

————— **Research Report** —————

Predictors of Revocation of Conditional
Release among Substance
Abusing Women Offenders

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Predictors of Revocation of Conditional
Release among Substance Abusing Women Offenders

Paul Verbrugge

Kevin Nunes

Sara Johnson

Kelly Taylor

Research Branch
Correctional Service Canada

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EXECUTIVE SUMMARY

The purpose of this study was to identify predictors of conditional release failure amongst substance abusing women offenders. The sample consisted of federally sentenced women who were granted a conditional release between 1995 and 2000, and identified at intake as having a substance abuse problem. For the purposes of this study, conditional release included day parole, full parole, and statutory release. Several independent variables were examined: age, admission offence type, substance abuse treatment, and the Community Intervention Scale (CIS; Motiuk & Porporino, 1989b). Three types of conditional release failure were considered (a) general revocation, (b) revocation with a new offence, and (c) revocation with a new violent offence. Revocation was defined as returning to federal custody after release and before warrant expiry.

The base rate of general revocation was high (48%), revocation with a new offence was moderate (16%); revocation with a new violent offence was low (4%). For the most part, variables that predicted the more specific outcomes, were also associated with the most general revocation variable.

Age was significantly and negatively associated with revocation. Several admission offence types were positively associated with revocation including theft, miscellaneous non-violent offences, and robbery. Five of the seven CIS domains demonstrated a significant association with revocation: employment, associates, substance abuse, community, and attitude. The overall CIS Need and Risk ratings also demonstrated a moderate association with revocation failure. Having completed substance abuse treatment was not associated with conditional release outcome.

A backwards logistic regression reduced the list of predictive variables to six unique predictors: age, overall CIS Need rating, employment, substance abuse domain, attitude, and having and admission offence of theft, fraud, or break and enter.

The results suggest that the prediction of post-release outcome for substance abusing women can be improved by attending to the noted risk and need factors.

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INTRODUCTION

Most federally sentenced women offenders are granted parole and complete their sentences while living in the community. During an incarcerated offender's sentence there are three major release opportunities: day parole, full parole, and statutory release. As each release option becomes available, it is necessary to assess the likelihood that the offender will commit another offence before the expiration of their sentence. One aspect of the risk principle of effective correctional programming is that recidivism can be predicted at better than chance levels if relevant criminogenic risk and need factors are considered (Andrews & Bonta, 1998). Although this principle can be applied across various sub-populations of offenders, it is likely that the relevancy of certain risk and need factors vary. In hopes of identifying predictors of conditional release failure, this study identifies prominent risk and need factors within the sub-population of federal substance abusing women offenders.

In a meta-analytic review, Gendreau, Little and Goggin (1996) reported that factors such as antisocial companions, antisocial cognitions, antisocial personality, criminal history, and substance abuse were some of the strongest predictors of criminal recidivism. However, in the majority of studies to date, all-male or predominantly male samples have been examined. Concern has been expressed over the extent to which findings with male samples generalize to female offenders (Funk, 1999; Blanchette, 2001). Overall, the available evidence suggests that many factors associated with recidivism in men, may also be predictive of recidivism in women offenders. For example, researchers have generally found that recidivism or return to custody in women offenders is associated with problems in the criminogenic need areas of education/employment (Blanchette, 1996; Blanchette & Motiuk, 1995; Brown, Serin & Motiuk, in press; Rettinger, 1998;

Simourd & Andrews, 1994), marital/family (Blanchette & Motiuk, 1995; Brown et al., in press; Dowden & Andrews, 1999; Rettinger, 1998; Simourd & Andrews, 1994), antisocial associates (Blanchette, 1996; Blanchette & Motiuk, 1995; Brown et al., in press; Dowden & Andrews, 1999; Rettinger, 1998; Simourd & Andrews, 1994), and antisocial attitudes (Blanchette, 1996: Brown et al., in press; Dowden & Andrews, 1999; Rettinger, 1998; Simourd & Andrews, 1994; Walters & Elliot, 1999).

However, some variables that are associated with recidivism in male offenders, have not consistently been found to be associated with recidivism in women. For example, Funk (1999) found that variables predictive of recidivism (weighted by severity) were not completely overlapping in samples of male and female US juvenile offenders. More specifically, factors predictive of recidivism in the boys such as poor behaviour in school, poor peer group, younger age, and frequency of prior offences (weighted by severity) were not significantly predictive of recidivism in the girls. In addition, variables predictive of recidivism in the sample of girls, such as child abuse and frequency of prior person offences (weighted by severity), were not associated with recidivism in the sample of boys. Furthermore, the combination of the predictors in the girl only model accounted for more of the variance in recidivism in the sample of girls than did the combined predictors in the boy only model with the sample of boys.

Other researchers have found that certain variables, which are not associated with male reoffending, may be predictive of recidivism in women. For example, Blanchette and Motiuk (1995) reported that a history of attempted suicide was a strong predictor of violent recidivism. In addition, Bonta, Pang, and Wallace-Capretta (1995) found that

previous self-injury was more common amongst women who recidivated compared to those who did not recidivate.

In addition to questions about the equivalence of men and women in terms of risk factors, some research suggests that women offenders with substance abuse problems differ from non-substance abusing women offenders in areas such as risk/need factors. Dowden and Blanchette (1999) reported that, relative to their non-substance abusing counterparts, substance abusing women offenders were significantly more likely to have a higher security level, and were rated higher in terms of static risk (e.g., criminal history) and in terms of criminogenic needs (e.g., associates, attitudes, employment, and marital/family). The differences between recidivism rates for substance abusing and non-substance abusing women were not statistically reliable, but this may have been due to the small sample size ($N = 74$ released). Other researchers, however, have generally found that substance abuse is associated with criminal recidivism or return to incarceration (Brown et al., in press; Dowden & Brown, in press; Rettinger, 1998). The focus of this study is on substance abusing women offenders only, and the variables associated with failure on conditional release among them.

Substance Abuse Treatment

The efficacy of substance abuse treatment in reducing recidivism has not yet been clearly demonstrated in research with women offenders. In their meta-analysis, Dowden and Andrews (1999) found that whether or not programs targeted substance abuse was not significantly correlated with reductions in recidivism ($r = -.01$). This suggests that substance abuse treatment may not result in reductions in recidivism for women offenders. However, Dowden and Blanchette (1999) reported that, within a sample of 44

substance abusing women offenders who were recommended for substance abuse treatment, the 27 who received such treatment had a significantly lower recidivism rate than their untreated counterparts. In the present study, revocation rates were compared between women who completed any substance abuse treatment program while incarcerated, and those who did not.

Current Study

While identifying predictors of conditional release failure and prominent risk and need factors, the present study examined whether assessment methods, participation in treatment, demographic variables, and conditions of supervision were associated with revocation amongst substance abusing women offenders.

METHOD

Sample

The sample consisted of 483 women offenders who were serving, or had recently served federal sentences under the supervision of Correctional Services Canada (CSC). All women had been identified as having a substance abuse problem at intake assessment. They were all granted a conditional release between January 1st, 1995 and December 31, 2000: 73% of the women were released on day parole ($n = 353$); 9% were released on full parole ($n = 41$), and 18% were released at their statutory release date ($n = 89$). The average age of the women at release was 32.63 years ($SD = 8.08$); their ages ranged from 18 to 57.

A large percentage of the sample was Caucasian (58%), 35% were Aboriginal, 5% were Black, and 2% were other ethnic groups. Given that Aboriginal women comprise

approximately 20% of the population of federally sentenced women, it is evident that Aboriginal offenders were overrepresented in this sample.

Almost one-half of the offenders were released from the Prairie region - 48%; 30% were released from Ontario; 15% were released from the Atlantic region; 6% were released from Quebec; and 1% were released from the Pacific region. The overrepresentation of women released from the Prairie Region is attributed to the fact that most federally incarcerated Aboriginal women serve their sentences in the prairie region.

It should be noted that the sample of offenders, upon which this study was based, overlapped considerably with the sample relied upon by Dowden, Serin and Blanchette, (2001). Consequently, the findings of this study, regarding the association between the Community Intervention Scale (Motiuk & Porporino, 1989a) and conditional release revocation, do not represent independent replications of Dowden et al.'s findings.

Measures

Admitting Offences

Admission offence type was scored from the Offender Management Database (OMS; CSC's automated record system). Each admission offence was coded as falling into one of several distinct categories: (a) Drug (e.g. possession, trafficking), (b) Fraud / Theft / Break and Enter, (c) Miscellaneous Nonviolent (e.g. court order breaches, impaired driving, etc.), (d) Assault (e.g. assault, assault causing bodily harm, etc.), (e) Robbery, (f) Sexual, (g) Homicide (e.g. murder, manslaughter, infanticide), (h) Miscellaneous Violent (e.g. firearms offences, kidnapping). It should be noted that although the categories were distinct, offenders often had more than one admitting offence.

Community Intervention Scale (CIS)

The CIS, formerly known as the Community Risk / Needs Management Scale (Motiuk & Porporino, 1989b), is used by parole officers to estimate offenders' risk of failure on conditional release and to determine the required level of community support and supervision. The CIS is scored prior to the offender's release into the community, and every six months thereafter until the offender's warrant of expiry date. Analyses in this study used only the CIS scores that were taken at the time of the offender's release.

The CIS provides an overall risk/needs rating. The risk rating is based upon static factors that are associated with future misconduct (e.g. prior offences). The risk rating consists of a designation of "low", "medium", or "high". As described by Motiuk (1997a), the designation can be based upon either (a) the SIR Scale (Nuffield, 1982); (b) the Parole Board's determination of "high" or "low" risk; or (c) an independent file review.

The CIS need rating of "low", "medium", or "high" reflects the presence of dynamic criminogenic factors (e.g. having antisocial friends, holding antisocial attitudes). This rating is based upon the rater's overall impression, as to the offenders need level, after having considered seven needs domains: (a) Employment, (b) Marital / Family Relations (c) Associates and Social Interaction, (d) Substance Abuse, (e) Community Functioning, (f) Personal / Emotional Orientation, and (g) Attitude.

Each of the seven need domains is given an overall score on a four point scale: 1 "asset to the community" (not applicable to the personal/emotional and substance abuse domains); 2 "no need for improvement"; 3 "some need for improvement"; and 4 "considerable need for improvement". For the purposes of this study, ratings from the four-point scales were collapsed into dichotomous indicators: "no need" versus "need".

Motiuk and Porporino (1989b) provided evidence for the validity of the Community Risk/Needs Management Scale in a sample of male offenders. Both static and dynamic risk factors were considered. Offenders who were rated as high-risk / high-need had higher rates of reoffending and revocation than offenders who were rated as low-risk / low-need. Similarly, Dowden, Serin, and Blanchette, (2001) provided evidence supporting the validity of using the CIS with women offenders. Having a problem in each of the need domains (with the exception of marital /family) was associated with higher rates of general recidivism.

Conditions

The National Parole Board determines the nature and number of conditions that are imposed upon an offender upon conditional release. For this study, the following categories of condition type were used; (a) avoid certain persons, (b) avoid certain places, (c) abstain from intoxicants, (d) obtain psychological counseling, (e) follow treatment conditions, (f) other. The categories were distinct, however many women offenders had more than one condition associated with their release.

Treatment

A dichotomous "treatment" versus "no treatment" variable was created. Treatment was defined as having completed a substance abuse treatment program during the period of incarceration that directly preceded release. Substance abuse treatment programs included Alcoholics Anonymous, the Offender Substance Abuse Pre-Release Program (OSAPP), the Community Correctional Brief Treatment program, Relapse Prevention and Maintenance Program (Choices), le Programme pré-libératoire en toxicomanie (ALTO), and methadone maintenance.

Revocation

Revocation was defined as a woman having been admitted to federal custody after conditional release and before reaching warrant expiry. Revocation with a new offence was defined as a woman having had her conditional release revoked and having received a new conviction. Lastly, revocation with a new violent offence was defined as a woman having had her conditional release revoked with a new offence that involved interpersonal violence (e.g. robbery, assault, etc.). Note that there was overlap between the outcome variables; for instance, a woman who was indicated on the revocation with a new violent offence variable, was also indicated on the more general revocation variables.

Procedure

All assessment and revocation information was obtained from the OMS. First, records pertaining to all women offenders who were granted a conditional release between January 1995 and December 2000 were extracted. If a given offender had been released more than once during the specified time frame, then only the record pertaining to her first release was retained for analyses. Second, only subjects that were identified by the Offender Intake Assessment (OIA, Motiuk, 1997b) as having a substance abuse problem were retained in the sample. Third, cases were removed if they did not have complete CIS information.

For most offenders, post-release conduct was followed from the time of their conditional release to the completion of their sentence or until their first failure. Due to the limited follow-up period, some offenders neither failed nor completed their sentence; these offenders were monitored for at least one-year after their release. The average

follow-up time for offenders who were successful ($n = 250$) was $M = 685$ days ($SD = 315$). The mean time to return for those that had their conditional releases revoked ($n = 233$) was $M = 247$ days ($SD = 210$).

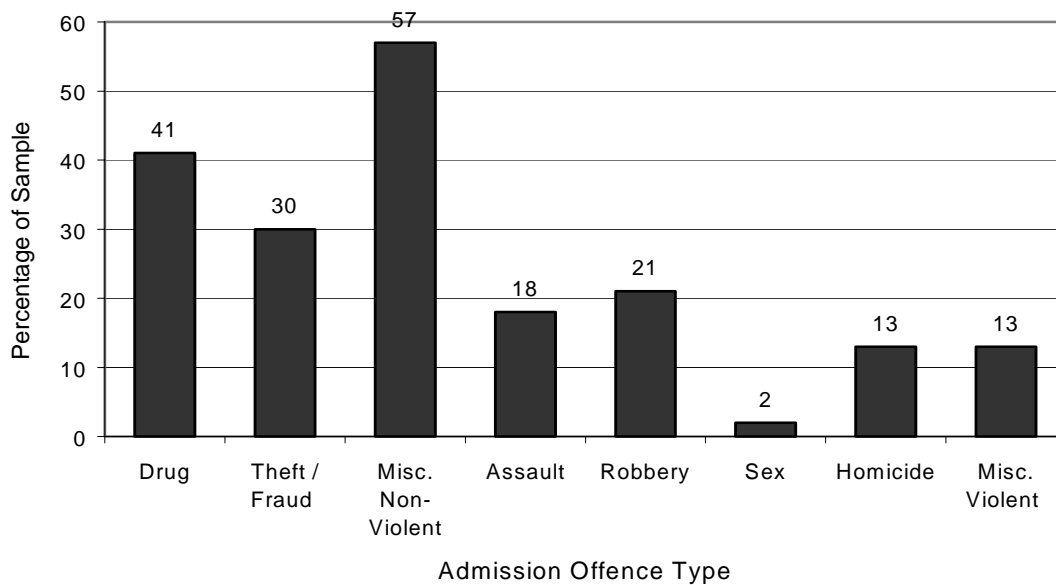
RESULTS

Descriptive Statistics

Admission Offences

Figure 1 shows the percentage of offenders whose admission offences fell within each offence category. Half (50%) of the sample had non-violent offences only, 21% had violent admission offences only, and 29% had both violent and non-violent admission offences.

Figure 1. Admission Offence Type



Percentage of sample ($N = 483$) within admission offence type. Offence categories are discrete, however, offenders often had more than one admission offence; consequently, the sum of the percentages exceeds 100.

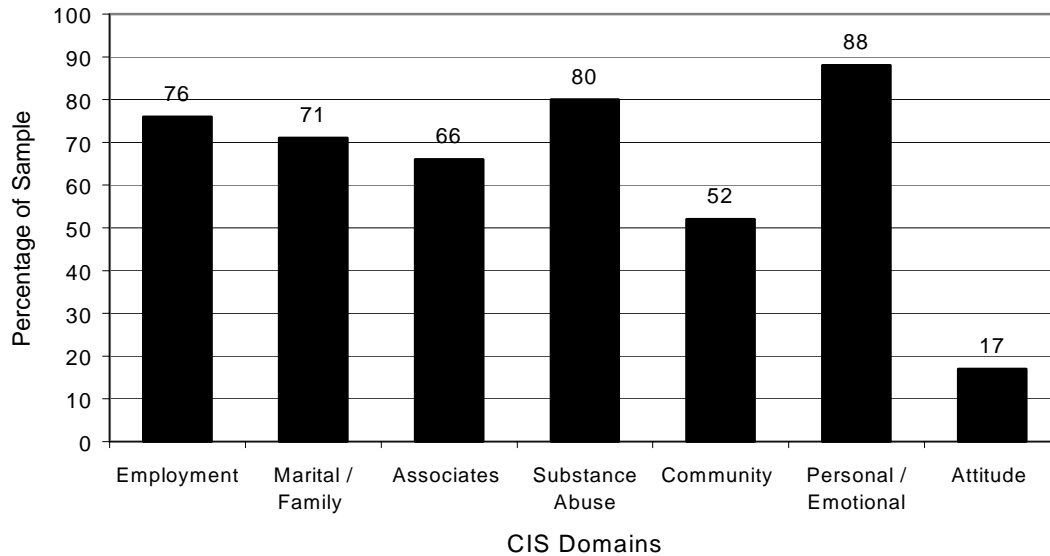
Community Intervention Scale

The CIS has a risk component and a need component. The distribution of the overall Risk ratings was 31% low ($\underline{n} = 148$), 48% medium ($\underline{n} = 232$), and 21% high ($\underline{n} = 103$). The distribution for the overall Need ratings was 7% "low" ($\underline{n} = 32$), 56% "medium" ($\underline{n} = 273$), and 37% "maximum" ($\underline{n} = 178$).

The percentages of the sample that had identified needs within the seven need domains of the CIS are presented in Figure 2. It is interesting to note that over three-quarters of the sample had identified problems within the Employment and Personal / Emotional domains.

Given that all offenders were assessed as having a substance abuse problem at intake, it was somewhat surprising to find that only 80% of the sample were identified by the CIS as having a substance abuse problem at release. Analyses were conducted to determine if the differences were attributable to offenders having thoroughly addressed their problems through institutional treatment. There was a weak but statistically significant association between having received institutional treatment and not having a substance abuse problem at release, $\phi = .10$, $\chi^2 (1, \underline{N} = 483) = 5.10$, $p < .05$.

Figure 2. Identified CIS Domain Needs



Percentages of Entire Sample (n = 486) with Identified CIS Domain Needs.

Substance Abuse Treatment while Incarcerated

Over one-half of the sample successfully completed one or more substance abuse treatment programs while incarcerated: 58% completed one or more programs ($\underline{n} = 278$) and 42% did not complete any substance abuse treatment programs ($\underline{n} = 205$).

Release Conditions

All women within the sample had been granted a conditional release from federal custody. Table 1 describes the types of conditions that were associated with their releases, and how common each of the conditions were. The most common conditions involved following a treatment regimen, avoiding certain persons and obtaining psychological counseling in the community. Only 10% of the women were ordered to abstain from the use of intoxicants; this is surprising because all of the women had been

identified as having a substance abuse problem at intake. The modal number of conditions imposed was 1; the mean number of conditions imposed was $\underline{M} = 2.55$ ($\underline{SD} = 1.67$); the number of conditions imposed ranged from 0 to 8.

Table 1. Percentage and Frequency of Release Conditions

	Percentage of total Sample ($\underline{n} / 483$)
Avoid Certain Persons	36% (172)
Abstain From Intoxicants	10% (47)
Obtain Psychological Counseling	32% (156)
Follow Treatment Conditions	38% (185)
Avoid Certain Places	10% (47)
Other	14% (70)

Notes. Condition categories are discrete, however, offenders often had more than one condition associated with their release. Consequently, the sum of the percentages exceeds 100.

It was also of interest to examine and compare the number of conditions imposed by region. Only four women were released from the Pacific Region; therefore, because they did not constitute a large enough group for the purposes of these analyses, they were excluded from this set. Table 2 presents the mean number of conditions, and sum of rank scores for each region. The results of the Kruskal-Wallis test, the nonparametric analogue to ANOVA, indicated that at least one of the regions differed from the others with respect to the median number of conditions imposed, $\chi^2(3, \underline{N} = 479) = 276.53, p < .001$.

Additional contrasts performed upon the ranked scores were undertaken to identify

regional differences. As indicated in Table 2, women released in the Ontario region had significantly more conditions imposed upon them relative to the other three groups; and women released in the Prairie region had significantly less conditions imposed upon them compared to the other three regions.

Table 2. Number of Conditions by Region
Median, Mean Ranks, and Standard Deviation of Mean Ranks.

Region	<u>n</u>	Median	Mean Rank Score	SD Rank Score
Ontario ^A	147	4	380.69	83.30
Quebec ^B	27	3	267.89	112.76
Atlantic ^B	74	2.5	245.76	99.68
Prairie ^C	231	1	145.37	82.75

Notes. N = 479. Superscript letters represent the results of median contrasts. Contrasts were performed with t-tests upon rank scores. Offenders released from the Pacific Region were excluded because of low frequency (n = 4).

Revocation

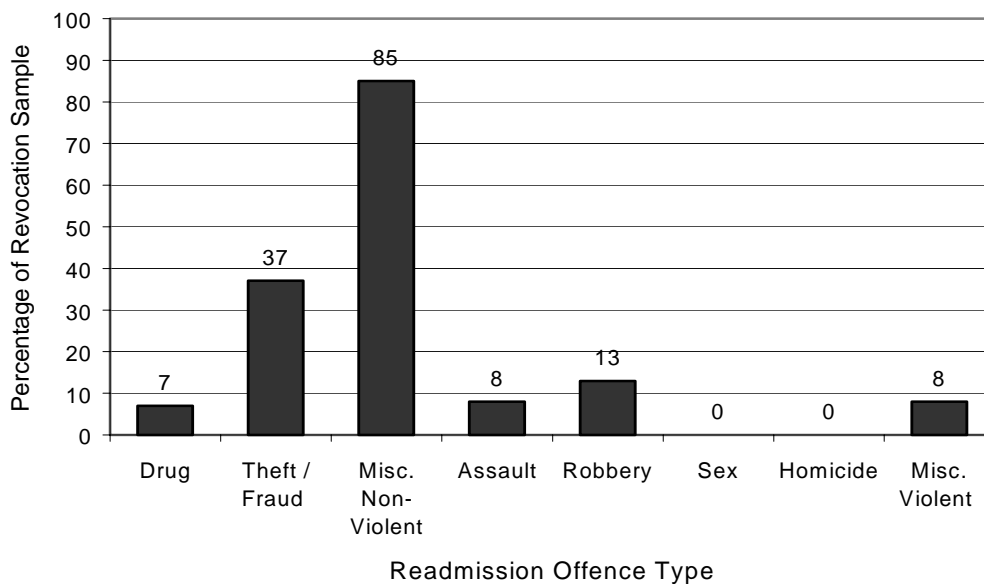
Approximately one-half of the offenders (52%) successfully completed their sentences in the community (n = 180), or had been successfully living in the community for at least one year post-release when the follow-up period ended (n = 72). The other half of the sample (48%, n = 231) returned to federal custody following their first conditional release.

Within the group of offenders who had their conditional release revoked, approximately one-third (32%) returned with a new offence (n = 75). Overall, the base rate for revocation with a new offence during the conditional release period was 16%.

Figure 3 describes the types of new offences that were committed by the women during the conditional release period. Not surprisingly, most offenders returned with a miscellaneous non-violent offence: this offence category included offences related to breaches of parole.

Within the group of offenders who committed a new offence, only one quarter committed a new offence involving interpersonal violence ($n = 19$), and over half of these violent offences involved robbery. The overall base rate for revocation with a new violent offence was 4%.

Figure 3. Offence Readmission Type



Percentages of Offence Readmission type within Subsample of Offenders who had their Conditional release Revoked with New Offence ($n = 75$)

ANALYSES

The areas examined in this study allowed the researchers to explore factors that may be predictive of revocation of conditional release for women offenders who have a history of substance abuse. Several independent variables were considered, including type of release, age, CIS ratings, admission offence, substance abuse treatment while incarcerated, and number of conditions imposed on release. Three dependent variables were used: revocation, revocation with a new offence, and revocation with a new violent offence.

Type of Conditional Release

The rates of revocation did not differ according to the type of conditional release granted $\chi^2 (2, N = 483) = 1.97, ns$. Within the group of offenders granted day parole, 46% had their release revoked ($n = 162$); within the group of offenders granted full parole, 54% had their release revoked ($n = 22$); within the offenders released at their statutory release date, 53% were returned to federal custody ($n = 47$). A similar pattern of results was found in regards to revocation with a new offence, and revocation with a new violent offence.

Releasing Region

The percentages of revoked conditional releases did not differ across releasing region $\chi^2 (3, N = 479) = 4.94, ns$: Atlantic, 58.1%; Quebec, 51.9%, Ontario, 42.9%; and Prairie, 46.3%. Again, cases from the Pacific region were not included in this analysis because only four offenders were released from that region (100% were revoked). Similarly, no differences across region were observed in regards to revocation with a new offence, or revocation with a new violent offence.

Age

Age at release was significantly associated with revocation. Being older at release was associated with a lower likelihood of revocation, $r_b = -0.19$, $p < .001$; and a lower chance of revocation with a new offence, $r_b = -0.11$, $p < .05$. However, there was not a significant correlation between age and revocation with a new violent offence, $r_b = -0.06$, ns.

Admission Offence

Table 3 shows the correlations between admission offence type and conditional release revocation. The strongest predictor of revocation was having a current conviction for theft, fraud or break and enter. Having a current miscellaneous non-violent offence was moderately associated with all revocation types. Having an admission offence of robbery showed a weak association with both revocation and revocation with a new offence, and showed a moderate association with violent recidivism. Having an admission offence of homicide was associated with a lower likelihood of revocation.

Table 3. Correlation (ϕ) between Admission Offence and Revocation

Past Offence	Revoked	New Offence	New Violent Offence
Drug	.01	.02	-.08
Theft, Fraud, B. & E.	.24***	.13**	.03
Other Non-Violent	.18***	.16***	.11*
Homicide	-.13**	-.08	-.04
Sex	--	.03	.06
Robbery	.12**	.11*	.21***
Assault	.02	.05	.10*
Other Violent	.00	.05	.08

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

Notes:

N = 483;

-- indicates insufficient cell frequency to calculate phi(correlation)

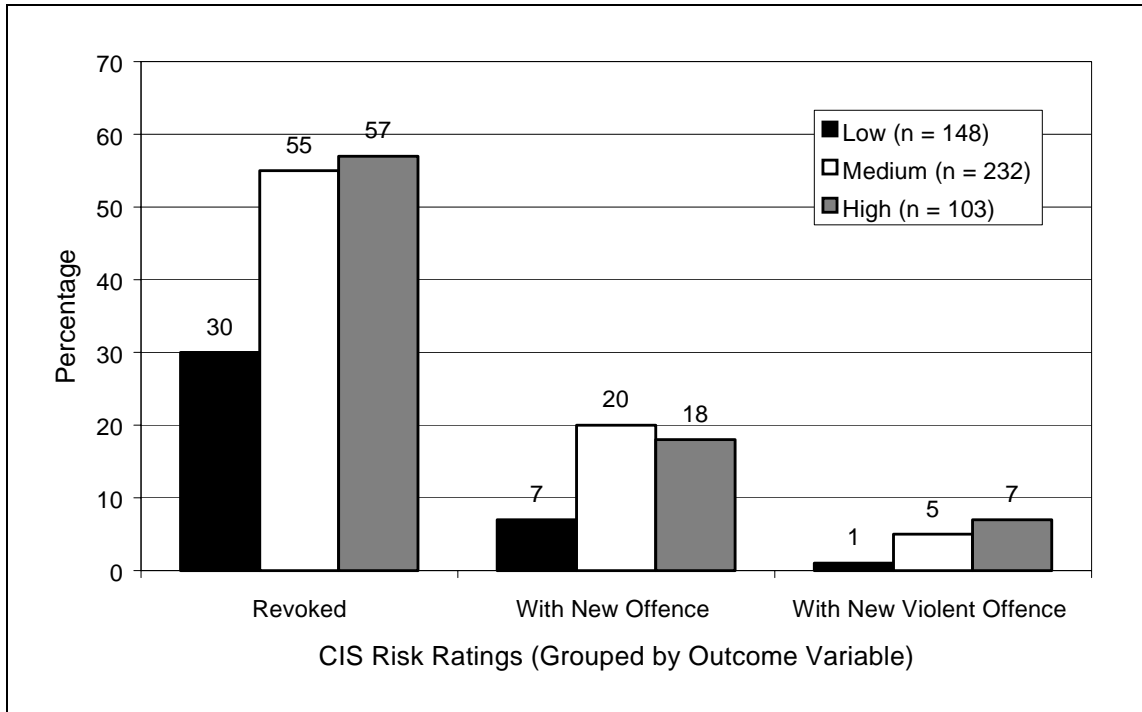
Frequency distributions and Chi-squared values associated with each cell are presented in Appendix A

Community Intervention Scale

Figure 4 depicts the percentage of offenders, within the CIS low, medium, and high Risk rating groups, who had their conditional release revoked. As expected, the revocation rates increased significantly across the low to the high groups; this general trend was observed across all outcome variables. Overall, the CIS Risk rating was

moderately and significantly associated¹ with revocation, Somer's $d = .18$, $z = 4.94$, $p < .001$; it was modestly associated with revocation with a new offence, $d = .08$, $z = 3.21$, $p < .01$; and was weakly associated with revocation with a new violent offence, $d = .04$, $z = 2.72$, $p < .01$.

Figure 4. Revocations within CIS Risk Ratings by Outcome Variable



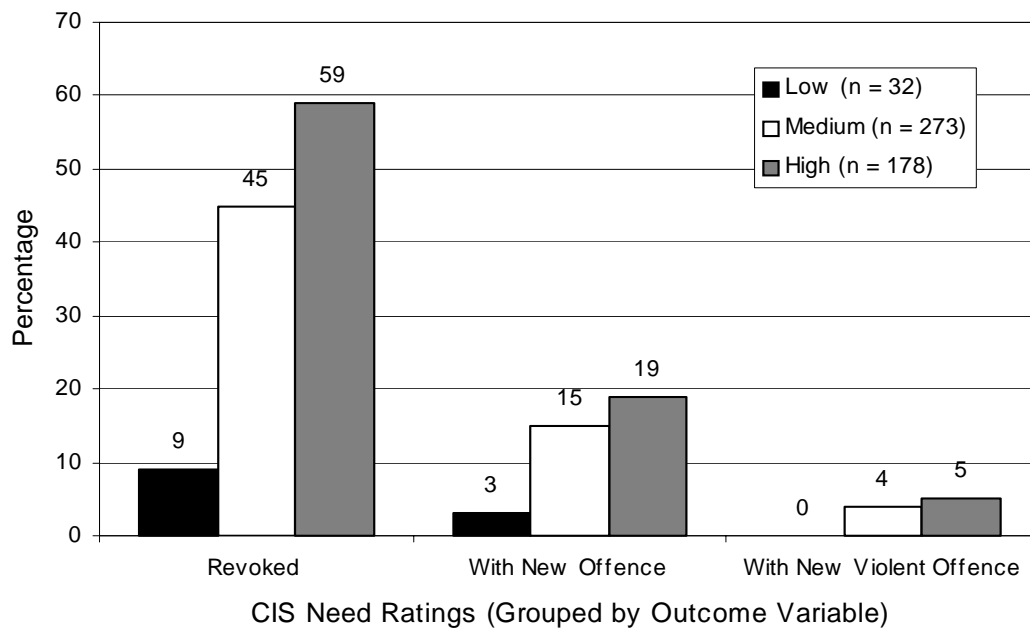
Percentage of Revocations within CIS Risk Ratings by Outcome Variable.

Figure 5 depicts the percentage of offenders, who had their conditional releases revoked, within the CIS low, medium, and high Need rating groups, for each of the outcome variables. Again, the linear trend is visible for each outcome variable. The CIS

¹ Somer's d is an appropriate measure of association when the variables are categorical, ordinally scaled, and where one variable is being used to predict another (Siegel & Castellan, 1988). It is similar to a correlation coefficient in that it can range from -1 to 1, and 0 indicates that there is no association between the variables.

Need rating was moderately associated with conditional release revocation, $d = .20$, $z = 5.07$, $p < .001$; the CIS Need rating was significantly associated with revocation with a new offence, $d = .06$, $z = 2.17$, $p < .05$. However, the Need rating failed to demonstrate a statistically significant association with revocation with a new violent offence, $d = 0.02$, $z = 1.28$, ns .

Figure 5. Revocations within CIS Need Ratings by Outcome Variable



Percentage of Revocations within CIS Need Ratings by Outcome Variable

Table 4 presents the correlations (ϕ) between the CIS need domains and the revocation outcome variables. Several of the CIS need domains showed modest correlations with revocation; including, Education / Employment, Associates, Substance Abuse, Community, and Attitudes. Similarly, Employment, and Community were modestly associated with revocation with a new offence. None of the CIS need domains

demonstrated a significant association with revocation with a new violent offence. This is not surprising, however, given the low base rate of revocation with a new violent offence.

Table 4. Correlation (ϕ) between Community Intervention Scale Areas and Revocation

Scale scores	Revoked	New Offence	New Violent Offence
Employment	.15**	.11**	.07
Family	.01	.05	.04
Associates	.12**	.02	.03
Substance Abuse	.11*	.04	.00
Community	.10*	.10*	-.02
Personal / emotional	.01	-.02	.01
Attitude	.13**	.06	.02

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

Notes:

$N = 483$;

Frequency distributions and Chi-squared values associated with each cell are presented in Appendix A

Substance Abuse Treatment While Incarcerated

Completion of a substance abuse treatment program taken while incarcerated was not associated with lower rates of revocation, $\chi^2 (2, N = 483) = 0.53, ns$. Within the group of offenders that took no treatment programs, 50% had their conditional release revoked; within the group that took one or more treatment programs, 46% returned to federal custody. Similarly, completion of a substance abuse treatment program was not significantly associated with lower levels of revocation with a new offence, or revocation with a new violent offence.

Number of Release Conditions

None of the specific condition types were related to revocation. Similarly, the number of conditions imposed was not associated with revocation, $d = 0.06, z = 1.55, ns$. Of those women who had 0-1 conditions imposed, 41% had their release revoked; of those women who had 2-3 conditions imposed, 55% were returned to federal custody; lastly, of those women who had 4 or more conditions imposed upon release, 49% had their release revoked. Similar patterns of results were found in relation to the new offence, and new violent offence variables.

Logistic Regression of all Significant Variables

A backward logistic regression was conducted in order to reduce the set of identified predictive variables to those that predict revocation in a unique way. All of the variables that had demonstrated an association with revocation were included in the analyses.

Six variables did not make significant unique contributions to the model; they were removed in the following order: Associates, Community, Admission Miscellaneous Non-Violent, Admission Robbery, Admission Homicide, CIS Risk. The final model consisted

of six predictors: Release Age (Negative); CIS Need; Employment; Substance Abuse; Attitude; and Admission Theft / Fraud / Break and Enter. The final model predicted revocation at better than chance levels, Likelihood Ratio χ^2 (5, N = 483) = 82.61, $p < .001$. The estimated R^2 of the final model was .16. Prediction success was moderate; 72.6% of the offenders were correctly classified, while 26.4% were incorrectly classified by the model. Table 5 presents regression coefficients, chi-square tests for significance, odd ratios, and 95% confidence intervals for each of the seven predictors.

Table 5. Revocation as a Function of Risk, Need and Age

Backward logistic regression analysis of revocation as a function of risk, need and age variables - final model

Variables	B	χ^2	Odds Ratio	95% Confidence Intervals	
				Upper	Lower
Release Age ¹	-.28	5.31*	.75	.59	.96
CIS Need	.61	10.85***	1.83	1.28	2.63
Employment	.33	5.37*	1.39	1.05	1.85
Substance Abuse	.36	7.63**	1.44	1.11	1.86
Attitude	.36	5.07*	1.40	1.04	1.88
Admission Theft / Fraud / B. & E.	1.10	24.91***	3.01	1.95	4.64
Constant	-4.41	38.94***			

* p < .05; ** p < .01; *** p < .001

Notes. Release Age and CIS Need are three level variables; all others are dichotomous.

Release ages were categorized into three groups: 18-28, 29-35, 36,57.

DISCUSSION

The purpose of this study was to identify factors that are predictive of revocation of conditional release for substance abusing women. The discussion will first comment on the base rates of revocation and will then address each of the factors that were examined in this study.

The base rate of revocation in this sample (48%) was considerably higher than that reported by Belcourt, Nouwens & Lefebvre (1993; 22%). The difference can be explained by two factors. First, Belcourt et al.'s sample consisted of women offenders who had never been previously incarcerated in a federal institution. The present sample included women with multiple periods of federal incarceration. Thus, the samples were different with respect to criminal histories. Second, Belcourt et al.'s sample was drawn from the general population of federal women offenders. The present sample consisted of only substance abusing women, who are at greater risk for recidivism compared to women who do not have substance abuse problems. (Dowden & Blanchette, 1999).

Age of Release

Age at release was negatively associated with revocation: increasing age was associated with a lower likelihood of revocation. Further, release age made a significant unique contribution towards predicting revocation in the regression model. These results are consistent with those of Bonta et al. (1995) who found that age of admission, and age at prerelease interview, were related to recidivism in a sample of federally sentenced women offenders. Belcourt et al. (1993) also reported an association between age and recidivism. In contrast, Funk (1999) did not find an association between age and revocation. However, that study involved a sample of juvenile women offenders, which

had an attenuated age range. It is likely that the age range was not sufficient for the association between age and revocation to be apparent. Overall, it appears that age is a significant risk factor for substance abusing women offenders.

Type of Release

Type of release was not related to revocation: the rates of revocation, revocation with a new offence, and revocation with a new violent offence were the same across each type of release. In contrast, Belcourt et al. (1995) found that the women offenders who were granted parole were far less likely to recidivate compared to the offenders who were held until their statutory release date. The differences with respect to these findings are difficult to explain. It may be possible that it is more difficult to make accurate release decisions, based on professional discretion, when dealing with substance abusing women.

Release Conditions

The results indicated that there were regional variations on the number of conditions imposed upon offenders: Offenders in Ontario received the most conditions, and offenders in the Prairie region received the least number of conditions. Regional variations in the number of conditions imposed do not appear to be related to risk or need levels. The authors speculate that this variation may be attributed to differences amongst the decision-making bodies. Interestingly, the nature and number of imposed release conditions were not related to revocation rates. It was expected that the number of conditions would be positively associated with revocation failure: that high-risk offenders would be subject to more conditions, and would be supervised more closely, thereby increasing their chances of failure. This hypothesis was not borne out. Future research

might examine this issue further by looking at the nature and number of conditions in relation to the precise reasons for revocation.

It was interesting to note that relatively few substance abusing women had conditions imposed related to drugs and alcohol. This contradicts the thought that women offenders with substance abuse problems are likely to fail on conditional release because of imposed conditions related to their addiction.

Admitting Offence

Several interesting associations between admitting offence and conditional release revocation were observed. Having a current theft / fraud / break and enter offence was a moderate predictor of revocation, and revocation with a new offence. Similarly, the miscellaneous non-violent category was also associated with revocation. Having a current drug offence was not associated with revocation. Robbery was the only type of violent admitting offence that was positively associated with revocation. Notably, having a current offence involving homicide was associated with lower rates of reincarceration. The logistic regression analysis indicated that the current offence of theft / fraud / or break and enter was the strongest single offence type predictor, and that it captured the predictive aspects of the other admission offence variables.

These findings are consistent with those of Belcourt et al. (1995) who found a positive association between recidivism and both property and robbery admission offences. They noted a negative association between revocation and having been convicted of murder. Similarly, Bonta et al.(1995), who found, in a sample of women offenders, that having a current offence of robbery was a significant predictor of

recidivism, and that having a homicide admission offence was negatively associated with recidivism.

The results suggest that a simple indicator of "severity of current offence" may not be an appropriate risk indicator for substance abusing women offenders. Instead of gauging the severity of the crime, it may be more appropriate to categorize offences according to if they were motivated by monetary gain (excluding drug offences). This variable might be particularly salient amongst women who have a substance abuse problem because having a serious drug addiction makes it difficult to hold down a job, and because maintaining an addiction is expensive. This hypothesis is tentative, and will require further investigation in a sample that includes women who have a substance abuse problem, and women who do not have a substance abuse problem.

Community Intervention Scale

Dowden and Blanchette (1999) found that substance abusing women offenders had more needs than non-substance abusers, and that they had higher need levels overall; the results of the present study reflect this. In the present sample of substance abusing women, the prevalence rates of identified needs across six of the seven CIS domains were higher than those based on a large mixed sample of women offenders, as reported by Dowden et al.(2001).

It was surprising to find that only 80% of the sample were identified as having a substance abuse problem at release, because 100% of the sample was identified as having a substance abuse problem at intake. Results indicated that the differences between intake assessment and release assessment were, in part, attributable to offenders having addressed their substance abuse problems through treatment. It is also possible that some

offenders addressed their problems without treatment. Alternatively, the differences may be attributable to the assessment process. Assessment at admission and assessment at release may have been informed by different facts. Lastly, the workers who assessed the same facts at intake and release may have disagreed with respect to the appropriate rating. Further research on the inter-rater reliability of the OIA process and the CIS might help to clarify this matter.

Five of the seven Community Intervention Scale need domains were significantly associated with recidivism: Employment, Associates, Substance Abuse, Community and Attitude. The overall CIS Risk and Need ratings were also moderate predictors of revocation. These results are largely consistent with those of Dowden et al. (2001), who examined the predictive validity of the CIS within a sample of women offenders. The exception was that the Personal / Emotional domain was predictive in their sample, but it was not within the current sample of substance abusing women.

The regression analyses indicated that most of the CIS domains were independent predictors of revocation. The overall Risk rating, and the Community domain did not make a unique contribution towards predicting revocation. The results indicated that both of these variables overlapped considerably with the overall Need rating.

Treatment

This study failed to find an association between substance abuse treatment and revocation. This finding is consistent with prior studies (Bonta et al., 1995; Dowden & Andrews, 1999). Dowden and Blanchette (1999), reported that having received substance abuse treatment was associated with lower levels of recidivism; however, the association only appeared after limiting the sample to those offenders who, in addition to having

been identified as having a substance abuse problem, were recommended to treatment. Had we followed a similar procedure, then it is conceivable that we would have had similar results. Nevertheless, having received any form of substance abuse treatment while incarcerated does not seem to be a predictor of conditional release success among substance abusing women offenders.

CONCLUSION

The results of this study indicate that current practices -- the use of the CIS in particular -- are effective within the subpopulation of substance abusing women offenders. The results support the view that substance abuse is only one of many need factors, and that consideration of other known criminogenic need factors is relevant and necessary in the prediction of post-release outcome.

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APPENDIX A

Condensed Frequency Distributions, and Chi-Squared Values for Tests of Association Between Admission

Offence Type and Release Outcome.

<u>Admission Offence</u>	<u>f (-/+)</u>	Revoked (252/231)	New Offence (408/75)	New Violent Offence (464/19)
Drug	(283/200)	.06 (97)	.25 (33)	3.38 (4)
Theft, Fraud, B. & E.	(338/145)	28.05*** (96)	8.26** (33)	0.44 (7)
Other Non-Violent	(209/274)	14.84*** (152)	11.64*** (56)	6.09* (16)
Homicide	(422/61)	7.78** (19)	2.86 (5)	.97 (1)
Sex	(475/8)	.70 (5)	.56 (2)	1.58 (1)
Robbery	(383/100)	7.49** (60)	5.37* (23)	21.71*** (12)
Assault	(395/88)	.20 (44)	1.18 (17)	4.60* (7)
Other Violent	(420/63)	.00 (30)	1.44 (13)	3.07 (5)

* p < .05; **p < .01; ***p < .001

Notes: numbers in unshaded cells represent chi-square for 2*2 table followed by the raw frequency of true positives (+/) in parentheses. The true positive frequency, in conjunction with variable distributions (shaded cells), provide enough information to solve for the cell frequencies within the two-by-two tables.

N = 483.

Condensed Frequency Distributions, and Chi-Squared Values for Tests of Association Between CIS Domain and Release Outcome.

		Revoked	New Offence	New Violent Offence
<u>CIS Domain</u>	<u>f (-/+)</u>	(252/231)	(408/75)	(464/19)
Education / Employment	(118/365)	10.71** (190)	5.92* (65)	2.07 (17)
Family	(142/341)	.03 (164)	1.25 (57)	.66 (15)
Associates	(165/318)	7.14** (166)	.19 (51)	.54 (14)
Substance Abuse	(97/386)	5.58* (195)	.92 (63)	.01 (15)
Community	(232/251)	4.75* (132)	5.15* (48)	.17 (9)
Personal / Emotional	(56/427)	.05 (205)	.26 (65)	.02 (17)
Attitude	(403/80)	8.27** (50)	1.46 (16)	.29 (4)

* p < .05; **p < .01; ***p < .001

Notes: numbers in unshaded cells represent chi-square for 2*2 table followed by the raw frequency of true positives (+/+) in parentheses. The true positive frequency, in conjunction with variable distributions (shaded cells), provide enough information to solve for cell frequencies within the two-by-two tables.

N = 483.