level for entry into the model.

Table 35

Summary of Hierarchical Regression Analysis for Institutional Adjustment and In-program Performance Variables Predicting Revocation for Technical Violation (n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Any institutional misconducts	.44	.11	.44

Note. $R^2 = .19$ for Step 1 $p < .05$. No other variable met the .05 significance level for entry into the model.

Table 36

Summary of Hierarchical Regression Analysis for Institutional Adjustment and In-program Performance Variables Predicting New Conviction (n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Spent time in administrative segregation	.40	.12	.38

Note. $R^2 = .15$ for Step 1 $p < .05$. No other variable met the .05 significance level for entry into the model.

Table 37

Summary of Hierarchical Regression Analysis for Institutional Adjustment and In-program Performance Variables Predicting New Violent Conviction (n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Spent time in administrative segregation	.23	.09	.30

Note. $R^2 = .09$ for Step 1. $p < .05$. No other variable met the .05 significance level for entry into the model.

As demonstrated by the previous four tables, none of the in-program performance variables met the .05 significance level for entry into the prediction models. While institutional misconducts accounted for a fairly large proportion of variance in revocations for technical violations ($R^2 = .19$), it was relatively unimportant in predicting the other measures of post-release outcome. Interestingly, time spent in segregation was the strongest variable in predicting any return to custody, revocation for new convictions, and new violent convictions. Moreover, it was the only variable that met significance for entry into the equation(s). Finally, it is noteworthy that this variable accounts for the largest

proportion of variance in all returns, and becomes a less effective predictor for new convictions, and still less effective for new violent convictions.

Stepwise regressions of variables predicting post-release outcome. The final series of analyses involved regressions of varied predictor variables on the four measures of post-release outcome. These analyses were executed to determine the strength and relative importance of three categories of variables on the prediction of failure upon release. The three classes of variables were: criminal history, case history, and mental disorder (i.e., diagnoses).

Criminal history variables included: number of previous offences, past incarceration, violence in admitting offence, and alcohol / drugs used prior to offence. The use of alcohol or drugs prior to the offence was unknown for 11 of the 66 participants who had been released. Missing values were replaced with the sample mean of .62.

Case history variables included: employment status prior to incarceration, reliance on social assistance in the year prior to the offence, and highest level of education achieved. There were ten missing values for the employment status variable. These were replaced with the mean of .25. The variable mean for reliance on social assistance was .56, which was used to supplement the data missing for 16 participants. There were two missing values for highest level of education achieved: the supplemental mean was 9.9.

Diagnoses included: major mental disorder, antisocial personality, alcohol abuse / dependence, and drug abuse / dependence. All of the diagnostic data were non-missing.

The hierarchical regression analyses were performed in the following sequence: 1) variables predicting return to custody for any reason, 2) variables predicting revocation for

technical violations, 3) variables predicting new convictions, and, 4) variables predicting new violent convictions. Results of these analyses are summarized in Tables 38, 39, 40, and 41, respectively.

Table 38

Summary of Hierarchical Regression Analysis for Variables Predicting Return to Custody for Any Reason (n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Has been incarcerated in the past	.65	.09	.66
Step 2			
Has been incarcerated in the past	.58	.09	.58
Used drugs / alcohol in commission of offence	.34	.10	.31

Note. $R^2 = .43$ for Step 1; $R^2 = .52$ for Step 2. $p < .05$. No other variable met the .05 significance level for entry into the model.

Table 39

Summary of Hierarchical Regression Analysis for Variables Predicting Revocation for Technical Violation (n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Used drugs / alcohol in commission of offence	.52	.12	.47
Step 2			
Used drugs / alcohol in commission of offence	.36	.11	.38
Has been incarcerated in the past	.43	.12	.08

Note. $R^2 = .22$ for Step 1; $R^2 = .34$ for Step 2. $p < .05$. No other variable met the .05 significance level for entry into the model.

Table 40

Summary of Hierarchical Regression Analysis for Variables Predicting New Conviction
(n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Has been incarcerated in the past	.52	.11	.51

Note. $R^2 = .26$ for Step 1. $p < .05$. No other variable met the .05 significance level for entry into the model.

Table 41

Summary of Hierarchical Regression Analysis for Variables Predicting New Violent
Conviction (n = 66).

Variable	<u>B</u>	<u>SE B</u>	β
Step 1			
Has been incarcerated in the past	.23	.09	.30

Note. $R^2 = .09$ for Step 1. $p < .05$. No other variable met the .05 significance level for entry into the model.

Collectively, these regression tables indicate that case history and mental disorder are relatively unimportant in the predicting failure upon release. There were no case history or diagnostic variables that met the .05 significance level for entry into the prediction equations.

Comparatively, though, the criminal history variables are superior in predicting post-release outcome. Specifically, previous incarceration appears to be most predictive of revocation for any reason, new conviction and new violent conviction. Perhaps what is most

striking is the proportion of variance in all returns to custody that is accounted for by previous incarcerations ($R^2 = .43$).

The use of alcohol /drugs prior to the commission of the admitting offence is highly predictive of return to custody, and for revocations due to technical violations. Moreover, when looking at revocations for technical violations, the proportion of variance accounted for by this one variable alone is notable ($R^2 = .22$), especially considering the fact that a *diagnosis* of alcohol or drug use / dependence is relatively inconsequential in these four regression paradigms.

Discussion

The present research used a sample of federally sentenced women to explore two primary issues: 1) the extent to which manipulations of the operational definitions of "mental disorder", and of "recidivism" would influence the results of analyses seeking to explain the relationship(s) between them, and, 2) the relative importance of mental disorder in the prediction of various measures institutional adjustment and of post-release outcome.

Of secondary interest was whether female offenders with mental disorders reacted differently than those without disorder to incarceration; no significant differences were anticipated. Conversely, it was expected that the correctional system would demonstrate a biased presumption of greater risk to offenders with major mental disorders. These queries were examined through a series of analyses that compared offenders with mental disorder(s) to their non-disordered counterparts on variables related to case and criminal history, institutional adjustment, in-program performance, release, and post-release outcome.

The relationship between criminal history and diagnosis. The numerous correlational analyses that were performed showed some interesting relationships between criminal history and selected diagnoses. It merits mention here that the variables "used alcohol in current offence", and "used drugs in the current offence" were derived from file information, and correlate highly with DIS / DSM diagnoses for their respective substance abuse disorders. This serves to further substantiate the file review process.

The majority of the criminal history variables that were examined demonstrated strong associations with only three of the seven selected diagnostic classifications: antisocial personality, alcohol abuse /dependence, and drug abuse / dependence. While variables such

as age at admission and age at first offence were inversely correlated with these disorders, other risk factors such as number of previous convictions and previous incarcerations showed statistically significant positive associations with these disorders. These correlations should be duly noted since age and criminal history variables are unequivocally related to recidivism (Gendreau, Little, & Goggin, 1995) in the same directions as those observed with antisocial personality and the substance abuse disorders.

The relationship between case history and diagnosis. Correlations between the diagnostic categories and case history variables produced some significant results. again the majority of the notable associations were between predictor variables and the diagnoses of antisocial personality and the substance abuse disorders. Alcohol abuse / dependence was most highly related to the case history variables: 10 of the 14 correlations were statistically significant.

Overall, those who had *not* lived with their parent to the age of 16 were significantly more likely to have met stringent (lifetime) diagnostic criteria for any of the following diagnoses: psychosexual dysfunction, antisocial personality, alcohol abuse / dependence, or drug use / dependence. Moreover, the significant associations between parental alcohol or drug problems and major mental disorder or the substance abuse disorders warrant attention: at least one study has demonstrated a relationship between parental alcoholism and new convictions (DeJong et al., 1992). Special observance should also be paid to the correlations between diagnostic categories and: education and employment status, reliance on social assistance, living situation, and variables related to the family of origin. In the literature, each of these variables has demonstrated a moderate to strong relationship with

criminal behaviour (Andrews & Bonta, 1994). Moreover, employment and living stability variables have demonstrated strong relationships to reconvictions and violent reconvictions for federally sentenced women (Blanchette & Motiuk, 1995).

The relationship between criminogenic needs, offender classification, Statistical Information on Recidivism score, and diagnosis. While all items on the Force-field Analysis are need areas to be targeted for treatment, all are not necessarily criminogenic. An essential feature of a criminogenic need is that it is changeable (e.g., through treatment), and, when changed, is associated with changes in recidivism (Andrews & Bonta, 1994). The distinction between criminogenic and non-criminogenic needs is often ambiguous (Bonta et al., 1995).

There are particular need items included in the FFA that show a clear positive relationship with criminal behaviour and recidivism. Companions, alcohol / drug use, and values / attitudes have each been consistently associated with criminal behaviour and failure upon release (Gendreau et al., 1995; Motiuk & Porporino, 1989). This merits consideration when examining the relationships between diagnostic classifications and FFA needs.

Once again, the diagnoses that appear to have the strongest relationships with the predictor variables (FFA needs) are antisocial personality and the substance abuse disorders. Further, these disorders maintain significant associations with the aforementioned needs that are most commonly considered criminogenic in nature.

As mentioned in the introduction, the Statistical Information on Recidivism score has demonstrated predictive validity in samples of incarcerated males, though its value for use with females is still questionable (Bonta et al., 1995). The SIR scale was included in the

current investigation to ascertain its relation to other variables, and additionally, to attempt to validate its relation to various measures of post-release outcome.

Relationships between SIR scores and major mental disorder, generalized anxiety, depression, and psychosexual dysfunction are small and insignificant. It is notable, however, that correlations between SIR scores and the substance abuse disorders / antisocial personality are negative and statistically significant.

While the Case Management Strategies interview was designed primarily to aid in case-appropriate intervention, it has been utilized successfully in the prediction of both general and violent recidivism (Blanchette & Motiuk, 1995). Recall that the Selective Intervention (SI) offender is classified as such because of his /her generally pro-social attitude, and of the situational nature of the offence. Of the four offender classifications designated by CMS, it is probably safe to assume that the SI offender is the least likely to reoffend. Considering this, it should be highlighted that there exists significant negative relationships between the SI classification and: antisocial personality, major mental disorder, and alcohol or drug abuse / dependence disorder. Moreover, there are strong positive correlations between the Casework Control (CC) designation and both substance abuse disorders.

The relationship between in-program performance and diagnosis Escorted temporary absences (ETA) are normally granted to offenders either for essential medical reasons, administrative (e.g., court appearance), or compassionate reasons. All offenders are eligible for ETAs at any time in their sentence. Eligibility for Unescorted temporary absences (UTA), however, is not available to offenders until after having served half of the

time until full parole eligibility date, or six months into their sentence (whichever is greater). For inmates serving life sentences, eligibility for UTAs arrives just three years before they are eligible for full parole. Unescorted temporary absences, when granted, reflect the correctional system's perception of minimal risk, and are generally granted as a pre-cursor to release to assist in re-integration into the community.

Overall in Canada, female inmates receive more temporary absences than male inmates, and receive them after serving a smaller percentage of their sentences. While they represent about 2% of the federal inmate population, they receive approximately 3% of all temporary absences (Grant & Belcourt, 1992). The high frequency of ETAs and UTAs granted to female offenders is noted in the present data as well, where a full 89% were granted ETAs, and about 50% were granted UTAs.

In comparing offenders with major mental disorder to their non-disordered counterparts, results of the present study showed no significant between-group differences in ETA / UTA experience. This finding is compatible with results presented by Porporino and Motiuk (1995) with a sample of federal male inmates. Although chi-square analyses revealed no significant between-group differences in ETA / UTA experience for offenders with diagnosis versus those without, correlational analyses showed strong relationships as follows: offenders with a diagnosis of major depression, or a diagnosis of alcohol use / dependence were more likely to be granted UTAs, while offenders with a diagnosis of psychosexual dysfunction were generally less likely to be granted ETAs.

This finding is rather surprising, considering the positive relationship between alcohol abuse / dependence disorder and institutional adjustment problems (i.e., charges). A

possible explanation is that the correctional system was responding to a need for slow re-integration for these offenders, and granted UTAs as a means of preparing them for community living.

The relationship between institutional adjustment and diagnosis. Concordant with findings in a comparable study of federally sentenced men (Porporino & Motiuk, 1995), offenders with major mental disorder showed similar patterns of institutional adjustment to non-disordered offenders. More specifically, there were no significant differences in the likelihood of having been charged with general or violent institutional misconducts, and, there existed no significant relationship between diagnosis of major mental disorder and time spent in segregation.

These results challenge findings presented by Toch and Adams (1986) and by McCorkle (1995). In comparing male and female inmates to their respective counterparts, McCorkle found a strong independent relationship between mental illness and institutional behaviour in samples of incarcerated females. Interestingly, the investigator found no such relationship among male offenders. In comparing the methodology used by McCorkle to those used in the present study, however, some clear differences emerged. First, McCorkle used self-report measures of institutional misconduct. Secondly, mental disorder was less clearly defined, as it was measured by a current or past use of psychotropic medication, or history of psychiatric hospitalization. *Current* use of psychotropic medication was the only independent measure that significantly differentiated rates of misconduct between-groups.

Unfortunately, McCorkle did not control for whether the prescribing of medication preceded, or whether it followed the institutional charges. There remains a very strong

possibility that psychotropic medications were prescribed subsequent to institutional adjustment problems, as a means of controlling undesirable behaviour. Further, the fact that between-group differences were found for females, but not for males is congruent with evidence that female inmates are more likely to be prescribed medications for milder disorders (Sommers & Baskin, 1990).

The relationship between diagnosis and release type. Contrary to results presented by Porporino and Motiuk (1995), no significant relationship was found between diagnosis and discretionary release. Further, descriptive data pertaining to major mental disorder and co-morbidity with antisocial personality and / or substance abuse indicates that, even with dual diagnosis, discretionary release is equitable. This implies that, insofar as discretionary release is concerned, there is no bias against offenders with mental disorder.

Summary of variables associated with mental disorder. Compared with antisocial personality and the substance abuse disorders, there are relatively few case and criminal history variables that correlate with major mental disorder. While major mental disorder was not generally associated with number of previous offences, past experience with incarceration, or nature of the admitting offence, it was significantly correlated with previous violent convictions.

When the operational definition of mental disorder was manipulated to include only those offenders with antisocial personality and / or a diagnosis of alcohol abuse dependence or drug abuse / dependence, significant positive associations between disorder and institutional adjustment emerged. While there was no evidence of increased violent misconducts among the disordered groups, there were noteworthy relationships present

between: presence of disorder and general institutional charges, and presence of disorder and placement in administrative segregation. More specifically, a diagnosis of either antisocial personality or alcohol abuse / dependence was positively associated with general misconducts, and a diagnosis of drug abuse / dependence was positively associated with having spent time in segregation. While chi-square analyses revealed no significant between-group differences, the trends identified are particularly important considering that past research has shown behaviour within the institution is highly related to success / failure post-release (Motiuk, 1991).

Recidivism rates. The overall recidivism rate (59.1%) for participants in the present study far exceeds those normally found for federal female offenders (Belcourt et al., 1993), though comparison is difficult due to differing lengths of follow-up. The proportion of women who returned to custody within the follow-up period is disconcerting, and may be reflective of the lack of institutional programs geared specifically to their needs (Correctional Service of Canada, 1990). Furthermore, over 40% of those released were re-admitted for technical violations, and over 40% committed a new offence. Moreover, new violent offences were not entirely uncommon, with almost 20% of women returning to custody for this reason.

Variables associated with return to custody. Correlational analyses revealed that diagnosis was associated with overall recidivism in the following ways: 1) there was a negative relationship between psychosexual dysfunction and re-incarceration, and, 2) antisocial personality and both substance abuse disorders correlated positively with re-incarceration. Taking into consideration that, as previously discussed, various criminal

history risk factors are *also* positively associated with these particular disorders, this finding is not particularly surprising.

Case history variables that were significantly correlated with return to custody (while controlling for time at risk) comprised only two items: alcohol / drug abuse by parent or caregiver, and financial problems in the year prior to the offence. This lends support to other research, wherein parental substance abuse problems (DeJong et al., 1992) and financial problems (Blanchette & Motiuk, 1995) associate positively with failure upon release.

Concordant with a large quantity of research by other investigators, data in the present study revealed strong relationships between criminal history and return to custody. Previous incarcerations, number of previous offences, and age variables demonstrated particularly high (partial) correlations with this measure of post-release outcome. Based on a review of the literature, these findings were expected.

Although previous investigators have disputed the accuracy of the SIR scale with female offenders (e.g., Hann & Harman, 1989; Bonta et al., 1995), an exceptionally strong negative relationship between total scores and return to custody was found. Moreover, prognostic categories accurately discriminated recidivists from non-recidivists across all measures of post-release outcome. In examining cross tabulations between prognostic categories and return to custody (any reason), the relationship was straightforward: only 17% of those in the lowest risk category recidivated, compared with over 85% of those in each of the other risk categories.

Results challenge findings presented by Bonta et al., especially taking into consideration that, in comparing samples, frequency distributions of prognostic categories were very similar. Also, while Bonta et al. eliminated two items from scoring (number of dependents and employment), the present investigator additionally removed marital status from the scale. The insignificant relationship (in the present study) between marital status and post-release outcome is unlikely to have dramatically affected the outcome of these analyses. It is hoped that prospective research will corroborate the predictive efficiency of the SIR scale with female offenders.

Companion and employment needs / weaknesses identified by Force-field Analysis showed significant positive associations with return to custody. This finding is not surprising: the presence of criminal associates / companions is one of the most frequently-cited correlates to criminal behaviour (Andrews & Bonta, 1994) and to recidivism (Gendreau et al., 1995). Also, employment problems pre-admission are likely to continue after release due to insufficient vocational training at Prison for Women. While employment need might be considered a dynamic risk predictor, the pertinent conditions at this institution have been criticized for lack of ingenuity (Correctional Service Canada, 1990), and may not be amenable to reducing this type of need.

The Case Management Strategy classification of "Selective Intervention" was negatively correlated to return to custody for any reason. Perusal of the criteria for the SI classification reveals that this finding makes intuitive sense; the SI offender is described as one who is generally pro-social, maintains non-criminal associates, and is unlikely to have a prior criminal record. As previously discussed, criminal associates and criminal history

variables account for a relatively large proportion of the variance in crime and recidivism.

This finding lends support to other studies (e.g., Blanchette & Motiuk, 1995) that suggest that offender classification instruments might aid in the prediction of post-release outcome.

Variables associated with revocation for technical violations. Correlational analyses, with time at risk partialled out, revealed that very few of the independent variables examined were significantly associated with revocation for technical violations. Surprisingly, criminal history and institutional adjustment variables showed virtually no relationship with this outcome measure.

While the diagnostic classifications showed trends in the same direction as those outlined above with "any return to custody", the relationships were smaller in magnitude and did not reach statistical significance. Again, this challenges findings reported by Porporino and Motiuk (1995), wherein offenders with major mental disorder were more likely to have their conditional release revoked for minor violations.

Data indicated a significant positive association between revocation for technical violations, and the "Limit Setter" Case Management Strategy classification. Recall that the characteristic feature of the LS offender is her anti-social and pro-criminal value system. Moreover, according to criteria outlined by the instrument, LS offenders typically have extensive criminal records, and have served multiple prison terms. The relationship between this classification and revocation for technical violation might be reflective of biased parole officers who are cognizant of the offender's classification. Alternatively, it may be reflective of a true state of affairs, wherein LS offenders are more likely to break the conditions of their release.

There was a significant inverse relationship between level of education and revocation for technical violation, and a significant positive relationship between employment need (FFA) and revocation for technical violation. These associations, coupled with the fact that criminal history variables showed no significant relationship, suggest that different types of recidivism might be mediated by diverse factors.

Variables associated with new convictions / new violent convictions. While none of the case history variables showed a significant association with violent reconviictions, financial problems prior to incarceration were positively associated with new convictions.

A number of criminal history variables were significantly associated with new convictions, but not with new violent convictions. Statistically significant relationships were based on independent variables pertaining to past experience with incarceration, number of previous offences, and previous non-violent offences. There was a negative relationship between violence used in the admitting offence and new convictions post-release. Considering the large proportion of homicide offenders in this sample, and, in female samples, the increased propensity for homicide offenders to recidivate (Belcourt et al., 1993), this finding is surprising.

Two of the twelve FFA need items were found to correlate significantly with new convictions post-release: companions and values / attitudes. A large body of research, based almost solely on male samples, has demonstrated that antisocial attitudes and antisocial associates are two of the best-validated correlates to criminal conduct. In fact, Andrews and Bonta (1994) maintain that "assessments of antisocial / procriminal attitudes have consistently proved to be meaningful correlates of a criminal past and predictors of a

criminal future...[there is] evidence that *changes* in procriminal sentiments are predictive of future criminal activity" (p.104). These results suggest that, while much of the past research is based on male samples, results might be equally generalizable to the female offender population.

The SIR score demonstrated a strong and significant correlation with new convictions. Chi-square analyses significantly differentiated prognostic categories, and percent distributions showed this relationship to be linear. Participants in the "Very Good Risk" category were least likely to recidivate by new conviction, and those in the "Very Poor Risk" category were most likely to recidivate by new conviction.

While the correlational analyses did not result in a statistically significant finding for the relationship between SIR score and new violent convictions, chi-square analyses were statistically significant. The reason for this discrepancy is this: while the prognostic categories accurately discriminated recidivists from non-recidivists, this relationship was not linear. Offenders in the "Poor" risk category were most likely to re-offend violently, followed by those in the "Very Poor" risk category, followed by those classified as "Good" risk. None of the participants in either the "Very Good" or "Fair" risk categories were reconvicted for violent offences.

The relative importance of mental disorder in the prediction of institutional adjustment. When a variety of case history, criminal history, and diagnostic variables were regressed on institutional misconducts, the diagnostic and case history variables showed little or no relative importance to the equation. There were three steps to the hierarchical

analysis, and none of the variables subsumed under these two categories met significant levels for entry into any of the three steps.

Conversely, three of the four criminal history predictors met significance levels, and together accounted for a substantial proportion of variance in general institutional misconducts ($R^2 = .32$). The number of previous offences, use of alcohol / drugs prior to the admitting offence, and the nature of the admitting offence (violent vs. non-violent) each successfully predicted this measure of institutional adjustment. This suggests that criminal behaviour prior to incarceration is the best predictor of deviant behaviour within the institution. It is especially noteworthy that, while the use of alcohol / drugs prior to the admitting offence was statistically significant, alcohol / drug dependence disorders were not. A potential explanation for this finding will be discussed later in this section.

The relative importance of mental disorder in the prediction of recidivism When a combination of case history, criminal history, and diagnostic variables were regressed on four separate measures of recidivism, the case history and diagnostic variables demonstrated little or no predictive efficiency. Conversely, criminal history variables met .05 significance levels for entry into the equation, and successfully accounted for notable proportions of variance in recidivism. More specifically, past incarcerations and the use of alcohol / drugs prior to the admitting offence each successfully predicted return to custody (any reason), and revocation for technical violation. Past incarcerations alone predicted new convictions and new violent convictions. Once again, the relative importance of static criminal history, in the prediction of recidivism, is elucidated. As a corollary, the present data has provided

evidence to suggest that mental disorder makes little or no contribution to the prediction of post-release outcome.

Conclusions, implications, and directions for future research. Data in the present study does not substantiate the contention that the correctional system maintains a presumption of greater risk to mentally disordered offenders. While previous research has demonstrated that disordered offenders served greater proportions of their sentences, are less likely to be granted ETAs, UTAs, and are more likely to be re-admitted for technical violations, there was no evidence for such biased response in the present investigation.

Taken together, the findings strongly suggest that the best predictors of future criminal behaviour are measures of past criminal behaviour. When stepwise regression analyses were performed for a variety of variables predicting success or failure upon conditional release, none of the diagnostic variables entered the equation. Similarly, diagnostic categories were unimportant in the prediction of institutional adjustment. While criminal history variables alone predicted institutional misconducts and placement in segregation, level of education was also meaningful in the prediction of violent institutional misconducts.

However, in hierarchical analyses where seven diagnostic categories were competing for variance in recidivism, only the substance abuse / dependence disorders met significance levels for entry into the equation. Correlational analyses, controlling for time at risk in the community, showed that antisocial personality was also amongst the variables most highly associated with recidivism.

Collectively, results of the present study lend support to a Personal, Interpersonal, and Community-Reinforcement (PIC-R; Andrews & Bonta, 1994) approach to understanding the causes and correlates to criminal conduct. Briefly, the PIC-R is best understood as a social learning perspective of human behaviour. It assumes that the occurrence of any behaviour is under antecedent and consequent control, and that a type of cost-benefit analysis is established a priori to action, thus affecting its likelihood of occurrence. Antecedents and consequences arise from four major sources, which include personally mediated events, interpersonally mediated events, the act itself, and other aspects of the situation or action.

The PIC-R approach, as suggested by its authors, incorporates four major variables into the prediction paradigm: antisocial attitudes, associates, behavioural history, and personality: more commonly known as the "big four" in the psychology of criminal conduct (Andrews & Bonta, 1994). The results of the present investigation lend credence to the "big four" theory: overall, the most significant predictor of institutional adjustment and post-release outcome was a history of antisocial behaviour (criminal history). Moreover, in addition to employment, the FFA needs of companions and attitudes / values were most highly associated with recidivism. Finally, with the exception of the substance abuse disorders, antisocial personality showed the highest positive association with failure upon release. This implies that, while theory development has been based primarily on research with male offenders, there is evidence for applicability to female offender samples.

What is exceptionally noteworthy is that the variable "use of alcohol / drugs prior to admitting offence" entered the prediction models to account for significant proportions of

variance in both institutional adjustment, and post-release outcome. The fact that the variable "used alcohol / drugs" prior to the admitting offence was repeatedly associated with failure upon release, but the substance abuse / dependence disorders were not, merits mention.

Of those who used alcohol in the commission of the admitting offence, 96% were diagnosed with alcohol abuse / dependence. Of those who used drugs in the commission of the admitting offence, 82% were diagnosed with drug use / dependence. However, there were many participants who were diagnosed with alcohol abuse / dependence, but did not use alcohol prior to their admitting offence, and many who were diagnosed with drug abuse / dependence, but did not use drugs prior to the admitting offence.

A good explanation for the above finding comes from looking at the nature of criminogenic, versus non-criminogenic needs. While a substance abuse problem might represent criminogenic need for some participants, for others, it might reflect a *non-criminogenic* need. Data suggest that, of those diagnosed, there is a proportion for whom the diagnosis is not directly related to criminal activity. However, for those who scored positively on the use of alcohol or drugs prior to the offence, there is a clear relationship between substance use (or abuse) and criminal activity. This group would represent a subsample of the population of participants with a substance abuse/ dependence diagnosis. It appears as though this subsample comprises participants for whom the use of alcohol / drugs represents a criminogenic need, while the larger population of substance abusers includes others for whom this need is non-criminogenic.

While there was a significant positive association between major mental disorder and previous violent convictions, analyses showed little or no relationship with post-release outcome. This might be reflective of the dynamic outlined above, where the diagnosis *per se* is not criminogenic in nature, but symptomatology associated with the diagnosis *is* criminogenic. Previous research has linked violent recidivism to *active* psychiatric symptomatology at the time of the offence (Fido, Razik, Mizra, and El-Islam, 1992).

The fact that criminal history variables best predict recidivism, both in the present study, and in the majority of prospective research (Gendreau et al., 1995), is somewhat distressing when one considers that they are almost all static in nature. While these variables provide increased accuracy in the prediction of release risk, they afford no opportunity for intervention to *lower* risk. Moreover, an important mandate of the Canadian correctional system is the provision of services is to assist offenders in becoming law-abiding citizens (i.e., reduce criminogenic need).

One limitation to the present research is the small sample size. This is a perpetual problem in conducting research with federally sentenced women in Canada. One suggestion is to attempt replication with provincially sentenced women, where access to participants is less restricted. Moreover, it should be noted that replication studies would employ a more recent version of the Diagnostic Interview Schedule; the Diagnostic and Statistical Manual has undergone two revisions since the commencement of the study. Finally, the over-representation of aboriginal and homicide offenders in the present study points to the need to exert caution in generalizing results to the larger population.

It is hoped that findings in the present investigation will set the impetus for more research with federal female offenders. In particular, it has been noted elsewhere that data is especially needed in relation to female offender risk prediction (Bonta et al., 1995; Blanchette & Motiuk, 1995).

The present study has elucidated the need for clear and explicit operational definitions of "mental disorder" and of "recidivism" when conducting research of this nature. Some important issues in the assessment of criminogenic (versus non-criminogenic) needs are highlighted. To date, research and theory development in the area of correctional psychology has been based primarily on samples of male offenders. The present research suggests that these theories might be equally applicable to female offender populations.

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Appendix A

Descriptions of Diagnoses by DSM-III Criteria

Organic Disorders

Organic Brain Syndrome.

-The DIS permits screening for the presence of organic brain syndrome, but does not allow diagnosis of an 'organic mental disorder', for which the cause of the syndrome must be known or presumed. The DIS focuses primarily on the assessment of dementia, which is a severe loss of intellectual ability that is characterized by: disorientation in time and place; impairment of memory as demonstrated by inability to recall recently learned material; and deterioration of other intellectual functions, such as ability to do arithmetic and spelling, ability to follow simple instructions, copy drawings, and name common objects.

Psychotic Disorders

Schizophrenic Disorder.

-The diagnosis of schizophrenia essentially requires the presence of psychotic symptoms such as delusions and/or hallucinations, deterioration from a previous level of functioning such as work, social relations, and self-care, onset before the age of 45, and a symptom duration of at least six months.

Schizophreniform Disorder.

- The essential features of schizophreniform disorder are identical to those for schizophrenia with the exception that the duration, including prodromal, active, and residual phases, is less than six months, but more than two weeks.

Affective Disorders

Manic Episode.

-One or more distinct periods with predominantly elevated, expansive, or irritable mood that is recognized as excessive or inappropriate by those who know the individual well. The manic episode is characterized by at least three of the following symptoms (four if the mood is irritable): increase in activity or physical restlessness; more talkative than usual; flight of ideas or subjective experience that thoughts are racing; inflated self-esteem; decreased need for sleep; distractibility; and excessive involvement in activities that have a high potential for painful consequences that is not recognized.

Major Depressive Episode.

-Dysphoric mood or loss of interest or pleasure in all or almost all usual activities, for a period of at least two weeks, with other symptoms such as poor appetite, difficulty sleeping, feelings of worthlessness or guilt, decreased energy, and thoughts of death. Between depressive episodes, the individual may feel entirely normal.

Dysthymic Disorder.

-A diagnosis of Dysthymia requires at least two weeks of feeling depressed most days, with some additional symptoms that are not of sufficient severity and duration to meet the criteria for major depressive episode.

Bipolar Disorders.

-Diagnosis requires having a manic episode. The essential feature is a distinct period when the mood is either happy, elevated, expansive, or irritable, with associated symptoms such as: heightened activity, spending sprees, increased interest in sex, rapid speech, inflated self-esteem, decreased need for sleep, and distractibility. Between manic episodes, the individual may feel completely normal, or may have periods of depression.

Obsessive Compulsive Disorder

-Diagnosis requires the presence of either obsessions or compulsions. Obsessions are recurrent, persistent ideas, thoughts, images, or impulses that are experienced as invading the consciousness against the person's will and as being senseless or repugnant. Attempts are made to ignore or repress the obsessions. Compulsions are repetitive and seemingly purposeful behaviours that are performed according to certain rules or in a stereotyped fashion. However, either the activity is not connected in a realistic way to what it is designed to produce or prevent, or it is clearly excessive. The obsessions or compulsions are a significant source of distress to the individual, and/or interfere with social role functioning.

Anxiety Disorders

Phobia (simple).

-The essential feature is persistent and irrational fear of a specific object, activity, or situation that results in a compelling desire to avoid the dreaded object, activity, or situation (the phobic stimulus). The fear is recognized by the individual as excessive or unreasonable in proportion to the actual dangerousness of the phobic stimulus.

Agoraphobia.

-Characterized by a marked fear of and thus avoids being alone or in public places from which escape might be difficult or help not available in case of sudden incapacitation (e.g., crowds, tunnels, bridges). There is increasing constriction of normal activities until the fears or avoidance behaviour dominate the person's life.

Social phobia.

-A persistent, irrational fear of, and compelling desire to avoid, a situation in which the individual is exposed to possible scrutiny by others and fears that he or she will act in a way that will be humiliating or embarrassing. The individual recognizes that his or her fear is unreasonable, and experiences significant distress because of the disturbance.

Generalized Anxiety Disorder.

-The diagnosis of generalized anxiety disorder requires suffering from an anxious mood for at least one month, as indicated by the presence of 3 or 4 groups of symptoms: motor tension; autonomic hyperactivity (sweating, heart pounding); apprehensive expectation; and vigilance and scanning.

Post-Traumatic Stress Disorder.

-Symptoms are manifest following a traumatic event (recognizable stressor) that would evoke significant symptoms of distress in almost everyone. The diagnosis requires re-experiencing the event in dreams or through recollections, numbing of responsiveness, and showing two of six other symptoms that were not present before the trauma: hyper alertness or exaggerated startle response; sleep disturbance; guilt about surviving when others have not, or about behaviour required for survival; memory impairment or trouble concentrating; avoidance of activities that arouse recollection of the traumatic event; and intensification of symptoms when by exposure to events that symbolize or resemble the traumatic event.

Panic Disorder.

-Diagnosis of this disorder requires that the individual suffer at least three panic attacks within a three week period in circumstances other than during marked physical exertion or in a life-threatening situation. The attacks are not precipitated only by exposure to a circumscribed phobic stimulus. Panic attacks are manifested by discrete periods of apprehension or fear, plus other symptoms such as: shortness of breath; palpitations; chest pain or discomfort; choking or smothering sensations; dizziness, vertigo, or unsteady feelings; feelings of unreality; tingling in hands or feet; hot and cold flashes; seating; faintness; trembling or shaking; and fear of dying, going crazy, or doing something uncontrolled during an attack.

Somatization Disorder

-The essential features of somatization disorder are recurrent and multiple symptoms occurring over a period of several years which are apparently not due to physical disorder. Onset of symptoms occurs before the age of 30. Complaints are often presented in a dramatic, vague, or exaggerated way or as a part of a complicated medical history in which many physical diagnoses have been considered. Medical care has often been given by many physicians, sometimes concurrently. Often there is a history of multiple surgical operations. Complaints typically involve the following organ symptoms or types of symptoms:

- conservation or pseudo neurological (e.g. paralysis, blindness)
- gastrointestinal (e.g. abdominal pain)
- female reproductive (e.g. painful menstruation)
- psychosexual (e.g. sexual indifference)
- pain (e.g. back pain)
- cardiopulmonary (e.g. dizziness)

Eating Disorders

Anorexia Nervosa.

-Characterized by an intense fear of becoming obese (which does not diminish as weight loss progresses), and disturbance of body image, e.g., claiming to feel "fat", even when emaciated. The anorexic individual will display a weight loss of at least 25% of original body weight, and refuse to maintain body weight over a minimal normal weight for age and height. There is no known physical illness that would account for the weight loss.

Bulimia.

-The bulimic individual displays recurrent episodes of binge eating (rapid consumption of a large amount of food in a discrete period of time, usually less than two hours), and is aware that the eating pattern is not normal. Depressed mood and self-deprecating thoughts usually follow the eating binges. Diagnosis requires at least three of the following: consumption of high calorie, easily ingested food during a binge; inconspicuous eating during a binge; termination of such eating episodes by abdominal pain, sleep, social interruptions, or induced vomiting; repeated attempts to lose weight by severely restrictive diets, self-induced vomiting, or use of cathartics or diuretics; and/or frequent weight fluctuations greater than ten pounds due to alternating binges and fasts.

Psychosexual Disorders

Psychosexual Dysfunction.

-Characterized by inhibition in sexual desire or function, which is not attributable entirely to any physical disorder or to the use of medication or other substances. There is either persistent and pervasive inhibition of sexual desire, inhibited sexual excitement (frigidity or impotence), inhibited orgasm, premature ejaculation, or persistent pain on intercourse.

Transsexualism.

-The essential feature is a sense of discomfort and inappropriateness about one's anatomic sex, and a wish to be rid of one's own genitals and to live as a member of the other sex. For diagnosis, the disturbance must be continuous (not limited to periods of stress) for at least two years.

Ego-Dystonic Homosexuality.

-The individual complains that heterosexual arousal is persistently absent or weak and significantly interferes with initiating or maintaining wanted heterosexual relationships. There is a sustained pattern of homosexual arousal that the individual explicitly states has been unwanted and a persistent source of distress.

Antisocial Personality Disorder

-Essential features are a history of chronic antisocial behaviour in which the rights of others are violated, persistence into adult life a pattern of antisocial behaviour that began before the age of 15. Lying, stealing, fighting, truancy, and resisting authority are typical early childhood signs of the disorder. In adolescence, unusually early or aggressive sexual behaviour, excessive drinking, and use of illicit drugs are frequent. In adulthood, these kinds of behaviour continue, with the addition of inability to sustain consistent work performance or to function as a responsible parent, and failure to accept social norms with respect to lawful behaviour. After age 30, the more flagrant aspects may diminish, particularly sexual promiscuity, fighting, criminality, and vagrancy.

Substance Use Disorders

Substance Abuse/Dependence.

-The DIS asks about problems associated with the use of a variety of drugs. The following substances are covered:

- cannabis (marijuana or hashish)
- amphetamines or similarly acting stimulants
- barbiturates and similarly acting sedatives or hypnotics, including minor tranquilizers
- cocaine
- opioids, including heroin
- phencyclidine (PCP) and other hallucinogens

A DSM-III diagnosis of abuse requires both a pattern of pathological use and impairment in social or occupational functioning. A diagnosis of dependence requires either tolerance or withdrawal. For cannabis dependence, it also requires either social or occupational impairment or a pattern of pathological use.

Alcohol Abuse/Dependence.

-The essential feature of alcohol abuse is a pattern of pathological use of alcohol for at least a month that causes impairment in social or occupational functioning. The essential features of alcohol dependence are either tolerance or a withdrawal syndrome plus either a pattern of pathological alcohol use or impairment in social or occupational functioning due to alcohol.

Tobacco Dependence.

-The essential features are continuous use of tobacco for at least one month with either: (1) unsuccessful attempts to stop or significantly reduce the amount of tobacco use on a permanent basis *or* (2) the development of tobacco withdrawal symptoms, *or* (3) the presence of a serious physical disorder that the individual knows is exacerbated by tobacco use.

Appendix B

Statistical Information on Recidivism (SIR) Scale

ITEM	DESCRIPTION	SCORING	
1	<p>CURRENT OFFENCE</p> <p style="text-align: center;">***** NOTES *****</p> <ul style="list-style-type: none"> - includes all offenses under the current <u>total</u> aggregate sentence - if more than one offence, score the offender according to the one that is the "most negative score". -if the offender has 2 convictions at the same time, choose the conviction where the "rate of recidivism is the "most negative". - scores define the association between the likelihood of recidivism as associated with certain offenses when this offence is the current offence - where an offence has not been defined within these lists, it is because the likelihood of recidivism for these offenses was equal to the general average. These offenses did not allow researchers to define the offenders as more or less likely to recidivate. In addition, there were certain offenses where the frequency of occurrence was too low to be useful. "0" in this item is not a valued score, simply a default to assure that the item has been considered <p>Definition of "Homicide"</p> <ul style="list-style-type: none"> - refers to criminal code definition: murder and manslaughter <p>Score on this item may not be static</p> <ul style="list-style-type: none"> - if there are outstanding charges at time of incarceration and the charges are subsequently dealt with, these new convictions become part of the "current offence" category - if offender has been revoked with new offenses, both the new and the original offenses are considered "current offenses" 		

ITEM	DESCRIPTION	SCORING	
1	<p>CURRENT OFFENCE (cont.)</p> <p style="text-align: center;">***** SCORES *****</p> <p>Incest, sexual intercourse with the underage, seduction, gross indecency</p> <p>Homicide: any act resulting in death, except by automobile</p> <p>Narcotics offenses (Food & Drug Act / Narcotic Control Acts)</p> <p>Unarmed robbery (armed robbery has 0 score)</p> <p>Dangerous driving, criminal negligence while operating a motor vehicle, arson, kidnapping, hijacking, abduction, obstructing a peace officer</p> <p>Receiving or possession of stolen goods</p> <p>Theft</p> <p>Break and enter, forcible entry, unlawfully in dwelling, illegal possession of firearm, carrying concealed weapon</p> <p>Escape (includes any CONVICTION for escape or attempted escape from a federal or provincial correctional facility or court, or from an escort; does not include unlawfully at large)</p>	<p>+4</p> <p>+3</p> <p>+3</p> <p>+2</p> <p>+2</p> <p>-1</p> <p>-1</p> <p>-2</p> <p>-4</p>	

ITEM	DESCRIPTION	SCORING	
2	<p>AGE AT ADMISSION</p> <p style="text-align: center;">***** NOTES *****</p> <ul style="list-style-type: none"> - refers to "Admission" on the current total aggregate sentence (i.e. at original warrant of committal admission) - does not apply to re-admission as a result of a revocation, termination, etc. <p style="text-align: center;">***** SCORES *****</p> <p>40 or over</p> <p>20 or under</p>	+2	-2
3	<p>PREVIOUS INCARCERATION</p> <p style="text-align: center;">***** NOTES *****</p> <ul style="list-style-type: none"> - "previous" refers to a period of incarceration that expired (i.e. WED) before the current total aggregate sentence - an incarceration is a separate original admission to a custodial place - Penal institution refers to jail, prison, or penitentiary, in each case - If offender was on the street through parole or statutory release (or mandatory supervision) and has been revoked with or without a new conviction, this is NOT a new period of incarceration. The revocation is still part of the original sentence <p style="text-align: center;">***** SCORES *****</p> <p>Has never been in a penal institution (jail, prison, or penitentiary) before</p> <p>Has served a sentence in a penal institution on 3 or 4 previous occasions</p> <p>Has served a sentence in a penal institution on 5 or more previous occasions</p>	+4	-1 -2

ITEM	DESCRIPTION	SCORING	
4	<p><u>REVOCATION OR FORFEITURE</u></p> <p>***** NOTES *****</p> <p>- this does not include terminations</p> <p>***** SCORES *****</p> <p>Has at any time been revoked or has forfeited day parole, full parole, or statutory release (or mandatory supervision) (this excludes day parole termination or full parole termination decisions)</p>		-2
5	<p><u>ACT OF ESCAPE</u></p> <p>***** NOTES *****</p> <p>- includes current or previous ACTS of escape or attempted escape from a federal or provincial correctional facility or court, or from an escort, whether or not this act resulted in a conviction; a conviction for UAL for any of the above should be treated as an escape)</p> <p>***** SCORES *****</p> <p>Has escaped or attempted to escape on 1 or more occasions</p>		-3
6	<p>SECURITY CLASSIFICATION</p> <p>***** NOTES *****</p> <p>- if completed at admission this score = 0 as it refers only to security level at time of parole hearing</p> <p>- multi-level institution did not exist when scale developed; therefore, at this time they score "0"</p> <p>***** SCORES *****</p> <p>Is in maximum security at time of "parole hearing"</p>		-1

ITEM	DESCRIPTION	SCORING	
7	<p>AGE AT FIRST ADULT CONVICTION</p> <p>***** SCORES *****</p> <p>Was 50 or over at time of first adult conviction</p> <p>Was between 41 and 49 (inclusive) at time of first adult conviction</p> <p>Was between 31 and 40 (inclusive) at time of first adult conviction</p> <p>Was between 23 and 30 (inclusive) at time of first adult conviction</p> <p>Was 18 or under at time of first adult conviction</p>	<p>+7</p> <p>+6</p> <p>+3</p> <p>+2</p>	<p>-2</p>
8	<p>PREVIOUS CONVICTIONS FOR ASSAULT</p> <p>***** NOTES *****</p> <p>- "previous" refers to convictions incurred before the current total aggregate sentence</p> <p>- for a conviction with multiple counts, consider each count as a conviction (e.g. assault (3) = 3 convictions)</p> <p>***** SCORES *****</p> <p>Has 1 previous conviction</p> <p>Has 2 or more convictions for assault</p>		<p>-2</p> <p>-3</p>

ITEM	DESCRIPTION	SCORING	
9	<p>MARITAL STATUS AT MOST RECENT ADMISSION</p> <p style="text-align: center;">***** NOTES *****</p> <ul style="list-style-type: none"> - self-reported - includes heterosexual and homosexual common-law relationships - this is a 'static' factor only in that it pertains to status at time of the most recent "admission" or "re-admission" <p style="text-align: center;">***** SCORES *****</p> <p>Was married or had common-law spouse</p>		
10	<p>INTERVAL AT RISK SINCE LAST OFFENCE</p> <p style="text-align: center;">***** NOTES *****</p> <ul style="list-style-type: none"> - defined as the period from when an offender is released from imprisonment (on a form of conditional release or free of supervision) until reincarceration (on breach of conditional release or new conviction) - if exact data on offender is not available, make the best possible approximation - key here is "interval at risk" - interval on the street - while on day parole, offender is still on the registry of an institution; therefore, this does not count as time at risk - if suspended, and suspension canceled, bail granted, or suspended sentence, the time at risk is still seen as time since original release - terminations or revocations terminate the interval at risk - does not apply to periods of escape or UAL 		

ITEM	DESCRIPTION	SCORING	
10	<p>INTERVAL AT RISK SINCE LAST OFFENCE (Cont'd)</p> <p style="text-align: center;">***** SCORES *****</p> <p>If an offender has spent 24 months or more in the community (on release, probation, court suspended sentences, or free) between the current conviction or reincarceration, and his last prior conviction or last release (includes 1st time offenders)</p> <p>If an offender has spent less than 6 months in the community (on release, probation, court suspended sentence, or free) between the current conviction or reincarceration and his last prior conviction or last release</p>	+2	-1
11	<p>NUMBER OF DEPENDENTS AT MOST RECENT ADMISSION</p> <p style="text-align: center;">***** NOTES *****</p> <ul style="list-style-type: none"> - this is a "static" factor only in that it pertains to status at time of the most recent "admission" or "re-admission" - the intent was to define a statement to mainly cover dependent children who lived, at time of admission, with the offender - "under same roof" and who had been "economically" dependent on the offender <p style="text-align: center;">***** SCORES *****</p> <p>Had 3 or more dependents (includes dependents from common-law marriage)</p>	+2	

ITEM	DESCRIPTION	SCORING	
12	<p>CURRENT TOTAL AGGREGATE SENTENCE</p> <p>***** NOTES *****</p> <ul style="list-style-type: none"> - measure from the date of the original sentence, not the remnant - must be calculated from beginning of this sentence; from the original commencement of the total aggregate sentence <p>***** SCORES *****</p> <p>Aggregate sentence is 5 years and up to 6 years</p> <p>Aggregate sentence is 6 years or more</p>	+3	
13	<p>PREVIOUS CONVICTIONS FOR SEXUAL OFFENCE(S)</p> <p>***** NOTES *****</p> <ul style="list-style-type: none"> - "previous" refers to convictions incurred before the current total aggregate sentence - includes sexual assault and aggravated sexual assault (and rape) - present offence could be either a sexual offence or any other type of offence i.e. B.& E., then reference F.P.S. to see if there is a conviction for any of the defined sexual offenses - for a conviction with multiple counts, consider each count as a conviction e.g. sexual assault (11) = 11 convictions <p>***** SCORES *****</p> <p>Has 2 or more previous convictions for any of rape, or attempted rape, or indecent assault, or sexual assault, or aggravated sexual assault</p>		-4

ITEM	DESCRIPTION	SCORING	
14	<p>PREVIOUS CONVICTIONS FOR BREAK AND ENTER</p> <p>***** NOTES *****</p> <p>- “previous” refers to convictions incurred before the current total aggregate sentence</p> <p>- Break and Enter includes B.E. with intent to commit, and B.E. & commit</p> <p>- multiple counts of offenses are considered separate convictions (e.g. B.& E.(9) = 9 convictions)</p> <p>- convictions listed separately at the same time are also separate convictions e.g. B.& E.(2) B.& E.(4) = 9 convictions B.& E.(3)</p> <p>***** SCORES *****</p> <p>Has no previous convictions for break and enter, or being unlawfully in dwelling house</p> <p>Has 1 or 2 previous convictions for break and enter, or being unlawfully in dwelling house</p> <p>Has 3 or 4 previous convictions for break and enter or being unlawfully in dwelling house</p> <p>Has 5 or more previous convictions for break and enter, or being unlawfully in dwelling house.</p>		
		+2	
			-2
			-3
			-6

ITEM	DESCRIPTION	SCORING	
15	<p>EMPLOYMENT STATUS AT ARREST</p> <p style="text-align: center;">***** NOTES *****</p> <ul style="list-style-type: none"> - includes either part-time or full-time legal employment - self-reported at time of arrest - current offenses are those associated with the original commencement of the current total aggregate sentence - paid for re-training is considered employment - going to school is not considered employment unless being paid for through programs such as U.I.C. <p style="text-align: center;">***** SCORES *****</p> <p>Was employed at time of arrest for current offence(s)</p>	+1	
<p>Note: Items should be scored '0' if none of the stated values apply.</p>		Success Rate for Groups of Offenders Scoring:	
		+6 to +27:	4 out of every 5 offenders will not commit an indictable offence after release
		+1 to +5:	2 out of every 3 offenders will not commit an indictable offence after release
		-4 to 0:	1 out of every 2 offenders will not commit an indictable offence after release
		-8 to -5:	2 out of every 5 offenders will not commit an indictable offence after release
		-30 to -9:	1 out of every 3 offenders will not commit an indictable offence after release
		Total Score	

Appendix C

Case Management Strategies Case Management Strategies Assessment Interview

The purpose of CMS is to provide the case manager with an efficient and effective case management system. CMS includes procedures for developing individualized strategies for the quality supervision of adult offenders. This process is accomplished through the completion of the three system components: an assessment procedure, a supervision planning process, and supervision according to one of five distinct strategies, depending on individualized case needs.

This assessment instrument was developed in 1975 and had been tested and revised regularly. It has been standardized on an adult probation and parole population and meets or exceeds the highest standards of research and testing design. Therefore, certified instruction is required for its use. It is not to be used with juveniles nor for any other than its stated purpose.

CMS Instructions:

There are four parts to the CMS assessment instrument. Whenever possible, the following sequence (A to D) should be followed.

- A) Attitude interview (45 items)
- B) Objective history (11 items)
- C) Behavioural observations (8 items)
- D) Case manager impressions of contributing factors (7 items)

ATTITUDES ABOUT OFFENSE:

Could you tell me about the offense that got you into trouble?

Questions

- 1a. How did you get involved in this offense?
- 1b. (If denied) What did the police say that you did?

Responses

- 1. Motivation for committing the offense:
 - a) emotional motivation (e.g. anger, sex, offence, etc)
 - b) material (monetary) motivation
 - c) both emotional and material and motivation

2a. How did you decide to commit the offense?

2b. Could you tell me more about the offense?

3. Looking back at the offense, what is your general feeling about it? STOP.

I'd like to talk to you about your prior offenses. Have you been in trouble before? (obtain a complete picture of offender's offense style, including current offense, when scoring items 4-8).

4a. What prior offenses are on your record? (Most recent first)

4b. Were you ever in trouble as a juvenile?

5a. Have you ever been armed or hurt someone during these offenses?

5b. Did you ever threaten anyone?

6a. How did you decide to commit the most recent of your prior offenses: (Discuss offenses individually until a clear pattern emerges).

6b. Could you tell me more about the circumstances that led up to the offense?

7. Were you drinking or on drugs when you committed this offense? (Discuss each offense individually.)

2. Acceptance of responsibility for offence:

a) admits committing the offence and doesn't attempt excuses

b) admits committing offence, but emphasizes excuses (e.g., drinking, influence by friends, family problems, etc.)

3. Expression of guilt about the offence:

a) expresses guilt feelings or

spontaneous empathy towards victim

b) expresses superficial or no guilt

c) victimless crime

4. Offence and severity:

a) no prior offenses (skip items 5, 6, 7, and 8)

b) mainly offenses resulting in sentences less than 6 months

c) no consistent pattern

d) mainly offenses resulting in sentences of six months or more

5. Was the offender ever involved in an offence where (s)he was armed, assaultive, or threatened injury to someone

a) yes

b) no

6. Offences were generally:

a) planned

b) no consistent pattern

c) impulsive

7. Percent of offenses committed while drinking or on drugs:

a) never

b) 50% or less

c) over 50%

8. Did you do the offense alone or with others? (Discuss each offense individually.)

8. Offenses were generally committed:
- a) alone
 - b) no consistent pattern
 - c) with accomplices

SCHOOL ADJUSTMENT

Now, I'd like to find out some things about your background. Let's begin with school. How did you like school?

9. What was your favorite subject in school?
- STOP -

9. Favorite subject:
- a) vocational
 - b) academic
 - c) gym
 - d) no favorite subject

10a. Did you have a favorite teacher in high school?

10b. What did you like about him / her ?

10. Attitude toward teachers:
- a) no favorite teacher
 - b) teacher chosen because of certain qualities that the offender admired
 - c) teacher chosen because of close personal relationships with the teacher

11a. How far did you go in school? Did you have any problems with schoolwork? (If offender did not graduate from high school, find out why not)

11. Offender's school performance:
- a) no problems
 - b) learning problems (difficulty performing schoolwork)
 - c) lack of interest, behaviour, or other problems

VOCATIONAL AND RESIDENTIAL ADJUSTMENT

Now I'd like to find out about your work history. What kinds of jobs have you had?

12. What is (was) your most recent job? (Start with most recent job and go backwards until a clear pattern emerges.)

12. Primary vocation:
- a) unskilled labour
 - b) semi-skilled
 - c) skilled labour or white collar
 - d) no employment history / homemaker (skip 13 & 14)
 - e) student (skip 13 & 14)

- 13a. How long did you work on your most recent job?
- 13b. How long between that job and your previous job?
- 14a. What was the reason for leaving your most recent job?
- 14b. Have you had any trouble getting jobs?
- 15a. Where do you live now?
- 15b. Have you moved around much? (Deal with time period after probationer turned 18)
- 13. Percent of working life where offender was employed full time:
 - a) over 90%
 - b) over 50% to 90%
 - c) 50% or less
- 14. Primary vocational problem:
 - a) none (can be used only if item 13 is scored 'a'.)
 - b) problems due to lack of skills or capacity
 - c) attitude or other problems
- 15. Living stability background:
 - a) essentially stable living arrangements
 - b) some unstable living arrangements
 - c) offender has essentially not been self-supporting

FAMILY ATTITUDES

Now I'd like to know about your childhood. Can you tell me what it was like?

- 17a. How do (did) you get along with your father?
- 17b. How do you feel about your father?
- 18a. If you did something wrong as a teenage, how did your father handle it?
- 18b. What kind of discipline did he use?
- 19a. How do (did) you get along with your mother?
- 19b. How do you feel about your mother?
- 17. Present feelings toward father:
 - a) close
 - b) mixed or neutral
 - c) hostile
- 18. Type of discipline father used (during offender's teenage years)
 - a) verbal or privilege withdrawal
 - b) permissive (generally let offender do as (s)he pleased
 - c) physical
- 19. Present feelings toward mother:
 - a) close
 - b) mixed or neutral
 - c) hostile

- 20a. If you did something wrong as a teenager, how did your father handle it?
 20b. What kind of discipline did he use?
- 21a. Were you ever abused by either of your parents?
 21b. Did either of them ever go overboard on the punishment? - STOP -
- 22a. How would your parents have described you as a child (before you were a teenager)?
 22b. Did both of your parents see you the same way?
23. How would you describe yourself as a child (before you were a teenager)?
- 24a. How do you get along with your brothers and sisters?
 24b. How do you feel about them?
25. Would you describe your early childhood (before you were a teenager) as happy or unhappy? -STOP -
26. If you could change anything about your childhood, what would you change?
27. Can you describe your father's personality? (If answer is unclear, ask offender to describe another person (s)he knows well).
20. Type of discipline mother used (during offender's teenage years)
 a) verbal or privilege withdrawal
 b) permissive (generally let offender do as (s)he pleased
 c) physical
21. Was the offender ever physically abused by a biological, step, or adoptive parent?
 a) yes
 b) no
22. Parental view of offender (prior to adolescence:
 a) good child
 b) problem child
 c) parents differed
23. As a child, offender describes self as:
 a) good child (normal or average)
 b) problem child
24. General feelings towards siblings:
 a) close
 b) neutral or mixed
 c) hostile
 d) no siblings
25. General attitude toward childhood:
 a) happy
 b) not happy
26. Satisfaction with childhood:
 a) basically satisfied (would change little)
 b) dissatisfied with material aspect
 c) dissatisfied with self, family, or emotional climate
27. Offender's description of personality:
 a) multi-faceted
 b) superficial (e.g., "good", "bad", "nice", etc.)

INTERPERSONAL RELATIONS

Let's talk about your friends. Do you spent much time with them?

28a. What are your friends (associates) like?	28. Offender's associates are:
28b. Have any of them been in trouble with the law? (If offender has no current associates, use prior associates).	a) essentially non-criminal
	b) mixed
	c) mostly criminal
29a. How do you get along with your friends?	29. In interaction with friends, offender is:
29b. How do they act towards you?	a) used by others
	b) withdrawn
	c) other problems
	d) normal
30a. Do you have a closest friend?	30. Description of offender's relationship with his / her closest friend:
30b. What do you like best about her / him?	a) talk (share feelings) or help each other
	b) do things together (less emphasis on talking or sharing feelings)
	c) has none
31. Are you satisfied with the way you get along with people?	31. Satisfaction with interpersonal relationships:
	a) feels satisfied
	b) feels dissatisfied
32. In general, do you tend to trust or mistrust people? -STOP-	32. General outlook towards others:
	a) basically trusting
	b) mixed or complex view
	c) basically mistrusting
33a. Can you tell me about your relationship with (wo)men?	33. Offender's opposite sex relationship pattern is generally:
33b. Do you generally go out with a lot of (wo)men or date the same person for long periods?	a) long term (over six months) or serious relationships
	b) short term, less emotionally involved relationships, or little dating experience
34. In your relationship with your husband / boyfriend (wife / girlfriend), who tends to make the decision?	34. In opposite sex interactions, offender generally:
	a) dominates
	b) is average or adequate
	c) is nonassertive or dominated

35. Do you consider yourself to be a nervous person? - STOP -
35. Does offender view self as a nervous (or anxious) person?
a) yes
b) no
- 36a. What kinds of things get you depressed?
- 36b. What do you do if you're feeling depressed? (If denies, find out how (s)he keeps from getting depressed).
36. What does offender do when feeling depressed?
a) seeks someone to talk to, or tries to figure it out
b) seeks an activity to distract self
c) drinks or uses drugs
d) isolates self
- 37a. Have you ever thought seriously about hurting or killing yourself?
- 37b. (If offender answers 'yes' to above).
37. Self destructive behaviour:
a) never seriously contemplated suicide
b) has had definite thoughts of suicide
c) has attempted it
- 38a. What do you do when you re feeling angry with people?
- 38b. Have you ever hurt anybody when you were angry?
38. In handling anger, offender:
a) is physically aggressive
b) avoids expression to others or has trouble expressing anger appropriately
c) responds appropriately
- 39a. Can you describe your personality?
- 39b. What do you like and what do you dislike about yourself? - STOP -
39. In describing self, offender:
a) emphasizes strengths
b) emphasizes inadequacy (tends to downgrade self)
c) can't describe self
40. (No questions asked. Rate your impression of offender's openness in discussing feelings).
40. Openness in discussing feelings:
a) discusses as openly as able
b) is evasive

PLANS AND PROBLEMS

41. Aside from your legal problems, what is the biggest problem in your life right now? - STOP -
41. What does the offender view as her / his most important problem right now?
a) personal
b) relationships
c) vocational / educational
d) financial
e) no big problem presently
(score item 42 as 'a')

42. How do you expect this problem (from item 41) to work out? 43a. What goals do you have for the future? 43b. What are your plans for achieving your goals? -STOP - 44. (No question asked. Rate the item based on follow-through on jobs, education, training programs, treatment programs, etc., based on all sources). 45a. How will being incarcerated / on conditional release affect your life? 45b. What do you expect to get from being incarcerated / on conditional release? - STOP -	42. Attitude towards solving problems: a) optimistic; expects to succeed b) unclear c) pessimistic; expects to fail 43. Future plans: a) short-term goals (most goals can be fulfilled within 6 months) or no goals b) unrealistic goals c) realistic, long-term goals (most goals are well developed and extend beyond 6 months) 44. Offender usually sticks with, or completes, things (s)he begins: a) yes b) no 45. Offender's general expectations about supervision: a) no effect b) monetary, counseling, or program help c) hopes supervision will keep her / him out of trouble d) negative expectations e) mixed or unclear expectations

OBJECTIVE BACKGROUND ITEMS

Instructions: Ask direct questions to obtain the following information:

QUESTIONS

SCORING GUIDE

Legal history:

46. Age of earliest court appearance: a) 14 or younger b) 15 - 17 c) 18 - 22 d) 23 or older	46. Include juvenile offenses and serious traffic offenses (e.g., drunk driving, hit and run).

47. Number of prior offenses:

- a) none
- b) 1 - 3
- c) 4 - 7
- d) 8 or more

48. Number of commitments to provincial or federal correctional institutions for six months or longer:

- a) none
- b) one
- c) two or more

49. Time spent under probation or parole supervision:

- a) none
- b) 1 year or less
- c) over 1 year: up to 3 years
- d) over 3 years

47. Exclude the offender's present offence in rating this item. Include juvenile and serious traffic offenses.

48. Include juvenile commitments. Include commitments of six months or longer even if time served was less than six months.

49. Include juvenile supervision. Use 'a' for new probationer.

Medical History:

50. (Circle all possible choices).

- a) frequent headaches, back, or stomach problems
- b) serious head injuries
- c) prior psychiatric hospitalization
- d) out-patient psychotherapy
- e) none of the above

50a. Vague complaints not diagnosed by physician.

50b. Skull fractures, head injuries which required treatment (beyond X-ray).

50d. Professional in-patient or out-patient drug / alcohol treatment

School History:

51. Highest grade completed:

- a) 9th or below
- b) 10th to 12th
- c) high school graduate (exclude GED)
- d) some post high school training
- e) none of the above

52. Did offender ever receive special education or remedial help in school?

- a) yes
- b) no

52. Include special programs for learning deficiencies (rather than behaviour problems). Do not include English-as-a second-language.

Family History:

53. Offender was raised primarily by:
a) intact biological family
b) other
53. Choice 'a' requires both natural parents in an intact home until offender reached about 16 years of age.
54. Did either parent have a history of:
(Circle all applicable choices).
a) being on welfare
b) criminal behaviour
c) psychiatric hospitalization
d) suicide attempts
e) drinking problems
f) none of the above
54. Include step and adoptive parents.
55. Have brothers or sisters (including half- and step-brothers or sisters) ever been arrested?
a) none
b) some
c) most
d) not applicable

Marital status:

56. Currently offender is:
a) single (never married)
b) single (separated or divorced)
c) married (including common-law)

- END OF INTERVIEW -

Instructions: Rate the following behaviours as observed during the interview. Use (b) for the average offender. Use (a) and (c) for distinct exceptions to the average.

57. Grooming and Dress:

- a) below average b) average c) above average

58. Self-Confidence:

- a) lacks confidence b) average c) overly confident

59. Attention span:

- a) easily distracted b) average c) very attentive

60. Comprehension:

- a) below average b) average c) above average

61. Thought processes:

- a) sluggish b) average c) driven (accelerated)

62. Affect::

- a) depressed b) average c) elated

63. Self disclosure:

- a) evasive b) average c) very open

64. Cooperation:

- a) negativistic b) average c) eager to please

IMPRESSIONS

Instructions: On the continuum below, rate the significance of each factor with regard to the offender on two (2) criteria:

- 1) Does the offender have a problem in this area?
- 2) Did (does) this problem contribute to the offender's legal difficulties?

65. SOCIAL INADEQUACY

Socially inept. Unable to perceive the motives and concern of others. Unable to survive in society and care for self.

(a) (b) (c) (d) (e)

Socially adept. Able to assert self and to perceive motives and concerns of others. Able to survive in society and care for self.

66. VOCATIONAL INADEQUACY

Lacks the capacity to obtain and maintain relatively permanent and reasonably paying employment.

(a) (b) (c) (d) (e)

Has the capacity to obtain relatively permanent and reasonably paying employment.

67. CRIMINAL ORIENTATION

Criminal behaviour is an acceptable and common part of the offender's life and (s)he attempts to live off of crime without sustained attempts to make it in a pro-social way.

(a) (b) (c) (d) (e)

Criminal behaviour is not acceptable nor part of her / his life, nor does (s)he attempt to live off crime without trying to make it in a pro-social way.

68. EMOTIONAL FACTORS

Emotional problems (e.g., chemical dependence, sex, fear, depression, low self-esteem, anxiety, self-destructiveness) contribute highly to the offence (pattern)).

(a) (b) (c) (d) (e)

Emotional factors did not contribute significantly to the offence (pattern).

69. FAMILY HISTORY PROBLEMS

Parental family problems of childhood and adolescence contributed significantly to the offense (pattern).

(a) (b) (c) (d) (e)

Parental family problems of childhood and adolescence did not contribute significantly to the offense (pattern).

70. ISOLATED SITUATIONAL (TEMPORARY CIRCUMSTANCES)

Unusual or temporary circumstances in the offender's life, which are unlikely to be repeated, contributed to the offense.

(a) (b) (c) (d) (e)

Offense is not the result of unusual or temporary circumstances (i.e., offense is part of a continuing pattern)

71. INTERPERSONAL MANIPULATION

Consciously uses, controls, and / or manipulates others to gain her / his own ends with little regard for the welfare of others.

(a) (b) (c) (d) (e)

Misuse of others, manipulation, and control did not contribute significantly to offense (pattern)

Appendix D

Force - Field Analysis of Needs

Step 1: Identify the strengths and weaknesses that pertain to each area listed below. Be as specific and detailed as possible.

Strength / Resource	Area / Domain	Problem / Weakness	Rank
	Present Offence		
	Offence Pattern		
	Response to Supervision		
	Academic / Vocational Skills		
	Employment Pattern		
	Financial Management		
	Marital / Family Relations		
	Companions		
	Emotional Stability		
	Alcohol Usage		
	Drug Usage		
	Mental Ability		
	Health		
	Sexual Behaviour		
	Values / Attitudes		

Step 2: Prioritization: Rank four of the above problem areas in the order in which they should receive intervention.

1.	3.
2.	4.

Appendix E
Coding Manual

AA. Case Information:

1. Case number _ _ _
2. FPS number _ _ _ _ _
3. Coding date (yy/mm/dd) _ _ / _ _ / _ _

A. Offender demographics:

1. Date of birth (yy/mm/dd) _ _ / _ _ / _ _
2. Ethnicity
 1. Caucasian
 2. Asian
 3. Black
 4. Native
 5. Other (specify) _ _ _ _ _
 9. Not known
3. Preferred working language
 1. English
 2. French
 3. Other (specify) _ _ _ _ _

B. Present / Admitting Criminal Offence(s):

Code only for the admitting offence(s) for the admission immediately prior to the 1989 CSC survey. Code 11.11.11 if not known.

1. Arrest Date (yy/mm/dd): _ _ / _ _ / _ _
2. Conviction Date (yy/mm/dd): _ _ / _ _ / _ _
3. Sentence Date (yy/mm/dd): _ _ / _ _ / _ _
4. Admission Date (yy/mm/dd): _ _ / _ _ / _ _

5. Total aggregated sentence on the current term in months:

Code 999 if a life sentence was received.

6. Type of convictions:

Code yes or no for each of the following to indicate if the offence was amongst the admitting offenses for (only) those committed immediately prior to June, 1989. Include all that apply.

a) Homicide	0. no	1. yes
b) Attempted murder	0. no	1. yes
c) Assault	0. no	1. yes
d) Kidnapping / abduction	0. no	1. yes
e) Arson	0. no	1. yes
f) Violent sex offence	0. no	1. yes
g) Robbery	0. no	1. yes
h) Weapons offenses	0. no	1. yes
i) Drug offenses	0. no	1. yes
j) Property offenses	0. no	1. yes
k) Fraud	0. no	1. yes
l) Obstruct justice	0. no	1. yes
m) Fail to...	0. no	1. yes
n) Other	0. no	1. yes

specify _____

7. Most severe current offence: _____

Code offence which received the longest sentence. Insert # from 1 to 14 (as per a-n above).

8. Use of weapon in the most severe current offence:

- 0. no
- 1. yes
- 9. not known

9. Type of weapon(s) used:

a) Gun	0. no	1. yes	9. not known
b) Knife	0. no	1. yes	9. not known
c) Blunt instrument	0. no	1. yes	9. not known
d) Other	0. no	1. yes	9. not known

10. Degree of physical harm to victim in most severe current offence:

- 0. None
- 1. Minor injury (e.g., hitting, slapping, striking)
- 2. Serious injury (e.g., wounding, maiming, disfiguring)
- 3. Caused death
- 9. Not known or cannot assess (e.g. importing narcotics)

11. Use of weapon in other current offenses:

- 0. no
- 1. yes
- 8. not applicable (i.e., only one major admitting offence)
- 9. not known

Specify type of weapon(s) used: _____

12. Degree of force used on victim(s) in other current offenses.

- 0. None
- 1. Use of power / authority position
- 2. Threats of violence
- 3. Threat with a weapon
- 4. Violence used
- 5. Weapons used
- 8. Not applicable (i.e., only one major admitting offence)

13. Degree of physical harm to victim in other current offenses:

- 0. None
- 1. Minor injury (e.g., hitting, slapping, striking)
- 2. Serious injury (e.g., wounding, maiming, disfiguring)
- 3. Caused death
- 8. Not applicable (i.e., only one major admitting offence)
- 9. Not known or cannot assess

14. Number of victim(s):

Code for the most serious admitting offence (i.e. offence which received the longest sentence)

Code 99 if not known or cannot assess.

— —

15. Gender of victim(s):

Code for the most serious admitting offence (i.e. offence which received the longest sentence)

a) Male	0. no	1. yes	9. not known
b) Female	0. no	1. yes	9. not known

16. Age of victims:

Code for the most serious admitting offence (i.e. offence which received the longest sentence)

a) Child (under 12)	0. no	1. yes	9. not known
b) 12 to 17 years	0. no	1. yes	9. not known
c) Adult (18 to 64)	0. no	1. yes	9. not known
d) Elderly (65+)	0. no	1. yes	9. not known

17. Relationship of victim(s) to the offender:

Code for the most serious admitting offence (i.e. offence which received the longest sentence)

- 0. None identified (stranger)
- 1. Acquaintance
- 2. Close friend
- 3. Partner / Spouse
- 4. Child / Step Child / Foster Child / Partner's Child
- 5. Other relatives
- 8. Not applicable
- 9. Not known

18. Was the offender under the influence of alcohol during any of the current offenses?

- 0. no
- 1. yes
- 9. not known

19. Was the offender under the influence of drugs during any of the current offenses?

- 0. no
- 1. yes
- 9. not known

C. Release Information:

Code for release immediately after current admission; i.e., first release after June, 1989.

1. Day parole eligibility date (yy/mm/dd): ____/____/____

Code 11.11.11 if not known.

2. Full parole eligibility date (yy/mm/dd): ____/____/____

Code 11.11.11 if not known.

3. Mandatory supervision date (yy/mm/dd): ____/____/____

Code 11.11.11 if not known.

4. First release date on current term (yy/mm/dd): ____/____/____

Code 11.11.11 if not known.

Code 12.12.12. if the offender has not been released.

5. a) First release type on current term:

1. Day parole
2. Full parole
3. Mandatory supervision
4. Release on warrant expiry
5. Not applicable (i.e., offender has not been released)
9. Not known

b) If day parole, type of day parole:

1. Ordinary
2. 4 days out, 3 days in
3. 5 days out, 2 days in
4. 6 days out, 1 day in
5. 10 days out, 4 days in
6. 30 days out, 1 day in
7. Other (specify) _____
8. Work projects
88. Not applicable

6. Special condition(s) recommended by CSC:

0. no
1. yes
8. not applicable (not released on day parole)
9. not known

7. Type of condition(s) recommended by CSC:

Code all that apply. Code na if the offender has not been released on day parole.

a) abstain from the use of alcohol	0. no	1. yes	8. not applic.	9. not known
b) abstain from the use of drugs	0. no	1. yes	8. not applic.	9. not known
c) follow psychiatric treatment	0. no	1. yes	8. not applic.	9. not known
d) follow psychological counseling	0. no	1. yes	8. not applic.	9. not known
e) not associate w/ criminal others	0. no	1. yes	8. not applic.	9. not known
f) other (specify) _____	0. no	1. yes	8. not applic.	9. not known

8 Completion status of day parole:

1. termination due to end of project or program
2. termination due to minor breach of terms or conditions
3. revocation without a new offence
4. revocation with a new offence
5. granted day parole continued
6. granted full parole
7. reached mandatory supervision
8. not applicable
9. not known

9 If not granted day parole, reason for negative decision:

1. no release plan
2. not ready for release
3. risk too high
4. no participation in institutional programs
5. no program available
6. too early in the sentence
7. other (specify) _____
8. not applicable (i.e. offender was granted day parole)
9. not known

D. Official Criminal History Record:

Enter the number of offenses (i.e. charges and convictions) for each individual crime. If there are none, enter 0. This section is to be coded exclusively from the official records contained in CPIC files, and includes only charges and convictions prior to the current offence(s); before the CSC mental health survey in 1989.

Nonviolent Offenses

1. ___ Theft, break & enter, possession of housebreaking tools, possession of stolen property, theft of telecommunications, disguise with intent, forcible entry, unlawfully in a dwelling house.
2. ___ Drug offenses (i.e., possession and trafficking).
3. ___ Criminal negligence (includes serious driving offenses such as impaired or dangerous driving, failure to stop at the scene of an accident, hit- and run)
4. ___ Fraud, forgery, false pretenses, impersonation, uttering, possession of stolen credit card.
5. ___ Escape, unlawfully at large, prison breach.
6. ___ Obstruction of justice, perjury, contempt of court, resist arrest, give contrary evidence.
7. ___ Fail to appear in court, fail to comply with recognizance, fail to comply with probation order, breach of probation, breach of recognizance.
8. ___ Miscellaneous offenses: vandalism, causing a disturbance, mischief, willful damage, trespassing, conspiracy to commit a non-violent offence, vagrancy, prostitution, minor driving offenses (e.g., driving while license suspended), public intoxication.
9. ___ Age at first non-violent offence.

Violent Offenses

10. ___ Robbery, armed robbery, robbery with violence, extortion.
11. ___ Arson, firesetting.
12. ___ Uttering threats, participation in riot, intimidation.
13. ___ Assault, assault causing bodily harm, wounding with intent, malicious wounding.

14. ___ Possession of a weapon, possession of explosives, pointing a firearm.
15. ___ Kidnapping, abduction, forcible confinement, forcible seizure.
16. ___ Violent sex offenses (e.g., sexual assault)
17. ___ Manslaughter.
18. ___ Attempted murder, conspiracy to commit murder.
19. ___ Second degree murder.
20. ___ First degree murder.
21. ___ Age at first violent offence

Dispositions in offender's criminal history

Enter the total number for each disposition pertaining to all convictions incurred above. If there are none, enter 0. This section is to be coded exclusively from the official records contained in CPIC files, and includes only charges and convictions prior to the current offence(s); before the CSC mental health survey in 1989.

22. ___ Fine
23. ___ Suspended sentence
24. ___ Community service work
25. ___ Probation
26. ___ Provincial term of incarceration
27. ___ Federal term of incarceration
28. ___ Other (specify) _____

E. Apparent Motivation(s) for Current Offence:**Part 1: Offender's Version:**

Code only for the most serious offence and include all that apply. Code nk when this information is not accessible in the file.

1. money (e.g., robbery, B & E, fraud)
2. revenge
3. jealousy
4. drug related (e.g., importing narcotics)
5. Mafia / gang related
6. heat of passion / emotional state (e.g., domestic dispute)
7. sexual
8. self-defence
9. occurred in the commission of another crime (e.g., murders a witness to theft)
10. claims innocence
11. psychiatric / delusional
12. accidental (e.g., child dies as result of abuse)
13. other (specify) _____
99. not known

Part 2: Official Version:

Code only for the most serious offence and include all that apply. Code nk when this information is not accessible in the file.

1. money (e.g., robbery, B & E, fraud)
2. revenge
3. jealousy
4. drug related (e.g., importing narcotics)
5. Mafia / gang related
6. heat of passion / emotional state (e.g., domestic dispute)
7. sexual
8. self-defence
9. occurred in the commission of another crime (e.g., murders a witness to theft)
10. psychiatric / delusional
11. accidental (e.g., child dies as result of abuse)
12. other (specify) _____
99. not known

F. Marital / Family Background:**1. Living situation *prior to admission* for the current offence(s)**

1. alone and transient (e.g. temporary shelters, living with different acquaintances)
2. alone and stable (own apartment or room)
3. with parent and / or sibling
4. with partner in heterosexual relationship
5. with partner in homosexual relationship
6. with roommates / friends (sharing apartment)
7. supervised boarding home (halfway house)
8. treatment facility (e.g. hospital, alcohol / drug rehab. centre,
9. other (specify) _____
99. not known

2. Marital status *prior to admission* for the current offence(s)

1. Single / never married
2. Common-law (sharing household with partner of more than 6 months)
3. Married
4. Separated
5. Divorced
6. Widowed
9. Not known

3. Change in marital status *after admission* for the current offence(s)?

0. no
1. yes: divorced while incarcerated
2. yes: widowed while incarcerated
3. yes: married while incarcerated
9. not known

4. Living with biological parents to age 16

0. no
1. yes
9. not known

5. Reason for separation from biological parents before age 16

1. death of one or both parents
2. parental divorce or separation
3. parental institutionalization (e.g. incarceration, psychiatric commitment)
4. own institutionalization (e.g. training school, group home)
5. other (specify) _____
8. not applicable
9. not known

6. Age at *first* separation from biological parents

Code 88 if not applicable. Code 99 if not known.

— —

7. Placement(s) before the age of 16

Code yes, no, or not known (nk) for each of the following to indicate if the offender was placed out of home in the following settings prior to the age of 16. Code na if the offender lived at home up to the age 16.

a) child welfare placement:	0. no	1. yes	8. not applic	9. nk
b) probation placement:	0. no	1. yes	8. not applic.	9. nk
c) training school:	0. no	1. yes	8. not applic.	9. nk
d) mental health facility:	0. no	1. yes	8. not applic.	9. nk

8. Physical abuse of the offender by parent(s) and / or caregiver(s) before the age of 16

Examples of physical abuse are frequent slapping, beating, and / or whipping severe enough to cause injury. Primary caregiver(s) includes step-parents, foster parents, group-home supervisors.

0. no
1. yes
9. not known

9. Source of report that offender was a victim of physical abuse before the age of 16

1. offender's self-report
2. self-report corroborated by official records (e.g. CAS, police, court reports)
8. not applicable (i.e., no reported physical abuse)

10. Emotional neglect and / or abuse of the offender by parent(s) and / or primary caregivers before the age of 16

Examples of emotional abuse are frequent and / or severe verbal abuse, lock in closet, abandonment. Examples of neglect include failure to meet basic needs, such as malnutrition, failure to seek critical medical help, putting child's life in danger.

- 0. no
- 1. yes
- 9. not known

11. Source of report that the offender was a victim of emotional abuse and / or neglect before the age of 16

- 1. offender's self-report
- 2. self-report corroborated by official records (e.g. CAS, police, court reports)
- 8. not applicable (i.e., no reported emotional abuse)

12. Offender was a victim of sexual abuse before the age of 16

Sexual abuse is defined as sexual acts committed against the offender before the age of 16 where the abuser was at least five years older than the offender.

- 0. no
- 1. yes
- 9. not known

13. Source of report that the offender was a victim of sexual abuse before the age of 16

- 1. offender's self-report
- 2. self-report corroborated by official records (e.g. CAS, police, court reports)
- 8. not applicable (i.e., no reported sexual abuse)

14. Age of offender when sexual abuse began

Code 88 if not applicable. Code 99 if not known.

— —

15. Duration of sexual abuse in months

*Code 001 for sexual abuse which was 1 month or less in duration.
Code 888 if not applicable. Code 999 if not known.*

— — —

16. Sex of abuser

- 1. male
- 2. female
- 3. both
- 8. not applicable
- 9. not known

17. Relationship of abuser(s) to the offender

Code all that apply. Code for abuse of offender in childhood only.

a) biological parent	0. no	1. yes	9. not known
b) step-parent or foster parent	0. no	1. yes	9. not known
c) sibling	0. no	1. yes	9. not known
d) other relative	0. no	1. yes	9. not known
e) friend / casual acquaintance	0. no	1. yes	9. not known
f) authority figure (e.g., teacher, coach)	0. no	1. yes	9. not known
g) stranger (no previous contact)	0. no	1. yes	9. not known

18. Use of physical aggression by any sexual abuser during or as part of any sexual act

- 0. no
- 1. yes
- 8. not applicable
- 9. not known

19. Parent and / or caregiver had an alcohol and / or drug abuse problem

Includes situations in which alcohol / drug use is frequent and / or severe enough as to threaten health, cause severe behaviour change, social / occupational problems, repeated charges / convictions, or admission to addiction program.

- 0. no
- 1. yes
- 9. not known

20. Parent / primary caregiver had a psychiatric problem

psychiatric problems include prescription of psychiatric medication, involved in therapy with a psychologist serious suicide attempts, psychiatric admissions.

- 0. no
- 1. yes
- 9. not known

21. Parent / primary caregiver had a criminal history

Includes only formal charges and convictions.

- 0. no
- 1. yes
- 9. not known

22. Physical abuse of the offender by partner / spouse after the age of 16

Examples of physical abuse are frequent slapping, beating, and / or whipping severe enough to cause injury. Partner / spouse includes same-sex relationships.

- 0. no
- 1. yes
- 9. not known

23. Source of report that offender was a victim of physical abuse after the age of 16

- 1. offender's self-report
- 2. self-report corroborated by official records (e.g., police, court reports)
- 8. not applicable (i.e., no reported physical abuse)

24. Emotional abuse of the offender by partner / spouse after the age of 16

Examples of emotional abuse are frequent and / or severe verbal abuse, lock in closet, etc.

- 0. no
- 1. yes
- 9. not known

25. Source of report that the offender was a victim of emotional abuse after the age of 16

- 1. offender's self-report
- 2. self-report corroborated by official records (e.g. police, court reports)
- 8. not applicable (i.e., no reported emotional abuse)

26. Offender was a victim of sexual abuse after the age of 16

Sexual abuse if defined as sexual acts committed against the offender against her will.

- 0. no
- 1. yes
- 9. not known

27. Source of report that the offender was a victim of sexual abuse after the age of 16

1. offender's self-report
2. self-report corroborated by official records (e.g., police, court reports)
8. not applicable (i.e., no reported sexual abuse)

28. Sex of abuser

1. male
2. female
3. both
8. not applicable
9. not known

29. Relationship of abuser(s) to the offender

Code for abuse of offender after the age of 16 only. Code all that apply.

1. biological parent	0. no	1. yes	9. not known
2. step-parent or foster parent	0. no	1. yes	9. not known
3. sibling	0. no	1. yes	9. not known
4. other relative	0. no	1. yes	9. not known
5. friend / casual acquaintance	0. no	1. yes	9. not known
6. stranger (no previous contact)	0. no	1. yes	9. not known
7. authority figure (e.g., doctor, work supervisor)	0. no	1. yes	9. not known
8. lesbian partner / spouse	0. no	1. yes	9. not known
9. heterosexual partner / spouse	0. no	1. yes	9. not known

30. Partner / Spouse had an alcohol and / or drug abuse problem

Includes situations in which alcohol / drug use is frequent and / or severe enough as to threaten health, cause severe behaviour change, social / occupational problems, repeated charges / convictions, or admission to addiction program.

0. no
1. yes
8. not applicable (i.e., no partner / spouse)
9. not known

31. Partner / spouse had a psychiatric problem

psychiatric problems include prescription of psychiatric medication, involved in therapy with a psychologist, serious suicide attempts, psychiatric admissions.

- 0. no
- 1. yes
- 8. not applicable (i.e., no partner / spouse)
- 9. not known

32. Partner / spouse had a criminal history

Includes only formal charges and convictions.

- 0. no
- 1. yes
- 8. not applicable (i.e., no partner / spouse)
- 9. not known

G. Education / Employment History:1. Highest grade completed *prior to admission* for the current offence

*Code highest grade completed up to the end of high school, including upgrading.
Code 99 if not known.*

— —

2. Any college or university *prior to* current offence

- 0. no
- 1. yes
- 9. not known

3. Any upgrading *while incarcerated* for the current offence

- 0. no
- 1. yes
- 9. not known

4. Enter the exact number of years of formal education

For example, an individual who has completed a masters degree would be given 19 years of formal education. Code 99 if not known.

— —

5. Ever suspended from school:

- 0. no
- 1. yes
- 9. not known

6. Ever expelled from school:

- 0. no
- 1. yes
- 9. not known

7. Employment status *prior to admission* for the current offence

- 1. Employed
- 2. Unemployed - no legal income
- 3. Student
- 4. On social assistance (e.g., GWA, FBA, UI)
- 5. On pension
- 6. Other (specify) _____
- 9. Not known

8. Frequently unemployed during *the year prior* to the current offence

Code yes if known accumulated number of months unemployed is greater than 6 months or offender has a record of significant or problematic amount of unemployment. Code na if the offender was unemployed because she was a student, hospitalized, or incarcerated.

- 0 no
- 1. yes
- 8. not applicable
- 9. not known

9. Occupation during *the year prior* to the current offence

Report highest level achieved. Code na if the offender was unemployed because she was hospitalized or incarcerated.

1. Student
2. Semi-skilled or unskilled labour (e.g., factory worker, waitress, cashier)
3. Skilled labour (e.g., plumber, tailor)
4. Clerical / Sales (e.g., secretary, data entry, retail sales)
5. Lower management / supervisory (e.g., store manager, self-employed)
6. Managerial, professional (executive, teacher, doctor, lawyer)
7. Other (specify) _____
8. Not applicable
9. Not known

10. Financial problems during *the year prior* to the current offence

Examples include default on loans, overextended credit, unable to meet payments.

0. no
1. yes
8. not applicable
9. not known

11. Reliance on social assistance during the year prior to the current offence

Examples include unemployment benefits, welfare, disability pension.

0. no
1. yes
9. not known

12. Longest period of time continuously employed in months

If the offender has changed jobs for better pay and / or position, count as one period.

— — —

H. Institutional History:

Code only for the current term of incarceration.

1. Reported total number of institutional misconducts: _____
Code for all documented institutional misconducts

2. Involvement in serious institutional misconducts:

a) homicide	0. no	1. yes
b) assault	0. no	1. yes
c) sexual assault	0. no	1. yes
d) fighting	0. no	1. yes
e) threatening behaviour	0. no	1. yes
f) hostage taking	0. no	1. yes
g) inciting to riot or strike	0. no	1. yes
h) possession of drugs	0. no	1. yes
i) possession of weapon(s)	0. no	1. yes
j) escape	0. no	1. yes
k) attempted escape	0. no	1. yes
l) other	0. no	1. yes specify _____

3. During this period of incarceration, has the offender been placed in administrative segregation?

Code only for involuntary placement in segregation.

- 0. no
- 1. yes
- 9. not known

4. During this period of incarceration, has the offender been placed in protective custody?

- 0. no
- 1. yes
- 9. not known

5. Estimate the percentage of time during this period of incarceration that the offender was working / in school / training / in a treatment program

- 1. 60% or more
- 2. 40 - 59%
- 3. 29 - 39%
- 4. Less than 29%
- 9. not known

6. Type of work the offender performed during *the current period* of incarceration:*Code all that apply.*

a) food services	0. no	1. yes
b) building / grounds maintenance	0. no	1. yes
c) beauty parlor	0. no	1. yes
d) janitorial	0. no	1. yes
e) office / clerical	0. no	1. yes
f) laundry	0. no	1. yes
g) agricultural	0. no	1. yes
h) teaching	0. no	1. yes
i) other	0. no	1. yes specify _____

7. Was the offender granted any temporary absence(s) during the *current period* of incarceration?

0. no
1. yes
9. not known

8. Indicate the total number of escorted and unescorted temporary absences granted during the *current period* of incarceration

Code 00 if the offender was not granted any temporary absences.
Code 99 for not known.

- a) ____ escorted temporary absences
b) ____ unescorted temporary absences

9. Reasons for *escorted* temporary absences (ETA):*Code all that apply.*

a) medical	0. no	1. yes	9. not known
b) administrative	0. no	1. yes	9. not known
c) community service	0. no	1. yes	9. not known
d) family contact	0. no	1. yes	9. not known
e) compassionate	0. no	1. yes	9. not known
f) rehabilitative	0. no	1. yes	9. not known
g) other	0. no	1. yes	specify _____

10. Reasons for *unescorted* temporary absences (UTA):

Code all that apply. Code no if the offender has not been granted any UTAs.

a) medical	0. no	1. yes	9. not known
b) administrative	0. no	1. yes	9. not known
c) community service	0. no	1. yes	9. not known
d) family contact	0. no	1. yes	9. not known
e) compassionate	0. no	1. yes	9. not known
f) rehabilitative	0. no	1. yes	9. not known
g) other	0. no	1. yes	specify _____

11. Type(s) of treatment received by the offender *while incarcerated* for the current offence

Code all that apply.

a) therapy / counselling	0. no	1. yes	9. not known
b) cognitive skills training	0. no	1. yes	9. not known
c) living without violence	0. no	1. yes	9. not known
d) anger management	0. no	1. yes	9. not known
e) family violence programs	0. no	1. yes	9. not known
f) parenting programs	0. no	1. yes	9. not known
g) substance abuse programs	0. no	1. yes	9. not known
h) psychiatric / drug therapy	0. no	1. yes	9. not known
i) other	0. no	1. yes	specify _____

12. Number of contacts from family / friends / others, while incarcerated for the current offence:

Includes letters, calls, visits

- 0. None
- 1. Irregular (Less than 6 contacts per year)
- 2. Regular (More than 6 contacts per year, but not weekly)
- 3. Frequent (Weekly)
- 9. Not known

I. Mental health history:

This section is to be coded exclusively from institutional files.

- 1 Offender has been diagnosed with a severe mental disorder (i.e., schizophrenia or schizophreniform, bipolar disorder, mania, major depression)

0. no
1. yes (specify) _____
9. not known

- 2 Offender has been diagnosed with a personality disorder (excluding APD) at least once during her lifetime

0. no
1. yes (specify) _____
9. not known

- 3 Offender has been diagnosed with Antisocial Personality Disorder at least once during her lifetime

0. no
1. yes (specify) _____
9. not known

- 4 Emotional problems interfered severely with offender's life during the year prior to the current offence

Examples of severe interference include consulted a mental health professional for help, received psychiatric medication, serious attempts at suicide, admission to psychiatric facility.

0. no
1. yes (specify) _____
9. not known

5. Admitted to a psychiatric hospital or a psychiatric ward of a general hospital

Code for entire lifespan

0. no
1. yes
9. not known

6. Actual number of psychiatric admissions if known

Code for entire lifespan. Code 00 when no admissions. Code 99 if not known.

— —

7. Admitted to a psychiatric hospital or a psychiatric ward of a general hospital during the one year prior to the current offence

- 0. no
- 1. yes
- 9. not known

8. Actual number of psychiatric admissions during the year prior to the current offence

Code 00 when no admissions. Code 99 if not known.

— —

9. Clear evidence indicates that the offender was suffering from a serious mental disorder *at the time of* the most recent offence (i.e., hallucinations, delusions, mania)

- 0. no
- 1. yes (specify) _____
- 9. not known

10. The offender has attempted suicide or engaged in serious self-injurious behaviour on one or more occasions *while incarcerated* for the current offence:

- 0. no
- 1. yes
- 9. not known

J. Case Management History:

1. Assessment and treatment requirements:

Code all that apply.

a) Medical	0. no	1. yes	9. not known
b) Psychiatric	0. no	1. yes	9. not known
c) Psychological	0. no	1. yes	9. not known
d) Other	0. no	1. yes	9. not known

3 of/de 3

PM-1 3 1/2 x 4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

PRECISIONSM RESOLUTION TARGETS

2. General Statistical Information on Recidivism (SIR) Scale score _____
 (Note + or -)

3. Forcefield Analysis of Needs (weaknesses)

a) Present offence	0. no	1. yes
b) Offence pattern	0. no	1. yes
c) Response to supervision	0. no	1. yes
d) Academic / Vocational skills	0. no	1. yes
e) Employment	0. no	1. yes
f) Financial Management	0. no	1. yes
g) Marital / Family relations	0. no	1. yes
h) Companions	0. no	1. yes
i) Emotional Stability	0. no	1. yes
j) Alcohol Usage	0. no	1. yes
k) Drug Usage	0. no	1. yes
l) Mental Ability	0. no	1. yes
m) Health	0. no	1. yes
n) Sexual Behaviour	0. no	1. yes
o) Values and Attitudes	0. no	1. yes

4. Priority need #1: _____ (code number from 1-15 as per a-o above)

5. Priority need #2: _____ (code number from 1-15 as per a-o above)

6. Priority need #3: _____ (code number from 1-15 as per a-o above)

7. Priority need #4: _____ (code number from 1-15 as per a-o above)

8. Case Management Strategy.

1. Environmental Structure
2. Limit Setting
3. Casework Control
4. Selective Intervention

K. Post-Release Outcome:

1 Outcome of *first* release from current conviction(s)- i.e., after June, 1989:

1. Day parole revoked: new offence
2. Day parole revoked: no new offence
3. Day parole continued to: date / full parole / M.S. / WED
4. Full parole revoked: new offence
5. Full parole revoked: no new offence
6. Full parole continued to: date / M.S. / WED
7. Mandatory supervision revoked: new offence
8. Mandatory supervision revoked: no new offence
9. Mandatory supervision continued to: date / WED
10. Released at WED and reconvicted for new (non-violent) offence
11. Released at WED and reconvicted for new (violent) offence
12. Other (specify) _____
13. Not applicable (i.e., not released)

2 Number of weeks since first release:

Code only if the offender has not been reincarcerated since first release. Code as a 3-digit number. Code 888 if not applicable (i.e. offender is still incarcerated, or is reincarcerated). Code 999 if not known.

3 From first release *until present*, has the offender's parole or M.S. been suspended?

Code 1 if suspension issued only; code 2 if suspension both issued and executed; code 8 if not applicable (i.e., offender was not released, or has not been on parole or M.S.)

- 0 no
- 1 suspension issued
- 2 suspension executed
- 8 not applicable

4 From first release *until present*, has the offender recidivated?

(Code all that apply. Code na if offender has not been released.

a) no (Code yes here if the offender has not recidivated)	0. no	1. yes	8. na	9. nk
b) revocation of parole <i>without</i> a new offence	0. no	1. yes	8. na	9. nk
c) revocation of M.S. <i>without</i> a new offence	0. no	1. yes	8. na	9. nk
d) revocation of parole with a new <i>non-violent</i> offence	0. no	1. yes	8. na	9. nk

e) revocation of M.S. with a new <i>non-violent</i> offence	0 no	1 yes	8 na	9 nk
f) revocation of parole with a new <i>violent</i> offence	0 no	1 yes	8 na	9 nk
g) revocation of M.S. with a new <i>violent</i> offence	0 no	1 yes	8 na	9 nk
h) new <i>non-violent</i> offence committed after initial WED	0 no	1 yes	8 na	9 nk
i) new <i>violent</i> offence committed after initial WED	0 no	1 yes	8 na	9 nk

5. Number of weeks between first release and (first) revocation *without* a new offence

Code as a 3-digit number. Code 888 if the offender has not been released, has not received a revocation or has been revoked for a new offence. Code 999 if not known.

— — —

6. Date of (first) revocation *without* a new offence (yy/mm/dd).

Code 11.11.11 if the offender has not been released, has not received a revocation, or has been revoked for a new offence.

— / — / —

7. Number of weeks between first release and (first) revocation *with* a new offence

Code as a 3-digit number. Code 888 if the offender has not been released, has not received a revocation, or has been revoked without a new offence. Code 999 if not known.

— — —

8. Date of (first) revocation *with* a new offence (yy/mm/dd):

Code 11.11.11 if the offender has not been released, has not received a revocation, or has been revoked without a new offence.

— / — / —

9 If the offender has re-offended, indicate which offenses apply:

Code yes or no for each of the following to indicate if the offence was amongst the reconvictions after first release (i.e., after the CSC survey, 1989). Include all that apply. Code na if the offender has not been released.

a) Homicide	0. no	1. yes	8. not applicable
b) Attempted murder	0. no	1. yes	8. not applicable
c) Assault	0. no	1. yes	8. not applicable
d) Kidnapping / abduction	0. no	1. yes	8. not applicable
e) Arson	0. no	1. yes	8. not applicable
f) Violent sex offence	0. no	1. yes	8. not applicable
g) Robbery	0. no	1. yes	8. not applicable
h) Weapons offenses	0. no	1. yes	8. not applicable
i) Drug offenses	0. no	1. yes	8. not applicable
j) Property offenses	0. no	1. yes	8. not applicable
k) Fraud	0. no	1. yes	8. not applicable
l) Obstruct justice	0. no	1. yes	8. not applicable
m) Fail to ..	0. no	1. yes	8. not applicable
n) Other	0. no	1. yes	8. not applicable
specify _____			

Dispositions incurred in post-release offending:

Enter the total number for each disposition pertaining to all convictions incurred above. If there are none, enter 0. This section is to be coded exclusively from the official records contained in CPIC files, and includes only charges and convictions after the first release (i.e. after CSC survey, 1989)

- 10 ____ Fine
- 11 ____ Suspended sentence
- 12 ____ Community service work
- 13 ____ Probation
14. ____ Provincial term of incarceration
- 15 ____ Federal term of incarceration
- 16 ____ Other (specify) _____

L. Current Status:**Part I: Location**

1. Incarcerated - minimum security
2. Incarcerated - medium security
3. Incarcerated - maximum security
4. Regional psychiatric or regional treatment centre
5. Halfway house
6. Community supervision - day parole
7. Community supervision - full parole
8. Community supervision - mandatory supervision
9. Community supervision - other (specify) _____
10. Probation
11. On bail
12. In custody - awaiting trial
13. Deported
14. Unlawfully at large
15. Psychiatric Hospital
16. Warrant expired - location not known
17. Deceased
18. Other (specify) _____
- 99 Not known

Part II: Warrant Expiry Date

Code 11.11.11 if the offender is serving a life sentence.

1. Last known warrant expiry date *as of present* (yy/mm/dd):

____/____/____

Appendix F

Inter-Correlations between Criminal History / Institutional Adjustment Variables

Var	1	2	3	4	5	6	7	8	9	10
1	—									
2	.15	—								
3	.00	.15	—							
4	.15	.19	.43 ^c	—						
5	-.08	-.09	.19	.22	—					
6	-.31 ^a	-.12	.19	-.15	.41 ^b	—				
7	.06	-.30 ^a	.01	-.17	-.02	.09	—			
8	-.07	.29 ^a	.15	-.15	.44 ^c	.40 ^b	.14	—		
9	.57 ^d	-.05	-.34 ^b	.12	-.26	-.48 ^b	-.33 ^b	-.22	—	
10	.68 ^d	.20	.11	.19	-.33 ^a	-.44 ^b	-.05	-.33 ^b	.67 ^d	—
11	-.04	-.33 ^a	.06	-.25 ^a	.18	.36 ^b	.71 ^d	.20	-.3 ^{-b}	-.17
12	-.02	.11	.08	-.33 ^b	.03	.15	.50 ^d	.54 ^d	-.36 ^b	-.29
13	-.09	.10	.22	.05	.10	.04	-.04	.13	-.16	-.11
14	-.35 ^b	.09	.18	-.07	.14	.36 ^b	.12	.15	-.27 ^a	-.33 ^a
15	-.33 ^b	.13	.31 ^b	.06	.28 ^a	.28 ^a	.22	.28 ^a	-.34 ^a	-.28 ^a
16	-.57 ^d	.02	.36 ^b	.13	.30 ^a	.37 ^b	.29 ^a	.17	-.42 ^b	-.43 ^b
17	-.10	-.07	.12	.18	-.11	-.08	-.16	-.21	-.05	.11
18	.17	.20	.06	.19	.06	.01	-.17	-.17	.23	.07
19	.12	.59 ^d	.21	.11	.24	.19	-.19	.35 ^b	.03	.06
20	.34 ^b	.27 ^a	-.12	.35 ^b	-.34 ^b	-.39 ^b	-.59 ^d	-.49 ^d	.66 ^d	.55 ^d

Note. ^a $p < .05$, ^b $p < .01$, ^c $p < .001$, ^d $p < .0001$

1 = age at admission

2 = aggregate sentence

3 = admitting offence violent (0 = no).

4 = relationship to victim (0 = stranger)

5 = alcohol used in offence (0 = no).

6 = drugs used in offence (0 = no).

7 = # of previous non-violent offenses.

8 = # of previous violent offenses.

9 = age at first non-violent offence.

10 = age at first violent offence

11 = # of provincial terms served.

12 = # of federal terms served.

13 = participation in institutional programs

14 = # of institutional charges.

15 = # of violent institutional charges.

16 = time in segregation.

17 = time in p.c.

18 = # of E.T.A.s

19 = # of U.T.A.s

20 = SIR scale score.

Table cont'd

Inter-Correlations between Criminal History / Institutional Adjustment Variables

Var.	11	12	13	14	15	16	17	18	19	20
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.	—									
12.	.40 ^c	—								
13.	-.03	.01	—							
14.	.16	.21	.02	—						
15.	.11	.17	.10	.57 ^d	—					
16.	.23	.05	.03	.41 ^c	.65 ^d	—				
17.	-.19	-.17	.17	-.12	-.10	.16	—			
18.	-.14	-.13	.16	.03	.13	.02	-.01	—		
19.	-.16	.13	.28 ^a	-.09	.04	.08	-.19	.24	—	
20.	-.75 ^d	-.52	-.12	-.31 ^b	-.28 ^a	-.43 ^c	.07	.28 ^a	.11	—

Note. ^ap<.05, ^bp<.01, ^cp<.001, ^dp<.0001

1 = age at admission.

2 = aggregate sentence.

3 = admitting offence violent (0 = no).

4 = relationship to victim (0 = stranger).

5 = alcohol used in offence (0 = no).

6 = drugs used in offence (0 = no).

7 = # of previous non-violent offenses.

8 = # of previous violent offenses.

9 = age at first non-violent offence.

10 = age at first violent offence.

11 = # of provincial terms served

12 = # of federal terms served

13 = participation in institutional programs

14 = # of institutional charges

15 = # of violent institutional charges

16 = time in segregation

17 = time in p.c.

18 = # of E.T.A.s

19 = # of U.T.A.s.

20 = SIR scale score

Appendix G

Inter-Correlations between Needs Identified by Force-field Analysis

Var	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	—														
2	.28 ^a	—													
3	.23	.54 ^d	—												
4	-.07	.18	.28 ^a	—											
5	-.02	.40 ^c	.42 ^c	.55 ^d	—										
6	-.14	.16	.34 ^b	.20	.36 ^b	—									
7	.09	.30 ^b	.07	.12	.26 ^a	.20	—								
8	.10	.42 ^c	.33 ^b	.26 ^a	.36 ^b	.15	.14	—							
9	.22	.11	.20	.08	.06	-.16	.12	.10	—						
10	-.14	.37 ^b	.24 ^a	.52 ^d	.42 ^c	.11	.14	.08	.09	—					
11	-.04	.45 ^d	.30 ^a	.30 ^b	.27 ^a	-.05	.18	.44 ^d	.16	.29 ^a	—				
12	-.03	-.08	.02	.24 ^a	.16	.08	.08	.23	.09	.37 ^b	-.11	—			
13	.07	.07	-.03	-.10	.15	-.17	.09	.02	.06	-.05	.10	-.07	—		
14	.24 ^a	-.03	.15	-.07	.04	-.13	.05	-.07	.18	.18	.03	.00	.17	—	
15	.06	.46 ^d	.40 ^c	.04	.33 ^b	.26 ^a	.28 ^a	.45 ^d	.12	.12	.40	-.09	-.10	.13	—

Note. ^ap<.05, ^bp<.01, ^cp<.001, ^dp<.0001

1 = present offence.

2 = offence pattern.

3 = response to supervision.

4 = academic / vocational .

5 = employment

6 = financial management.

7 = marital / family relations.

8 = companions

9 = emotional stability.

10 = alcohol usage.

11 = drug usage.

12 = mental ability.

13 = health.

14 = sexual behaviour.

15 = values / attitudes.

Appendix H

Inter-Correlations between Case History Variables

Var.	1	2	3	4	5	6	7	8	9	10	11	12	13
1.	—												
2.	.51 ^d	—											
3.	-.09	.28 ^a	—										
4.	.07	-.05	***	—									
5.	-.10	-.11	***	-.35	—								
6.	.02	-.13	-.40 ^b	-.30	.05	—							
7.	.13	-.09	-.43 ^b	-.35	.08	.93 ^d	—						
8.	.02	-.21	-.45 ^b	-.33	.68 ^b	.64 ^d	.68 ^d	—					
9.	.20	-.08	-.16	***	***	-.48	-.31	***	—				
10.	-.18	-.30	***	***	***	-.17	-.34	***	-.51	—			
11.	-.08	-.17	-.64 ^d	-.34	.45	.72 ^d	.69 ^d	.54 ^d	-.27	***	—		
12.	-.22	-.25	-.35 ^a	-.59 ^a	.16	.54 ^c	.56 ^c	.68 ^d	***	***	.46 ^b	—	
13.	.09	.07	-.43 ^b	-.27	.31	.52 ^c	.62 ^d	.36 ^a	-.50	***	.52 ^c	.54 ^c	—
14.	.44 ^b	.39 ^b	-.11	-.20	-.12	.38 ^a	.33 ^a	.08	-.14	***	.19	-.01	.11
15.	.46 ^b	.41 ^b	-.09	-.20	-.12	.37 ^a	.42 ^c	.16	.10	***	.17	-.02	.10
16.	.40 ^a	.31	.03	-.10	***	.13	.06	.23	***	***	-.17	.08	-.14
17.	.50 ^b	.18	-.40 ^a	-.21	***	.34	.35	.26	***	***	.53 ^b	.05	.32
18.	.42 ^b	-.01	-.46 ^b	***	***	.16	.15	.23	***	***	.36 ^a	-.09	.31
19.	.11	.15	.54 ^d	.12	-.19	-.31 ^a	-.39 ^b	-.21	-.04	.37	-.51 ^d	-.16	-.20
20.	-.12	-.05	.06	.06	-.34	-.23	-.18	-.16	-.14	.06	.06	-.01	-.14
21.	-.02	.05	.42 ^b	-.39	-.18	-.21	-.28 ^a	-.31 ^a	-.46	.73 ^a	-.36 ^a	.10	-.22
22.	.03	-.08	-.49 ^d	.37	.01	.25	.31 ^a	.27	.42	***	.48 ^c	-.04	.27
23.	.01	-.06	-.43 ^b	.51	-.18	.30	.30	.21	***	***	.38 ^a	.06	.09
24.	.02	-.19	-.52 ^d	.16	.09	.49 ^c	.59 ^d	.32 ^a	-.11	***	.61 ^d	.25	.33 ^a
25.	.02	.29 ^a	.48 ^c	-.27	-.39	-.12	-.19	-.30 ^a	-.36	.01	-.40 ^b	.03	-.08

Note. ^ap<.05, ^bp<.01, ^cp<.001, ^dp<.0001. *** indicates n<10, correlation spurious

1 = accommodation (0 = alone).
2 = marital status (0 = single).
3 = lived w/ parents to age 16.
4 = age at first sep. from parents.
5 = placements before age 16.
6 = physical abuse by caregiver
7 = emotional abuse by caregiver.
8 = sexual abuse before age 16
9 = age when sexual abuse began
10 = duration of sexual abuse.
11 = caregiver had alcohol/drug problem
12 = caregiver had psychiatric problem
13 = caregiver had a criminal history

14 = physical abuse by partner
15 = emotional abuse by partner.
16 = sexual abuse after age 16
17 = partner had alcohol/drug problem
18 = partner had criminal history
19 = highest grade prior to admission
20 = upgrading while incarcerated
21 = employment status
22 = frequently unemployed
23 = financial problems
24 = on social assistance
25 = time continuously employed

Table cont'd

Inter-Correlations between Case History Variables

Var	14	15	16	17	18	19	20	21	22	23	24	25
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14	—											
15	.96 ^d	—										
16	.49 ^b	.44 ^a	—									
17	.76 ^d	.75 ^d	.45	—								
18	.37	.40 ^a	.35	.84 ^d	—							
19	-.27	-.28	.06	-.39 ^a	-.18	—						
20	-.09	-.08	-.35	.00	.12	-.03	—					
21	-.17	-.20	-.07	-.38 ^a	-.34 ^a	.44 ^c	-.01	—				
22	.33 ^a	.35 ^a	.07	.55 ^c	.49 ^b	-.54 ^d	.00	-.92 ^d	—			
23	.21	.21	.27	.69 ^c	.41	-.25	-.10	-.49 ^b	.56 ^c	—		
24	.20	.23	.12	.46 ^a	.38 ^a	-.61 ^d	.03	-.70 ^d	.85 ^d	.72 ^d	—	
25	-.01	.01	.01	-.27	-.39 ^a	.40 ^b	-.13	.62 ^d	-.66 ^d	-.22	-.63 ^d	—

Note. ^ap<.05, ^bp<.01, ^cp<.001, ^dp<.0001. *** indicates n<10, correlation spurious.

1 = accommodation (0 = alone).

2 = marital status (0 = single).

3 = lived w/ parents to age 16.

4 = age at first sep. from parents

5 = placements before age 16.

6 = physical abuse by caregiver.

7 = emotional abuse by caregiver.

8 = sexual abuse before age 16.

9 = age when sexual abuse began.

10 = duration of sexual abuse.

11 = caregiver had alcohol/drug problem.

12 = caregiver had psychiatric problem.

13 = caregiver had a criminal history.

14 = physical abuse by partner.

15 = emotional abuse by partner.

16 = sexual abuse after age 16.

17 = partner had alcohol/drug problem.

18 = partner had criminal history.

19 = highest grade prior to admission.

20 = upgrading while incarcerated.

21 = employment status.

22 = frequently unemployed.

23 = financial problems.

24 = on social assistance.

25 = time continuously employed.

Appendix I

Inter-Correlations between Selected DIS / DSM Disorders

Disorder	1	2	3	4	5	6	7	8	9	10	11	12	13
1.	—												
2.	-.04	—											
3.	-.07	-.02	—										
4.	-.26 ^a	-.08	.15	—									
5.	.20	.09	.01	.24 ^a	—								
6.	.04	.12	.20	.25 ^a	.27 ^a	—							
7.	-.17	.13	.23 ^a	.10	.03	.05	—						
8.	.34 ^b	-.02	-.04	.00	.01	-.07	-.05	—					
9.	-.09	.49 ^d	-.04	-.17	-.06	.11	.14	-.05	—				
10.	-.18	.23 ^a	.07	-.35 ^b	-.03	-.17	.15	-.10	.33 ^b	—			
11.	.34 ^b	-.08	-.15	-.50 ^d	.03	-.11	.08	.00	.20	.27 ^a	—		
12.	-.11	-.03	-.06	.11	-.18	.10	.13	.19	.15	.10	-.01	—	
13.	-.28 ^a	.15	-.15	.22	.24 ^a	.44 ^d	-.03	.15	.19	-.04	-.21	.18	—

Note. ^a $p < .05$, ^b $p < .01$, ^c $p < .001$, ^d $p < .0001$

1 = schizophrenia.

8 = somatic disorder.

2 = schizofreniform.

9 = panic disorder.

3 = manic episode.

10 = anxiety disorder.

4 = depressive episode.

11 = sexual dysfunction.

5 = alcohol abuse.

12 = transsexualism.

6 = drug abuse.

13 = antisocial personality.

7 = phobia

Appendix J

Correlations between Needs Identified By Force-field Analysis and Selected DIS / DSM Disorders

Var	1	2	3	4	5	6	7	8	9	10	11	12	13
14.	-.16	-.18	.14	.26 ^a	.05	.05	.10	-.07	-.11	-.19	-.12	.09	.11
15.	-.12	.11	.19	.22	.42 ^c	.43 ^c	.09	-.01	-.02	-.08	.00	.08	.35 ^b
16.	-.03	.14	.25 ^a	.28 ^a	.30 ^a	.35 ^b	.16	-.14	.17	-.02	.06	.16	.31 ^b
17.	.23	.07	.13	.04	.34 ^b	.14	.33 ^b	.11	.02	.02	.19	-.03	.09
18.	.24	.08	.14	.06	.38 ^b	.30 ^a	.04	-.07	.03	-.04	.01	-.02	.37 ^b
19.	.05	-.14	-.10	-.05	.02	.05	.07	-.02	-.03	.05	.16	-.04	.15
20.	-.05	.08	.14	-.05	.16	.08	.19	-.07	.03	-.02	.10	-.12	.07
21.	-.16	.10	.17	.07	.33 ^b	.43 ^c	.05	-.04	-.05	.21	-.02	-.17	.33 ^b
22.	-.04	.06	.11	-.03	.09	.29	-.04	-.13	.13	-.09	.06	.03	.16
23.	.26 ^a	.12	.21	.07	.50 ^d	.14	.15	.00	-.01	-.05	.16	-.11	-.02
24.	.12	.10	.18	.16	.49 ^d	.69 ^d	-.10	-.03	.08	-.20	.06	-.05	.41 ^c
25.	.00	-.05	.13	.00	.19	-.14	.16	-.07	-.09	.11	.08	-.12	-.12
26.	.06	-.06	.08	.14	.11	.24 ^a	-.07	.14	-.12	-.25 ^a	-.11	.12	-.06
27.	.01	-.04	.15	.23	-.02	.08	.03	-.06	-.08	-.19	-.16	.21	.00
28.	-.15	.17	.15	.16	.06	.38	.03	-.12	.09	-.07	-.12	.11	.53 ^d

Note. ^a $p < .05$, ^b $p < .01$, ^c $p < .001$, ^d $p < .0001$.

Disorders:

- 1 = schizophrenia.
- 2 = schizophreniform.
- 3 = manic episode.
- 4 = depressive episode.
- 5 = alcohol abuse.
- 6 = drug abuse.
- 7 = phobia.
- 8 = somatic disorder
- 9 = panic disorder.
- 10 = anxiety disorder.
- 11 = sexual dysfunction.
- 12 = transsexualism.
- 13 = antisocial personality.

FFA Needs:

- 14 = present offence.
- 15 = offence pattern.
- 16 = response to supervision.
- 17 = academic / vocational.
- 18 = employment.
- 19 = financial management.
- 20 = marital / family relations.
- 21 = companions.
- 22 = emotional stability.
- 23 = alcohol usage.
- 24 = drug usage.
- 25 = mental ability.
- 26 = health.

- 27 = sexual behaviour.
- 28 = values / attitudes.

Appendix K

Correlations between Needs Identified By Force-field Analysis and Case History Variables

Var.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16.	.21	.05	-.07	-.11	.01	.01	.06	-.07	.08	.01	-.02	-.22	-.05	.05	.25 ^a
17.	-.03	-.05	-.20	-.26 ^a	-.15	-.08	.01	-.25 ^a	-.19	-.09	-.21	-.03	-.06	.02	.01
18.	-.02	-.39 ^b	-.40	-.30 ^a	-.25	-.18	-.32 ^a	-.36 ^b	-.28 ^a	-.43 ^c	-.57 ^d	-.15	.12	-.04	-.36 ^b
19.	-.06	.13	-.03	-.12	-.02	.16	.18	.13	.05	.01	-.13	.41 ^a	.24	.30	-.07
20.	-.13	-.25	-.25	.26	.06	.38	-.13	.25	-.05	.14	.26	.35	-.48 ^a	-.09	.17
21.	-.01	.19	.19	.30 ^a	.14	-.03	.19	.04	.11	.44 ^c	.24	.16	.11	-.01	.16
22.	.01	.21	.21	.36 ^b	.16	-.03	.25	.01	.21	.43 ^c	.33 ^a	.07	.15	.07	.14
23.	.06	.14	.14	.25	.06	.03	.06	-.04	.19	.25	.36 ^b	-.01	-.11	.09	.13
24.	.19	-.16	.20	-.11	.04	.32	-.36	.12	.36	-.07	-.08	.24	.05	.32	.00
25.	.21	-.28	-.32	-.55	-.42	-.44	.19	-.32	***	-.36	-.54	-.21	-.05	-.34	-.20
26.	.00	.29 ^a	.38 ^b	.44 ^c	.37 ^b	.05	.16	.24	.12	.51 ^d	.51 ^d	.30 ^a	.07	.19	.26
27.	.09	-.04	.06	.27	-.03	-.16	.20	-.16	.11	.11	.26	-.16	-.06	.10	-.05
28.	.20	.38 ^b	.13	.20	.06	.06	.26	.16	-.04	.15	.51 ^c	-.15	.01	.18	.18
29.	.03	.09	-.08	.18	.32 ^a	.09	.42 ^b	-.02	-.15	.37 ^a	.00	.25	.10	.12	.12
30.	.04	.07	-.10	.20	.35 ^a	.11	.45 ^b	-.05	-.14	.36 ^a	-.03	.25	.09	.11	.11
31.	.15	-.06	-.09	-.10	-.10	-.07	.24	-.22	-.14	.07	-.32	.09	-.05	-.02	-.02
32.	.17	.29	.07	.45 ^b	.56 ^c	-.07	.36 ^a	.29	-.09	.35 ^a	.39 ^a	.28	-.09	.20	.41 ^a
33.	.28	.34 ^a	.03	.29	.41 ^b	.01	.28	.37 ^a	-.16	.12	.42 ^b	.06	.02	.17	.36 ^a
34.	.01	-.25 ^a	-.34	-.69 ^d	-.47 ^d	-.15	-.16	-.23	-.18	-.62 ^d	-.26 ^b	-.38 ^b	.04	.15	.02
35.	.03	-.17	-.10	.03	.02	-.07	-.06	-.14	-.08	-.04	-.15	.14	.08	.14	-.36 ^b
36.	.01	-.33 ^b	-.28 ^a	-.27 ^a	-.55 ^d	-.21	-.22	-.25	-.15	-.44 ^c	-.45 ^c	-.21	-.10	-.04	-.25 ^a
37.	-.03	.42 ^c	.36 ^b	.38 ^b	.71 ^d	.29 ^a	.35 ^b	.29 ^a	.13	.59 ^d	.49 ^d	.25 ^a	.09	.10	.34 ^b
38.	-.26	.25	.37 ^a	.30	.46 ^b	.23	.41 ^b	.26	.15	.34 ^a	.40 ^a	.28	-.02	.32 ^a	.33 ^a
39.	-.04	.26 ^a	.32 ^a	.63 ^d	.62 ^d	.32 ^a	.31 ^a	.18	.15	.62 ^d	.47 ^c	.30 ^a	.09	.10	.11
40.	.22	-.23	-.23	-.29 ^a	-.55 ^d	-.27 ^a	-.16	-.32 ^a	.06	-.30 ^a	-.29 ^a	-.20	-.16	.02	-.17

Note. ^a $p < .05$, ^b $p < .01$, ^c $p < .001$, ^d $p < .0001$ *** indicates $n < 10$, correlation spurious

Needs /Weaknesses

- 1 = present offence.
- 2 = offence pattern.
- 3 = response to supervision.
- 4 = academic / vocational.
- 5 = employment.
- 6 = financial management.
- 7 = marital / family relations.
- 8 = companions.
- 9 = emotional stability.
- 10 = alcohol usage.
- 11 = drug usage.
- 12 = mental ability.
- 13 = health.
- 14 = sexual behaviour.
- 15 = values / attitudes.

Personal History:

- 16 = accommodation (0 = alone).
- 17 = marital status (0 = single).
- 18 = lived w/ parents to age 15.
- 19 = age at first sep. from parents.
- 20 = placements before age 16.
- 21 = physical abuse by caregiver
- 22 = emotional abuse by caregiver.
- 23 = sexual abuse before age 16.
- 24 = age when sexual abuse began.
- 25 = duration of sexual abuse.
- 26 = caregiver had alcohol/drug problem.
- 27 = caregiver had psychiatric problem.
- 28 = caregiver had a criminal history.
- 29 = physical abuse by partner.
- 30 = emotional abuse by partner
- 31 = sexual abuse after age 16.
- 32 = partner had alcohol/drug problem
- 33 = partner had criminal history.
- 34 = highest grade.
- 35 = any upgrading.
- 36 = employment status
- 37 = frequently unemployed.
- 38 = financial problems
- 39 = on social assistance
- 40 = time continuously employed

Appendix L

Correlations between Needs Identified by Force-field Analysis and Criminal History / Institutional Adjustment Variables

Var	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	.21	.00	-.13	-.26 ^a	-.25 ^a	-.02	-.03	-.15	-.28 ^a	-.05	-.38 ^b	-.03	-.13	-.01	-.14
17	.15	-.17	-.16	-.05	-.12	-.10	.01	-.11	-.02	.02	-.10	.29 ^a	.17	-.16	-.10
18	.45 ^d	.11	-.01	.00	-.02	-.23	.12	-.12	.11	.01	.09	.09	.15	.18	-.03
19	.32 ^a	-.23	-.23	.01	-.09	-.22	.10	-.25	.11	.00	-.35 ^b	.08	.01	.00	-.32 ^a
20	-.08	.43 ^c	.24	.41 ^b	.41 ^b	.03	.22	.22	.25	.79 ^d	.22	.19	.00	-.13	.08
21	.11	.45 ^b	.37 ^b	.20	.16	-.13	.07	.42 ^b	.34 ^a	.25	.60 ^d	.04	-.21	.06	.45 ^b
22	.07	.31 ^b	.50 ^d	.03	.15	.21	.12	.11	.06	.02	.21	-.13	.01	.10	.41 ^c
23	.08	.30 ^a	.33 ^b	.14	.11	.02	.15	.16	.16	.29 ^a	.21	-.01	.21	.03	.20
24	-.14	-.17	-.39 ^b	-.25	-.17	.10	-.05	-.09	-.46 ^c	-.10	-.27 ^a	-.13	.03	-.16	-.15
25	.17	-.36 ^b	-.28 ^a	-.26 ^a	.23	-.06	.04	-.24	-.17	-.23	-.47 ^c	.08	-.09	.01	-.25
26	.17	.53 ^d	.57 ^d	.23 ^a	.31 ^b	.15	.14	.33 ^b	.10	.11	.34 ^b	-.04	-.06	.12	.29 ^a
27	.22	.28 ^b	.39 ^c	.02	.09	.04	.04	.17	.14	.02	.13	-.08	.16	.11	.31 ^b
28	.05	.06	-.13	-.12	-.21	-.16	-.03	-.28 ^a	.02	.08	.00	-.17	.04	.07	-.20
29	.08	.23	.32 ^b	.21	.22	-.05	-.11	.13	.19	.12	.29 ^a	.07	-.06	-.04	.31 ^b
30	.06	.13	.31 ^a	.18	.13	.04	.00	.05	.15	.22	.24	.07	-.06	-.03	.28 ^a
31	.03	.27 ^a	.28 ^a	.20	.20	.01	.07	.23	.22	.20	.40 ^b	.08	.01	-.11	.24
32	-.04	-.14	-.11	-.15	.03	.01	.06	-.20	.03	-.14	-.12	-.18	-.12	.07	-.02
33	.12	-.11	-.30 ^a	.35 ^b	-.47 ^c	-.45 ^c	-.27 ^a	-.27 ^a	-.02	-.13	-.20	-.05	-.08	-.14	-.28 ^a
34	.32 ^a	.18	-.14	-.07	-.15	-.23	.30 ^a	-.08	.19	.10	.03	-.06	.23	-.04	-.14
35	-.08	-.61 ^d	-.70 ^d	-.26 ^a	-.42 ^c	-.21	-.12	-.41 ^c	-.24 ^a	-.33 ^b	-.47 ^d	-.02	-.07	-.15	-.40 ^c

Note ^ap<.05, ^bp<.01, ^cp<.001, ^dp<.0001.

Needs /Weaknesses

- 1 = present offence.
- 2 = offence pattern.
- 3 = response to supervision.
- 4 = academic / vocational.
- 5 = employment.
- 6 = financial management.
- 7 = marital / family relations.
- 8 = companions
- 9 = emotional stability.
- 10 = alcohol usage
- 11 = drug usage.
- 12 = mental ability.
- 13 = health.
- 14 = sexual behaviour
- 15 = values / attitudes.

Criminal History / Institutional Behaviour:

- 16 = age at admission.
- 17 = aggregate sentence.
- 18 = admitting offence violent (0 = no).
- 19 = relationship to victim (0 = stranger).
- 20 = alcohol used in offence (0 = no).
- 21 = drugs used in offence (0 = no).
- 22 = # of previous non-violent offenses.
- 23 = # of previous violent offenses.
- 24 = age at first non-violent offence.
- 25 = age at first violent offence.
- 26 = # of provincial terms served.
- 27 = # of federal terms served.
- 28 = participation in institutional programs.
- 29 = # of institutional charges.
- 30 = # of violent institutional charges.
- 31 = time in segregation.
- 32 = time in protective custody.
- 33 = # of E.T.A.s granted.
- 34 = # of U.T.A.s granted.
- 35 = SIR scale score.

Appendix M

Correlations between Selected DIS / DSM Disorders and Case History Variables

Var.	1	2	3	4	5	6	7	8	9	10	11	12	13
14.	.05	.08	-.07	-.01	.02	.08	.04	-.01	-.10	-.10	-.13	-.13	.25 ^a
15.	-.04	.09	-.12	.02	-.21	-.22	-.12	.02	-.05	-.01	-.16	-.07	-.05
16.	-.16	***	.00	-.07	-.56 ^d	-.38 ^b	-.21	.13	-.08	.00	-.36 ^b	-.06	-.40 ^b
17.	-.12	***	.26	-.15	-.34	.28	.02	***	-.07	.00	.20	.01	-.24
18.	.54 ^a	***	***	-.08	***	.02	.08	***	-.06	.01	.32	-.26	.35
19.	.11	***	-.04	.18	.59 ^d	.05	.06	-.16	-.16	-.15	.11	-.04	.18
20.	.18	***	-.06	.12	.58 ^d	.10	.09	.01	-.18	-.14	.16	-.06	.20
21.	.11	***	-.08	.11	.42 ^c	.14	.14	-.19	.23	.00	.32 ^a	.00	.29 ^a
22.	-.19	***	.19	.21	-.21	.17	.08	***	-.36	-.36	-.38	.35	.13
23.	-.21	***	.07	-.24	-.55	-.44	.21	***	.92 ^d	.92 ^d	.36	-.21	-.37
24.	.27 ^a	-.14	.19	.18	.64 ^d	.35 ^b	.17	.00	-.01	-.10	.25	.06	.25
25.	.26	-.07	-.11	-.14	.25	-.06	.08	-.07	.46 ^b	.13	.53 ^c	.05	-.01
26.	.30 ^a	-.08	-.08	-.09	.40 ^b	.35 ^a	.04	.13	-.14	-.09	.40 ^b	-.16	.14
27.	.31 ^a	***	-.22	.17	.43 ^b	-.11	-.02	.00	-.22	-.12	-.01	-.16	.08
28.	.26	***	-.23	.15	.41 ^b	-.14	.05	-.01	-.23	-.13	-.08	-.17	.07
29.	-.09	***	-.13	-.07	.07	-.36 ^a	-.07	-.09	-.13	.06	.19	-.16	-.14
30.	.20	***	.09	.00	.47 ^b	.14	-.18	-.29	-.29	-.09	.15	-.29	.39 ^a
31.	.14	-.28	.10	.04	.25	.25	.07	-.28	-.27	-.30	.21	-.19	.37 ^a
32.	-.16	-.10	-.08	.06	-.46 ^d	-.05	-.17	.00	-.10	-.22	-.26 ^a	.02	-.16
33.	.13	-.31 ^b	-.13	.08	-.12	.04	.08	.08	-.09	-.01	.02	.11	-.15
34.	-.21	***	-.11	.09	-.36 ^b	-.37 ^b	.16	.10	.03	.02	-.16	-.07	-.26 ^a
35.	.23	***	.14	.01	.45 ^c	.33 ^b	-.05	-.09	-.03	-.12	.15	-.08	.24
36.	.04	***	.13	.11	.33 ^a	.31	.08	-.28	-.05	-.12	-.02	-.16	.17
37.	.33 ^a	-.15	.17	.03	.48 ^d	.30 ^a	.05	-.02	-.03	-.15	.23	-.10	.16
38.	-.23	.03	-.10	.03	-.25	-.25	-.13	.01	.02	-.15	-.24	.09	-.29 ^a

Note. ^a $p < .05$, ^b $p < .01$, ^c $p < .001$, ^d $p < .0001$ *** indicates $n < 10$, correlation spurious

Disorders

- 1 = schizophrenia.
- 2 = schizophreniform.
- 3 = manic episode.
- 4 = depressive episode.
- 5 = alcohol abuse.
- 6 = drug abuse.
- 7 = phobia.
- 8 = somatic disorder.
- 9 = panic disorder.
- 10 = anxiety disorder.
- 11 = sexual dysfunction.
- 12 = transsexualism.
- 13 = antisocial personality.

Personal History:

- 14 = accommodation (0 = alone)
- 15 = marital status (0 = single).
- 16 = lived w/ parents to age 16.
- 17 = age at first sep. from parents.
- 18 = placements before age 16.
- 19 = physical abuse by caregiver.
- 20 = emotional abuse by caregiver.
- 21 = sexual abuse before age 16.
- 22 = age when sexual abuse began.
- 23 = duration of sexual abuse.
- 24 = caregiver had alcohol/drug problem.
- 25 = caregiver had psychiatric problem.
- 26 = caregiver had a criminal history.
- 27 = physical abuse by partner.
- 28 = emotional abuse by partner
- 29 = sexual abuse after age 16
- 30 = partner had alcohol/drug problem.
- 31 = partner had criminal history
- 32 = highest grade prior to admission
- 33 = any upgrading while incarcerated
- 34 = employment status.
- 35 = frequently unemployed
- 36 = financial problems
- 37 = on social assistance
- 38 = time continuously employed

Appendix N

Correlations between Selected DIS / DSM Disorders and Criminal History / Institutional Adjustment Variables

Var	1	2	3	4	5	6	7	8	9	10	11	12	13
14	-.15	-.05	-.10	-.12	-.16	-.36 ^b	-.02	.09	-.01	.20	-.02	.00	-.20
15	.14	-.13	.19	-.03	-.13	-.26	-.17	.15	-.14	-.03	.00	-.13	-.15
16	-.02	-.23 ^a	.19	.21	.24 ^a	.03	.05	.10	-.03	-.17	.01	.02	.10
17	.05	-.14	-.10	-.19	-.09	-.44 ^c	.01	.05	-.03	.02	.00	-.15	-.23
18	.18	.16	.04	-.10	.57 ^d	.06	.09	.12	.05	.10	.18	-.13	.09
19	-.14	.16	.24	.16	.39 ^b	.48 ^c	.02	-.17	-.04	.17	-.06	-.02	.48 ^c
20	-.15	.02	.4	.08	.00	.27 ^a	.26 ^a	-.12	.14	.02	.07	.40 ^c	.31 ^b
21	-.01	.12	.57 ^d	.04	.18	.20	.22	.06	.02	.04	.04	.01	-.04
22	.01	-.08	-.12	-.19	-.29 ^a	-.38 ^b	-.22	.22	-.12	.11	-.02	-.19	-.35 ^b
23	-.05	-.09	-.13	.01	-.26 ^a	-.31 ^a	.03	.07	.03	.05	-.14	.00	-.32 ^a
24	-.03	.08	.07	.07	.27 ^a	.35 ^b	.32 ^b	-.06	-.01	.04	.12	.18	.31 ^b
25	-.07	-.05	.32 ^b	.10	.10	.16		-.09	-.10	-.01	.03	.27 ^a	.23 ^a
26	.12	.09	.02	.09	.19	.03	-.06	.16	.06	-.02	.05	.13	-.07
27	.02	-.06	.10	-.01	.18	-.03	-.13	-.06	-.02	-.12	-.05	.06	.26 ^a
28	-.07	-.08	.32 ^b	.03	.03	.09	-.06	.02	.11	-.09	.03	.06	.18
29	-.02	-.13	.21	.16	.19	.25 ^a	.02	-.08	-.01	-.14	.06	-.07	.19
30	.06	-.06	-.08	.13	-.18	-.11	-.37 ^a	-.10	-.10	-.12	-.07	-.11	-.06
31	-.13	***	-.11	-.12	-.20	-.33 ^b	-.26 ^a	-.07	-.14	.03	.11	.00	-.30 ^a
32	.04	***	.24	.06	.23	-.08	-.08	.15	.00	-.05	-.07	-.11	-.19
33	.02	-.15	-.23 ^a	-.14	-.40 ^c	-.51 ^d	-.20	.14	-.06	.00	-.09	-.12	-.38 ^c

Note ^ap<.05, ^bp<.01, ^cp<.001, ^dp<.0001 *** indicates n<10, correlation spurious.

Disorders

- 1 = schizophrenia.
- 2 = schizophreniform.
- 3 = manic episode.
- 4 = depressive episode.
- 5 = alcohol abuse.
- 6 = drug abuse.
- 7 = phobia.
- 8 = somatic disorder.
- 9 = panic disorder.
- 10 = anxiety disorder.
- 11 = sexual dysfunction.
- 12 = transsexualism.
- 13 = antisocial personality.

Criminal History / Institutional Behaviour:

- 14 = age at admission.
- 15 = aggregate sentence.
- 16 = admitting offence violent (0 = no).
- 17 = relationship to victim (0 = stranger).
- 18 = alcohol used in offence (0 = no).
- 19 = drugs used in offence (0 = no).
- 20 = # of previous non-violent offenses.
- 21 = # of previous violent offenses.
- 22 = age at first non-violent offence.
- 23 = age at first violent offence.
- 24 = # of provincial term served.
- 25 = # of federal terms served.
- 26 = participation in institutional programs.
- 27 = # of institutional charges.
- 28 = # of violent institutional charges.
- 29 = time in segregation.
- 30 = time in p.c.
- 31 = # of E.T.A.s.
- 32 = # of U.T.A.s.
- 33 = SIR scale score.

Appendix O

Correlations between Case History and Criminal History / Institutional Adjustment Variables

Var.	1	2	3	4	5	6	7	8	9	10	11	12	13
26.	.10	.50 ^d	.34 ^b	-.11	-.17	-.28 ^a	-.25	-.38	-.40	.09	-.29 ^a	-.14	-.03
27.	.11	.01	.28	.21	.01	.10	.00	-.10	-.07	.61	-.20	-.04	-.06
28.	.13	.01	-.17	.01	-.20	.21	.25	.21	-.24	.21	.19	.28	.33 ^a
29.	.04	.01	.21	-.36	-.09	.05	.08	-.10	.08	.26	-.20	.28	-.10
30.	-.03	-.22	-.51 ^c	-.31	-.17	.39 ^b	.38 ^b	.18	-.17	***	.38 ^b	.25	.08
31.	.07	-.20	-.57 ^d	-.08	.32	.35 ^a	.32 ^a	.37 ^a	-.06	-.44	.39 ^b	.18	.42 ^b
32.	.02	.01	-.32 ^a	.03	-.09	-.04	-.01	.08	.02	-.35	.30 ^a	.00	.11
33.	.08	-.10	-.32 ^a	.38	.07	.24	.20	.22	.18	-.01	.30 ^a	-.02	.25
34.	-.01	.37 ^b	.50 ^c	-.03	-.09	-.42 ^b	-.31 ^a	-.42 ^b	-.05	***	-.44 ^b	-.18	-.08
35.	.08	.34 ^b	.40 ^b	-.03	-.26	-.35 ^a	-.30 ^a	-.48 ^c	-.10	.61	-.29	-.19	-.13
36.	.04	-.12	-.44 ^c	.10	.03	.01	.05	.11	-.07	-.30	.37 ^b	-.04	.36 ^a
37.	-.07	-.18	-.29 ^a	-.07	.06	.32 ^a	.28 ^a	.26	.01	-.12	.39 ^b	-.12	.10
38.	.06	.08	-.07	.15	-.26	.19	.30 ^a	.21	-.04	.24	.05	.06	.08
39.	.11	-.23	-.37 ^b	-.09	.34	.22	.22	.24	.40	-.23	.34 ^a	.08	.15
40.	.00	-.23	-.29 ^a	-.13	.10	.09	.08	.22	.51	-.08	.21	.10	.14
41.	-.01	-.36 ^b	-.39 ^b	-.01	-.16	.24	.22	.32 ^a	.15	-.08	.26	.18	.15
42.	.00	.00	.19	.22	-.22	***	.11	.15	.14	.07	-.22	-.15	-.01
43.	.06	.06	.11	.27	-.38	-.53 ^a	-.18	-.14	-.12	-.14	.05	-.36 ^a	.01
44.	-.03	-.03	-.14	.06	.24	-.53 ^a	.24	.22	.22	-.22	.32	-.14	.42 ^b
45.	.01	.01	.25 ^a	.61 ^d	-.36	.04	-.25	-.22	-.28 ^a	-.26	.39	-.49 ^c	.06

Note. ^ap<.05, ^bp<.01, ^cp<.001, ^dp<.0001

*** indicates n<10, correlation spurious

Personal History:

- 1 = accommodation (0 = alone).
 2 = marital status (0 = single).
 3 = lived w/ parents to age 16.
 4 = age at first sep. from parents.
 5 = placements before age 16.
 6 = physical abuse by caregiver.
 7 = emotional abuse by caregiver.
 8 = sexual abuse before age 16.
 9 = age when sexual abuse began.
 10 = duration of sexual abuse.
 11 = caregiver had alcohol/drug problem.
 12 = caregiver had psychiatric problem.
 13 = caregiver had a criminal history.
 14 = physical abuse by partner.
 15 = emotional abuse by partner.
 16 = sexual abuse after age 16.
 17 = partner had alcohol/drug problem.
 18 = partner spouse had criminal history.
 19 = highest grade prior to admission.
 20 = any upgrading while incarcerated.
 21 = employment status.

22 = frequently unemployed.

23 = financial problems.

24 = on social assistance

25 = time continuously employed

Criminal History / InstitutionalBehaviour:

- 26 = age at admission.
 27 = aggregate sentence
 28 = admitting offence violent (0 = no).
 29 = relationship to victim (0 = stranger)
 30 = alcohol used in offence (0 = no).
 31 = drugs used in offence (0 = no).
 32 = # of previous non-violent offenses
 33 = # of previous violent offenses.
 34 = age at first non-violent offence.
 35 = age at first violent offence.
 36 = # of provincial terms served.
 37 = # of federal terms served.
 38 = participation in institutional programs.
 39 = # of institutional charges.
 40 = # of violent institutional charges.
 41 = time in segregation

42 = time in p c

43 = # of E.T.A.s.

44 = # of U.T.A.s.

45 = SIR scale score

Table cont'd

Correlations between Case History and Criminal History / Institutional Adjustment Variables

Var.	14	15	16	17	18	19	20	21	22	23	24	25
26.	.05	.07	.11	-.09	-.18	.13	.07	.17	-.18	-.32	-.26	.48 ^d
27.	.19	.10	.20	.30	.36	.02	-.02	.07	-.10	-.17	.09	-.03
28.	.12	.13	.28	.12	.24	-.05	.01	-.22	.21	-.03	.31 ^a	-.11
29.	.29	.33 ^a	.50 ^b	.08	.00	-.10	.04	.16	-.13	-.22	.03	.20
30.	.34 ^a	.33 ^a	.12	.27	.01	-.56 ^d	-.08	-.37 ^b	.49 ^c	.31	.53 ^c	-.30 ^a
31.	-.17	-.19	-.17	.32	.18	-.19	-.23	-.40 ^b	.33 ^a	.42	.25	-.24
32.	.03	.01	-.12	.06	.16	-.15	-.04	-.15	.24	.30	.09	-.17
33.	-.13	-.14	.16	.16	.08	-.17	-.30 ^b	-.20	.21	.17	.23	-.21
34.	-.11	.11	-.03	-.22	-.33	.24	.08	.13	-.20	-.52 ^b	-.38 ^b	.32 ^a
35.	.16	.19	.00	-.30	-.30	.26 ^a	.20	.16	-.17	-.09	-.20	.52 ^c
36.	-.09	-.11	-.19	.21	.23	-.28 ^a	.01	-.23	.33 ^b	.31 ^a	.25	-.35 ^b
37.	-.15	-.16	-.20	.19	.21	-.09	-.09	-.20	.17	.08	.11	-.25
38.	-.12	-.10	.19	-.24	-.16	-.09	-.12	-.14	.08	-.02	.23	-.13
39.	-.06	-.08	-.01	.15	.21	-.27 ^a	-.35 ^b	-.24	.25	.42 ^b	.31 ^a	-.24
40.	-.11	-.13	.22	.03	.32	-.25 ^a	-.23	-.22	.23	.24	.32 ^a	-.24
41.	.15	.10	-.01	.11	.40	-.18	-.12	-.22	.32 ^a	.23	.31 ^a	-.44 ^c
42.	.05	.12	.13	-.23	-.13	.20	-.08	-.07	.10	.10	.07	-.01
43.	-.24	-.27	.14	-.13	-.16	.21	.00	.22	-.34 ^a	-.24	-.36 ^b	.33 ^a
44.	.21	.17	.04	.10	.05	.01	-.11	-.05	.00	.05	-.03	.20
45.	.08	.09	.12	-.20	-.23	.40 ^c	.20	.40 ^b	-.51 ^d	-.39 ^a	-.43 ^c	.55 ^d

Note ^ap<.05, ^bp<.01, ^cp<.001, ^dp<.0001 *** indicates $\eta^2 < .10$, correlation spurious.

Personal History:

- 1 = accommodation (0 = alone).
- 2 = marital status (0 = single).
- 3 = lived w/ parents to age 16.
- 4 = age at first sep. from parents.
- 5 = placements before age 16
- 6 = physical abuse by caregiver.
- 7 = emotional abuse by caregiver.
- 8 = sexual abuse before age 16.
- 9 = age when sexual abuse began.
- 10 = duration of sexual abuse.
- 11 = caregiver had alcohol/drug problem.
- 12 = caregiver had psychiatric problem.
- 13 = caregiver had a criminal history.
- 14 = physical abuse by partner.
- 15 = emotional abuse by partner.
- 16 = sexual abuse after age 16.
- 17 = partner had alcohol/drug problem.
- 18 = partner spouse had criminal history.
- 19 = highest grade prior to admission.
- 20 = any upgrading while incarcerated.
- 21 = employment status.

- 22 = frequently unemployed.
- 23 = financial problems.
- 24 = on social assistance
- 25 = time continuously employed
- 41 = time in segregation
- 42 = time in p.c.
- 43 = # of E.T.A.s.
- 44 = # of U.T.A.s.
- 45 = SIR scale score.

Criminal History / Institutional

Behaviour:

- 26 = age at admission.
- 27 = aggregate sentence.
- 28 = admitting offence violent (0 = no).
- 29 = relationship to victim (0 = stranger).
- 30 = alcohol used in offence (0 = no).
- 31 = drugs used in offence (0 = no).
- 32 = # of previous non-violent offenses.
- 33 = # of previous violent offenses.
- 34 = age at first non-violent offence.
- 35 = age at first violent offence.
- 36 = # of provincial terms served.
- 37 = # of federal terms served.
- 38 = participation in institutional programs.
- 39 = # of institutional charges.
- 40 = # of violent institutional charges.

Appendix P

SIR Risk Categories and Post-Release Outcome (% / n)

Risk Category	%	(n / 66)	Revocation:							
			Any Return to Custody		Technical Violation		New Conviction		New Violent Conviction	
Very Good (+6 to +27)	43.9	(29)	17.2	(5)	13.8	(4)	6.9	(2)	0.0	(0)
Good (+1 to +5)	18.2	(12)	91.7	(11)	66.7	(8)	58.3	(7)	25.0	(3)
Fair (-4 to 0)	10.6	(7)	85.7	(6)	42.9	(3)	57.1	(4)	0.0	(0)
Poor (-8 to -5)	12.1	(3)	100.0	(8)	75.0	(6)	87.5	(7)	62.5	(5)
Very Poor (-30 to -9)	15.2	(10)	90.0	(9)	60.0	(6)	90.0	(9)	30.0	(3)

END

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FIN