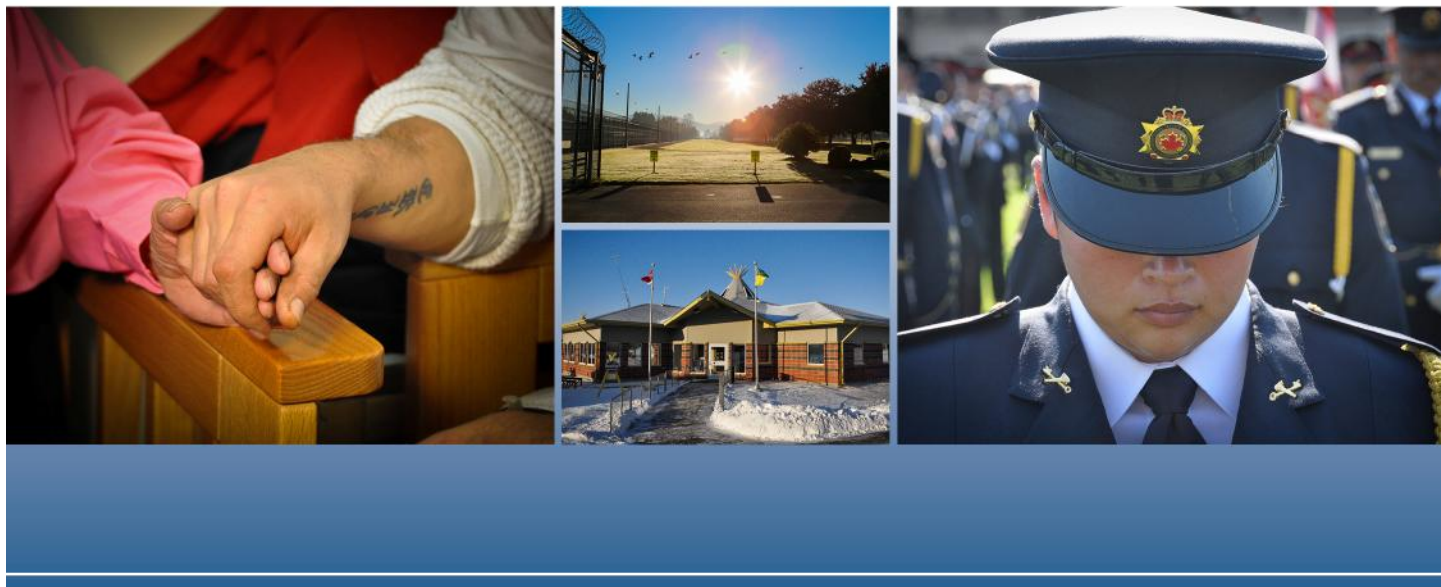


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RESEARCH REPORT

Examining Change in Criminogenic Need Level Associated with Correctional Program Participation among Federally Sentenced Women

2018 N° R-422

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**Examining Change in Criminogenic Need Levels Associated with Correctional Program
Participation among Federally Sentenced Women**

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January, 2019

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Executive Summary

Key words: *women offenders, correctional programming, change in criminogenic needs, evaluating program efficacy, gender-responsive approaches*

In 2010 the Correctional Service of Canada (CSC) commenced implementation of holistic, gender- and culture-informed models of correctional programming for women offenders. These programs are rooted in gender-responsive treatment approaches, and were designed to facilitate reduction in criminogenic need, and, ultimately, to promote the reintegration of women offenders. Recent research has provided preliminary evidence for the efficacy of the CSC's women offender programming, linking program participation to better post-treatment outcomes (skills and attitudes; Derkzen et al., 2017; Harris et al., 2015) and to lower recidivism rates among full program completers relative to non- and partial-completers (Derkzen et al., 2017).

The current study aimed to build on these findings by exploring which components of the CSC's programs (i.e., WOCP, AWOCPP, and WSOP) were associated with women offenders' treatment response. Specifically, the study examined the efficacy of these programs by assessing change in women's criminogenic need areas as a function of program participation. Included in this research were 2,030 women offenders (32.6% Indigenous) who were admitted to federal custody between April 2010 and March 2018 and completed at least one core correctional program during this period.

Overall, results were consistent with findings of previous CSC research demonstrating that participation in gender- and culture-informed programs generally reduces women's level of criminogenic need. The majority of program completers experienced reductions in need as measured by the Generic Program Performance Measure (GPPM) and the Dynamic Factor Identification and Analysis – Revised (DFIA-R) domain ratings. Additionally, program facilitators were able to observe and record women's treatment gains in a variety of criminogenic need areas in the post program reports. Depending on the area of need, the manner in which treatment gains were described by the program facilitators varied. For example, treatment gains in the area of substance misuse were often described as an increase in women's understanding of the role of trauma/victimization on their substance misuse and the development of healthier coping mechanisms to reduce the likelihood of future problematic substance use. Treatment gains in the area of personal/emotional orientation focused on improvements in emotion regulation, problem-solving, and goal-setting. While treatment gains were not always identified in all areas of criminogenic need (e.g., community functioning), the majority of individualized program targets identified by the program facilitator for each woman prior to program participation were met by program completion.

While further research is needed to more clearly link change in criminogenic need to community outcomes, these results provide insight into how correctional programs support the rehabilitation of women offenders by clarifying which domains change in response to well designed interventions.

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Introduction

Research concerning the efficacy of correctional programs has focused primarily on their impact on community outcomes (i.e., reductions in recidivism or returns to custody). Numerous studies (e.g., Andrews, Bonta, & Hoge, 1990; Correctional Service of Canada (CSC), 2009; Usher & Stewart, 2014; Wilson, Bouffard, & MacKenzie, 2005) have provided evidence that participation in well-designed correctional programs is associated with a reduction in likelihood of recidivism. Several recent studies (Derkzen, Harris & Wardrop, 2017; Harris, Thompson, & Derkzen, 2015; Wanamaker, Derkzen, De Moor, & Wardrop, 2018) have found encouraging results following examinations of the impact of women-specific correctional programming in CSC. While reducing recidivism and returns to custody remain the ultimate goals, some scholars have noted the focus on community failures may impede efforts to reintegrate offenders back into the community (Motiuk & Blanchette, 2000). More diversified approaches to evaluating program efficacy are needed in order to identify the mechanisms by which correctional programs might effect offender change.

Within the criminal justice community, it is widely accepted that correctional programs grounded in the principles of risk, need, and responsivity (RNR) produce meaningful reductions in recidivism (Andrews & Bonta, 2006; Andrews et al., 1990; Dowden & Andrews, 1999) and are effective in improving community outcomes and producing treatment gains (Andrews & Bonta, 2006; Gendreau, Goggin, French, & Smith, 2006; Smith, Gendreau, & Swartz, 2009). In accordance with the work of Andrews and colleagues (i.e., Andrews et al., 1990; Andrews & Bonta, 2006), correctional programs adhere to the RNR principles if they: (1) provide more intense services to offenders who are assessed at higher risk to reoffend (Risk Principle); (2) prioritize the treatment of criminogenic needs that have an established empirical relationship with criminal behaviour (Need Principle); and, (3) utilize a cognitive-behavioural treatment approach which can be tailored to offenders' unique characteristics and learning styles (Responsivity Principle).

Historically, the majority of literature describing the efficacy of correctional programming and the application of the RNR principles has been focused on men offenders. However, researchers in the field of corrections are increasingly acknowledging the need for more targeted research aimed at examining the needs and treatment response of women

offenders. Dowden and Andrews were among the first researchers to consider that the characteristics and needs of women offenders might differ from those of their male counterparts, and findings from their 1999 meta-analytic review provided a basis for gender-informed correctional research thereafter. Specific notable findings were that: (1) the RNR principles are largely applicable to women offenders, and (2) that family-related variables (e.g., family process, family and peers) were especially salient for women and emerged as the strongest predictors of treatment success (Dowden & Andrews, 1999).

Since this seminal study, other researchers have examined the efficacy of correctional programming with women offenders. Results from two meta-analytic studies (Gobeil, Blanchette, & Stewart, 2016; Tripoldi, Bledsoe, Kim, & Bender, 2011) and one systematic review (Stewart & Gobeil, 2015) suggest that conventional correctional programming is generally effective for women offenders. It is, however, important to note that Gobeil, Blanchette, and Stewart (2016) found evidence that gender-informed or gender-responsive treatment approaches yielded better outcomes than gender-neutral approaches when they limited their examination to higher-quality studies. This finding suggests that there is an argument for continuing to develop and implement gender-informed treatment approaches.

The debate regarding the applicability of the RNR principles to the women offender population continues. Briefly, proponents of the gender-neutral perspectives point to research findings indicating that many of risk factors for antisocial behaviour are similar across male and female offenders (i.e., the Central Eight risk factors; Andrews & Bonta, 2010), whereas feminist scholars and supporters of the gender-responsive perspective (e.g., Bloom, Owen, & Covington, 2006) assert that there are clear gender differences in the risk factors for crime and patterns of offending behaviour. Advocates of both Relational Cultural Theory (Miller, 1986) and Feminist Pathway Theory (Daly, 1992, Reisig, Holtfreter, & Morash, 2006) maintain that there are meaningful differences between men and women with respect to predictors and trajectories of criminal behaviour and the salience of individual criminogenic needs; thus, intervention priorities and treatment targets for women offenders should differ from those of their male counterparts.

The criminogenic needs that are most salient for women offenders appear to be those related to factors within the education and employment, substance abuse, and personal/emotional (e.g., self-regulation, impulsivity, assertiveness) domains, as well as to specific needs associated

with poor self-efficacy and histories of abuse and victimization (Blanchette & Brown, 2006; Bloom et al., 2006; Greiner, Law, & Brown, 2015; Motiuk & Blanchette, 2000; Stewart, Wardrop, Wilton, Thompson, Derkzen, & Motiuk, 2017). Moreover, these factors have been empirically linked to community outcomes following release. Findings from recent research have demonstrated that needs in the employment and the associates domains, both highly dynamic domains, are among the strongest predictors of reoffending in women (Greiner et al., 2015). Research conducted by Van Voorhis, Wright, Salisbury, and Bauman (2010) has also highlighted the importance of considering other gender-based realities, such as the elevated rates of physical and sexual abuse, mental health problems, and the stress and challenges associated with parenting more commonly experienced by women. Based on the above findings, it would appear that while the RNR principles and the central eight risk factors are relevant to correctional interventions with women offenders, certain risk factors may be more or less salient for women offenders.

CSC's mandate

CSC is mandated by the Corrections and Conditional Release Act (CCRA) to assist in the rehabilitation of offenders and their reintegration into the community as law-abiding citizens through the provision of appropriate and effective correctional programming. To this end, CSC is required to provide programs that respect gender, ethnicity, cultural, and linguistic differences, and that are designed to meet the specific needs of different offender groups.

Gender-informed correctional interventions at CSC

Consistent with the findings of the research described above, the correctional programming for women offenders in Canada offered by CSC adheres to the principles of risk, need, and responsivity, within a gender-informed framework. In accordance with the report issued by the Task Force on Federally Sentenced Women (1990), CSC's correctional programs for women offenders are governed by the following five core principles: (1) empowerment; (2) meaningful and responsible choices; (3) respect and dignity; (4) supportive environment; and (5) shared responsibility, and operate within the overarching framework provided by the RNR model.

To adhere to the requirements of the Task Force on Federally Sentenced Women report, correctional interventions for women offenders need to be holistic (i.e., able to address all aspects of a woman's life), women-centered, appropriately tailored to each individual woman's

needs, and delivered in a supportive environment. Gender-informed challenges include the socio-political and economic environments of women offenders (e.g., poverty, race, inequality), their histories of substance misuse, physical, emotional, and/or sexual abuse, and their overall emotional and mental health. In gender-informed programs all these factors need to be taken into consideration (Covington & Bloom, 2000). Thus, previous trauma and victimization, substance misuse issues, mental health problems, self-harm, low self-esteem, and unhealthy relationships represent common treatment targets in gender-responsive programming. Notably, not all of these issues (e.g., self-esteem needs, history of victimization) are considered criminogenic needs in that they are not directly empirically linked to likelihood of reoffending. However, their inclusion in programming is consistent with the literature on gender-responsive interventions and is considered integral to the successful reintegration of women offenders (Fortin, 2004).

Indigenous-specific correctional interventions for women offenders

There is increasing interest in the unique needs of Indigenous women offenders and how they can be effectively addressed through interventions (Beaudette, Cheverie, & Gobeil, 2014; Clarke, 2014; Derksen & Allenby, 2012). Indigenous women offenders are over-represented in the Canadian federal correctional system; currently constituting over one-third of the federally sentenced women prison population as compared to roughly 4% of the Canadian adult population (Statistics Canada, 2015). This represents a 42.9% increase over the last 10 years (Public Safety, 2017). Moreover, research indicates that when compared to non-Indigenous women, Indigenous women offenders have higher criminogenic needs assessed at intake to federal custody (Stewart et al., 2017). Indigenous women offenders also contend with additional challenges such as racism, economic oppression, and a history of forced assimilation. Important cultural differences related to family, spirituality, and traditional practices are central to Indigenous identity (Beaudette et al., 2014; Statistics Canada, 2006) and need to be considered when designing correctional interventions and developing correctional plans.

CSC is legally mandated to provide programs that meet the needs of women and Indigenous offenders (CCRA, c.20, 1992) and Indigenous offenders have themselves advocated for more Indigenous-specific programming and cultural training for staff members (Moore, Low, & Berland, 2002; Robeson, Barrett, Allenby, & Taylor, 2010). CSC's strategic plan (CSC, 2016), therefore, commits to further developing and implementing the continuum of care and services for Indigenous women offenders. Encouragingly, although few studies examining the

efficacy of Indigenous-specific correctional programs for women have been conducted to date, the results of the sparse research that has been conducted are largely positive, with these studies linking Indigenous-specific correctional interventions to improved post-treatment outcomes (e.g., increases in self-esteem, self-efficacy, and decreases in anger; Bell & Flight, 2006; Derkzen & Allenby, 2012; Derkzen et al., 2017; Thompson, 2010). A study by Derkzen and colleagues (2017) found that participation in culturally-specific programming was associated with improved post-release outcomes among Indigenous women offenders. Nevertheless, further research examining the impact of Indigenous-specific correctional programs for women is warranted.

The Continuum and Circle of Care

In 2010, CSC began implementation of the Continuum of Care (the Women Offender Correctional Program (WOCP)) and the Circle of Care (the Aboriginal Women Offender Correctional Program (AWOCP) - the Aboriginal-specific stream), a comprehensive model of women offender correctional programming. This represented a distinct shift away from previous programming models, where targeted interventions were developed to address specific offence histories (e.g., Women's Violence Prevention Program, Women Offender Substance Abuse Program). WOCP and AWOCP are rooted in gender-responsive theory, and are holistic, women-centered models of programming that also take individual offence histories into account. These programs were designed to enhance accessibility and participation by responding to a wide range of complex needs (e.g., substance misuse, violence, problematic relationships, and trauma), and they were created as a continuum in order to provide a progressive series of programming components beginning at time of admission (the Engagement Program), continuing through incarceration (the Moderate Intensity, High Intensity, and Institutional Self-Management Programs), and extending into community release (the Community Self-Management Program). The rationale was that linking the programs together would allow for consistency and facilitate in-depth skills development. Furthermore, AWOCP is culture-informed based on the approach of healing through cultural identity. All program sessions are elder-assisted and women learn about Indigenous culture and history, can participate in traditional ceremonies and rituals, and have the opportunity to develop Healing Plans.

Prior to program participation, each woman meets with a program facilitator to discuss their motivation for change, and to review the correctional programming continuum. Each woman's programming pathway and specific programming requirements are determined by her

level of static risk, as measured by the Criminal Risk Index (CRI; Motiuk & Vuong, 2018; Commissioner's Directive (CD) 726-2).

The continuum and circle of care is comprised of a series of programs aimed at engagement, treatment, and maintenance. The Women's Engagement Program (WEP/AWEP) is a low intensity, 12-session introductory program delivered as a primer to all women admitted into a federal institution (i.e., all women offenders are referred to the engagement program, regardless of whether or not they meet the criteria for participation in a moderate and/or high intensity program). The goal of this program is to enhance participant motivation, introduce social skills in a group setting, begin to identify problematic behaviours, and familiarize women with the concept of a self-management plan. The engagement program is a prerequisite for all other institutional programming.

Women's Moderate and High Intensity Programs (WOMIP/AWOMIP and WOHIP/AWOHIP) are the second and third programs in the continuum. The moderate intensity program is a 40-session program delivered to women who score between 9 and 18 on the CRI, and WOHIP is a 52-session program delivered to women who score 19 or higher on the CRI. The overall goal of both programs is to help participants develop prosocial skills, abilities, and attitudes (e.g., self-regulation and emotion management, conflict resolution, consequential thinking, healthy relationship formation, etc.) that will enhance their ability to lead a crime-free life lifestyle. After the completion of the engagement program, higher risk women are referred to the moderate intensity program, and upon completion, the highest risk women are subsequently referred to the high intensity program.

The Women's Self-Management Program (WOSMP/AWOSMP) is the final program in the continuum. The self-management program is delivered over 12 sessions, and is offered both in the institution (WOSMP-I/AWOSMP-I), and in the community (WOSMP-C/AWOSMP-C). The self-management program offered in the institution is available to women having completed their other required programming (at least the engagement program, and also the moderate intensity and high intensity programs if required), whereas women offenders under supervision in the community may be referred to community self-management programs without having completed other institutional programming if their dynamic factors assessment rating increases to moderate or high during a correctional plan update. Self-management program targets include effective communication skills, processing change, and effective goal-setting.

While participants must complete the lower intensity levels of programming prior to being referred to the higher intensity programs, each woman's programming requirements are determined based on her individual level of risk, and as such, not all women will receive all levels of program intensity (e.g., some may only be required to complete the engagement program). It should be noted that CSC also offers a variety of interventions and services to address other needs such as those related to education and employment, and that qualified women with opiate addictions are able to access opiate substitution therapy through health services (CSC, 2016).

Overview of the Women's Sex Offender Program at CSC

In addition to the AWOCP and WOCP programming continuums, CSC also offers a correctional program developed specifically for women sex offenders (WSOs). Although WSOs make up a small percentage of the offender population (estimates vary considerably and range from 0.4% to 6.8%; Cortoni, Babchishin, & Rat, 2017), the gravity of their criminal offenses and the impact on victims as well as their unique constellation of risk factors and treatment needs relative to other offenders (Allenby, Taylor, Cossette, & Fortin, 2012; Elliot, Eldridge, Ashfield, & Beech, 2010) justifies the need for a specialized correctional program. Although the Women Sex Offender Program (WSOP) can be adapted for individual delivery, it is designed to be offered in a group setting when possible. A woman is required to complete the WSOP if she has been convicted of a sexual offence, been convicted of a non-sexual offence for which there was sexual motivation, and/or if she has admitted to a sexual offence for which she has not been convicted (CSC, 2002). The WSOP is delivered by trained correctional program officers (or Indigenous correctional program officers) and includes seven sex offender-specific modules. As well, a psychologist attends at least a portion of the training so that they are familiar with the program content and personal targets so that they can support the women as they go through the program. Each module consists of multiple 2.5 hour sessions, for a total of 59 sessions, delivered at a frequency of 4 to 6 sessions per week (including individual contact sessions). The main goals of the WSOP are to teach women how to identify factors that influence their offences and how to manage high-risk situations more effectively in order decrease the likelihood of reoffending and increase the likelihood of leading fulfilling, pro-social lives.

Summary of women offender programming at CSC

CSC's programming for women offenders is consistent with recommendations coming

out of research which highlight the need for correctional programs to target women offenders' criminogenic needs within a gender-responsive framework. Women offenders have reported satisfaction with the gender- and culturally-specific programming options provided by CSC (e.g., WOCP, AWOCP; Derkzen et al., 2017; Harris et al., 2015). Also, the Parole Board of Canada recognizes the importance of appropriate correctional programming, and program completion status (i.e., not completed, partially completed, or completed) is one of the factors considered in decisions for release, the appropriate type of release, and associated conditions of supervision. Notably, research examining changes in women offenders' criminogenic needs following program completion is scarce. The primary impetus for the current study was to address recent related criticism from the Office of the Auditor General (OAG, 2017) regarding a lack of clarity about how the CSC's correctional programs for women bring about offender change.

Current Study

The purpose of the current study was to examine whether women offenders' participation in correctional programming (WOCP, AWOCP, and WSOP) resulted in a reduction in criminogenic need. The study examined changes in women's criminogenic need throughout their sentence. The following questions were examined:

1. What is the evidence that previous CSC program research found changes in women's criminogenic need related to correctional program participation?
2. Following correctional program participation, to what extent do program facilitators' ratings on the GPPM change?
3. Following correctional program participation, do women's DFIA-R domain ratings change?
4. For a random sample of women, are treatment gains evident throughout program participation based on information available in file review?
 - a. What areas of criminogenic need are most amenable to change (e.g., attitudes, personal/emotional orientation, substance misuse, associates, marital/family, community functioning)?

Method

Participants

Women were included in this study if they were admitted to federal custody for a new warrant of committal between April 1, 2010 and March 31, 2018 and had completed at least one correctional program during this period.¹ The final sample included 3,715 program completions² representing a total of 2,030 women offenders. All data compiled for the current study was extracted from the Offender Management System (OMS), which holds computerized offender records for federal offenders.

Overall, included women were in their early to mid-thirties ($M = 35.1$, $SD = 10.8$) at admission and were serving sentences of approximately three years ($M = 3.2$, $SD = 1.7$). Around one-third (32.6%) of women were Indigenous, and both demographic and incarceration characteristics of the sample did differ by Indigenous identity. Indigenous women tended to be younger, were more likely to have been convicted of a schedule 1 or homicide offence, and were assessed as having both higher static risk and dynamic need ratings at intake (see Table A1, Appendix A).

Table 1 below illustrates types of correctional programs completed by the women included in this cohort.³ Out of 3,715 program completions, nearly half of these (42.7%) were for a moderate intensity program, and rates of completion of both the high intensity programs and the sex offender program were considerably lower (2.1% and 1.2%, respectively). Approximately one-third of program completions were in the institution-based self-management program and a slightly smaller proportion (23.6%) completed the community-based stream of WOCP or AWOCPP.

¹ The programs of focus for this study were core correctional programs offered by CSC through the WOCP and AWOCPP continuums, as well as WSOP. As the engagement program offered within WOCP and AWOCPP is a primer for higher intensity programming and does not explicitly target women's criminogenic needs, the response to these program completions was not examined.

² Program completions included both successful completions and completed described as 'attended all sessions'.

³ As the focus of this research study was to examine the presence of changes in criminogenic needs in women who complete correctional programs, rather than an evaluation of the correctional programs themselves, results were not disaggregated by the AWOCPP and WOCP program streams. Results are disaggregated by Indigenous identity where possible.

Table 1

Distribution of program completions by program type and indigenous identity

	Non-Indigenous	Indigenous	
	Women	Women	All Women
	% (n)	% (n)	% (n)
Moderate Intensity Programs	40.1 (1,007)	48.0 (578)	42.7 (1,585)
High Intensity Programs	1.9 (24)	4.6 (55)	2.1 (79)
Self-Management Institution Programs	32.3 (811)	26.5 (319)	30.4 (1,130)
Self-Management Community Programs	25.2 (633)	20.1 (242)	23.6 (875)
Women's Sex Offender Program	1.4 (34)	1.0 (12)	1.2 (46)

Measures

Generic Program Performance Measure (GPPM)

The GPPM is a scale used in correctional treatment contexts to measure offender progress against key objectives of all core correctional programs. This measure allows program facilitators to rate offender motivation, attitude change, and skill development in a standardized manner, and provides a means of delivering feedback to offenders on their program performance. The measure consists of 17 items (five of which are only completed post-program) and are rated on a five-point scale from -2 (needs a lot of improvement) to +2 (excellent). Ratings are completed by the program facilitator pre- and post-program, and are based on observed characteristics and behaviours.

The GPPM comprises three subscales: Performance, Responsivity, and Effort. The Performance scale assesses each participant's skills, attitudes, and overall knowledge pertaining to the core correctional program in question, and each item in this subscale taps the extent to which participants are able to apply this knowledge. The Responsivity subscale assesses factors that could affect participants' progress in treatment (e.g., motivation, learning ability, and relationships with program facilitators, etc.). These factors represent important considerations, and, if possible, should be addressed directly during treatment in order to maximize offenders'

likelihood of positive outcomes. Finally, the Effort subscale evaluates participants' effort to learn and practice the content of the program, and is only assessed post-program. On this subscale, facilitators assess the extent to which offenders attend sessions, complete homework, and participate actively in group activities. Previous research has found the GPPM to be a reliable and valid measure, with offenders who do not demonstrate any improvement on the GPPM being more likely to return to custody than offenders who demonstrate an acceptable level of treatment gain (Stewart, Usher, & Vandermeij, 2015).

For the purposes of the current research, analysis focused on the change in pre- and post-program subscale scores on the Performance and Responsivity subscales. Note that these scores are derived by averaging the items within each subscale.

Dynamic Factors Identification and Analysis-Revised (DFIA-R)

The DFIA-R is a component of the Offender Intake Assessment (OIA) with a long history within CSC (Brown & Motiuk, 2005; Motiuk & Blanchette, 2000; Motiuk & Brown, 1993; Motiuk & Porporino, 1989; Stewart et al., 2017), and evaluates an offender's level of dynamic need in seven domains: employment/education, marital/family, associates, substance abuse, community functioning, personal/emotional orientation, and attitudes.⁴ Offender need in these areas is assessed through the completion of 100 dichotomous indicators rated as "present" or "absent". Unlike GPPM scores, DFIA-R assessments are not completed by program facilitators. Based on information from case files, input from staff, and interviews with offenders, trained parole officers assess each offender's level of need on each of the domains (asset to community adjustment, no need, low need, moderate need, or high need) as well as their overall level of need (low, medium, or high need). Previous research has found the DFIA-R to be a reliable and valid assessment tool for men, women, and Indigenous offenders (Stewart et al., 2017). Domain and overall need ratings can be reassessed over the period of an offender's sentence.

Case File Coding

To further supplement the examination of changes in criminogenic need over the course of program participation, a random sample of offender case files were reviewed to assess staff

⁴ As employment and education are addressed in interventions and services outside of core correctional programming (e.g., education programs, employment services, etc.), these needs were not a focus in the current research study.

members' observations of offenders' various treatment gains. In order to determine offenders' level of criminogenic need prior to program participation, the most recent correctional plan document was reviewed, and pre-program treatment need (defined as moderate or high need ratings on the DFIA-R) was recorded. Then, the final program performance report was reviewed to assess any record of treatment gains observed over the course of program participation (see Appendix B for the coding manual used). Two senior research officers reviewed case files for approximately 10 Indigenous and 10 non-Indigenous women per type of core correctional program (i.e., moderate intensity, high intensity, institution-based self-management, community-based self-management, and the Women's Sex Offender Program), for a total of 100 cases. In order to assess inter-rater reliability, a subset of cases was reviewed by both coders. Inter-rater reliability was evaluated using percent agreement and, where possible, Cohen's kappa statistic (Cohen, 1960). Percent agreement ranged from 90-100%, and kappa statistic ranged from .80 to 1.00, indicating excellent reliability according to established benchmarks (Cicchetti, 1994).

Procedure/Analytic Approach

Changes in women's criminogenic needs were assessed through a variety of methods and, where possible, results were disaggregated by Indigenous identity.

First, in order to substantiate the findings from the present study, a summary of recent CSC research examining changes in criminogenic needs through a pre-/post-treatment intermediate assessment battery is presented.⁵

Secondly, pre-/post-program GPPM Performance and Responsivity subscale scores were examined to determine the proportion of women who saw a decrease in need following program participation. Follow-up ANOVA statistical tests were then used to determine whether women who experienced no change or an increase in need already had significantly lower need prior to program participation.

Thirdly, the frequency and percentage of women who were evaluated as having positive outcomes following program completion were calculated. Note that only women who had a DFIA-R assessment completed within a 90-day period prior to program commencement and another within 90 days of program conclusion were included in this analysis in an effort to strengthen the likelihood that the measured change could have been attributed to correctional

⁵ For a comprehensive overview of the measures included in the pre-/post-treatment intermediate assessment battery please see Derkzen et al., 2017; Harris et al., 2015; Wanamaker et al., 2018.

program involvement. Positive outcome was assessed using the following cut-offs:

- Asset/No/Low need before the program and remains at Asset/No/Low need
- Moderate need before the program and moves to Asset/No/Low need
- High need before the program and moves to Moderate or Asset/No/Low need

Finally, descriptive statistics were calculated to assess the treatment gains observed in the final program performance reports in areas where a treatment need was identified and the areas in which treatment gains were noted. Further analyses highlighted the proportion of program targets,⁶ set by the program facilitator in consultation with the offender at pre-treatment, that were considered met following program participation.

⁶ Program targets, referred to here as personal targets, are program objectives decided upon through a discussion between the facilitator and participant prior to program commencement. Both parties should agree to a maximum of three to four targets to be addressed during the course of the program.

Results

Previous CSC Research Examining Changes in Criminogenic Need

Three recent studies (Derkzen et al., 2017; Harris et al., 2015; Wanamaker et al., 2018) examined the degree to which women's attitudes and personal/emotional orientation need levels changed as a function of participation in CSC's women offender correctional programs. These studies used pre-/post-treatment scores on an intermediate assessment battery (e.g., the URICA, the GSE, the SPSI) to evaluate treatment gains, and as can be seen from Table 2, findings were generally encouraging. Women who completed moderate intensity, high intensity, and/or the women's sex offender programs demonstrated significant improvement in terms of their motivation for change, overall self-efficacy, and social problem solving skills, with the sole exception of women who completed the WOHIP, who did not demonstrate a significant post-program gain on the Rational Problem Solving subscale of the SPSI. Notably, findings with respect to treatment gains for the women who completed the WOSMP-I and the WOSMP-C were inconsistent across studies (i.e., Derkzen et al., 2017; Harris et al., 2015). Although women completing these programs did demonstrate a significant increase in their motivation for change, findings with respect to attitudes, personal/emotional needs, and problem-solving skills were somewhat mixed. Nevertheless, when considered collectively, it is clear that women who completed a core correctional program saw significant positive changes with respect to motivation for change, general knowledge, attitudinal factors, self-efficacy and emotion management, and problem-solving ability, all of which have been identified as salient criminogenic needs for women offenders in the gender-specific literature (e.g., Blanchette & Brown, 2006; Bloom et al., 2003; Greiner et al., 2015). Considered collectively, findings from Derkzen et al., (2017), Harris et al., (2015), and Wanamaker et al., (2018) suggest that women's correctional programs appear to be achieving goals with respect to specific treatment targets.

Table 2

Summary of participant treatment gains by program across CSC research reports

Treatment Gains	Moderate Intensity Programs	High Intensity Programs ¹	Self-Management Institution	Self-Management Community	Women's Sex Offender Program ²
University of Rhode Island Change Assessment (URICA)	✓	✓	✓	✓	✓
General Self-Efficacy Scale (GSE)	✓	✓	*	*	✓
Social Problem Solving Inventory (SPSI)	✓	✓	✓	X	✓ ³
Positive Problem Orientation	✓	✓	*	X	✓
Negative Problem Orientation	✓	✓	*	X	✓
Rational Problem Solving	✓	X	*	*	✓
Impulsivity/Carelessness Style	✓	✓	*	*	✓
Avoidance Style	✓	✓	X	X	✓

Note: A ✓ indicates a significant treatment gain for each program and measure; an X indicates there was not a significant treatment gain; an * denotes inconsistent results regarding treatment gains across studies (i.e., Derkzen et al., 2017 and Harris et al., 2015); For a comprehensive overview of the measures listed above please refer to Derkzen et al., 2017; Harris et al., 2015; Wanamaker et al., 2018.

¹ Information in this column is sourced from Derkzen et al., 2017, and pertain to program completers of the Aboriginal stream (AWOHIP) of the high intensity program.

² Information in this column is based solely on the results of Wanamaker et al., 2018.

³ Women who completed the WSOP were evaluated using the SPSI-R.

Change in GPPM Scores

Pre-/post-program GPPM scores were examined to assess change in the Performance and Responsivity subscale scores as a function of program participation (see Table 3). Results indicated that, across all programs with sufficient participation numbers, the majority of women were rated as having increased on the GPPM subscale scores indicating an improvement in skills and prosocial thinking and, therefore, a decrease in need. For example, 86.1% of non-Indigenous women and 85.5% of Indigenous women who completed a moderate-intensity program saw a decrease in need as assessed by the Performance subscale. Women rated as having no change in need or increased need after participation in correctional programs had a good level of skills and prosocial attitudes prior to program participation (see Table A2 in Appendix A for detailed results). Therefore, it is not surprising that an improvement was not detected for these women.⁷

⁷ The only exception to this result was pre-program performance scores for those non-Indigenous women with an increase in need were not statistically different than those with a decrease in need in the self-management community programs.

Table 3

Patterns of change in pre-/post-program measurements of GPPM scores by program intensity and Indigenous identity

	Non-Indigenous Women				Indigenous Women			
	Number of available assessments	Decrease in need % (n)	No change % (n)	Increase in need % (n)	Number of available assessments	Decrease in need % (n)	No change % (n)	Increase in need % (n)
Moderate Intensity Programs								
Performance	697	86.1 (600)	10.0 (70)	3.9 (27)	338	85.5 (289)	8.3 (28)	6.2 (21)
Responsivity	921	73.2 (674)	17.1 (157)	9.8 (90)	426	78.9 (336)	11.7 (50)	9.4 (40)
High Intensity Programs								
Performance	14	78.6 (11)	†	†	35	85.7 (30)	†	†
Responsivity	18	77.8 (14)	†	0	40	70.0 (28)	22.5 (9)	†
Self-Management Institution								
Performance	368	64.4 (237)	23.1 (85)	12.5 (46)	113	62.0 (70)	27.4 (31)	10.6 (12)
Responsivity	498	59.0 (294)	28.5 (142)	12.5 (62)	144	64.6 (93)	22.9 (33)	12.5 (18)
Self-Management Community								
Performance	407	68.3 (278)	24.6 (100)	7.1 (29)	152	76.3 (116)	17.1 (26)	6.6 (10)
Responsivity	525	63.2 (332)	25.1 (132)	11.6 (61)	196	56.6 (111)	30.1 (59)	13.3 (26)
Women's Sex Offender Program								
Performance	22	100.0 (22)	0	0	5	100.0 (5)	0	0
Responsivity	29	89.7 (26)	0	†	5	†	†	0

† Numbers suppressed due to frequency less than 5.

Change in DFIA-R Ratings

As presented in Table 4 (detailed results can be found in Table A3 in Appendix A), analyses were conducted to explore change in DFIA-R domain ratings for a subset of offenders who had pre- and post-program domain assessments occurring within 90 days of program start and end. Small numbers did not allow us to disaggregate by Indigenous status. Notably, DFIA-R assessments have a high degree of objectivity as they conducted by parole officers rather than program facilitators who may have a vested interest in detecting improvement in response to treatment. Results showed that, across most programs and need domains, the majority of women were rated as having made positive change. The most notable exception is that the majority of women were not rated as having decreased their need on the personal/emotional orientation domain. It is important to note that the number of women available for this analysis represented only approximately one-third of the total sample.⁸ It is unclear how generalizable these results are to the remainder of the population as the women included in this analysis tended to be lower risk at intake to federal custody and were more likely to be incarcerated for a non-violent offence.

Table 4

Improvement in post-program level of dynamic need domain ratings by program

	Moderate Intensity Programs	Self- Management Institution Programs	Self- Management Community Programs	Women Sex Offender Program
Marital/Family	✓	✓	✓	X
Substance Abuse	✓	X	✓	✓
Associates	✓	✓	✓	✓
Community Functioning	✓	✓	✓	✓
Personal/Emotional	X	X	X	✓
Attitudes	✓	✓	✓	✓

Note. A ✓ indicates the majority (at least 50%) of women were rated as having reduced need; an X indicates the majority of women were rated as having no change or an increase in need. Small numbers did not allow for the examination of high intensity programs.

⁸ Per Commissioner's Directive 710-1, there are a number of situations that would result in a Correctional Plan Update being completed, including when there is a need to make a change to the key ratings or where circumstances warrant a reassessment. It is unknown why the majority of women in this cohort were not reassessed on the DFIA-R in greater frequency.

Treatment Gains Identified Through Case File Coding

The final method used to assess change in women's criminogenic needs following program participation was to review the final program performance reports to identify instances where the case management team made note of offenders' response to the program. Note that small numbers did not allow for the disaggregation by Indigenous identity. As demonstrated in Table 5, of the women with identified needs, the majority saw treatment gains throughout their participation in correctional programs (see Table A4 in Appendix A for more information). Exceptions to this were needs related to the marital and family domain for women completing self-management institutional programs and needs related to the community functioning domain for women completing high intensity programs.

Depending on the need domain, the way in which treatment response was described by the program facilitator varied. For example, treatment gains in the area of substance misuse were often communicated within the performance report as the woman having gained a better understanding of how trauma and emotional turmoil may be associated with her problematic substance use, learning how to cope with this trauma and regulate her emotions in a healthier way so that substance misuse does not occur, and/or learning methods of coping with withdrawal symptoms.

Treatment gains in the area of personal/emotional orientation were often described as improvements in identifying problematic emotions (e.g., anger, frustration, etc.), learning strategies to manage problematic emotions (e.g., honouring the Seven Sacred Teachings, using the FOCUS problem-solving model, etc.), and setting short-term goals (e.g., successfully completing the program) and long-term goals (e.g., developing and strengthening bonds with loved ones, living a crime-free life, and maintaining sobriety when released, etc.). In some cases, the report writer noted instances where women faced challenging situations in the institution- or community-setting and were able to apply these skills in practice. This could include effectively interacting with other offenders within the program setting when there had been previous negative interactions and using skills to reduce emotions (e.g., deep breathing exercises and calming self-talk) to successfully deal with the stressful situation at hand.

Table 5

Treatment gains identified through the review of final program performance reports by program

	Moderate Intensity Programs	High Intensity Programs	Self- Management Institutional Programs	Self- Management Community Programs	Women Offender Sex Offender Program
Marital/Family	✓	✓	X	✓	✓
Substance Abuse	✓	✓	✓	†	✓
Associates	✓	✓	✓	✓	✓
Community	✓	X	✓	†	†
Functioning					
Personal/Emotional	✓	✓	✓	✓	✓
Orientation					
Attitudes	✓	✓	✓	†	✓

Note. A ✓ indicates that for the majority (at least 50%) of women facilitators noted treatment gains in the criminogenic need area; an X indicates the majority of women did not experience treatment gains in the criminogenic need area.

† Numbers suppressed due to frequency less than 5.

One issue noted in the program performance documents were several cases in which women had identified needs that were not adequately discussed in the program performance reports to allow for coding; for these cases, it was not possible to determine whether there were meaningful treatment gains (see Table A4 in Appendix A for detailed results). This lack of detail was most noticeable for needs related to the community functioning domain, with approximately 50% of cases in the moderate intensity, high intensity, and self-management institutional programs lacking sufficient information to code treatment effects, either gains or setbacks. Factors related to the community function domain include the extent to which offenders access community resources such as leisure activities, accommodation, and social supports. This lack of detail may be due to other criminogenic needs (e.g., personal/emotional orientation, attitudes, etc.) taking precedence when the program facilitator works with the individual offender to identify program targets. Also, it may not have been possible for women to work on community functioning needs at this point in their sentence given these skills are specific to release planning and community adjustment.

Finally, an overall examination of the observable treatment gains by program was undertaken (see Table 6). Encouragingly, results demonstrated that treatment gains were evident

across all five types of women offender programs (i.e., all program reports indicated that, for the majority of women, some or all identified treatment needs had been met), and that for three of the five correctional programs (moderate intensity programs, community-based self-management programs, and WSOP), at least 50% of the reports reviewed indicated that all identified treatment needs had been met. It is, however, important to reiterate that many women had more treatment needs than could feasibly be addressed of the course of a single program. As such, findings such as those observed for women who completed the high intensity program (i.e., 70% had some needs met and 30% had all needs met) should still be viewed as evidence of improvement with program participation.⁹ Further evidence is presented in the second section of Table 6 (program targets) that describes the proportion of identified individual program targets where facilitators noted improvements associated with participation. These program targets were identified by the program facilitator in consultation with the offender, and represented the areas for treatment focus throughout the program. Results showed that, for all programs, the majority of women made meaningful gains in relation to all the program targets agreed upon between the participant and the facilitator.

⁹ It should be noted that supplementary analysis confirmed that, for those included in the case file review, women completing high intensity programs had, on average, a higher number of pre-program needs identified compared to women in other programs examined. For example, women in the high intensity programs had, on average, 5.1 DFIA-R domain ratings of moderate or high need in their most recent correctional plan with women in the moderate intensity programs and the self-management institutional programs having the next highest number of needs, with an average of 3.7 moderate or high need domains.

Table 6

Proportion of criminogenic need areas and program targets where program facilitators notes treatment

	Treatment gains			Program targets		
	No treatment needs met	Some treatment needs met	All treatment needs met	No program targets met	Some program targets met	All program targets met
	%	%	%	%	%	%
Moderate Intensity	†	35.0	60.0	†	†	84.2
High Intensity	0.0	70.0	30.0	0.0	42.1	57.9
Self-Management Institution	†	55.0	25.0	†	†	64.7
Self-Management Community	†	†	56.3	†	†	71.4
Women Sex Offender Program	†	44.4	50.0	†	16.7	77.8

Note. Treatment gains were defined as any criminogenic needs rated as moderate or high need in the most recent correctional plan report; whereas program targets were those need areas identified by the program facilitator, in consultation with the offender, as being specific areas to be addressed throughout the program. Results could not be disaggregated by Indigenous identity. † Numbers suppressed due to frequency less than 5.

Discussion

Numerous researchers (e.g., Blanchette & Brown, 2006; Bloom et al., 2006; Greiner et al., 2015; Van Voorhis et al., 2010) have recognized the need for holistic, gender-responsive approaches to correctional programming for women offenders, and this perspective is reflected in the CSC's current women offender programs. Despite growing evidence linking women's correctional program participation to positive outcomes (e.g., reduction in areas of need/intermediate treatment goals, improved community outcomes), some ambiguity remains with respect to identifying the specific mechanisms of action underlying program efficacy, an issue which was recently cited by the OAG (2017). In other words, the current research cannot identify which changes in need level are associated with improved rates of returns to custody. The central goal of the current study was to clarify the nature of the relationship between participation in women's correctional programming and outcomes by examining changes in women offenders' criminogenic needs following program participation.

Overall, results from the current study are consistent with the findings of previous CSC research on women's correctional programming suggesting that gender- and culture-informed programs, operating within the RNR framework, can reduce women offenders' level of criminogenic need. It is important to reiterate that although traditionally-recognized criminogenic needs (i.e., the Central 8 risk factors, Andrews & Bonta, 2010) are relevant for women, women-focused research (e.g., Blanchette & Brown, 2006; Bloom et al., 2006; Greiner et al., 2015) suggests that the criminogenic needs that are most salient for women appear to be those pertaining to the education and employment, substance misuse, and personal/emotional (e.g., self-regulation, impulsivity, assertiveness) domains, in addition to specific needs such as poor self-efficacy. The combined results from the present study, as well as the post-program gains (i.e., improvements in motivation for change, general knowledge, attitudinal factors, self-efficacy and emotion management, and problem-solving ability) described in previous CSC research, can be viewed as evidence that women who completed a program in CSC's programming continuum saw significant positive changes in criminogenic needs that are both gender-neutral and gender-responsive.

Results from the analysis of pre-/post-program GPPM scores underscored that, overall, women who participated in programming saw a meaningful reduction in need as evidenced by an

increase in GPPM scores. Program completers acquired self-management skills, adopted more prosocial attitudes, and acquired knowledge relevant to the core correctional program they participated in, and also demonstrated motivation to change. As might be expected, women who did not demonstrate an increase in GPPM scores tended to be those who were rated as lowest need prior to program participation.

With a few exceptions, results indicated that the majority of women who were assessed pre- and post-program on the DFIA-R either reduced their need level post program participation or maintained an original lower level of need. The exception to this result was for women who completed the institutional self-management program. They did not demonstrate a decrease in substance use-related need and women who completed the women's sex offender program did not demonstrate a decrease in marital/family need level. As well, many women did not demonstrate a decrease in personal/emotional orientation need level. This domain assesses the pattern of psychological functioning including self-regulation, problem-solving, and stress management. The constructs in the personal emotional domain are conceptualized as stable dynamic factors and are purported to be very challenging and to take a long time to modify (Andrews & Bonta, 2010; Hanson & Harris, 2000).

To summarize, the results are consistent with existing correctional literature describing the efficacy of RNR-based programs with respect to reducing general recidivism in both men (Andrews & Bonta, 2006; Andrews et al., 1990) and women offenders (e.g., Dowden & Andrews, 1999), and to improving treatment gains and community outcomes (Andrews & Bonta, 2006; Gendreau et al., 2006; Smith et al., 2009). Findings from the current study also further support the need for gender-informed programming, which is being increasingly recognized by researchers (e.g., Gobeil et al., 2016; Greiner et al., 2015; Stewart & Gobeil, 2015; Tripoldi et al., 2011). As noted by Van Voorhis and colleagues (2010), there are a number of gender-based realities (e.g., elevated rates of victimization, mental health problems, stresses associated with parenting) that are frequently experienced by women, and need to be considered as part of correctional intervention planning.

Limitations

The results of the present study should be considered in light of several limitations. First, given that the data were collected from the OMS, operationalizing change in criminogenic need was difficult. While measuring change in level of criminogenic need by assessing changes in

GPPM scores and DFIA-R domain ratings is a defensible approach, it was important to supplement these findings with information from offenders' case files in order to obtain a more comprehensive understanding of observed changes following program participation.

There are a variety of limitations specifically related to the use of the DFIA-R as a measure of change. We chose a 90-day window before and a 90-day window after program participation in order to strengthen the likelihood that the measured change could have been attributed to correctional program involvement. Even with restricting the time-frame there are a number of intervening factors that could have contributed to the measured change other than program participation. For example, the women may have been involved in other services or programs that could have contributed to change in need. Moreover, as a consequence of the timing restrictions placed on the DFIA-R analyses, a large portion (roughly two-thirds) of the sample had to be removed from the analysis as they did not have DFIA-R reassessment within 90 days of program start and end. Offenders excluded from this analysis were more likely to be lower risk and incarcerated for a non-violent offence; therefore, results may not generalize to the total offender population. Another important consideration is that it is possible that the DFIA-R may not be sensitive enough to measure all changes in dynamic need that occur as a function of program participation. Recent research by Stewart and colleagues (2017) has demonstrated that some domains appear to be more dynamic than others. For example, while the substance use domain was found to be dynamic, especially for Indigenous women, ratings on other domains such as the Marital/Family domain varied considerably less, with only between 7.6% and 16.4% of domain ratings demonstrating change upon reassessment. This may explain why the DFIA-R-related results were not as strong as other methods used to directly examine changes in criminogenic need during program participation. A preferred approach would be to assess change in a need such as substance misuse by assessing skills and knowledge related to the area and by confirming these changes with behavioural data demonstrating reductions in substance use. This would allow for an examination of whether or not the changes observed are meaningful and translate into changes in behaviour in real-life settings. It may be that the measures used in the current study are too generic and may not be sensitive to change, resulting an under- or over-estimation of offender gains. Having access to a pre-/post-assessment tool that more comprehensively measures key criminogenic needs would be ideal. This could potentially involve modifications or extensions to items on the GPPM.

Future research should aim to link change in need associated with correctional program completion to community outcomes. Findings from previous CSC research (e.g., Derkzen et al., 2017) have demonstrated that program completers are less likely to return to custody compared to non-completers, and the results of the present study indicate that program-completers generally saw a decrease in their criminogenic need. There are, however, serious limitation in using drop-outs as a comparison group given their generally higher risk profile. Accordingly, the next step should be to investigate whether decreases in criminogenic need were meaningful and contributed to positive outcomes in the community for offenders who participate in a program and a comparative group who did not.

Conclusion

Given CSC's mandate to assist in the reintegration of women offenders through the provision of effective correctional programming that respects gender and cultural considerations, it is important examine the impact correctional programs have on the lives of women. The current study contributes to this knowledge base by clarifying the extent to which program participation is associated with reductions in women's criminogenic needs. Overall, results were consistent with findings of previous CSC research, suggesting that gender- and culture-informed programs generally reduce women's level of criminogenic need. However, continued research is warranted that would examine the association of changes in criminogenic need linked to program participation with outcomes on release.

References

- Allenby, K., Taylor, K., Cossette, M., & Fortin, D. (2012). *A profile of women who sexually offend*. Research Report R-274. Ottawa, Ontario: Correctional Service of Canada.
- Andrews, D. A., & Bonta, J. (2006). *The psychology of criminal conduct*. (4th ed.). Newark, NJ: LexisNexis.
- Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct*. (4th ed.). Newark, NJ: LexisNexis.
- Andrews, D. A., Bonta, J., & Hoge, R. D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior*, 17, 19-52.
- Auditor General of Canada (2017). *Preparing women offenders for release—Correctional Service Canada* (Fall Report of the Auditor General, R-5). Ottawa, ON: Office of the Auditor General of Canada.
- Beaudette, J., Cheverie, M., & Gobeil, R. (2014). *Aboriginal women: Profile and changing populations* (Research Report, R-341). Ottawa, ON: Correctional Service Canada.
- Blanchette, K., & Brown, S. L. (2006). *The assessment and treatment of women offenders: An integrative perspective*. West Sussex, U.K.: John Wiley & Sons.
- Bell, A., & Flight, J. (2006). *An evaluation of the spirit of a warrior program for women offenders* (Research Report, R-180). Ottawa, ON: Correctional Service Canada.
- Bloom, B., Owen, B., & Covington, S. S. (2006). Gender responsive strategies: Theory, policy, guiding principles and practices. In R. Immarigeon (Ed.), *Women and girls in the criminal justice system* (pp. 29-2 – 29-20). Kingston, N.J.: Civic Research Institute.
- Cicchetti, D. V. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment*, 6, 284–290. doi: 10.1037/1040-3590.6.4.284
- Clarke, S. (2014). *Social histories of aboriginal women offenders* (ERR 14-7). Ottawa, ON: Correctional Service Canada
- Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, 20(1), 37–46.
- Correctional Service of Canada. (2002). *Women who sexually offend: A protocol for assessment and treatment*. Ottawa, Ontario: Correctional Service of Canada.
- Correctional Service of Canada (2009). *Evaluation report: Correctional Service Canada's correctional programs*. Ottawa, ON: CSC.

- Correctional Service of Canada (2015). *Commissioner's Directive 705-6: Correctional Planning and Criminal Profile*. Ottawa, ON: Correctional Service of Canada.
- Correctional Service of Canada (2016). *Report on Plans and Priorities 2015-16 (RPP)*. Ottawa, ON: Correctional Service of Canada.
- Correctional Service of Canada (2016). *Specific Guidelines for the Treatment of Opiate Dependence*. Ottawa, ON: Correctional Service of Canada.
- Corrections and Conditional Release Act [CCRA]*. (1992). Retrieved from <http://laws-lois.justice.gc.ca/eng/acts/C-44.6/>
- Cortoni, F., Babchishin, K. M., & Rat, C. (2017). The proportion of sexual offenders who are female is higher than thought: A meta-analysis. *Criminal Justice and Behavior*, 44, 145-162. doi: 10.1177/0093854816658923
- Covington, S. S. & Bloom, B. (2000). *Gendered Justice: Programming for women in Correctional Settings*. Paper presented at the 52nd Annual Meeting of the American Society of Criminology, San Francisco, CA.
- Daly, K. (1992). Women's pathways to felony court: Feminist theories of lawbreaking and problems of representation. *Southern California Review of Law and Women's Studies*, 2, 11-52.
- Daly, K. (1994). *Gender, crime, and punishment*. Newhaven, CT: Yale University Press.
- Derkzen, D. M., & Allenby, K. (2012). *Assessment of the aboriginal women's maintenance program (B-51)*. Ottawa, ON: Correctional Service Canada
- Derkzen, D., Harris, A., & Wardrop, K. (2017). *Assessment of Aboriginal Women Offender Correctional Program (AWOCP) outcomes*. (Research Report R-391. Ottawa, ON: Correctional Service of Canada.
- Dowden, C., & Andrews, D. A. (1999). What works for female offenders: A meta-analytic review. *Crime & Delinquency*, 45, 438-452.
- Elliot, I.A., Eldridge, H.J., Ashfield, S., & Beech, A.R. (2010). Exploring risk: Potential static, dynamic, protective and treatment factors in the clinical histories of female sex offenders. *Journal of Family Violence*, 25, 595-602. doi: 10.1007/s10896-010-9322-8
- Fortin, D. (2004). *Program Strategy for Women Offenders*. Ottawa, ON: Women Offender Sector, Correctional Service of Canada.
- Gendreau, P., Goggin, C., French, S., & Smith, P. (2006). Practicing psychology in correctional settings: "What works" in reducing criminal behavior. In A. K. Hess & I. B. Weiner

- (Eds.), *The handbook of forensic psychology* (pp. 722-750). New York, NY: John Wiley.
- Gobeil, R., Blanchette, K., & Stewart, L. (2016). A meta-analytic review of correctional interventions for women offenders: Gender-neutral versus gender-informed interventions. *Criminal Justice and Behavior*, DOI: 10.1177/0093854815621100
- Greiner, L. E., Law, M. A., & Brown, S. L. (2015). Using dynamic factors to predict recidivism among women: A four-way prospective study. *Criminal Justice and Behavior*, 42, 457-480.
- Hanson, R. K., & Harris, A. J. (2001). A structured approach to evaluating change among sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 13(2), 105-122.
- Harris, A., Thompson, J., & Derksen D. (2015). *Assessment of Women Offender Correctional Program (WOCP) outcomes*. (Research Report R-374). Ottawa, ON: Correctional Service of Canada.
- Miller, J. B. (1986). *What do we mean by relationships? Work in Progress No. 33*. Wellesley, Mass.: Stone Center, Working Paper Series.
- Moore, J. P., Low, T., & Berland, F. (2002). *Métis offenders in British Columbia: An examination of needs in the institution and upon release*, 14(3). Ottawa, ON: Correctional Service Canada.
- Motiuk, L. L., & Vuong, B. (2018). *The Development and Validation of a Criminal Risk Index (CRI) for Federally Sentenced Offenders in Canada*. (Research Report R-403). Ottawa, ON: Correctional Service of Canada.
- Motiuk, L. L., & Blanchette, K. (2000). Assessing women offenders: What works In M. McMahon (Ed.), *Assessment to assistance: Programs for women in community corrections*. Arlington, VA: Kirby Lithographic Company.
- Motiuk, L. L., & Brown, S. L. (1993). *The validity of the offender needs identification and analysis in community corrections* (Research Report R-34). Ottawa, Ontario: Correctional Service of Canada.
- Brown, S. L., & Motiuk, L. L. (2005). *The Dynamic Factors Identification and Analysis (DFIA) component of the Offender Intake Assessment (OIA) process: A meta-analytic, psychometric and consultative review* (Research Report R-164). Ottawa, Ontario: Correctional Service of Canada.
- Motiuk, L. L., & Porporino, F. J. (1989). *Field test of the Community Risk/Needs Management Scale: A study of offenders on caseload*. (Research Report R-01). Ottawa, Ontario: Correctional Service of Canada.
- Public Safety Canada Portfolio Corrections Statistics Committee. (2017). *Corrections and*

conditional release overview.

- Reisig, M.D., Holtfreter, K., & Morash, M. (2006). Assessing recidivism risk across female pathways to crime. *Justice Quarterly*, 23, 384-405.
- Robeson Barrett, M., Allenby, K., & Taylor, K. (2010). *Twenty years later: Revisiting the task force on federally sentenced women* (Research Report, R-222). Ottawa, ON: Correctional Service Canada.
- Smith, P., Gendreau, P., & Swartz, (2009). Validating the principles of effective intervention: A systematic review of the contributions of meta-analysis in the field of corrections. *Victims and Offenders*, 4, 148-169. doi: 10.1080/1556488080262581
- Statistics Canada. (2006). Victimization and offending among the Aboriginal population in Canada. *Juristat*, 26 (3). Catalogue 85-002-XIE. Ottawa: Statistics Canada.
- Statistics Canada. (2015). Aboriginal peoples: Fact sheet for Canada. *Juristat*. Ottawa: Statistics Canada.
- Stewart, L., & Gobeil, R. (2015). Correctional interventions for women offenders: A rapid evidence assessment. *Journal of Criminological Research, Policy and Practice*, 1(3), 116-130.
- Stewart, L. A., Usher, A., M., & Vandermeij, K. (2015). Validation of the Generic Program Performance Measure for correctional programs. *Criminal Justice and Behavior*, 42(8). doi: 10.1177/0093854814565172
- Stewart, L. A., Wardrop, K., Wilton, G., Thompson, J., Derkzen, D., & Motiuk, L. (2017). Reliability and validity of the Dynamic Factors Identification and Analysis – Revised (Research Report R-395). Ottawa, Ontario: Correctional Service of Canada.
- Task Force on Federally Sentenced Women (1990). *Creating choices: Report of the Task Force on Federally Sentenced Women*. Ottawa, ON: Correctional Service Canada.
- Thompson, J. (2010). *An examination of the Circles of Change program* (RS 10-1). Ottawa, ON: Correctional Service Canada.
- Tripodi, S. J., Bledsoe, S. E., Kim, J. S., & Bender, K. (2011). Effects of correctional-based programs for female inmates: A systematic review. *Research on Social Work Practice*, 21, 15-31.
- Usher, A. & Stewart, L. (2014). *The effectiveness of correctional programs with diverse offenders: A meta-analytic study*. Ottawa, ON: Correctional Service of Canada.
- Van Voorhis, P., Wright, E. M., Salisbury, E., & Bauman, A. (2010). Women's risk factors and their contributions to existing risk/needs assessment the current status of a gender-

- responsive supplement. *Criminal Justice and Behavior*, 37(3), 261-288.
- Wanamaker, K.A., Derkzen, D., De Moor, C., & Wardrop, K. (2018). *Women who sexually offend: a profile and program outcome study*. (Research Report R-416). Ottawa, ON: Correction Service of Canada.
- Wilson, D. B., Bouffard, L. A., & MacKenzie, D. L. (2005). A quantitative review of structured, group-oriented, cognitive-behavioral programs for offenders. *Criminal Justice and Behavior*, 32(2), 172-204.

Appendix A: Supplementary Results

Table A1

Demographic and incarceration characteristics of program participants

	All Women (<i>N</i> = 2,030) % (<i>n</i>) or <i>M</i> (<i>SD</i>)	Non-Indigenous Women (<i>N</i> = 1,368) % (<i>n</i>) or <i>M</i> (<i>SD</i>)	Indigenous Women (<i>N</i> = 662) % (<i>n</i>) or <i>M</i> (<i>SD</i>)
Demographic characteristics			
Age ^a	35.1 (10.8)	36.3 (11.3)	32.7 (9.3)
Incarceration Characteristics			
Length of aggregate sentence (years) ^b	3.2 (1.7)	3.2 (1.7)	3.1 (1.6)
Length of aggregate sentence			
3 years or less	60.6 (1231)	60.1 (883)	60.1 (398)
More than 3 years	37.3 (757)	37.4 (512)	37.0 (245)
Indeterminate	2.1 (42)	1.7 (23)	2.9 (19)
Type of offence ^c			
Schedule 1 or homicide	42.3 (856)	32.8 (448)	62.0 (408)
Other	57.1 (1168)	67.2 (918)	38.0 (250)
Static risk rating (at intake)			
Low	35.9 (728)	43.4 (593)	20.4 (135)
Moderate	45.1 (915)	43.9 (600)	47.7 (315)
High	19.0 (386)	12.8 (175)	31.9 (211)
Dynamic need rating (at intake)			
Low	8.9 (180)	12.2 (167)	2.0 (13)
Moderate	42.3 (858)	48.9 (669)	28.6 (189)
High	48.8 (991)	38.9 (532)	69.4 (459)
Reintegration rating			
Low	12.6 (255)	8.9 (121)	20.3 (134)
Moderate	63.4 (1286)	60.6 (829)	69.1 (457)
High	24.1 (488)	30.6 (418)	10.6 (70)
Motivation rating			
Low	2.0 (41)	2.2 (30)	1.7 (11)
Moderate	46.3 (940)	42.4 (580)	54.5 (360)
High	51.7 (1048)	55.4 (758)	43.9 (290)
Engagement flag			
Yes	94.3 (1915)	94.6 (1294)	93.8 (621)
No	5.7 (115)	5.4 (74)	6.2 (41)
Responsivity flag			
Yes	26.2 (532)	22.9 (313)	33.1 (219)
No	73.8 (1498)	77.1 (1055)	66.9 (443)

^a age relates to age at time of admission. ^b excludes those with an indeterminate sentence. ^c information missing for 9 cases.

Table A2

Examining the patterns of change in pre-program measurements of GPPM scores by program intensity and Indigenous identity

	Non-Indigenous Women				Indigenous Women			
	Decrease in need	No change	Increase in need	<i>F</i>	Decrease in need	No change	Increase in need	<i>F</i>
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	
Moderate Intensity Programs								
Pre-Performance	-0.10 (0.15)	0.03 (0.16)	0.04 (0.14)	28.8***	-0.14 (0.14)	-0.02 (0.15)	0.03 (0.16)	19.1***
Pre-Responsivity	0.07 (0.32)	0.32 (0.35)	0.31 (0.32)	49.8***	-0.03 (0.31)	0.19 (0.36)	0.23 (0.31)	20.4***
High Intensity Programs								
Pre-Performance	-0.08 (0.12)	†	†	-	-0.07 (0.11)	†	†	-
Pre-Responsivity	0.16 (0.23)	†	†	-	0.00 (0.24)	0.25 (0.25)	†	-
Self-Management Institution Programs								
Pre-Performance	-0.03 (0.13)	0.10 (0.14)	0.13 (0.15)	47.1***	-0.06 (0.14)	0.07 (0.15)	0.12 (0.15)	13.6***
Pre-Responsivity	0.16 (0.28)	0.37 (0.34)	0.47 (0.33)	10.0***	0.15 (0.29)	0.30 (0.32)	0.36 (0.36)	5.4**
Self-Management Community Programs								
Pre-Performance	-0.02 (0.14)	0.09 (0.16)	0.03 (0.15)	23.1***	-0.06 (0.12)	0.10 (0.18)	0.12 (0.19)	20.7***
Pre-Responsivity	0.13 (0.28)	0.38 (0.34)	0.37 (0.31)	41.1***	0.05 (0.24)	0.34 (0.29)	0.38 (0.23)	35.6***
Women's Sex Offender Program								
Pre-Performance	-0.14 (0.14)	†	†	-	-0.11 (0.11)	†	†	-
Pre-Responsivity	0.11 (0.28)	†	†	-	†	†	†	-

Note. GPPM subscale scores range between -2 and +2, with lower scores representing greater need. ^{ns} non-significant, * $p < .05$, ** $p < .01$, *** $p < .001$; † Numbers suppressed due to frequency less than 5; - denotes statistical tests that could not be reported due to insufficient sample size.

Table A3

Proportion of women who experienced positive dynamic need outcomes by program intensity

	Moderate Intensity Programs	High Intensity Programs	Self-Management Institution Programs	Self-Management Community Programs	Women Sex Offender Program
	% (n/total n)	% (n/total n)	% (n/total n)	% (n/total n)	% (n/total n)
Associates	54.3 (221/407)	†	54.4 (86/158)	59.5 (119/200)	81.8 (9/11)
Attitudes	73.2 (297/406)	†	70.3 (111/158)	73.0 (146/200)	54.6 (6/11)
Community Functioning	66.5 (270/406)	†	72.8 (115/158)	83.0 (166/200)	90.9 (10/11)
Marital/Family	54.1 (220/407)	†	53.8 (85/158)	59.5 (119/200)	45.5 (5/11)
Personal/Emotional	49.9 (203/407)	†	35.4 (56/158)	45.0 (90/200)	54.6 (6/11)
Substance Abuse	61.7 (251/407)	†	46.8 (74/158)	51.5 (103/200)	63.6 (7/11)

Note. Small numbers did not allow for the examination of high intensity programs or the disaggregation by Indigenous identity.

† Numbers suppressed due to frequency less than 5

Table A4

Treatment gains identified through the review of final program performance reports by program intensity

	Moderate Intensity Programs	High Intensity Programs	Self-Management Institutional Programs	Self-Management Community Programs	Women Offender Sex Offender Program
	%	%	%	%	%
Marital/Family					
Evident treatment gains	76.9	82.4	46.7	71.4	75.0
Treatment gains not evident	0	†	†	†	†
Treatment setbacks	0	0	0	0	0
Unknown - insufficient information	†	†	46.7	†	†
Substance Abuse					
Evident treatment gains	85.7	70.6	83.3	†	80.0
Treatment gains not evident	†	†	0	†	0
Treatment setbacks	0	0	0	†	0
Unknown - insufficient information	†	†	†	†	†
Associates					
Evident treatment gains	81.8	70.6	50.0	62.5	62.5
Treatment gains not evident	0	†	0	†	0
Treatment setbacks	0	0	0	0	0
Unknown - insufficient information	†	†	50.0	†	†
Community Functioning					
Evident treatment gains	50.0	37.5	50.0	†	†
Treatment gains not evident	0	†	0	0	0
Treatment setbacks	0	0	0	0	0
Unknown - insufficient information	50.0	50.0	50.0	†	†
Personal/Emotional Orientation					
Evident treatment gains	88.9	94.7	77.8	66.7	88.9
Treatment gains not evident	†	†	†	†	†
Treatment setbacks	0	0	0	†	0
Unknown - insufficient information	0	0	0	†	0
Attitudes					
Evident treatment gains	88.9	80.0	81.8	†	90.0
Treatment gains not evident	†	†	†	0	†
Treatment setbacks	0	0	0	0	0
Unknown - insufficient information	0	†	0	†	0

Note. Results could not be disaggregated by Indigenous identity. † Numbers suppressed due to frequency less than 5.

Appendix B: Coding Manual

Coder: _____

Date of case file review: _____

Offender FPS: _____

Assignment ID: _____

Pre-program need levels will be determined by reviewing the most recent correctional plan document completed prior to starting the correctional program of interest or any areas of need mentioned in the program performance report.

Pre-Program Need Levels

Marital/Family need

- ☐ Yes (moderate or high need)
- ☐ No
- ☐ Unknown

Substance abuse need

- ☐ Yes (moderate or high need)
- ☐ No
- ☐ Unknown

Associates need

- ☐ Yes (moderate or high need)
- ☐ No
- ☐ Unknown

Community functioning need

- ☐ Yes (moderate or high need)
- ☐ No
- ☐ Unknown

Personal/Emotional orientation need

- ☐ Yes (moderate or high need)
- ☐ No
- ☐ Unknown

Attitude need

- ☐ Yes (moderate or high need)
 - ☐ No
 - ☐ Unknown
-

Post-program need levels will be assessed through coding the final program performance report pertaining to the correctional program of interest.

Post-Program Need Levels

Marital/Family need	<input type="checkbox"/> Yes, evident treatment gains <input type="checkbox"/> No, treatment gains not evident <input type="checkbox"/> No, treatment setbacks <input type="checkbox"/> Unknown - insufficient information <input type="checkbox"/> Not applicable (no need identified)
<input type="checkbox"/> Can identify unhealthy relationships <input type="checkbox"/> Recognizes the impact her actions have on her relationships <input type="checkbox"/> Has goals to improve relationships with family <input type="checkbox"/> Has goals to improve relationships with children <input type="checkbox"/> Relationship with family has improved <input type="checkbox"/> Relationship with children has improved <input type="checkbox"/> Other, please specify:	
Substance abuse need	<input type="checkbox"/> Yes, evident treatment gains <input type="checkbox"/> No, treatment gains not evident <input type="checkbox"/> No, treatment setbacks <input type="checkbox"/> Unknown - insufficient information <input type="checkbox"/> Not applicable (no need identified)
<input type="checkbox"/> Can identify problematic behaviour and consequences of substance use <input type="checkbox"/> Understands the bad influence of associating with substance users <input type="checkbox"/> Links coping skills (e.g., postponement techniques) with cravings <input type="checkbox"/> No positive urinalysis/indications of substance use during the program <input type="checkbox"/> Has goals to live a substance-free life when released <input type="checkbox"/> Other, please specify:	
Associates need	<input type="checkbox"/> Yes, evident treatment gains <input type="checkbox"/> No, treatment gains not evident <input type="checkbox"/> No, treatment setbacks <input type="checkbox"/> Unknown - insufficient information <input type="checkbox"/> Not applicable (no need identified)
<input type="checkbox"/> Interacts with others in a pro-social manner (e.g., healthy communication skills) <input type="checkbox"/> Has goals to avoid old hangouts and develop a prosocial social network when released <input type="checkbox"/> Understands the bad influence of associating with substance users <input type="checkbox"/> Other, please specify:	
Community functioning need	<input type="checkbox"/> Yes, evident treatment gains <input type="checkbox"/> No, treatment gains not evident <input type="checkbox"/> No, treatment setbacks <input type="checkbox"/> Unknown - insufficient information <input type="checkbox"/> Not applicable (no need identified)

- ☐ Has plans to address community functioning needs when released (e.g., accessing financial resources, finding stable accommodation, participating in prosocial leisure activities, and/or accessing community resources)
- ☐ If in the community, has financial security
- ☐ If in the community, has stable accommodation
- ☐ If in the community, has prosocial leisure activities
- ☐ If in the community, accesses community resources as needed.
- ☐ Other, please specify:

Personal/Emotional orientation need

- ☐ Yes, evident treatment gains
- ☐ No, treatment gains not evident
- ☐ No, treatment setbacks
- ☐ Unknown - insufficient information
- ☐ Not applicable (no need identified)

- ☐ Can identify problematic emotions (e.g., helplessness, anger, frustration)
- ☐ Effectively manages heightened emotions (e.g., uses problem solving in interpersonal conflict, can pro-socially negotiate with others)
- ☐ Exhibits positive problem-solving skills
- ☐ Contributes in a thoughtful and/or respectful manner in group sessions and assignments
- ☐ Is less impulsive
- ☐ Is less prone to anger
- ☐ Has the ability to generate multiple choices when faced with a challenge
- ☐ Has set long-term goals
- ☐ Other, please specify:

Attitude need

- ☐ Yes, evident treatment gains
- ☐ No, treatment gains not evident
- ☐ No, treatment setbacks
- ☐ Unknown - insufficient information
- ☐ Not applicable (no need identified)

- ☐ Has a positive attitude towards the criminal justice system
 - ☐ Respects others beliefs and property
 - ☐ Understands the negative effects crime can have
 - ☐ Wants to live a pro-social/crime-free life
 - ☐ Other, please specify:
-

Were there specific program targets identified by the program facilitator in the final program performance report?

☐ No

- ☐ Yes → If yes, what were they? _____
- If yes, were treatment gains evident?
- ☐ No
- ☐ Yes, some
- ☐ Yes, all
-