

————— **Research Report** —————

**Women Offender Substance
Abuse Programming
& Community Reintegration**

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**Women Offender Substance Abuse Programming
& Community Reintegration**

Flora I. Matheson

Sherri Doherty

Brian A. Grant

Addictions Research Centre

Research Branch

Correctional Service Canada

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EXECUTIVE SUMMARY

In response to continued high levels of substance abuse problems among women offenders under federal jurisdiction, the Correctional Service of Canada implemented a newly designed multi-stage programming model for women offenders. Based on research and recommendations from a panel of experts Correctional Service Canada implemented the Women Offenders Substance Abuse Programs (WOSAP) in May 2003.

WOSAP's design is unique, offering a continuum of interventions and services from admission to a federal institution to warrant expiry that are matched to women's specific needs including peer support and activities designed to foster a positive culture. The program is gender responsive, which, in this context, refers to an environment (program content, staffing and culture) that reflects a comprehensive understanding of the realities of women's lives. The overall goal of WOSAP is to empower women to make healthy lifestyle choices. A related and essential goal of the program is to reduce return to custody. WOSAP has three institutional treatment modules (Engagement and Education (E&E), Intensive Therapeutic Treatment (ITT), and Relapse Prevention and Maintenance (RPM)). Additionally, Community Relapse Prevention and Maintenance (CRPM) is offered to women while under supervision in the community.

The purpose of this report is two-fold: first, to compare return to custody among women who participated in ITT-WOSAP, women who participated only in either E & E and/or RPM (Other WOSAP) and women from an historical period (Pre-WOSAP) who participated in the previous treatment program; and secondly, to determine whether women who participated in any aspect of WOSAP and received Community Relapse Prevention and Maintenance (CRPM) were less likely to return to custody than women without CRPM. Both questions were addressed by comparing return to custody in a 52-week post release period.

The sample consisted of 560 women offenders of whom 452 participated in at least one component of WOSAP. Overall, 41% of the sample was returned to custody within 1 year after leaving prison. The findings on institutional-based substance abuse programming indicate that the lowest rate of return to custody is among ITT-WOSAP (39%), followed by Other WOSAP (43%), with the highest return rate among Pre-WOSAP women (47%).

This illustrates that intensive substance abuse programming (i.e. ITT-WOSAP) is more beneficial in reducing rates of return to custody than is less intensive programming (i.e. Other

WOSAP and pre-WOSAP). When CRPM participation was considered (for ITT-WOSAP and Other-WOSAP), the impact was more pronounced. Only 5% of women who completed CRPM were returned to custody which is significantly less than the rate for women with no exposure to CRPM (38%).

Findings from survival analyses revealed several risk factors for return to custody among ITT-WOSAP and other-WOSAP. Age, non-discretionary release, unemployment, and criminal history risk were statistically significant predictors of return to custody. Women offenders who were assessed as high criminal history risk were 58% more likely to recidivate. Women who violated a condition of abstinence were 1.9 times more likely to return to custody. Unemployed offenders were over 2 times more likely to recidivate than those who were employed while on release. In the statistical model, CRPM was strongly associated with return to custody. Relative to women offenders who completed CRPM those who had no CRPM were over 10 times more likely to return to custody after adjusting for other factors.

Major findings on return to custody among Aboriginal women are similar to those from the larger sample. Forty percent of Aboriginal women returned to prison within the 52-week period after release. Forty percent accessed some type of post-release programming with only 30% participating in CRPM. Secondary findings showed that employment while on release from prison had an impact upon the success of Aboriginal women in the community. Though the descriptive analysis was based upon small numbers, the results do point to the need for further research on effective program models for this group.

Results demonstrate the importance of continuity of substance abuse treatment (aftercare) for women offenders in their transition from the institution to the community. While participating in institutionally-based treatment, women are somewhat sheltered from many of the triggers which contributed to their substance abuse prior to incarceration. The hope is that women have acquired valuable coping skills through participation in institutional treatment; however, the opportunity to practice these skills while in custody is not equivalent to practice in the community. The results show that institutional substance abuse treatment does lead to reductions in return to custody among women offenders, and that the *combination* of treatment in the institutions and Relapse Prevention and Maintenance in the community was particularly beneficial in lowering the likelihood of return to custody.

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INTRODUCTION

The federally incarcerated adult population of women in Canada increased approximately 403% from 1981 (n=93) to 2008 (n=469). In 2008, 1075 women offenders in Canada were serving a federal sentence: 496 (46%) were incarcerated while 579 (54%) were serving the remainder of their sentence in the community (Correctional Service Canada, 2008a). While women represent only 5% of all federal admissions it is a high burden, high cost, and under-serviced group. For example, 80% of women offenders in Canadian federal institutions have substance abuse problems (Grant & Gileno, 2008).

In a study of federally sentenced women in the community, Law (2004) found that the majority of her sample had been convicted of property offences like theft (60.6%) and fraud (39.8%), with drug convictions the next largest offence category (46.7%). According to Dowden and Blanchette (1999) women offenders who abused substances had significantly more problems with associates, attitudes, employment and their marital/family situations. They were also twice as likely to have unstable accommodation in the community, have few skills to manage stress, and they were more likely to have been hospitalized for mental health reasons. They also identified a trend towards higher recidivism rates for substance-abusing women offenders.

Substance Abuse Treatment among Women in Corrections

Three related concerns arise when considering problems of substance abuse among women who have contact with the criminal justice system: relapse itself; relapse that leads to revocation or re-arrest, and relapse that leads to death. Research suggests that drug treatment programming in the correctional system is advantageous, reducing the probability of revocation and re-arrest for those who have undergone treatment in comparison to those who received no treatment (Pelissier et al., 2001). Such programs have also been shown to be beneficial in reducing relapse into substance abuse. In addition, these treatment programs have a positive impact on employment rates, especially for women (Pelissier et al., 2001) and may be instrumental in reducing drug-related deaths among newly released offenders (Bird & Hutchinson, 2003; Sattar, 2003; Sattar & Killias, 2005; Singleton, Pendry, & Taylor, 2003).

Additionally, research suggests that aftercare, in the form of community-based substance abuse treatment while on parole, can be viewed as a distinct experience that can potentially have its own unique impact on recidivism and drug relapse (Wexler, Melnick, Lowe, & Peters,

1999b). Studies from California, (Wexler, De Leon, Thomas, Kressel, & Peters, 1999a; Wexler et al., 1999b) Texas (Hiller, Knight, & Simpson, 1999b; Knight, Simpson, & Hiller, 1999) and Delaware (Butzin, Martin, & Inciardi, 2002; Inciardi, Martin, Butzin, Hooper, & Harrison, 1997; Inciardi, Surratt, Martin, & Hooper, 2002) have shown that aftercare is effective in reducing both return to custody and relapse into drug use (Inciardi et al., 1997; Knight et al., 1999; Wexler et al., 1999b).

For the most part, this handful of studies on aftercare focuses on males or combines findings for men and women. Interestingly, there is evidence to suggest that women may respond more effectively to treatment than men. Butzin, Martin and Inciardi (2002) found that among men and women participating in the Key-CREST and CREST programs in Delaware, women were more likely to remain without arrest at three-years post release when treatment included within-prison, transitional, and aftercare treatment components (after adjustment for other risk factors).

There is very little information available on drug-using women under community supervision and little research assessing the effectiveness of aftercare treatment among women offenders. A meta-analysis of 44 studies of substance abuse treatment for women examined the efficacy among several outcomes including criminality. Criminal justice outcomes were assessed using treatment versus no treatment and showed a very modest effect (effect size = 0.16) on criminal activity (Orwin, Francisco, & Bernichon, 2001).

The Forever Free Substance Abuse Program is a drug treatment program for women incarcerated in California (Hall, Prendergast, Wellisch, Patten, & Cao, 2004; Prendergast, Wellisch, & Wong, 1996). There is an in-prison component - provided to volunteer inmates during the last six months of incarceration – and a residential aftercare component– provided to volunteer parolees who have graduated from Forever Free. Evaluations of this program indicate that the women who participated in the institutional component of Forever Free had a lower re-incarceration rate than a comparison group of women. Approximately 68% of women who participated in residential aftercare treatment remained in the community one-year post release; in comparison 52% of those women who did not participate in residential aftercare while on parole were returned to custody one-year post release.

There is a growing awareness that public health costs associated with both men and women who have ever been incarcerated might be reduced with a focus on coordination of

continuing health services at the community level (Lurigio, 2001; Lurigio, Fallon, & Dincin, 2000; Skolnick, 1975). Lack of continuity of community care is an important barrier to positive health outcomes and reduction of recidivism for women leaving correctional institutions (Hughes, 2000; Hume, 2001; Rich et al., 2001; Richie, Freudenberg, & Page, 2001). Women who are struggling with drug addiction may experience considerable emotional stress upon re-entry to the community making them more vulnerable to relapse. Aftercare for these women becomes crucial to their re-integration and continued success in the community.

Women Offenders Substance Abuse Programming (WOSAP)

In 1994, the Correctional Service of Canada (CSC) established substance abuse programming as a priority in its *Correctional Program Strategy for Federally Sentenced Women* (Correctional Service Canada, 1994). A national program was developed one year later.

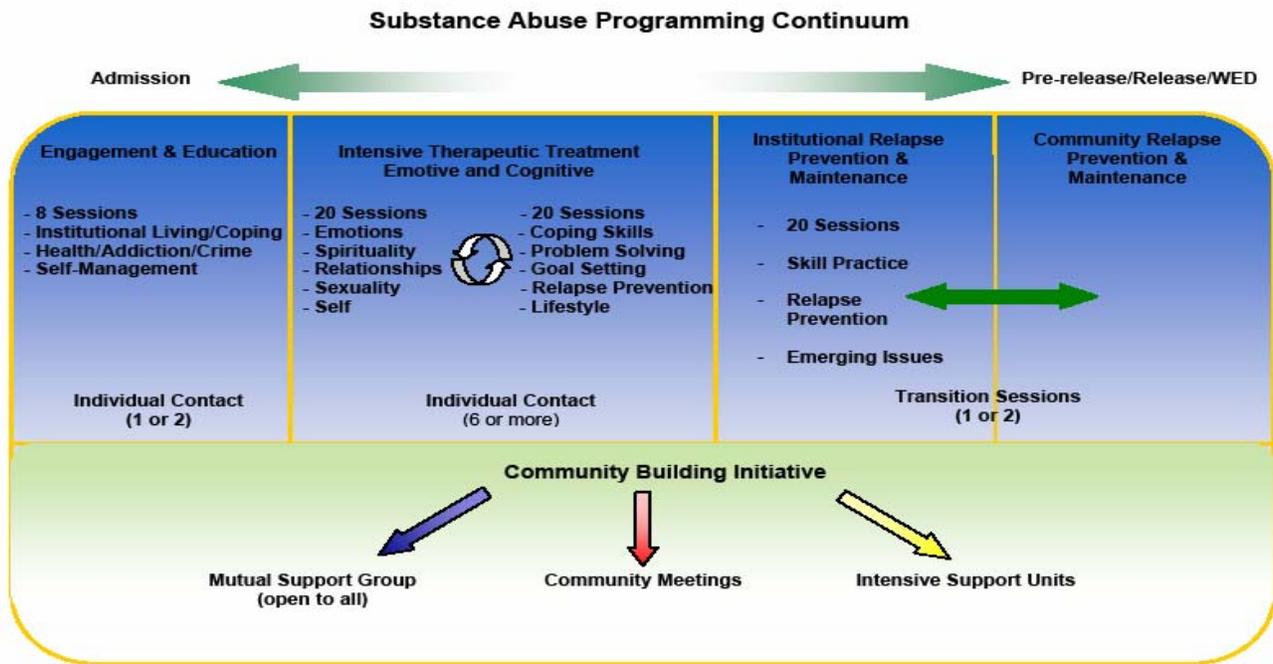
In 1999, CSC convened a panel of internationally recognized experts to review existing substance abuse programming for women. The panel agreed that, while earlier program efforts represented an important beginning, a more comprehensive approach was warranted. In response to the recommendations of the expert panel, Correctional Service Canada developed the Women Offenders Substance Abuse Program (WOSAP) which was implemented in May 2003 (Hume & Grant, 2001).

WOSAP was developed by CSC at the Addictions Research Centre with support from the Women Offender Sector. It offers a continuum of interventions and services matched to women's specific needs, as well as peer support and activities designed to foster a positive culture. The program is gender responsive, which, in this context, refers to an environment (program content, staffing and culture) that reflects a comprehensive understanding of the realities of women's lives. WOSAP has three institutional treatment modules and an aftercare component for women while under supervision in the community. The overall goal of WOSAP is to empower women to make healthy lifestyle choices. A related and essential goal of the program is to reduce return to custody.

WOSAP program facilitators participate in a two-week training session which familiarizes them with the program content. They learn and are evaluated on working alliance; program delivery techniques and skills; analytical thinking and judgment; planning and organizing; and self management. The program is currently available in all five federal women's

institutions and the Aboriginal healing lodge as well as numerous community sites across the country. Facilitators must demonstrate the required skills based upon an objectively scored evaluation. Upon meeting these requirements, the program facilitators may begin facilitating WOSAP. To ensure quality control, site visits are completed by the regional program manager. Facilitators are observed while delivering WOSAP sessions and are provided ongoing support by the regional program manager. As well, anonymous feedback collected from program participants is compiled and communicated to the facilitators so they can identify areas requiring improvement.

Figure 1: Women Offender Substance Abuse Programming Model



Engagement and Education

Engagement and Education (E & E) is offered to all women in the institution, regardless of use or abuse of substances. The focus of Engagement and Education is on welcoming the women into the institutional setting, supporting them as they make the transition from the community to the institution, increasing their understanding of the impact of addiction on women, and motivating them to make positive change. Substance abuse may not have a direct impact on all of the women but it often has an impact on their relationships. Drawing from relational theory, this module emphasizes the importance of healthy connections which is applicable to everyone. As incarceration may be a traumatic experience for many women and many have already experienced severe trauma in their lives, this module also provides participants with coping skills including grounding techniques that are designed to immediately connect a woman to the present moment during periods of dissociation.

Intensive Therapeutic Treatment

Intensive Therapeutic Treatment (ITT) is offered to women offenders who have a moderate to high substance abuse treatment need. The module is intended to provide a safe environment where women can engage in self-exploration of the underlying issues related to substance abuse, such as trauma and lack of self-awareness, as well as to provide women with concrete, practical skills to help them stop abusing substances. As such, the treatment is an integration of an emotive, experiential approach and a cognitive-behavioural model including relapse prevention for substance abuse. The emotive sessions focus on emotions, spirituality, relationships, sexuality and self while the cognitive sessions focus on coping skills, problem solving, goal setting, relapse prevention and lifestyle, the latter being designed to provide the education and skills necessary to effect change in the area of substance use and crime. The sessions have been structured to allow for skill acquisition and practice, and to encourage greater self-awareness of issues and patterns relating to substance abuse.

Relapse Prevention & Maintenance (Institution & Community)

Relapse Prevention and Maintenance (RPM) is offered in both the institution and in the community. It is designed to be taken by all women offenders who have received any type of correctional programming to address their respective problematic behaviours. This module gives

women an opportunity to develop and implement an individualized relapse prevention plan that corresponds to their problematic behaviour. Group format is a mix of cognitive-behavioural treatment, experiential exercises, and coping skill practice. The module can be initiated in the institution and completed in the community.

In the community, Community Relapse Prevention and Maintenance (CRPM) is designed to continue to support women after leaving the institution and to act as a refresher program for those women already living in the community and assessed as ‘at risk.’ The program content is identical to the institution-based RPM program. Women are particularly vulnerable in the first one to two weeks after release so facilitators are expected to meet with each woman individually prior to her entering the group as soon as possible post-release. Also, creating an opportunity to immediately connect in a positive way with the facilitator will increase a woman’s likelihood of success.

In addition to the structured programming, WOSAP includes a second level of intervention which includes activities to promote and foster connection, community and empowerment and which add an experiential dimension to treatment where program goals are practiced and incorporated into daily living.

Research Questions

Consistent with previous research, which suggests that more intense treatment leads to better outcomes among clients who are matched to the appropriate treatment intensity based on the severity of their drug/alcohol problem, two related questions were posed.

First, do Intensive Therapeutic Treatment participants who are released to community correctional supervision with a diagnosis of drug/alcohol dependence (intermediate to severe level) have better outcomes relative to comparison groups? This was accomplished by comparing the likelihood of return to custody in the 52-week post-release period among treatment groups: 1) women who had participated in Intensive Therapeutic Treatment; 2) women who participated in Engagement & Education and Relapse Prevention and Maintenance; and, women who were institutionalized prior to the inception of WOSAP and participated in a former women’s substance abuse program.

Secondly, do women who completed Community Relapse Prevention and Maintenance have better outcomes related to their length of time spent in the community relative to those who

did not participate in Community Relapse Prevention and Maintenance? This was assessed by comparing the likelihood of return to custody in the 52-week post release period among women who had participated in Intensive Therapeutic Treatment and women who participated in Engagement & Education and Relapse Prevention and Maintenance based upon their exposure to Community Relapse Prevention and Maintenance.

Return to custody is often the outcome measure of most interest and relevance to policy makers as an indicator of at-risk behaviour or treatment effectiveness. Return to custody is also viewed as a proxy for return to substance abuse since the two are highly correlated. The primary outcome variable for this study was return to custody within 52 weeks of discharge from each client's first release date after participation in an institutional-based treatment program. Approximately 80% of women who returned to custody did not commit a new offence while 20% of these women returned with a new offence. Given the over-representation of Aboriginal women in Canadian prisons, separate descriptive analyses are presented for this sub-sample.

METHODOLOGY

Sample

The present study consisted of 560 women offenders who had been released from one of six federal institutions across Canada during the period May 1st 1998 to August 31st, 2007. The sample included three specific groups of women offenders assessed as having moderate to high substance abuse treatment needs. Four hundred and fifty-two women participated in WOSAP and 108 participated in the former substance abuse program. This study focuses specifically on women offenders with intermediate to severe substance use problems since the majority of women entering Canadian federal institutions present with such issues. The study groups are equivalent with respect to severity of alcohol and drug problems, but differ in substance abuse programming received within the institution. Comparisons of these groups will highlight the impact of each type of substance abuse programming on return to custody but will not provide comparisons between treatment and non-treatment control groups. CSC policy requires that all offenders be offered appropriate treatment while in custody so a true control group with no treatment does not exist.

Study Groups

Three mutually exclusive groups were created for the study. The '*ITT-WOSAP*' group is of direct interest and is the primary study group. It includes all women who began their sentence after May 1st, 2002 and who participated in Intensive Therapeutic Treatment (n=318). First release after any ITT-WOSAP exposure marked the commencement of the study period. The majority of women in ITT-WOSAP successfully completed substance abuse programming (75.5%) or had positive participation (12.6%) within the institution. Almost 12% had poor participation (women who were suspended, dropped out of the program, or had behavioural issues within or outside the program that affected their completion of the program); so while 88% of ITT participants are effectively engaged in the program, some women offenders in need of treatment were unable to remain in the program for behavioural reasons.

The '*Other WOSAP*,' group, like ITT-WOSAP, began their sentence after May 1st, 2002. This group consisted of 134 women who participated in Engagement and Education and/or Relapse Prevention and Maintenance in the institution. The commencement of the study period

for 'Other WOSAP' women was marked by their first release after any exposure to E & E and/or RPM.

The *Pre-WOSAP* group included all women offenders who began their sentence between May 1st, 1998 and May 1st, 2002 and who experienced their first release after participation in the Women's Substance Abuse Program (the former women substance abuse program) (n=108). The majority of women in pre-WOSAP was reported to have completed substance abuse programming or had positive participation within the institution, while only 6.5% had poor participation.

An offender would appear in only one of these study groups. If women participated in ITT, regardless of their participation in any other component of WOSAP, they were placed in the ITT-WOSAP group. If a woman participated in either E&E or RPM, but did not participate in ITT, they were placed in the Other-WOSAP group. The Pre-WOSAP group of women were incarcerated prior to the initiation of the program in the institutions and participated in the former women's substance abuse program.

Data Sources

The Offender Management System (OMS) is an automated administrative database used to manage data about offenders under federal jurisdiction. Data are collected as part of the Offender Intake Assessment (OIA) process completed when offenders are admitted to a federal prison in Canada. Offender data, including age, ethnicity, marital status, sentence length, offence type, static and dynamic criminogenic factors, and severity of substance abuse problems were obtained from OMS. WOSAP participants were identified using the OMS programs database which tracks program participation within the institution and during parole.

Measures

Release and Readmission Measures

Discretionary release is an indicator of the level of risk the National Parole Board perceives the offender to present to the community. Offenders may be granted a discretionary release (day parole or full parole) before they have served two-thirds of their sentence. After serving two-thirds of their sentence, most offenders are granted statutory (non-discretionary) release to serve the final third of their sentence in the community. Offenders who receive a

discretionary release are judged by the National Parole Board to be manageable in the community prior to their statutory release date.

The outcome of interest is return to custody within 52 weeks post-release. Return to custody occurs as a result of a violation of one or more release conditions,, a new offence that is reported to the parole supervisor, or an outstanding charge or termination of conditional release without offence.

Demographic & Criminogenic Risk/Need Variables

Demographic and risk profiles for women offenders were extracted from the Offender Management System (OMS). The demographic variables included age, ethnicity, marital status (married or not married), and educational status (with or without high school diploma). Ethnicity was defined as Aboriginal, Caucasian and other (Arab/West Asian, Black, Latin American, South Asian, South East Asian, and Other). Unemployment status during release is obtained from the OMS post-release record. A status of unemployed indicated that an offender was not employed at any point during her conditional release.

The Offender Intake Assessment (OIA) (results of which are in OMS) provides an assessment of an offender's level of static and dynamic risk. The OIA is a comprehensive and integrated evaluation of offenders that has been in use by the Correctional Service Canada since 1994 and assesses risk factors at their time of admission. Risk is assessed using two tools; the Static Factors Assessment (SFA) and the Dynamic Factors Identification and Analysis (DFIA). The SFA provides comprehensive information pertaining to the criminal history and offence severity for each offender and yields an overall measure of static or criminal history risk [low=1, medium=2, or high=3] assigned at time of admission.

The second component of the OIA, the DFIA assesses a set of seven need domains or dynamic risk factors (substance abuse, employment/education, marital/family, associate/social interaction, community functioning, personal/emotional, and attitude) that are known to be associated with criminal behaviour. For each dynamic risk factor there is a set of indicator items and a need rating, as well as an overall level of dynamic need as determined by the assessor. The overall need level ranges from low to medium to high. For the purpose of this study, criminogenic need represents a summary measure of the seven need domains. The results of the

dynamic and static risk analyses are used, in part, to develop an individualized correctional plan that includes correctional interventions and program targets designed to reintegrate the offender.

Substance Abuse Variables

The level of substance abuse among women offenders was assessed using three standardized measures; the Alcohol Dependence Scale, the Drug Abuse Screening Test and the Problems Related to Drinking Scale (described below). Based on these assessment results, offenders are identified as requiring treatment at one of the following levels: 1) None, 2) Low, 3) Moderate or 4) High. For the study, offenders assessed as having moderate to high treatment needs were included.

The Alcohol Dependence Scale (ADS) measures severity of alcohol problems, with an emphasis on the identification of physiological symptoms associated with alcohol use (Skinner & Horn, 1984a; Skinner & Horn, 1984b).

The Drug Abuse Screening Test (DAST) measures severity of drug problems using 20 items answered in a yes/no format. For both the ADS and DAST, severity of drug abuse is categorized into five levels: none (score of 0), low (1-5), intermediate (6-10), substantial (11-15), and severe (16-20) (Skinner, 1982).

The Problems Related to Drinking Scale (PRD) is a short form of the Michigan Alcoholism Screening Test (Grant & Furlong, 2006; Seltzer, 1971). The scale measures the number of problems related to alcohol consumption using 15 items answered in a yes/no format. The PRD scores are divided into four levels: none (score of 0), some (1-3), quite a few (4-6), and a lot (7-15).

Based upon the results of these screening tools, the majority of the women in the sample were classified with a moderate to high substance abuse treatment need. A small number of offenders (6%) who did not meet these criteria were assigned to high intensity substance abuse treatment on the basis of professional judgment. A further 10% of the women who were assigned to treatment were missing information on these measures.

Community Relapse Prevention & Maintenance Status

To examine return to custody in relation to participation in CRPM, the ITT-WOSAP and Other WOSAP samples were divided into two groups. These represented 56 women who

completed CRPM (aftercare completers), 305 women who did not participate in CRPM (no aftercare).

Ninety-one women who started, but did not complete CRPM (partial aftercare) are included in descriptive but not in the multivariate analyses. Based on a case review, for many of these women, the partial aftercare status (some CRPM) is a consequence of a suspension of conditional release which results in a woman's immediate withdrawal from the program. Therefore, her program status of partial aftercare is a direct result of her return to custody and so it is not possible to assess the treatment effect. To truly assess treatment effect, it would be necessary to look specifically at women who were dropouts or could not participate because of barriers such as lack of access to transportation or childcare.

Additional Covariates

Several other variables were examined in these analyses. Proportion of sentence served represents time served within the institution as a percentage of the entire sentence (from sentence commencement to warrant expiry date). Sentence length represents the actual number of days that the offender is required to serve under her sentence. A measure of other high intensity programming indicates offender participation in high intensity CSC programming other than substance abuse programming (e.g. Dialectical Behaviour Therapy, Spirit of a Warrior). Offender participation in the Methadone Maintenance Treatment Program (MMTP) is included as a separate variable. Within their current sentence, each offender was classified based on her involvement in a drug-related or violence-related offence. It is possible for women to be classified as having been involved in both types of offences during their current sentence.

Many offenders with substance abuse problems fail to remain abstinent while under supervision and living in the community. This is of concern to correctional staff and the National Parole Board since use of alcohol and drugs is a violation of parole and can lead to further criminality. Violation of abstinence indicates whether an offender violated a condition of abstinence during release.

Statistical Approach

Comparative descriptive statistics were computed between the study groups (ITT-WOSAP, Other WOSAP and Pre-WOSAP) using independent samples t-tests and chi-square analyses.

The effect of treatment on time to return to custody was assessed using Cox regression survival analysis to compute adjusted hazard ratios. This method allows for modeling the length of time until the occurrence of an event – return to custody – during the 52-week post-release period. Survival analysis is appropriate because it models not only whether the event occurred, but when the event occurred. Survival analysis also handles censored events when an individual is removed from the “risk set” thus preventing observation of possible failure (Allison, 1995). Some individuals will not have failed during the entire post-release period and some were not observed during the entire post-release period due to termination of supervision because of death, re-incarceration, or warrant expiry.

The results of this analysis will reflect the impact of variables on the survival time, that is, time until first return to custody. The advantages of this method are that it does not require a normal distribution (the time to the occurrence of an event is usually not normally distributed), it allows for the inclusion of cases that were not re-incarcerated, and it allows the inclusion of covariates to assess their effects on the probability of survival – in this case, time to first return to custody after release.

Two Cox Proportional Regression analyses were conducted to specifically address the research questions. The first examines the impact of ITT-WOSAP participation on return to custody in comparison to the ‘Other WOSAP’ and ‘Pre-WOSAP’ groups. The second regression analysis examined the impact of community program participation among ‘ITT-WOSAP’ and ‘Other WOSAP’. Ideally, we would expect that women with full participation in relapse prevention and maintenance in the community to be less likely to return to custody than women with no aftercare.

RESULTS

Descriptive Analysis

Overall, 41.3% of the entire sample (n=560) was returned to custody within 1 year after leaving prison. Of women who returned to prison, 19.5% were incarcerated within the first 3 months after release. The ITT-WOSAP group had the lowest return rate (38.7%), followed by the Other-WOSAP group (42.5%), The highest return rate was for the Pre-WOSAP comparison group (47.2). Although these differences were not statistically significant, they suggest a lower return rate for the WOSAP treatment groups. When CRPM participation was considered, it was found that only 5.4% of completers were returned to custody, significantly less than the rate for those with no exposure to CRPM (37.7%).

In the sample, over 90% of ITT-WOSAP women reported having drug problems with the most problematic being cocaine (52.0%), crack (37.9%), opiates (25.3%) and heroin (14.7%). Mental health problems are of considerable concern in this population; the majority of women who participated in ITT-WOSAP reported having experienced depression (82.5%) and anxiety (76.3%). Experiences of trauma are particularly high (93.1%). Among those who reported mental health issues, self-medication to cope with anxiety (80.2%) and depression (94.2%) was not uncommon.

As illustrated in Table 1, no statistically significant differences were found between the ITT-WOSAP, Other WOSAP and Pre-WOSAP groups with respect to age, education, and marital status. However, the groups differed significantly with respect to ethnicity: about 14% of the Pre-WOSAP group of women was Aboriginal in comparison to almost 30% of the ITT-WOSAP group and 43% of the Other WOSAP group [$\chi^2(4, N=560)= 28.45, p \leq .001$]. This may suggest that WOSAP is reaching Aboriginal women more effectively than was the case in the pre-WOSAP period but it is also indicative of the increase in the proportion of Aboriginal women who are incarcerated now. Between 1996 and 2008, the proportion of Aboriginal women admitted to federal women's prisons increased from 20% to 33% (Correctional Service Canada, 2008b).

Table 1: Demographic Characteristics by Study Group

Study Groups	ITT-WOSAP (n=318)	Other WOSAP (n=134)	Pre-WOSAP (n=108)
Age			
18 – 25 years	21.7	25.4	22.2
26 - 35 years	39.0	40.3	38.9
36 – 45 years	32.1	26.1	29.6
46 years and above	7.2	8.2	9.3
Age (M, SD)	33.3 (8.50)	32.9 (8.78)	33.4 (9.08)
Ethnicity***			
Aboriginal	28.6	42.5	13.9
Caucasian	66.4	54.5	75.0
Other	5.0	3.0	11.1
High School Diploma	24.8	28.4	24.1
Married	34.3	41.0	44.4

+ p ≤ 0.10, *p ≤ .05, **p ≤ .01, ***p ≤ .001.

Referring to Table 2, the mean proportion of the sentence served was greater for women in Pre-WOSAP (40.8%) in comparison to women in ITT-WOSAP (38.2%) and Other WOSAP (33.9%) [$F(2, 560) = 5.10, p \leq .001$]. The groups also differed with respect to drug- and violence-related offences. A significantly larger proportion of Other WOSAP women (52%) were serving time for a drug offence in comparison to approximately 30% of ITT-WOSAP and Pre-WOSAP women [$\chi^2(2, N=560) = 22.11, p \leq .001$]. This 52% is particularly disturbing given that these women also have intermediate to severe substance abuse problems, but for some reason did not participate in ITT-WOSAP in the institution. Violent offences were highest among Pre-WOSAP women (66%), followed by women in ITT-WOSAP (57%) and women in Other WOSAP (43%) [$\chi^2(2, N=560) = 13.77, p \leq .001$].

A significantly higher proportion of women in Other WOSAP (37.3%) accessed other high intensity programming than those in ITT-WOSAP (19.5%) and pre-WOSAP (8.3%). Women in Other WOSAP may have been directed to other high intensity programming to meet their specific needs (Table 2).

Also shown in Table 2, almost twice as many women in the ITT-WOSAP group (19.5%) had participated in methadone maintenance treatment (MMTP) in comparison with women in the

Other WOSAP group (11.9%) which suggests that more of these women had an opiate-specific addiction. Only 6% of women in the Pre-WOSAP group ever participated in MMTP [χ^2 (2, N=560) = 13.58, $p \leq .001$]. Since December 1997, MMTP has been available in federal correctional facilities for those offenders whose treatment had already been initiated prior to their incarceration; however, only since May 2002 has this treatment been available for incoming opiate addicted offenders that were not being treated in the community (Correctional Service Canada, 2003). This policy change may explain the difference in levels of MMTP access between pre-WOSAP and the WOSAP groups.

Table 2: Sentence, Offence, & Program Characteristics by Study Group

Study Groups	ITT-WOSAP- (n=318)	Other WOSAP (n=134)	Pre-WOSAP (n=108)
Sentence Length ^a			
Up to Four Years	90.2	93.3	88.9
Four Years or More	9.8	6.7	11.1
Mean Proportion Sentence Served (SD) **	38.2 (17.04)	33.9 (17.28)	40.8 (18.08)
Drug Offence ***	29.6	51.5	28.7
Violent Offence ***	56.6	42.5	65.7
Other High Intensity Programming ***	19.5	37.3	8.3
MMTP Participation ***	19.5	11.9	5.6

^a Lifers (those serving a life sentence) are not included in the analysis.

+ $p \leq 0.10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

The majority of women offenders was rated low to medium on criminal history risk (criminal history and offence severity) (Table 3). In the Pre-WOSAP group about 65% of women offenders were designated medium risk. Women in ITT-WOSAP (24.8%) and Other WOSAP (22.4%) were significantly more likely to be designated high on criminal history risk than Pre-WOSAP women (12.0%). There were no statistically significant differences in criminogenic needs across groups.

Table 3: Criminal History Risk and Criminogenic Need by Study Group

Study Groups	ITT-WOSAP- (n=318)	Other WOSAP (n=134)	Pre-WOSAP (n=108)
Criminal History Risk ^{***}			
High	24.8	22.4	12.0
Moderate	46.5	34.3	64.8
Low	28.6	43.3	23.2
Criminogenic Need			
High	50.9	45.5	44.4
Moderate	43.4	41.8	50.0
Low	5.7	12.7	5.6

+ $p \leq 0.10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 4 shows the dynamic need factor ratings for each of the study groups. In addition to the substance abuse domain, a high percentage of women were identified as having needs in the following domains: employment and education, personal/emotional, associates/social interaction, and marital/family. The WOSAP continuum consists of components which can be linked to each of these need areas with the exception of employment.

There were significant differences among the study groups on several of these domains. ITT-WOSAP women (53.5%) were less likely than Other WOSAP (61.9%) and Pre-WOSAP (67.6%) to have problems in the marital/family domain [$\chi^2(2, N=560) = 7.63, p \leq .05$]. Other WOSAP women were least likely to have problems in community functioning (23.9%) in comparison to ITT-WOSAP (34.6%) and Pre-WOSAP (46.3%) [$\chi^2(2, N=560) = 13.37, p \leq .01$]. Both ITT-WOSAP (28.9%) and Other WOSAP (24.6%) women were more likely to have attitudinal problems relative to women in Pre-WOSAP (15.7%) [$\chi^2(2, N=560) = 7.46, p \leq .05$].

Table 4: Dynamic Factor Need Ratings by Study Group

Dynamic Factor Domains	ITT-WOSAP (n=318)	Other WOSAP (n=134)	Pre-WOSAP (n=108)
Substance Abuse	97.5	94.8	96.3
Employment/Education	72.6	78.4	65.7
Marital/Family*	53.5	61.9	67.6
Associate/Social interaction	68.9	78.4	75.9
Community Functioning**	34.6	23.9	46.3
Personal/Emotional	76.4	77.6	87.0
Attitude*	28.9	24.6	15.7

+ p ≤ 0.10, *p ≤ .05, **p ≤ .01, ***p ≤ .001.

Severity of substance abuse is shown in Table 5. Based upon the results of the ADS and DAST, more women offenders had a drug use problem than an alcohol use problem. Twenty-six to 37% of women had moderate to severe alcohol abuse problems and approximately 67 to 92% had intermediate to severe drug problems [$\chi^2(4, N=560) = 30.48, p \leq .001$]. Interestingly, the Pre-WOSAP group looks different from ITT-WOSAP and Other WOSAP; more women in Pre-WOSAP had alcohol problems and fewer had drug problems. This may indicate a potential movement in the offender population towards increased drug use. Overall, 92% of ITT-WOSAP, 99% of the Other WOSAP and 80% of Pre-WOSAP women have intermediate to severe substance use problems [$\chi^2(4, N=502) = 22.10, p \leq .001$].

Table 5: Severity of Substance Abuse among Study Group

Substance Abuse Severity (Intermediate to Severe)	ITT-WOSAP (n=292)	Other WOSAP (n=134)	Pre-WOSAP (n=76)
ADS	26.0	33.6	36.8
DAST**	86.0	91.8	67.1
ADS or DAST*	92.1	98.5	80.3
PRD	24.0	25.4	31.6

Note. 58 observations are missing data for these variables as a result of administrative issues.
+ p ≤ 0.10, *p ≤ .05, **p ≤ .01, ***p ≤ .001.

As shown in Table 6, the majority of women offenders were granted discretionary release. More ITT-WOSAP (79.3%) and Other WOSAP (87.3%) women were granted discretionary release than Pre-WOSAP women (70.4%) [$\chi^2(2, N=560) = 10.54, p \leq .01$]. This result suggests that participation in WOSAP may increase the likelihood of earlier discretionary release. This finding is further substantiated by the fact that discretionary release has actually decreased for women offenders overall from 90% in 1996 to 77% in 2008. The higher proportion of discretionary release among Other WOSAP may also be related to lower criminal history risk (as shown by the trend in Table 3).

Table 6: Type of Release by Study Group

	ITT-WOSAP (n=318)	Other WOSAP (n=134)	Pre-WOSAP (n=108)
Type of Release**			
Discretionary	79.3	87.3	70.4
Non-discretionary	20.8	12.7	29.6

+ $p \leq 0.10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 7 shows that 41% of offenders in both the ITT-WOSAP and Other WOSAP groups accessed substance abuse programming while in the community on conditional release compared with only 22% of Pre-WOSAP offenders [$\chi^2(2, N=560) = 12.77, p \leq .01$].¹ There may be several explanations for increased participation. WOSAP may promote continuity of care in the community (any post-release substance abuse programming). There may be currently a greater emphasis on making program referrals. Or, substance abuse programs may be more widely available now. However, only 30% of ITT-WOSAP and 39% of Other WOSAP accessed CRPM. Of those women who started CRPM, 39% of ITT-WOSAP and 37% of Other-WOSAP completed the program. Yet, overall, this only represents 12% of ITT-WOSAP and 14% of Other WOSAP participants. A high proportion of the ITT-WOSAP and Other WOSAP women

¹ The type of community programming in which pre-WOSAP women participated was extremely varied. Also, many of the programs accessed by pre-WOSAP women were not associated with CSC which meant the content was unknown. Therefore, the pre-WOSAP group could not be included in the analysis on community program outcomes.

did not access CRPM (70% and 61%, respectively) Given these results, new strategies are needed to encourage more women to access CRPM.

Table 7: Substance Abuse Community Programming by Study Group

	ITT-WOSAP (n=318)	Other WOSAP (n=134)	Pre-WOSAP (n=108)
Post-Release Substance Abuse Programming**	40.6	41.0	22.2
Community RPM Programming	30.2	38.8	na
CRPM Status			
Completed	11.6	14.2	na
Partial	18.2	24.6	na
No Exposure	70.1	61.2	na
CRPM Participation	(n=95)	(n=52)	na
CRPM Completion	38.9	36.5	na
Partial CRPM	61.1	63.5	na

Note: The primary reason for partial completion was return to custody.
 + $p \leq 0.10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Readmission rates are less than 50% in all treatment groups; differences among the study groups are not statistically significant (Table 8). Given that all groups received some form of treatment, this is not unexpected. The results do tend towards favouring those that participated in ITT given that they have the lowest return rate. The majority of women offenders returned to custody without a new offence (primarily for a violation of conditional release) and the proportion returned with a new offence is lowest for the ITT-WOSAP group.

Table 8: Readmission Status by Study Group

	ITT-WOSAP (n=318)	Other WOSAP (n=134)	Pre-WOSAP (n=108)
Readmission	38.7	42.5	47.2
Type of Readmission	(n=123)	(n=57)	(n=51)
Without Offence	81.3	73.7	74.5
With Offence	14.6	26.3	21.6
Other	4.1	0.0	3.9

Note: Other includes termination of conditional release without offence and revocation with an outstanding charge.
+ p ≤ 0.10, *p ≤ .05, **p ≤ .01, ***p ≤ .001.

As displayed in Table 9, there was a statistically significant difference in return to custody by CRPM status [$\chi^2(1, N=361) = 22.50, p \leq .0001$]. Only 5.4% of those women who completed CRPM returned to custody in comparison to 38% of women with no CRPM.

Table 9: Return to Custody by CRPM Status for ITT-WOSAP and Other WOSAP Combined

ITT-WOSAP & Other WOSAP	CRPM Status^{***}	
	CRPM Completers (n=56)	No CRPM (n=305)
% Return to Custody	5.4	37.7
% Not Returned to Custody	94.6	62.3

+ p ≤ 0.10, *p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 10 shows return to custody patterns by employment status. Women who were returned to custody were more likely to be unemployed while on release (over 75%) than women who were employed (less than 25%). Among women who returned to custody, fewer ITT-WOSAP women were employed during release (11.4%) in comparison to Other WOSAP (24.6%) and Pre-WOSAP (19.6%). Though not significant, the trend suggests that exposure to ITT-WOSAP in the institution combined with employment in the community may contribute to an offender's successful transition. Approximately 20% of all women offenders violated an "abstinence condition" of parole. Among those with an abstinence violation, there were no significant differences in return to custody across the study groups (Table 10).

Table 10: Employment Status and Violations of Abstinence by Study Group

	ITT-WOSAP	Other WOSAP	Pre-WOSAP
Recidivists	(n=123)	(n=57)	(n=51)
Unemployed	88.6	75.4	80.4
Employed	11.4	24.6	19.6
Violation of Abstinence Condition	(n=63)	(n=25)	(n=20)
Recidivists	58.7	64.0	60.0
Non-recidivists	41.3	36.0	40.0

Note. The employment variable is a measure of whether an offender was employed either full-time or part-time at any point during her release.

+ $p \leq 0.10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Comparison of Treatment Groups

Risk of Return to Custody by Study Group

Cox's proportional hazard modeling was used to investigate the risk of return to custody for ITT-WOSAP, Other WOSAP and Pre-WOSAP. Since the data contain tied event times, the partial likelihood equation was constructed using the discrete method. The discrete method assumes that events accurately occurred at exactly the same time which, in this case, refers to women who were returned to custody on the same day (Allison, 1995). The analysis included adjustments for several covariates that were found to be significantly associated with return to custody (Table 11).

Age had a significant association with return to custody; for each one-year increase in age, the risk of return to custody decreased by 3.4%. There was a 33% increased risk of return to custody associated with higher levels of criminal history risk. The risk of returning to custody was 1.4 times greater for those who participated in MMTP in comparison to those who did not which is consistent with the knowledge that those accessing MMTP have more serious drug problems. Offenders who violated a condition of abstinence were 1.6 times more likely to return to custody. Lastly, women offenders who were not employed during their release were more than 2 times at risk of returning to custody as those who were employed. Aboriginal status and non-discretionary release were not significantly related to return to custody. The survival curves for

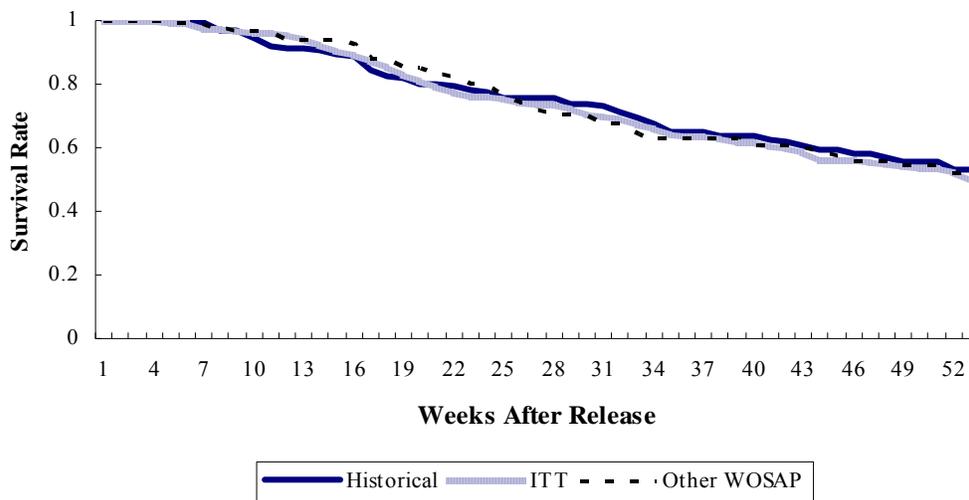
this model are shown in Figure 2. As evidenced in this graph there were no significant differences in the survival rates across the study groups.

Table 11: Cox Proportional Regression of Time to Return to Custody

Variable	Coefficient	SE	Hazard Ratio	95% CI
Age	-0.03 ^{***}	0.01	0.97	0.95 – 0.98
Aboriginal	0.12	0.15	1.12	0.83 – 1.52
Non-discretionary Release	0.26	0.18	1.29	0.92 – 1.83
Criminal History Risk	0.28 ^{**}	0.10	1.33	1.09 – 1.62
MMTP Participation	0.36 ⁺	0.19	1.44	0.99 – 2.09
Abstinence Violation	0.45 ^{**}	0.15	1.56	1.16 – 2.10
Unemployed During Release	0.82 ^{***}	0.18	2.27	1.59 – 3.23
Other WOSAP	0.09	0.17	1.09	0.79 – 1.52
Pre-WOSAP	0.05	0.18	1.05	0.74 – 1.48

+ p ≤ 0.10, *p ≤ .05, **p ≤ .01, ***p ≤ .001.

Figure 2: Cox Proportional Regression of Time to Return to Custody for Women in ITT-WOSAP and Other WOSAP



Risk of Return to Custody by CRPM Participation

The literature has demonstrated the importance of community-based aftercare treatment for women released from custody (Butzin et al., 2002; Hiller, Knight, & Simpson, 1999a; Inciardi et al., 1997; Inciardi et al., 2002; Knight et al., 1999; Wexler et al., 1999a; Wexler et al., 1999b). The analyses in this section of the report investigated the impact of aftercare – Community Relapse Prevention and Maintenance (CRPM) – upon return to custody for both ITT-WOSAP and Other WOSAP. Both of these study groups had access to this community-based aftercare treatment program while on release from prison and up until their warrant expiry.

Table 12 shows the estimates and hazard ratios from a survival analysis exploring return to custody, this time including a measure of CRPM aftercare treatment (n=361). Age, non-discretionary release, unemployment, and criminal history risk are statistically significant predictors of return to custody. For each one-year increase in age at release, the risk of re-arrest decreased by 4.2%. Those who were on non-discretionary release were 1.5 times more likely to return to custody than those on discretionary release. Women offenders who were assessed as high criminal history risk were 1.6 times more likely to recidivate. Women who violated a condition of abstinence were 1.9 times more likely to return to custody. Unemployed offenders were over 2 times more likely to recidivate than those who were employed while on release. Aftercare was statistically significant and strongly associated with return to custody after controlling for other risk factors. Relative to women offenders who completed aftercare in the community (completers) those who had no aftercare treatment were over 10 times more likely to return to custody.

Table 12: Cox Proportional Regression of Time to Return to Custody by CRPM Status for Women in ITT-WOSAP and Other WOSAP.

	Coefficient	SE	Hazard Ratio	95% CI
Age	-0.04 ^{***}	0.01	0.96	0.94 - 0.98
Aboriginal	0.26	0.20	1.40	0.88 - 1.93
Non-discretionary Release	0.42 ⁺	0.24	1.52	0.95 - 2.44
Criminal History Risk	0.46 ^{**}	0.15	1.58	1.19 - 2.10
MMTP Participation	0.09	0.27	1.10	0.65 - 1.86
Abstinence Violation	0.62 ^{**}	0.21	1.95	1.23 - 2.80
Unemployed during release	0.77 ^{**}	0.26	2.16	1.31 - 3.56
No aftercare treatment	2.35 ^{***}	0.59	10.48	3.30 - 33.27

+ p ≤ 0.10, *p ≤ .05, **p ≤ .01, ***p < .001.

To illustrate return to custody patterns by aftercare (CRPM status) survival functions for ITT-WOSAP and Other WOSAP are presented separately. Figure 3 shows the survival curves for women in ITT-WOSAP by aftercare treatment groups. Women who completed aftercare were less likely to recidivate than women without any aftercare treatment over the 52-week period.

Figure 4 shows the survival curves for Other WOSAP women by their participation in CRPM. The results strongly mirror those of ITT-WOSAP. Women who completed aftercare were more likely to remain in the community than women without any aftercare treatment. In fact, none of the Other WOSAP women who completed aftercare were returned to custody within the 52-week study period. The results indicate that both ITT-WOSAP and Other WOSAP require intense interventions with respect to continuity of care during the transition from the institution to the community. Motivation to participate in CRPM and completing the program are paramount to decreasing the likelihood of being returned to custody.

Figure 3: Survival Curves to First Return to Custody among ITT-WOSAP Women by Aftercare Status

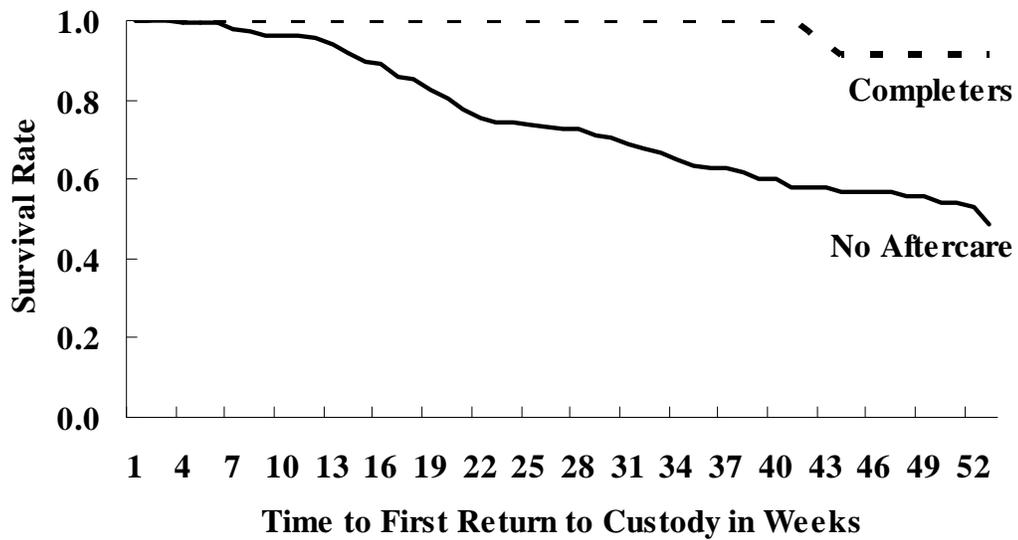
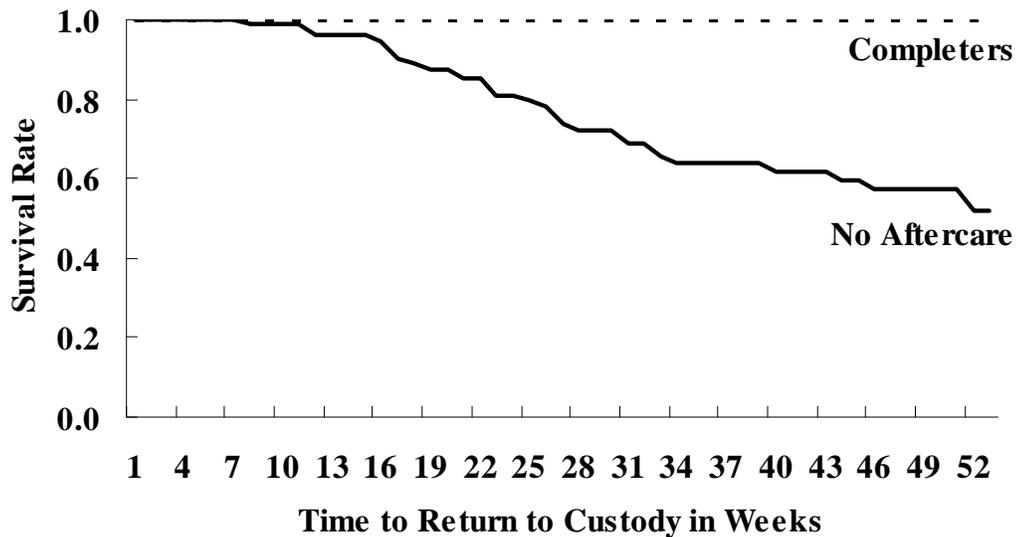


Figure 4: Survival Curves to First Return to Custody among Other WOSAP Women by Aftercare Status



In separate analyses (data not shown) it was noted that an offender’s substance abuse severity was related to return to custody. Substance abuse severity is based on the OMS field, “Recommended Program Intensity Level” which is based directly on the results of the

assessment battery (ADS, DAST and PRD). Offenders who score ‘substantial’ or ‘severe’ on either the ADS or DAST or ‘a lot’ on the PRD are recommended for high intensity programming. An examination of return to custody by severity level revealed that 36.3% of all high-severity women offenders were returned to custody during the 52-week follow up period compared to 22.4% of none/intermediate-severity women offenders [$\chi^2(1, N=341) = 5.65, p \leq .05$]. This was not originally considered as part of the primary analyses, but these differences are noteworthy. Using this subset of women offenders – 20 are missing information on substance abuse severity (n=341) – substance abuse severity was included in a survival model that considered the impact of CRPM on return to custody (from Table 12). Findings showed that women offenders (combining ITT-WOSAP and Other WOSAP women) with high substance abuse severity were twice as likely to return to custody as low/intermediate severity offenders. While severity is an important risk factor, it did not change the impact of aftercare on return to custody when included in the regression model. Women without aftercare remained 10 times more likely to return to custody relative to women who completed aftercare.

ABORIGINAL STUDY PARTICIPANTS

This chapter provides descriptive statistics for the Aboriginal women within each study group. The tables mirror those presented for the entire sample (preceding results). The survival analysis has not been repeated for the Aboriginal subset since the sample size is not large enough to produce meaningful results. Aboriginal people make up 3.8% of the Canadian population, but represent 19.6% of the overall prison population. (Correctional Service Canada, 2008a; Statistics Canada, 2006). The over-representation of Aboriginal women is even more disproportionate with Aboriginal women making up 26% of the women offender population (Correctional Service Canada, 2008a). This population of women is particularly vulnerable and may require interventions which are culturally sensitive in addressing their criminality.

Table 13: Demographic Characteristics for Aboriginal Women by Study Group

Aboriginal Subgroups	ITT-WOSAP (n=91)	Other WOSAP (n=57)	Pre-WOSAP (n=15)
Age			
25 years and less	23.1	21.1	26.7
26 - 35 years	41.8	50.9	40.0
36 – 45 years	29.7	22.8	26.7
46 years and above	5.5	5.3	6.7
Age (M, SD)	32.1 (8.29)	31.5 (7.04)	31.2 (8.19)
High School Diploma	15.4	5.3	13.3
Married	29.7	36.8	46.7

Table 13 provides a demographic profile of the Aboriginal women by study group. The average age for this group was approximately 31 years. The majority did not have a high school diploma and one-quarter to 50% of Aboriginal women were married.

Table 14 shows that the majority of Aboriginal women were serving a sentence of up to four years (90%). In ITT-WOSAP 74% committed a violent offence versus 60% in Other-WOSAP and 80% in Pre-WOSAP. Less than one fifth of Aboriginal women in ITT-WOSAP and Other-WOSAP participated in the Methadone Maintenance Treatment Program (MMTP) and 7% of women in Pre-WOSAP participated in the program. More Aboriginal women in the Other

WOSAP (61.4%) participated in other high intensity programming relative to Aboriginal women in ITT-WOSAP (27.5%) and Pre-WOSAP (13.3%).

Table 14: Sentence, Offence, & Program Characteristics for Aboriginal Women by Study Group

Aboriginal Subgroups	ITT-WOSAP (n=91)	Other WOSAP (n=57)	Pre-WOSAP (n=15)
Sentence Length ^a			
Up to four years	89.0	89.5	93.3
Four years or more	11.0	10.5	6.7
Mean Proportion Sentence Served (SD)	41.3 (16.39)	39.5 (17.33)	49.8 (17.29)
Drug Offence	23.1	36.8	20.0
Violent Offence	73.6	59.7	86.7
Other High Intensity Programming	27.5	61.4	13.3
MMTP Participation	15.4	14.0	6.7

^a Lifers (those serving a life sentence) are not included in the analysis

Approximately 30 to 40% of Aboriginal women were rated high on the criminal history risk factors and about half of the women were rated high on criminogenic need (Table 15).

Table 15: Criminal History Risk & Criminogenic Need for Aboriginal Women by Study Group

Aboriginal Subgroups	ITT-WOSAP (n=91)	Other WOSAP (n=57)	Pre-WOSAP (n=15)
Criminal History Risk			
High	37.4	38.6	26.7
Moderate	47.3	40.4	46.7
Low	15.4	21.1	26.7
Criminogenic Need			
High	55.0	54.4	53.3
Moderate	41.8	42.1	46.7
Low	3.3	3.5	0.0

Table 16 shows the dynamic need ratings for the Aboriginal women. A high percentage of Aboriginal women rated as having needs in the substance abuse, employment/education,

marital/family domains, associate/social interaction, and personal/emotional. The women in both ITT-WOSAP and Other WOSAP had needs in employment/education (84.6% and 94.7%, respectively) and associate/social interaction (80.2% and 89.5%, respectively) domains than women in Pre-WOSAP (73.3% and 60.0%).

Table 16: Dynamic Factor Need Ratings for Aboriginal Women by Study Group

Dynamic Factor Domains	ITT-WOSAP (n=91)	Other WOSAP (n=57)	Pre-WOSAP (n=15)
Substance Abuse	100.0	98.3	100.0
Employment/education	84.6	94.7	73.3
Marital/family	67.0	79.0	66.7
Associate/social interaction	80.2	89.5	60.0
Community functioning	40.7	24.6	40.0
Personal/emotional	87.9	86.0	93.3
Attitude	26.4	19.3	13.3

Although based on small numbers it seems that more Aboriginal women in ITT-WOSAP and Other WOSAP had a drug problem rather than a problem with alcohol (Table 17). However, this does not seem to be the case for women in Pre-WOSAP. Over 90% had a intermediate to severe substance use problem.

Table 17: Severity of Substance Abuse Among Aboriginal Women by Study Group

Substance Abuse Severity (Intermediate to Severe)	ITT-WOSAP (n=86)	Other WOSAP (n=57)	Pre-WOSAP (n=10)
ADS	39.5	56.1	70.0
DAST	80.2	86.0	60.0
ADS or DAST	90.7	96.5	90.0
PRD (High)	41.9	43.9	40.0

Note: 10 observations are missing data for these variables as a result of administrative issues.

The majority of Aboriginal women were granted discretionary release (Table 18). Approximately 30 to 40% accessed post-release programming (Table 19). The majority of these women did not participate in Community RPM (70%). About 40 to 50% were returned to custody during the 52-week study period. Most readmissions were without offence (70% in ITT-

WOSAP; 65% in Other-WOSAP; and 88% in Pre-WOSAP) (Table 20). There were no significant differences across the study groups. These findings are similar to those reported for the full sample.

Table 18: Release Type for Aboriginal Women by Study Group

	ITT-WOSAP (n=91)	Other-WOSAP (n=57)	Pre-WOSAP (n=15)
Type of Release			
Discretionary	78.0	80.7	60.0
Non-discretionary	22.0	19.3	40.0

Table 19: Substance Abuse Community Programming for Aboriginal Women by Study Group

	ITT-WOSAP (n=91)	Other-WOSAP (n=57)	Pre-WOSAP (n=15)
Post-Release Programming	35.2	38.6	26.7
Community RPM Programming	27.5	33.3	na
CRPM Status			
CRPM Completers	8.8	19.3	na
Partial CRPM	17.6	14.0	na
No CRPM	73.6	66.7	na
CRPM Participation	(n=24)	(n=19)	na
CRPM Completion	33.3	57.9	na
Partial CRPM	66.7	42.1	na

Note: The primary reason for partial completion was return to custody.

Table 20: Readmission Status for Aboriginal Women by Study Group

	ITT-WOSAP (n=91)	Other-WOSAP (n=57)	Pre-WOSAP (n=15)
Return to Custody	47.3	40.4	53.3
Type of Readmission	(n=43)	(n=23)	(n=8)
Without Offence	79.1	65.2	87.5
With Offence	14.0	34.8	12.5
Other	7.0	0.0	0.0

Note: Other includes termination of conditional release without offence and revocation with an outstanding charge.

Table 21 displays return to custody by CRPM status. Of those women who completed CRPM, only 5.3% returned to custody. However, approximately 50% of those who did not receive CRPM returned to custody.

Table 21: Return to Custody by CRPM Status for Aboriginal Subsets of ITT-WOSAP and Other WOSAP Combined

ITT-WOSAP & Other WOSAP	CRPM Status	
	CRPM Completers (n=19)	No CRPM (n=105)
% Return to Custody	5.3	45.7
% Not Returned to Custody	94.7	54.3

Although based on small numbers, Table 22 shows that among those Aboriginal women who were unemployed during their release, a large percentage returned to custody (91% in ITT-WOSAP; 74% in Other-WOSAP; and 100% in Pre-WOSAP). At least 50% of Aboriginal women who violated a condition of abstinence returned to custody.

Table 22: Employment Status and Violations of Abstinence for Aboriginal Women by Study Group

	ITT-WOSAP	Other WOSAP	Pre-WOSAP
Recidivists	(n=43)	(n=23)	(n=8)
Unemployed	90.7	73.9	100.0
Employed	9.3	26.1	0.0
Violation of Abstinence Condition	(n=19)	(n=6)	(n=4)
Recidivists	68.4	66.7	50.0
Non-recidivists	31.6	33.3	50.0

Note. The employment variable simply measures whether an offender was employed either full-time or part-time at any point during her release.

DISCUSSION

This study provides evidence of the positive impact of institutional and community substance abuse programming on community reintegration of women offenders under CSC supervision. WOSAP treatment programs were associated with a reduced rate of return to custody within the first year after release. The lowest returns observed were among women exposed to ITT, the next lowest among women exposed to Other-WOSAP and the highest among women in the Pre-WOSAP group. Though this particular result did not reach statistical significance (which could be attributable to the absence of an untreated comparison group), important trends are evident. While intensive WOSAP programming (ITT) was most beneficial for women with serious substance abuse problems, the less intensive WOSAP programming (E&E/RPM) was also associated with a higher likelihood that a woman would remain in the community. The less-intensive WOSAP programming demonstrated better outcomes than the previous women's substance abuse program.

The second set of findings demonstrated the critical need for aftercare programming (CRPM). Specifically, among women who participated in some aspect of WOSAP in the institution, those who completed the aftercare treatment program (CRPM) were significantly less likely to be returned to prison within 52 weeks after release relative to those with no aftercare, even after considering other important risk factors. Only 10% of the women who completed aftercare (CRPM) were re-incarcerated compared with 40% of the women who did not have aftercare treatment. Compared with completers, the no treatment group was 10 times more likely to return to prison.

The study results demonstrate the importance of continuity of substance abuse programming between the institution and the community and points to the importance of institution-based ITT as a foundation for further programming. Previous research demonstrates statistically significant increases in knowledge, attitudes, and problem-solving skills as a result of participation in this program (Grant, Furlong, Hume, White Tara, & Doherty, 2008).

Furthermore, the study demonstrated that community-based relapse prevention and maintenance had a strong positive effect, as CRPM was associated with reduced likelihood of return to custody. This is supportive of previous research illustrating that the combined positive impact of in-prison and community-based aftercare treatment can dramatically reduce return to

custody (Hall et al., 2004; Inciardi et al., 1997; Knight, Simpson, Chatam, & Camacho, 1997; Prendergast, Hall, & Wexler, 2003; Wexler et al., 1999a). Increased efforts to improve accessibility by identifying and removing barriers to participation are essential. Such efforts must focus on factors which are both intrinsic (e.g. motivation) and extrinsic (e.g. access to childcare) to potential participants.

It would be valuable to expand the present findings in another phase of the research by examining aftercare treatment status as an outcome. This approach may lead to greater understanding of the barriers to successful program completion. For instance, level of motivation may be an important factor in the differing success rates among aftercare completers and non-treated women. It would also be worthwhile to investigate the impact of the time-lapse between conditional release and entry into the aftercare program. As well, length of exposure to treatment for those who drop out, are expelled or are suspended from the program warrants further inquiry.

In addition to the findings on program participation, several other covariates were significantly predictive of return to custody. As age increases, the likelihood of returning to custody decreases. As well, those who were on discretionary release were less likely to return to custody than those on non-discretionary release. As with previous research, the present findings showed that women who have a lower level of criminal history risk and who were employed during their release are less likely to recidivate (Hall et al., 2004; Messina, Burdon, & Prendergast, 2006). The overwhelming majority of women who returned to custody had not been employed during their release and the majority did not complete high school. As such, the link between poverty and recidivism deserves further exploration.

More women exposed to WOSAP in prison participated in aftercare than was the case for women incarcerated prior to the inception of WOSAP, but still less than half of the WOSAP sample participated in some type of aftercare. Only about one-third of the women accessed WOSAP-related community aftercare (CRPM) and, of these women, less than one-third actually completed the program. These findings suggest that efforts to increase participation are integral to ensuring the successful reintegration of women offenders. Other studies have also recommended more intensive and comprehensive aftercare services for drug-using incarcerated women (Freudenberg, Wilets, Greene, & Richie, 1998; Hammett, Gaiter, & Crawford, 1998).

Covington and Bloom (Covington, 2002; Covington & Bloom, 2003) note that, for women offenders, participation in treatment and recovery from substance abuse is complicated by lack of

attention to practical needs and issues like trauma, child care, housing, transportation, inadequate social support and lack of financial resources. Recognition of these issues and practical solutions that address the multiple needs of female offenders would reduce a short-fall in services and increase treatment participation and retention.

The vast majority of the women offenders included in the study had intermediate to severe substance abuse problems based on assessments using standardized instruments (Seltzer, 1971; Skinner, 1982; Skinner et al., 1984a). Among ITT-WOSAP women for which detailed information is available, the primary drugs cited as being problematic were crack, cocaine and opiates. That most women have moderate to high treatment needs indicates that WOSAP programming is indeed targeting those who need it most. An examination of return to custody by substance abuse severity level revealed that high-severity women offenders were almost two times more likely to return to custody than intermediate to low severity offenders. Nonetheless, this risk factor does not change the impact of aftercare on patterns of return to custody.

Mental illness and its co-occurrence with substance abuse is an important consideration for treatment among women offenders because this group is at especially high risk of re-offending (Messina, Burdon, Hagopian, & Prendergast, 2004). Among ITT-WOSAP participants, depression and anxiety were reported in the majority of these women and drugs were often reported to be used to self-medicate. It's plausible that the greater risk of recidivism among women with no aftercare may be related to comorbid mental health issues. Findings from earlier studies suggest that women offenders who suffered from both drug and mental health problems were more likely to be returned to custody and significantly sooner than those without comorbidities (Messina et al., 2004). These women were also significantly less likely to complete aftercare (Grella & Greenwell, 2007; Messina et al., 2004; Messina et al., 2006).

The case review of women offenders with partial aftercare treatment brought essential information to light. It revealed substantial confounding of this treatment status with the outcome. The majority of these women left aftercare treatment early because they had violated their conditions of release and thus had their conditional release suspended. Eventually, these women were returned to custody, but the length of time between suspension and reincarceration varied substantially. For instance, among those women who had gone unlawfully at large, the time between the issuance of the warrant and revocation ranged from 1 month to 8 months. Some of these women would have potentially engaged in criminal activity in the community for a

substantial amount of time. It is particularly important to find approaches that will engage these women so that they remain in aftercare treatment for longer periods of time.

It is also very important to learn more about these women and what particular problems they may encounter that result in suspension. General research on substance abusing clients suggests that dropping out of treatment (being expelled or quitting) is not confined to offender populations. According to a review by Stark (1992), attrition rates for outpatient treatment among medical and psychiatric clients with substance abuse problems are quite high. In his review which was based a series of studies with various outcomes Stark found that those who complete treatment, compared to drop-outs are more likely to: remain drug free, have lower unemployment and arrest rates, cease intravenous drug use, and have lower relapse rates.

Since Aboriginal women make up such a large portion of the prison population relative to their representation in the Canadian population, this study presented separate descriptive analyses of this particularly vulnerable group of women. Major findings on return to custody among Aboriginal women are similar to those from the larger sample. Forty percent of Aboriginal women returned to prison within the 52-week period after release. Forty percent accessed some type of post-release programming with only 30% participating in CRPM. Secondary findings showed that employment while on release from prison had an impact upon the success of Aboriginal women in the community. Though the descriptive analysis was based upon small numbers, the results do point to the need for further research on effective program models for this group. Since many Aboriginal women were diverted into high intensity programs other than ITT-WOSAP it would of benefit to examine the specific impact of these other program models in reducing rates of return to custody. Aboriginal women (ITT-WOSAP and Other WOSAP) had significantly higher needs in employment/education and associate/social interaction domains than those in Pre-WOSAP. Perhaps more attention to these particular problems among Aboriginal women prior to their release is warranted. Overall, the results for Aboriginal women are consistent with those for non-Aboriginal women. Rates of return to custody are similar suggesting that WOSAP may be meeting the needs of Aboriginal women.

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