WOMEN OFFENDER CASE MANAGEMENT MODEL

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OUTCOME EVALUATION

An outcome evaluation of a collaborative case management model for justice involved women implemented by the State of Connecticut Judicial Branch/Court Services Division.

Women Offender Case Management Model
THE CONNECTICUT PROJECT

Submitted to the National Institute of Corrections

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EXECUTIVE SUMMARY

This report documents an outcome evaluation of a collaborative case management model designed for criminal justice-involved women. The project known as the Women Offender Case Management Model (WOCMM) was initiated by the National Institute of Corrections (NIC) to explore the value of applying gender-responsive strategies and approaches when working with women being supervised in a community setting.

The current evaluation explores the implementation of WOCMM undertaken by the State of Connecticut Judicial Branch/Court Support Services Division (CSSD). The report covers the period from October 2007 until April 2010 when the model was implemented in the Bridgeport, Hartford, New Britain and New Haven probation sites. Profiling the characteristics and need areas of women exposed to WOCMM was the first task to be addressed by the evaluation. A second research question focused on the intermediate outcomes of participation in WOCMM by examining changes in risk and protective indicators and gains in knowledge and skills. Finally the evaluation considered criminal justice outcomes by examining the impact of WOCMM on recidivism rates. Outcomes observed for WOCMM participants were compared to the outcomes of a randomized control group.

Methodology

The current evaluation relied on data from two primary sources: CSSD's offender information system and information collected from the women during their participation in WOCMM. Specifically, CSSD provided data on demographics and intake assessment information (LSI-R and ASUS-R) a gender-informed assessment (SPIn-W), probationer contact activity, and recidivism. Data collected from the women in WOCMM included and a series of pre-/re-test measures to examine attitudinal, well-being and behavioral change over the course of participation.

To develop a control group, the evaluation employed a random assignment strategy based on a waiting list of eligible women who were not exposed to the model. Women were assigned to a control group when they met WOCMM entry criteria but could not participate due to the unavailability of a caseload opening. Initial differences between the comparison group and WOCMM group were addressed by building a matched control group. WOCMM participants were "matched" to women in the control group on a number of key variables including age, ethnicity, site, assessed risk to recidivate, substance use involvement score, and probation site. To ensure that the recidivism impact of WOCMM was properly examined for a fixed follow-up period, the matching algorithm was applied to women with a minimum one-year follow-up period since WOCMM participation (or start of probation for the control group). The final matched sample consisted of 174 women probationers in each group.

Profile of Women Probationers

A total of 487 women participated in WOCMM from late 2007 to the evaluation cut-off date of April 2010. Demographic data indicated that a typical WOCMM participant was about 35 years of age, African-American, serving a probation supervision sentence of just under 2.5 years, and assessed as high risk for recidivism with elevated substance use levels. The SPIn-W (Service Planning Instrument for Women) assessment revealed multiple need areas including substance abuse, lack of employment, domestic violence, financial issues, a history of mental health, and abuse. A total of 63.5% were classified as high risk for recidivism according to the SPIn-W, while 51.7% were assessed as having moderate to high strength (i.e., protective) levels. Consistent with the premise that some women may have strengths that could mitigate their high risk levels, the data showed that over a third (36.5%) of the sample were assessed as moderate to high risk with moderate to high protective factor levels.

Based on the profile data, the goal of targeting higher risk women for participation in WOCMM appears to have been successful. Women exposed to WOCMM had longer than average probation sentence lengths, the majority had scores on the LSI-R that placed them at a high risk for recidivism, and the ASUS-R subscale scores pointed to substance abuse problems for many of the probationers. The SPIn-W results confirmed the high risk profile of participants, and also highlighted the multiple needs to be addressed during probation supervision.

Intermediate Outcomes

SPIn-W Assessments. Examination of SPIN-W change scores revealed a statistically significant decrease in overall dynamic risk scores. After an average of eight months between assessments, there was a reduction of about 8% from initial to reassessment. Significant decreases were observed for three of the SPIn-W dynamic risk domains: attitudes, social/cognitive skills and community living. The analyses also showed a significant increase in protective scores at the time of reassessment. Overall dynamic protective scores increased almost 17% and all seven relevant domains showed significant increases. Additional analyses on a subsample of 108 WOCMM participants for which there was a first and second SPIn-W reassessment showed a continuation of the initial trends. In particular there were statistically significant increases in protective factor scores across successive administrations for all but two of the domains. The protective factor results are consistent with the strength-based approach underlying the model.

Self-Report Pre-/Re-Test Measures. Data on changes from pre-test to re-test was available for 138 WOCMM participants. Improvement was noted in the number and satisfaction with social supports, general self-efficacy, parenting skills, and use of success strategies. Similar patterns were detected on a smaller subsample of cases with two sets of re-tests. While there were trends suggesting positive gains in all of the WOCMM-relevant areas measured by the self-report tests, only the changes in parenting strategies and attitudes reached statistical significance.

Probationer Contact Activity. A primary strategy used in WOCMM is to connect women to natural and professional supports and to mobilize or assist women to build personal strategies.

Consistent with this outcome, WOCMM participants had significantly more contacts for all contact types (client, professional/treatment provider, and collaterals) compared to the random assignment control group.

Individual casework records were examined to determine the degree to which case notes reflected the gender-responsive and evidence based practices consistent with WOCMM. In comparison to the control group, a significantly greater proportion of the client case notes for women in the WOCMM condition contained keywords suggesting adherence to the principles and practices of WOCMM. Women with a higher percentage of such keywords also had significantly lower recidivism compared to women with fewer such keywords.

Recidivism Outcomes

One-year follow-up data revealed that WOCMM participants had a significantly lower rate of new arrests in comparison to members of the matched control group (31.6% vs. 42.5%). The relative reduction in new arrests was 25.6% compared to the base rate for the control group. Demographic analyses revealed similar impacts on new arrest rates across age and ethnic groups. Consistent with the risk principle, the impact associated with WOCMM for women with higher LSI-R scores was noticeably greater than for women in the medium risk range. The rate of any new arrests for high risk WOCMM participants was 36.1% compared to 49.5% for high-risk matched control group members.

Conclusion

Overall, the evaluation provides evidence that exposure to this gender informed model results in better outcomes for women probationers who are at risk of negative outcomes. A large number of measures were employed to address the major questions raised in the evaluation framework for WOCMM. The findings offer evidence that the WOCMM principles were being followed by the teams delivering the model and that positive intermediate changes were produced in a number of relevant outcome measures. Finally, the evaluation yielded results to support the conclusion that WOCMM was successful in reducing recidivism for women who were exposed to the model.

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CHAPTER 1 | INTRODUCTION

Over the last two decades there has been considerable interest in exploring the situations and circumstances that place women at risk for criminal justice involvement. Attention to the importance of gender can be attributed to the scholarly works of many writers and a growing movement from the field that is demanding a shift from traditional approaches to models and practices that incorporate research on women. A body of research is amassing and there is some compelling evidence to suggest that differences in how males and females experience the world – (politically, economically, socially, and biologically) require separate study and consideration. These results also provide a springboard for new possibilities and innovative options in our work with women. In this chapter we provide a description of the Women Offender Case Management Model (WOCMM) and the research which guided and informed the development of this gender-responsive approach to facilitate our work with women.

Part 1: The History and Development of WOCMM

The National Institute of Corrections (NIC) has been a forerunner in advancing research and building a knowledge base to guide our work with women. Over the last 10 years, NIC has provided ongoing technical assistance and undertaken a number of large-scale initiatives with an emphasis on justice involved women. The first initiative was designed to identify promising practices and approaches in correctional settings that serve women. Over a three-year period, Bloom, Owen & Covington (2003) conducted a series of focus groups with professionals and women across the United States. A summary of the results was presented in a report published by NIC entitled *Gender-responsive strategies: Research, practice, and guiding principles for women offenders (NIC Publication No. 018017). Washington, DC*. This seminal work further established the need for gender-responsive services and encouraged agencies to examine critically existing policies and practices.

Another initiative undertaken by NIC was designed to expand this information and provide agencies with a tool to help them systematically assess the extent to which existing policies and procedures are aligned with the evidence-based and gender-responsive research. *The Gender Informed Practices Assessment* (GIPA) provides a comprehensive examination of institutional practices across twelve domains including: Leadership and Philosophy, External Support, Facility, Management and Operations, Staffing and Training, Facility Culture, Offender Management (Sanctions and Discipline), Assessment and Classification, Case and Transitional Planning, Core Programs, Services, Quality Assurance and Evaluation. The goal of the GIPA is to obtain targeted information across each domain, rate adherence with established criteria, and provide agencies with general guidance to support operational change.

A third initiative is the focus of this report. The initiative was undertaken to provide line-level professionals with a model that is consistent with evidence-based practice and intentionally applies the gender-responsive research. In September of 2005, Orbis Partners, Inc. submitted a proposal to the National Institute of Corrections (NIC) to design, implement and evaluate a case management model for women who are incarcerated and/or under probation/parole

supervision. The model, subsequently referred to as the *Women Offender Case Management Model* (WOCMM), was developed in conjunction with a national advisory committee. In October 2006 state agencies from across the US were invited to participate as pilot sites to test the efficacy of the model. Connecticut Judicial Branch, Court Support Services Division (CSSD), and the Utah Department of Corrections were selected from among the respondents to implement the model. Since that time, WOCMM has also been implemented in Iowa and Maine. In this report we document the outcomes for a large probation sample of women who were randomly assigned to WOCMM or traditional supervision with the Branch.

Part 2: A Brief Description of WOCMM

The development of WOCMM was guided first and foremost by the literature concerned with justice involved women. We then conducted an exhaustive review of the case management literature to explore evidence based practices across mental health, criminal justice, and child welfare literatures. Similarities in findings across studies suggested that the efficacy of case management is enhanced when common factors and practices are implemented[1].

Guiding Practices

By merging the gender-responsive and evidence based practice literature, we were able to identify nine core practices as the defining features of this model. These are listed below and described in more detail in **Table 1**.

1. Gender Responsive
2. Individualized Service
3. Engagement Strategies
4. Team Approach
5. Collaborative
6. Comprehensive
7. Continuity of Care
8. Committed to Program Integrity
9. Committed to Process and Outcome Evaluation

Consistent with existing research, WOCMM was designed to be a dynamic, seamless process that commences at intake or the time of sentencing and continues beyond discharge from prison and/or community supervision until the woman is stabilized in her community. The definition adopted to describe the case management process is:

> *The professional team should work collaboratively with the woman (and her family) in an effort to define individual needs and strengths and to establish mutually agreed upon outcomes…*

[1] For a comprehensive review of the literature see Van Dieten, M. and Robinson, D. (2008). Case management: A response paper. International Community Corrections Association.

Table 1: Guiding Practices to Implement WOCMM

Guiding Practice	Description
1. Gender-Responsive	Professionals will be trained to use a gender-responsive approach when interacting with the woman. This means that staff will use an approach that is: relational, strengths-based, trauma-informed, and culturally competent.
2. Individualized Service	Consistent with evidence-based practice, the risk and need principles are applied to determine the intensity of services required as well as the need areas that will be targeted. This means that SPIn-W, a standardized gender informed assessment, will be administered with each woman. To ensure that the needs of women are addressed, the assessment will include traditional correctional measures as well as those that are gender-responsive.
3. Use Engagement Strategies	Staff work intentionally and strategically to engage the woman in the change process while respecting the woman's right to choose what and when to address needs and challenges.
4. Team Approach	The "team" approach to case management is essential to the delivery of this model. Team members consist of the "woman" and other natural supports (e.g., family members) who work in conjunction with available representatives from a variety of disciplines that might include correctional, health professionals, Clergy, and other supports. Formation of the case management team is a critical first step in the implementation. Once team members are identified they should develop a mission statement and operating procedures including a policy outlining role and responsibilities, limits to confidentiality and information sharing, etc.
5. Collaborative	Collaboration refers to mutuality of purpose and intent among team members. This means that the woman, as part of the team has a voice with respect to the targets and ultimate outcomes of the case management process.
6. Continuous Service	The central importance of relationships in the lives of women argues strongly for continuity in services. This means that whenever appropriate the case manager and members of the team are encouraged to offer direct services, including assessment, treatment and mentoring. When services cannot be provided directly by a team member another professional within the team should be present to introduce the woman to the external resource.

7. Comprehensive	The model recognizes that women often present with complex needs and face multiple challenges. Therefore, a critical element of WOCMM is to ensure that services are designed to help women build personal resources as well as social capital[2]. Services may include, information, advice, treatment, assessment, brokerage and referral across an array of need areas including, vocational, family/social, personal, and life needs. The need to provide comprehensive services requires partnerships with service providers across institutional and community settings. Many women transitioning from prison or who are supervised in the community reside in neighborhoods that elevate risk to their personal safety as well as expose them to situations that may contribute to future criminal justice involvement. Often communities lack basic resources or women no longer qualify for services. To address these challenges, WOCMM should work to organize stakeholders and to build partnerships with service providers who wish to work more effectively with women. The WOCMM team works to build relationships with the women and agencies in the community to provide holistic services including: ■ Individual supportive therapy ■ Medical services ■ Child-Care ■ Housing ■ Family Reintegration/Parenting/ Domestic Violence ■ Substance abuse services ■ Work-related services ■ Social, interpersonal relationship, and leisure skills training ■ Vocational supports ■ Other support services
8. Program Integrity	The safe and effective delivery of services to women requires attention to program integrity and quality assurance. Team members are cross-trained and provided with formal training, access to quality assurance supervision, ongoing coaching, and the resources necessary to ensure adherence to the model.
9. Program Evaluation	Evaluation is critical to the implementation of this model. This means that a number of measurement and case management tools are used to monitor the woman's progress throughout her involvement in the case management process. In addition to process information, WOCMM was designed to contribute to the outcome literature and to increase knowledge about promising practices.

[2] Social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them. In that sense social capital is closely related to what some have called "civic virtue." The difference is that "social capital" calls attention to the fact that civic virtue is most powerful when embedded in a sense network of reciprocal social relations.

Core Elements/Activities:

WOCMM consists of four distinct but overlapping activities that are consistently reviewed as new priority targets are incorporated into the case plan. Ideally goals are achieved by moving through the core elements in a sequential fashion. However, it is anticipated that as women transition through the system or face alternate life circumstances, priority targets will change and/or shift necessitating movement forward or backward.

Core Element #1: Engage and Assess. The administration of a comprehensive, gender-responsive assessment is a critical first step in the case management process. The goal of the assessment is to build rapport with the woman and to increase awareness about her strengths (factors which buffer or mitigate risk) and needs (factors that might contribute to future criminal justice involvement and impact on survival, stability and self-sufficiency).

Core Element #2: Enhance Motivation. The case management team works intentionally to build intrinsic motivation and engage women in the change process. Two complementary modalities that capture the "spirit" of a women-centered approach while intentionally working to increase motivation- are Relational Theory and Motivational Interviewing (MI). These approaches are foundational to the implementation of WOCMM and assist professionals to work safely, thoughtfully and collaboratively with her.

Core Element #3: Implement the Case Plan. When the woman indicates readiness and commitment to develop a Case Plan the team must be prepared to deliver and/or broker an array of services. To mobilize and expand existing resources it is critical that women be presented with a variety of service options and opportunities in four primary areas: vocational, personal, social and life needs. The ultimate goal is to move the woman toward self-sufficiency by strengthening and building personal strategies and increasing social capital.

Core Element #4: Monitor Progress. This stage is of great importance to WOCMM meeting the needs of the women because it ensures that the Case Plan is constantly monitored and updated. Essentially the Case Management Team uses the Case Plan as a dynamic tool to work with the woman to: (1) review progress and reinforce successes (2) to review barriers to success and introduce problem-solving strategies and, (3) to develop new goals and action steps as needed.

Part 3: The Present Study

WOCCM was designed to integrate the evidence-based and gender-responsive research in an effort to enhance outcomes with criminal justice involved women. In this report we will address the following questions:

- What challenges and strengths do justice-involved women present and how will the use of gender-responsive assessment identify women at greatest risk for service?
- What are the intermediate outcomes of participation in WOCMM? Can we demonstrate an increase in personal strategies and access to natural supports and resources?
- What is the recidivism impact of a gender-responsive case management model for women under probation supervision?

(1) What challenges and strengths do justice-involved women present and how will the use of gender-responsive assessment identify women at greatest risk for service?

A close look at the prediction research across justice settings suggests that there are a number of factors that elevate risk for criminal justice involvement. In fact, the summative research from Canadian researchers who formulated the principles of effective intervention point to at least six factors that predict justice involvement and the likelihood of future criminal behavior (Andrews and Bonta, 2006). These are briefly described in **Table 2** (The Major Risk Factors).

Table 2: The Major Risk Factors

Behavioral History: Early onset of conduct problems, behavioral difficulties across settings, overt and covert delinquent behavior.
Family Practices: Exposure to abuse and neglect, low levels of affection and encouragement. Parent modeled anti-social behavior or unavailability due to history of depression, substance abuse, etc.
Peers: Interaction with antisocial peers and limited access to pro-social models.
Emotional/Personal: Difficulty with self-management and regulation, history of impulsivity and low frustration tolerance, limited perspective-taking skills, poor social skills.
Educational/Employment: Low levels of educational and vocational achievement.
Antisocial Attitudes: Attitudes, values and beliefs supportive of criminal activity. Justifies, minimizes, denies or boasts about antisocial behavior.

This research has had a dramatic impact on how we work with males and females in the criminal justice system. For example, the identification and acceptance of the big "six" has influenced the development of standardized assessment, classification and treatment. At present there are hundreds of studies that demonstrate the predictive power of standardized tools that accurately

classify males and females as low, medium and high likelihood for re-offending (Hardyman and Van Voorhis, 2004; Blanchette and Brown, 2006). Given the robust nature of these results, and the predictive utility of these tools with both males and females it is tempting to assume that they work equally well for both. However, feminist scholars and professional staff continue to express dissatisfaction with gender-neutral tools for several reasons. First, it is argued that most tools do not capture the "whole story". There is a tendency to focus on the "Big Six", or gender neutral items, without regard to gender-specific factors that play a role for justice involvement for women. For example, in 2003, Olson, Alderden, and Lurigio (2003) published the results of a study conducted in Illinois with a large probation sample. They concluded that a number of factors were predictive for both males and females, while others were more predictive for one group than the other. A series of studies conducted by Van Voorhis and colleagues at the University of Cincinnati supported the Olson et. al (2003) results. They identified a number of factors that predicted institutional behavior and success under community supervision including, mental health issues, exposure to interpersonal violence in intimate and personal relationships, a history of childhood abuse and neglect, lack of self-efficacy, issues related to child custody and visitation, parental stress and parenting skills, and access to safe and drug-free housing.

Second, it appears that we need to move beyond the inclusion of additional factors and focus on how specific items predict outcomes for males and females. Hardyman & Van Voorhis (2006) suggest that the level of importance and nature of association of these major factors may differ across genders. In other words, though many of the major factors are the same, some factors appear to play a different role for males and females. Lowenkamp and Latessa (2002) suggested that only *some* criminogenic needs were the same for males and females and that the respective needs had different roles and predictive power for males and females.

Third, over a four-year period, Hardyman and Van Voorhis (2004) began to look more closely at the aggregate results for males and females on standardized risk/need assessments. Data collected in a number of states including Missouri, Colorado, Hawaii, Minnesota, were analyzed for adult male and female offenders in prison and community settings. The authors concluded that these instruments were able to effectively identify males and females who were high, medium and low risk for re-offending. However, they also discovered that women were routinely over-classified as medium or high-risk.

Finally, most standardized assessments focus exclusively on risk factors or criminogenic needs, and although helpful in determining what places individuals at risk for criminal behavior, there is *another body of research that is concerned with factors that appear to play a protective role*. Protective factors refer to characteristics and resources that help to insulate or buffer the individual from negative outcomes. These assets or strengths appear to inhibit high-risk behavior and help the individual to rebound in the face of adversity or risk. The notion of protective factors or strengths has become an exciting new area within criminal justice assessment. While the research is still in its infancy, preliminary tests of the impact of protective factors for high risk juveniles have provided very favorable results. For example, based on a large sample of juvenile probation clients in Washington State, Barnoski (2004) and others found that high risk youth who had elevated levels of protective factors exhibited better outcomes than high risk youth with low

levels of protective factors. This research points to the need to increase protective factors, especially among higher risk offenders, in order to reduce their risk levels.

The research summarized above provides compelling support in favor of using gender-informed assessment tools. At the time that WOCMM was first implemented in 2006 we could find only two published studies which explored the predictive utility when gender-informed assessments were included (Van Voorhis, 2006 and Blanchette, 2005). The current study will attempt to replicate and extend these findings by determining whether outcomes can be predicted more effectively when assessment items are enhanced by the inclusion of additional gender informed items. . In addition, we will explore the value of including protective factors in the assessment.

(2) What are the intermediate outcomes of participation in WOCMM? Can we demonstrate an increase in personal strategies and access to natural supports and resources?

Case or transition planning is a common practice in probation/parole settings and is often used to facilitate the successful transition of offenders from prison to the community. However, relatively few studies are available that fully explore the impact of case management. This may be explained in part by the fact that case planning or supervision practices vary dramatically across professional staff. Bonta, Bourgon, Rugge, Scott, Yessine, Gutierrez, and Li (2010) have conducted a series of studies in probation in Canada to explore the impact of training probation staff to deliver a standardized case management session. Probation officers were trained in: (1) *structuring skills* which helped them move through a checklist of activities, (2) *relationship building skills* which included listening and feedback, (3) *behavioral techniques* such as modeling and reinforcement, and, (4) *cognitive techniques* which focus on targeting change in pro-criminal attitudes. The probation staff were provided with ongoing coaching and supervision. Adherence to the model was monitored through the review of session audio-tapes. Bonta and colleagues discovered that clients had lower recidivism rates when assigned to officers who demonstrated high compliance ratings on training criteria versus officers who less skilled or were not trained on the case management methods.

As described earlier in this report, we carefully reviewed the correctional, mental health, and child welfare literature to identify nine common case management practices that are associated with favorable outcomes across at least two fields of research (see **Table 1** for further details). For example, the importance of individualized assessment, use of engagement strategies, attention to integrity, and the need to include a process and outcome evaluation, have been well documented in the correctional, mental health and child welfare research. The remaining practices, including use of team, comprehensive, collaborative, and continuous services have not been fully explored with justice-involved clients but are supported in both the mental health and child welfare research. Each field of research identifies slightly different ultimate outcomes. The correctional research is concerned with demonstrating reductions in recidivism, while mental health models focus on reductions in hospitalizations and child wrap-around services focus on fewer out-of-home placements.

The current study does not permit us to explore the impact of each separate guiding practice. However, we are interested in the impact of using a standardized case management approach on measures of recidivism. For example, after conducting the assessment the woman and team members work collaboratively to set the priority targets. These are monitored on a session-by-session basis to review progress, reinforce successes, address obstacles and continuously update the case plan.

In addition we are concerned with exploring the impact of this approach on intermediate outcomes. The inclusion of a comprehensive risk/need assessment and a series of supplemental measures allows us to monitor change across an array of gender neutral targets such as- antisocial attitudes, cognitive skills, employment, finances. In addition, we will examine impacts on gender-informed targets such as access to mental health services, reduction in mental health symptoms, enhanced parenting skills, reductions in parental stress, enhanced self-efficacy, etc.

***(3)* What is the recidivism impact of a gender-responsive case management model for women under probation supervision?**

There is a paucity of research focusing on the impact of gender-responsive approaches and practices. In one of the first attempts to summarize this literature, Dowden and Andrews (1999) conducted a meta-analysis to examine the impact of effective correctional interventions for women and girls. They found that stronger treatment effects were identified when programs deliberately targeted females with a history of criminal justice involvement, focused on one or more of the traditional criminogenic targets; and when the program used behavioral social-learning treatment strategies. The strongest predictors of treatment success were found with programs that addressed interpersonal criminogenic targets such as, family conflict and antisocial peers as well as personal criminogenic targets, including antisocial attitudes and skill deficits. The authors noted a number of limitations for this study including a limited sample size and inadequate measures to assess risk. This study was carefully reviewed by Blanchette & Brown (2006) who concluded that considerably more research is needed to define: "appropriate criminogenic targets for females" and to explore the impact of gender-responsive or relationally-oriented approaches.

Unfortunately, we could locate only a handful of experimental studies with random assignment of girls or women to gender-informed programs or services. Most of the studies completed were not methodologically rigorous, sample sizes were woefully small or mixed, and in many cases, a follow-up period was not reported. A notable exception is an outcome evaluation conducted by Gehring and Van Voorhis (2009) on *Moving On* which is a cognitive-behavioral intervention program grounded in a gender-responsive framework. *Moving On* was designed to assist women to mobilize and build personal strengths and to connect or rebuild relationships with both natural supports and professional helpers. Using a quasi-experimental design, this program demonstrated significant reductions in recidivism for a large sample of women who participated in Moving On in comparison to a matched control sample that received regular probation services.

Despite a dearth of experimental studies, there is surprising richness and consistency in the qualitative literature with respect to "what" comprises a gender-responsive approach. For example, almost without exception authors of women's programs like Seeking Safety, Helping Women Recover, and Moving On (Najavits, 2002, Covington 2008, and Van Dieten, 2006, 2010) incorporate the use of relational and strengths-based approaches. Alyssa Benedict from Core Associates describes five core practices as the defining features of a gender-informed approach. These include practices that are relational, strengths-based, trauma-informed, culturally competent and holistic.

Another body of research that lends support to the use of relationship-oriented and strengths-based approaches concerns studies that have examined the impact of Motivational Interviewing (2002). Motivational Interviewing (MI) is a client-centered intervention that was developed to encourage engagement in the change process. This approach places an emphasis on working collaboratively with the client and on using an empathic, genuine, and respectful approach to reduce resistance. MI is used to address a variety of lifestyle behavior problems including smoking, alcohol and drug abuse, and an array of mental health issues. Research suggests that clients who receive MI, are more likely to participate in treatment, indicate greater satisfaction with treatment professionals, and demonstrate more favorable outcomes.

Research supporting the use of gender-informed practices and approaches is currently limited. The current study will explore the impact of using a gender-responsive approach versus traditional probation on a matched sample of justice involved women. The impact on recidivism will be studied across a series of recidivism measures including new arrests and technical violations. However, we will also examine the extent to which women exposed to the model receive contacts and services that are consistent with WOCMM. By examining data from the community supervision casework process, we will attempt to study whether exposure to practices consistent with WOCMM are associated with more positive outcomes.

CHAPTER 2 | METHOD

I: WOCCM (Design and Description)

Pilot Site and Implementation Committee

The WOCMM project was piloted in Connecticut by the Judicial Branch, Connecticut Court Services Division (CSSD). CSSD provides a number of statewide court services including juvenile and adult probation. The National Institute of Corrections selected Connecticut as the community demonstration site after CCSD was successful in a competitive proposal process. The National Institute of Corrections provided assistance to CSSD in the form of technical supervision delivered by Orbis Partners.

The Connecticut proposal included an implementation committee that was comprised of seven leaders representing specializations within CSSD including: a chief Probation Officer, the Assistant Director of Programs and Services, the Director of Operations, and several Program Managers representing Gender Services, Research, Agency Contracts. During the first phase of this project a strategic plan was developed through a collaborative effort with Orbis Partners and the CSSD implementation committee. With the assistance of this committee a protocol was established and revised to guide efforts related to staff selection, training, coaching, quality assurance, and project evaluation.

Staff Selection

The original WOCMM team included 8 probation officers, 4 resource advocates, and several intervention specialists. These individuals formed what we referred to as the **core** team who worked with all of the women. On a case-by case basis other natural supports (family members, professionals) were invited to participate as needed.

A number of probation officers volunteered to participate in the pilot project after attending a presentation describing the project. Several criteria were used for staff selection - including a strong recommendation from the probation supervisor, a stated interest in working with women, a willingness to participate in training, coaching, and quality assurance, included observation and tape review. Staff who volunteered for the assignment were interviewed and furnished with detailed information regarding the WOCMM protocol.

The eight probation officers selected by CSSD were all female and each held a 4-year bachelors degree in criminal justice or a related field. The officers had field experience ranging from 2 years to 15 years and all had prior exposure to training in risk assessment, motivational interviewing and cognitive intervention.

CSSD contracts with local agencies across the state to provide evidence-based programs and services to their clients. A similar recruitment method to that designed for the probation officers was used select 6 agency staff to participate on the Core Team as resource advocates and intervention specialists. For the most part, core team member positions were occupied by the

same individuals throughout the first three years of the pilot project. One of the probation officers took an early retirement due to health issues and another left the project for professional reasons.

Training

A series of training modules were developed specifically to support the WOCMM model. The modules were delivered over two 5-day training sessions offered over a one month time period to all core team members. Probation supervisory staff, program directors from contracted agencies, and members of the implementation committee also attended the training. The decision to cross-train probation officers, resource advocates and intervention specialists provided an opportunity to ensure that everyone was aware of the model, the core practices, and could provide each other with technical support. A WOCMM Manual complete with training materials and resources was given to each of the participants. **Table 3** provides a description of the topics covered during the training.

Table 3: WOCMM Training Modules

Topic	Description	Duration
Module 1: WOCMM Model	• Introduction to the theory and research underlying the WOCMM model and the importance of merging evidence based practice and research on women. • Explore the guiding practices and core elements.	3 hours
Module 2: What We Know About Justice- Involved Women	• Summarize the current literature focusing on girls and women in the general population • Review gender neutral risk factors that impact on justice involvement • Explore additional factors that impact on girls and women • Review the pathways research	3 hours
Module 3: Framework for Effective Strategies and Interventions	• Introduce core practices that are foundational when working with girls and women - Relational approach - Strengths-based approach - Trauma-informed practice - Cultural competence - Holistic • Core practices are introduced and then revisited throughout each subsequent module	6 hours
Module 4: Gender-Responsive Assessment	• Introduce a gender responsive standardized assessment (Service Planning Instrument for Women- SPIn-W) • Scoring the assessment • Interpreting the results and using the software	6 hours
Module 5: Core Element #1: Engage and Assess	• Introduce the foundation skills for effective interviewing • Focus on developing a dynamic, relational and strengths-based interview style	6 hours
Module 6: Motivational Interviewing	• Introduction to motivational interviewing • Eliciting change talk • Advanced strategies to deal with resistance	6 hours

Table 3: WOCMM Training Modules Cont'd

Topic	Description	Duration
Module 7: Core Element #2: Enhance Motivation	• Applying Relational and Motivational Strategies • Feedback • Prioritizing • Case Plan or Transition Plan	6 hours
Module 8: Core Element #3: Develop the Case Plan	• Mobilizing personal strategies - Strengths-based approaches - Cognitive-behavioral intervention • Mobilizing resources - Identifying natural supports - Building connections	6 hours
Module 9: Core Element #4: Reviewing and Supporting	• Case Management Session - Engage and connect - Review progress - Summarize strengths - Modify case plan - Review action steps • Introduce personal strategies • Identify natural supports - Review obstacles and barriers - Close Session	6 hours
Module 10: Team Building	• Introduce team building activities - Team mission statement and vision - Roles and responsibilities - Scheduling the team meetings - Facilitating the team meeting - Observation and feedback forms	6 hours

The curriculum was designed to give participants opportunities to apply knowledge and practice the skills introduced during training. Proficiency development was assessed using a number of tools including – case assignments, video-tape coding and scoring activities, knowledge tests, behavioral rehearsal and self assessment ratings.

Coaching/Supervision

Intensive training does not ensure the transfer of learning. To augment the formal training provided by Orbis Partners team members, the CSSD implementation committee met with the site teams on a monthly basis. In addition, supervisors were provided with training so that they were equipped to coach staff in the course of their supervision. Finally, to supplement these supportive activities, CSSD contracted with a local provider to meet with the probation officers for monthly quality assurance sessions. In preparation for this monthly meeting, the probation officer was required to record a case management session. Tapes were reviewed in the presence of the officer by the assigned quality assurance coach using a standardized session protocol described below.

In addition to formal coaching, the core team members were invited to participate in quarterly booster sessions that were offered by Orbis Partners during the first two years of project implementation. Booster sessions were designed to provide refresher training and advanced skills across an array of topics identified by the core team members. Six 2 day trainings were offered including: Administering and scoring the SPIn-W assessment; Advanced Interviewing Skills; Trauma-Informed Practices; Using a Relational and Strengths-Based Approach to Address Client Resistance; Self-Care in Dealing with the Impact of Secondary Trauma.

Quality Assurance

A number of quality assurance efforts were developed in order to increase staff proficiency and ensure adherence to the model. The dilemma we faced in evaluating a demonstration project of this scope is that staff must develop the skills necessary to deliver the model effectively at the same time as the model is evaluated. This created a number of challenges which were creatively and proactively addressed by the CSSD implementation team.

Quality assurance occurred at a number of levels. First, the initial training provided supervisors and the implementation team with a strong indication of staff proficiencies and major needs. This information was conveyed to supervisors who worked with staff toward obtaining a minimum standard of proficiency. Second, Orbis Partners worked with the contract agency to develop an observation tool. Inter-rater reliability was established among raters using the tool to ensure adherence to the model and to provide individual staff with feedback.

Third, the software developed for the SPIn-W assessment permits the generation of performance reports across an array of quantitative indicators including whether or not assessment and case plan information is entered in a timely way. It also provides reports indicating the quality of case activity such as consistency between prioritized needs and services, types of services, progress and status in completing actions steps. These quality assurance assessment reports were generated on a quarterly basis and used to supplement supervision and support of the WOCMM teams.

Fourth, a process evaluation was conducted in the summer of 2009 to monitor progress and elicit feedback from the various stakeholders. A rating scale was developed and used to provide fidelity ratings across the four sites.[3] Overall, the process evaluation confirmed that the four sites delivering WOCMM in Connecticut were observing the principles associated with the model. Interviews and focus groups were used to assess implementation fidelity from the perspective of service delivery and client stakeholders. The process data suggested that staff teams were fully engaged in providing services informed by WOCMM core elements and guiding principles. From the perspective clients who participated in WOCMM, the women were able to readily identify key components they had experienced that differentiated WOCMM from regular probation service. In particular, the women described relationships and service experiences that confirmed the operationalization of the guiding principles. While some implementation challenges were identified, the process evaluation yielded highly positive evidence of fidelity to WOCMM.

[3] A copy of the process evaluation is available from Orbis Partners Inc.

II: Measures

A description of the various instruments used for this project is described below.

Intake Measures

The Level of Service Inventory – Revised (LSI-R) and the Adult Substance Use Survey – Revised (ASUS-R) was completed by Intake/Assessment/Referral probation officers for each probationer under supervision to CSSD. As indicated earlier, the LSI-R was also used to determine eligibility to participate in WOCMM.

Service Planning Inventory for Women (SPIn-W: Orbis Partners of Canada)

One of the objectives of the demonstration project was to explore the utility of using measures that have been developed for and validated with women offenders. Hardyman and Van Voorhis (2004) have identified a number of concerns related to the use of risk/need assessments with women offenders. First, most risk/need assessments in current use with women were developed for and validated with male offenders. Research conducted by Hardyman and Van Voorhis suggest that women are often under or over-classified when these measures are used. Second, the same assessments fail to examine factors that can escalate risk for women in the criminal justice system and/or that have direct impact on case management.

The Service Planning Instrument for Women (SPIn-W) was selected by CSSD to inform supervision decisions and case planning practices. Spin-W is a gender-specific assessment and case planning tool that was developed from research and field practice with criminal justice involved women. SPIn-W assesses risk, need and protective factors using measures that are sensitive to issues experienced by women receiving justice services. The assessment contains 100-items that have demonstrated relevance for increasing responsivity in case work with justice involved women. While the content of SPIn-W overlaps with traditional risk/need assessment in general populations of men and women, SPIn-W items related to child custody and parenting issues, domestic violence, mental health, social support, and community living are also included. Items in assessment domains related to attitudes, aggression, interpersonal skills, and cognitive skills have been tailored to take into account how these areas of risk are manifested in female offender populations.

The SPIn-W is a comprehensive gender-responsive risk/need assessment that was developed by Orbis Partners for use in institutional and community settings [www.orbispartners.com]. **Table 4** outlines the major content and features of the assessment device. This instrument was designed to:

- Provide a general indication of risk for re-offending, to assist with classification, and to guide decisions regarding the intensity of intervention.
- The instrument provides a comprehensive picture of personal and contextual factors that are reviewed as women transition through the justice system.
- The instrument includes items that have been found to contribute to criminal justice involvement for women including– child-care, stability factors, history of abuse and trauma, mental and medical health and survival/coping strategies, etc.

- The instrument is dynamic[4] allowing the team to monitor progress in the short-term and to ensure that women are responsive to the case management process.
- The instrument identifies "strength" or "protective factors" within the assessment formula. Protective factors such as personal or social resources that are likely to help reduce or "cushion" the negative impact of risk factors should be assessed.
- The results are presented visually to guide the development of an integrated case plan approach by providing a summary of risk and needs factors.
- Reassessment results assist the case management team to monitor progress and outcomes.

SPIN-W DOMAINS — *Table 4*

DOMAINs	INSTITUTIONAL (DYNAMIC)	COMMUNITY (DYNAMIC)
Criminal History	▪ Risk factors ▪ Protective factors ▪ Motivation ▪ Client perception/ knowledge of system support	▪ Risk factors ▪ Protective factors ▪ Motivation ▪ Client perception/ knowledge of system support
Response to Supervision		
Family and Children		
Social Network		
Substance Use		
Vocational/Employment		
Attitudes		
Social/Cognitive Skills		
Mental Health		
Aggression/Violence		
Community Living		

In addition to the SPIn-W assessment, the Case Management Team administered a number of measures to inform the case management process and to track relevant changes over time.

Social Support Questionnaire (SSQ)

Sarason, Sarason, Shearin, and Pierce (1987) developed the Social Support Questionnaire (SSQ) to document the people who are available to provide support to clients and the level of satisfaction with overall support provided.

[4] Some risk need assessment instruments focus primarily on static or chronic factors to guide decisions related to classification and case management. This is problematic – particularly for women because many women experience trauma and abuse as children but do not come to the attention of the courts or mental health professionals until much later in life. An emphasis on static factors will give an incomplete picture of the woman's life experiences, the onset of problems, and the survival strategies used by women to cope with abuse.

Eco-Map

One of the first attempts to provide a graphic representation of the client's ecosystem was made by Hartman (1995). Hartman developed the maps for child welfare workers to examine the needs of families and diagram the complex data that described such families in pictorial form. According to Longress (1990), the ECO-MAP is a simple paper-and-pencil stimulation that can be used as an assessment, planning, intervention, and evaluation tool. This tool was designed to organize complex data to portray the woman's systems of interaction. The social network assessment device maps the woman's ecological system in a dynamic way.

Included in the map are the major systems that are (or ought to be) part of the woman's life and the nature of her relation with the various systems. The map efficiently portrays an overview of the woman in context. It pictures the important nutrient or conflict-laden connections between the woman and her world. It demonstrates the flow of resources or the lacks and deprivations. This mapping procedure highlights the nature of the interfaces and points of conflicts to be mediated, bridges to be built, and resources to be sought and mobilized. The process demands an equal level of active and mutual reciprocity between the case manager and the woman that is very empowering because she is given ultimate responsibility for the amelioration or resolution of problems.

General Self-Efficacy Scale

The general self-efficacy scale was originally developed by Sherer and Maddux (1982). The 12-item version assesses optimistic self-beliefs to cope with a variety of difficult demands in life. In contrast to other scales for assessing optimism, this scale explicitly refers to personal agency – that is, the belief that one's actions are responsible for successful outcomes.

Personal Strategies for Success

This 36-item scale was developed to identify strategies that women use to address a broad range of situations and circumstances to address problems and challenges.

Parenting Scale

This scale includes a compilation of items from a variety of measures. It was adapted by Pat Van Voorhis at the University of Cincinnati to assess the level of stress that women feel with respect to raising their children and their confidence in managing child behavior.

Service Contacts

Each time an officer has contact with a probationer or any service provider with the probationer, an entry is logged by the officer into CSSD's offender information system. The date and type of contact is recorded from a standard dropdown menu. The officer also documents specific details regarding the contact in a freeform case note textbox. The service contact data provides an important source of measurement for the frequency, type, and quality of contacts experienced by probationers.

Outcome Recidivism Variables

The following outcome variables were examined as measures of recidivism:

- New Arrests
- New Felony Arrests
- Any Negative Outcome (include arrests as well as absconding and technical violations)

The data were supplied by CSSD based on extractions from the offender information databases used to record information and track the statuses of probationers under supervision.

III: WOCMM Clients

Site and Client Selection

CSSD's research unit conducted an initial examination of demographic and assessment information for women on probation and were able to identify four offices that could provide an adequate number of participants for the project. The sites were also selected to supply a mix of urban and suburban clients. These included the cities of Bridgeport, Hartford, New Britain and New Haven. After reviewing existing information it was decided that women probationers from these areas who met the following criteria would be eligible for participation in WOCMM:

- Minimum 18 years of age at probation start.
- Probation term of one year or more (including split-sentence cases released from corrections/parole and commencing probation supervision).
- Not a sex offender.
- LSI-R assessment score of 22 and above (medium or high).
- Availability of a WOCMM caseload opening (maximum caseload size is 35 women per officer).

Profile of Participants

Based on the participation criteria outlined above, a total of 487 women were assigned to WOCMM between October 2007 and the evaluation cut-off date of April 2010. At that time, 260 (53.4%) remained active in the program[5]. **Table 5** shows the demographics, supervising regions, probation sentence length, and LSI-R and ASUS-R subscale scores. The data indicated an average age of 34 years with 32.9% in the 35-44 years age group and 31.6% aged 25-34 years. Forty-one percent were African-American, 32.2% Caucasian and 26.9% Hispanic. Average probation sentence length was 2.3 years, with 74.6% serving sentences of 2 years or more. Just under half (47.2%) were from the North Central supervising region which included two of the four sites, and about one-quarter each from the South Central (24.4%) and South West (22.2%) supervising regions.

[5] Of the 227 women no longer active, 89 (39.2%) were removed due to unsatisfactory participation, 27 (11.9%) were transferred to a non-participating office and 34 (15.0%) discontinued for other reasons. A total of 77 (33.9%) had successfully completed by April 2010.

Regarding risk levels, average LSI-R score was 29.7, with 44.5% classified in the medium risk category and the remaining in the high (48.1%) or very high (7.4%) levels. Compared to the ASUS-R offender profiles that were normed on several probation samples, scale results for this group of 487 women showed elevated levels on alcohol/drug involvement (high-medium), life disruption (high-medium), social (low-medium), legal (high), and non-conforming and mood adjustment (high).

Table 6 shows information related to the needs of the women assigned to the WOCMM caseload as assessed by the gender-responsive SPIn-W assessment tool. The data shows that the majority of WOCMM participants demonstrated multiple needs. The most frequently noted areas included substance abuse, lack of employment, domestic violence, financial issues, a history of mental health and abuse. The use of alcohol (43.9%) or other drugs (62.1%) that resulted in disruption in life functioning or was directly related to criminal behaviour was evident in the majority of cases. Slightly more than half of the women (52.4%) had a current mental health condition and 73.8% had suffered some form of abuse in the past. About one-quarter (22.6%) of the women reported involvement in a relationship with a high degree of conflict and instability. Three-quarters (75.1%) relied on social assistance and 67.9% were unemployed at the time of the current offense.

WOCMM SAMPLE — *Table 5*

	WOCMM Sample (n=487)
Age (years)	
18 - 24	17.0%
25 - 34	31.6%
35 - 44	32.9%
45+	18.5%
Average Age (years)	34.8 (SD=9.5)
Ethnicity	
African-American	41.1%
Caucasian	32.2%
Hispanic	26.7%
Probation Sentence Length (years)	(n=479)
1 - < 2	25.5%
2 - < 3	39.7%
3+	34.9%
Average Probation Sentence Length (days)	830.3 (SD=329.6)
Supervising Region	(n=483)
Eastern	2.3%
North Central	47.2%
North West	3.9%
South Central	24.4%
South West	22.2%
LSI-R Score Levels	(n=447)
22-28	44.5%
29-38	48.1%
39+	7.4%
Average LSI-R Score	29.7 (SD=5.6)
Average ASUS-R Scales	(n=429)
Involvement	8.7 (SD=7.5)
Disruptive	17.1 (SD=19.2)
Social Non-Conforming	9.1 (SD=5.3)
Legal Non-Conforming	11.5 (SD=6.5)
Mood Adjustment	10.2 (SD=7.0)
WOCMM Status	
Active	53.4%
Discharged/Completed	46.6%
Average Length of WOCMM Participation (days)	
All Participants	395.3 (SD=275.3)
Active	366.5 (SD=240.1)
Discharged/Completed	420.5 (SD=300.9)

*WOCMM SAMPLE – PROFILE OF SPIN-W ITEM RESULTS** **Table 6**

	WOCMM Sample (n=389)
Criminal History	
1+ Incarcerations as an Adult	20.8%
Offense History:	
- Violent	50.1%
- Property	23.4%
- Drug/DWI	53.7%
- Prostitution	10.5%
- Other	57.3%
Response to Supervision	
Technical Violations of Supervision	37.3%
Family and Children	
Marital/Intimate Relationships:	
- High degree of instability and conflict	22.6%
- Conflict and dissatisfaction evident	21.6%
Relationship Risk Factors:	
- Victim of domestic violence	59.1%
- Victimization with current partner or recent ex-partner	31.9%
- On-going conflict with ex-partner	23.1%
Dissatisfied/Stressed with Custody Arrangements	30.9%
No/Minimal Contact with Children	19.2%
Abuse in Family of Origin:	30.8%
- Victim of physical abuse	28.1%
- Victim of sexual abuse	26.5%
Supportive/Positive Relationships with Family of Origin	38.6%
Accessible/Attachment to Pro-social Models in Family	46.8%
Social Network	
1+ Friends with Positive Pro-social Influence	59.4%
Substance Use	
Frequent Alcohol Use	22.3%
Alcohol Use Disrupts Functioning or Contributes to Criminal Behavior	43.9%
Frequent Drug Use	42.6%
Drug Use Disrupts Functioning or Contributes to Criminal Behavior	62.1%
Vocational/Employment	
Less than 12th Grade Education	52.4%
Employment History:	
- Unemployed at time of current offense	67.9%
- Never employed more than six months	14.9%
Mental Health	
Current Mental Health Condition	52.4%
Medication Prescribed for Mental Health Condition	49.9%
History of Abuse:	73.8%
- Physical Abuse	60.4%
- Sexual Abuse	40.4%
- Emotional Abuse	64.5%
Other Mental Health Indicators:	
- Self-injurious behavior	17.5%
Suicidal Ideation (thoughts/attempts)	18.5%
Violence	
1+ Previous Violent Behavior/Convictions	28.5%

*WOCMM SAMPLE – PROFILE OF SPIN-W ITEM RESULTS** — *Table 6 cont'd*

	WOCMM Sample (n=389)
Community Living	
Must Rely on Social Assistance	75.1%
Accommodation:	
- History of homelessness	25.2%
- Temporary/unstable accommodation arrangements	35.7%
Current Medical Conditions:	
- HIV	3.6%
- Hepatitis	10.0%

* Results represent intake SPIn-W assessment administered at WOCMM start.

In addition to the SPIn-W measures, overall risk and protective levels as well as domain level results were analysed to examine the distribution of cases across low, moderate or high risk as shown in **Figure 1.** Given the selection criteria for participation in WOCMM, it was not surprising that only 5.4% were assessed as overall low risk, 31.1% as moderate and the majority of cases (63.5%) were assessed as high risk using the SPIn-W [6].

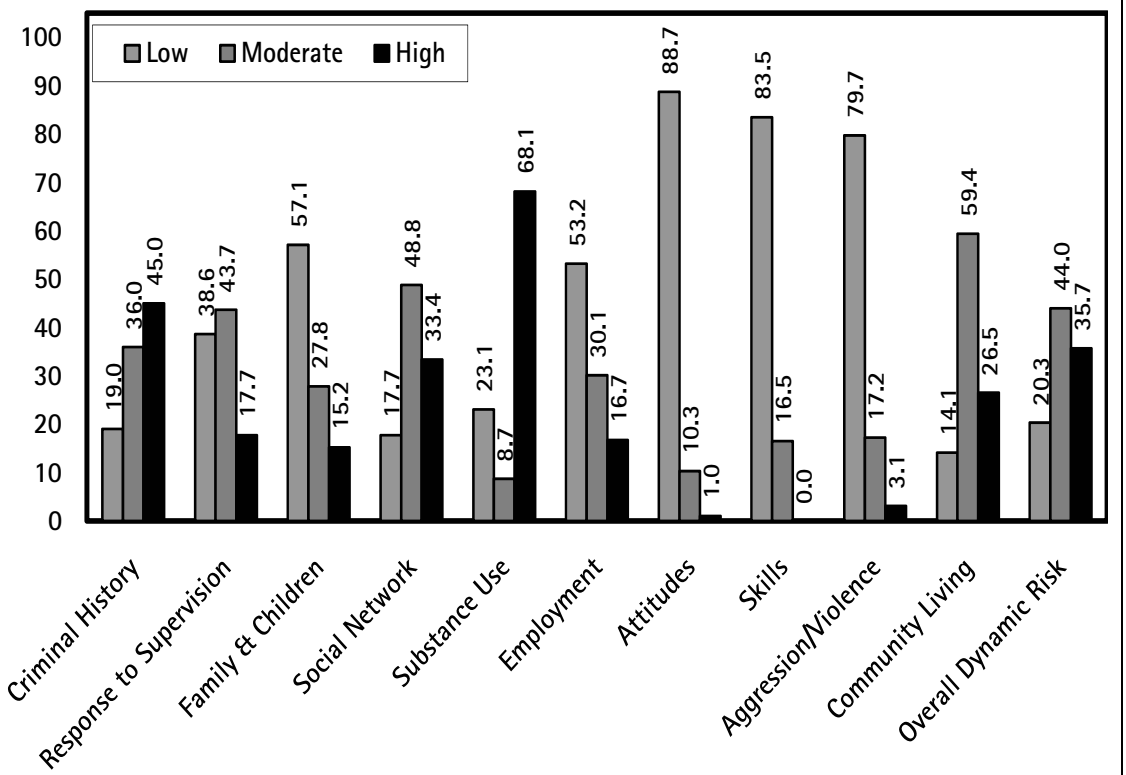
*WOCMM SAMPLE – % OVERALL SPIN-W RISK LEVELS** — *Figure 1*

* Results represent intake SPIn-W assessment administered at WOCMM start.

[6] Exploratory analyses were conducted to examine the ability of the SPIn-W to differentiate risk of recidivism. Using a pool of 274 women having a minimum one-year follow-up, new arrest rates for those assessed as Low was 12.9%, 25.3% for women assessed as moderate and 43.6% for those assessed as high risk (χ^2=10.2, p<.01). Area Under the Curve (AUC) analyses showed 0.73 for accuracy of prediction. Lastly, overall SPIn-W risk total and LSI-R risk total correlated r=0.60 (n=359, p<.001). The same recidivism analyses repeated for the LSI-R showed new arrest rate over a one-year fixed follow-up period for those in the 22-28 score range was 29.9%, 29-38 score range was 42.4% and 39+ score range was 40.9% (χ^2=4.4, p=0.11). AUC value for the LSI was 0.59.

Figure 2 shows the distribution of risk levels for each SPIn-W domain. Results show the majority of participants were assessed as either moderate or high risk in the domains of Social Network (82.3%), Substance Use (86.9%) and Community Living (85.9%). A total of 42.9% of cases were moderate or high in the Family and Children domain, followed by 20.3% for Aggression/Violence, 16.5% Skills and 11.3% for the Attitudes domains. Overall dynamic risk levels showed only 20.3% were assessed as low, while the majority were assessed as either moderate (44.0%) or high (35.7%).

*WOCMM SAMPLE – % DOMAIN SPIN-W RISK LEVELS** **Figure 2**

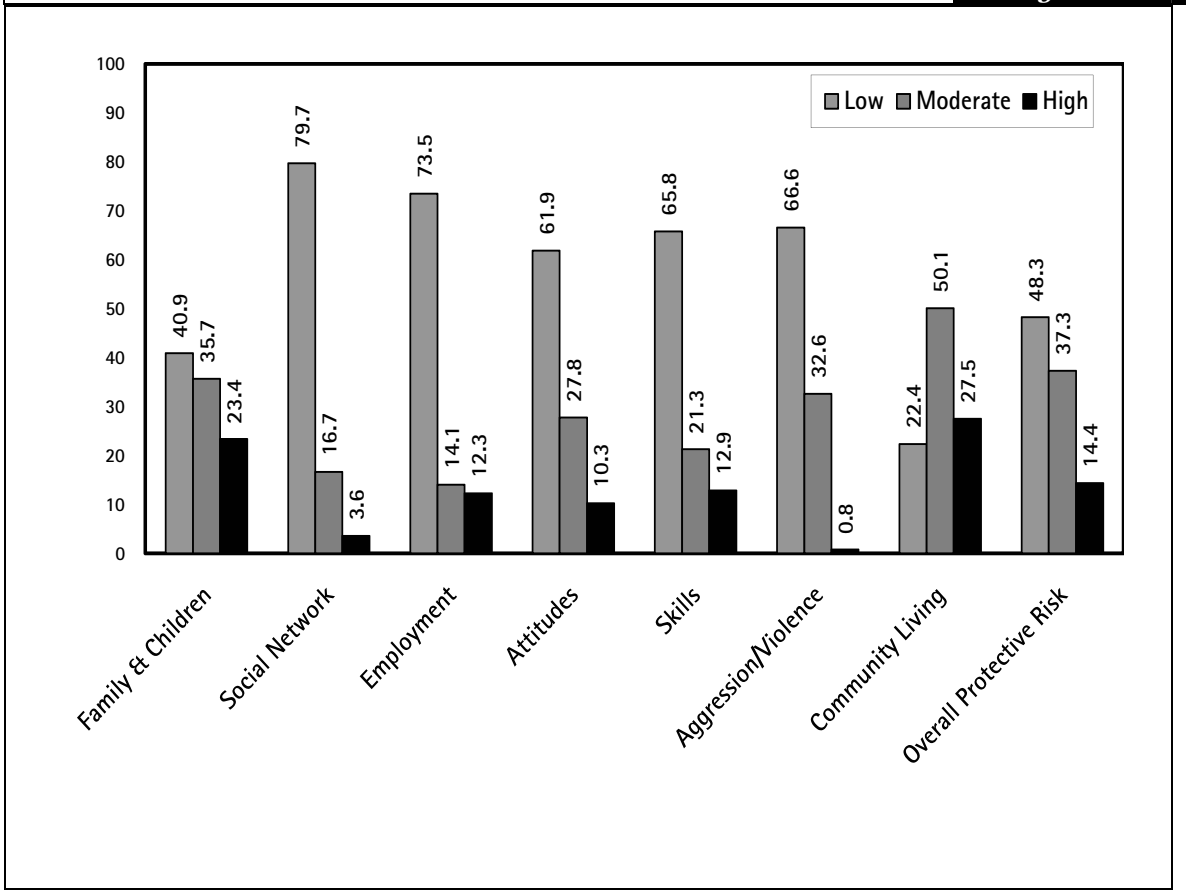


* Results represent intake SPIn-W assessment administered at WOCMM start. Criminal History and Response to Supervision domains show static risk levels, remaining domains show dynamic risk levels.

Similar analyses were conducted to examine the profile of participants in terms of the protective or strength factors as assessed by the SPIn-W. **Figure 3** shows the distribution of protective levels for each SPIn-W domain. In most domains the majority participants were assessed at low protective factor levels: Social Network (79.9%); Employment (73.5%); Aggression/Violence (66.6%); Skills (65.8%); and Attitudes (61.9%). At the same time, results for the Family and Children (59.1%) and Community Living (77.6%) domains showed the majority of women were

assessed as either moderate or high on protective factors. With respect to overall dynamic protective factor levels, 48.3% were assessed as low, 37.3% as moderate and 14.4% as high.

*WOCMM SAMPLE – % DOMAIN SPIN-W PROTECTIVE LEVELS** *Figure 3*

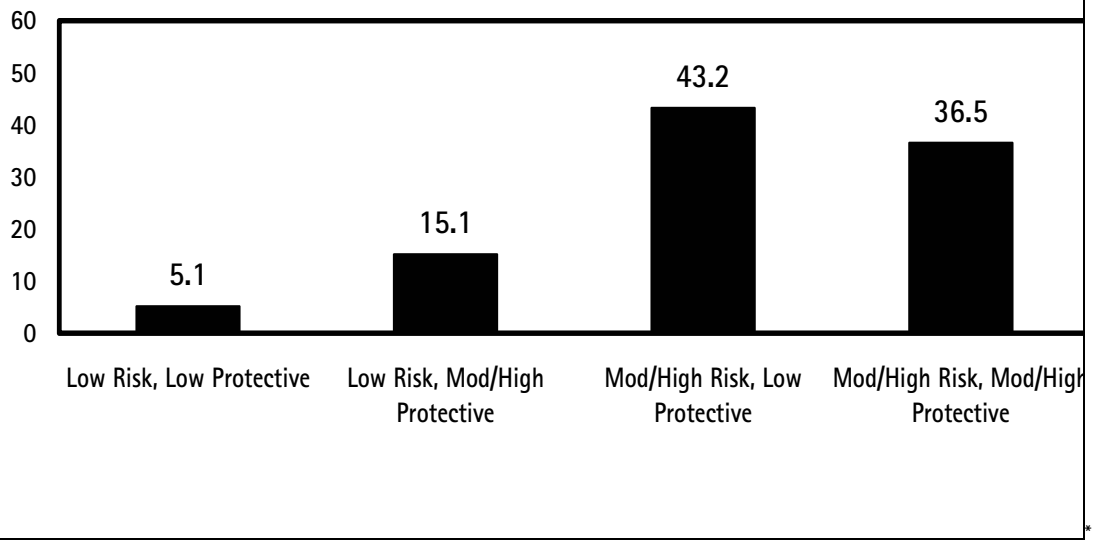


* Results represent intake SPIn-W assessment administered at WOCMM start. All domains show dynamic protective levels.

A final set of descriptive analyses were conducted to examine the relationship between dynamic risk and protective factor levels as assessed by the SPIn-W for the WOCMM participants. The strength-based component of the WOCM model suggests that while many women can present with multiple problems that place them at high risk of future criminal justice involvement, some possess strengths that ameliorate or help buffer high risk areas. The sample of 389 cases were classified into four groups: those assessed as low on dynamic risk and protective factors (Low Risk, Low Protective), low on dynamic risk and moderate/high on dynamic protective factors (Low Risk, Mod/High Protective), moderate/high on dynamic risk and low protective (High Risk, Low Protective), moderate/high on dynamic risk and protective (High Risk, Mod/High Protective). **Figure 4** shows the results.

Given the smaller pool of cases classified as low dynamic risk, only 5.1% were assessed as low on dynamic risk and protective factors and 15.2% as low on dynamic risk and moderate/high on dynamic protective factors. Examining those assessed as moderate/high dynamic risk, 43.2% were assessed as moderate/high on dynamic risk and low protective factors, while a slightly smaller percentage were assessed as moderate/high on dynamic risk and protective (36.5%). The results demonstrate that a substantial number of higher risk WOCMM participants also possessed protective factors; strengths that could be supported and enhanced during probation supervision to reduce future criminal involvement[7].

*WOCMM SAMPLE – % OVERALL DYNAMIC RISK & PROTECTIVE LEVELS** **Figure 4**



* Results represent intake SPIn-W assessment administered at WOCMM start.

[7] Additional exploratory analyses were conducted on the sample of 274 cases to examine the one-year recidivism rates across the four groups. Results showed a buffering impact of protective factors. New arrest rates were as follows: Low Risk, Low Protective (n=14): 35.7%, Low Risk, Mod/High Protective (n=41): 21.9%, Moderate/High Risk, Low Protective (n=120): 44.2%, Moderate/High Risk & Moderate/High Protective (n=99): 33.3%. The differences were substantive but did not reach conventional statistical significance levels (χ^2=7.2, p=0.06).

Random Assignment Control Sample

The evaluation framework described the experimental design for the outcome evaluation of WOCMM in Connecticut probation. The design involved random assignment of women probationers to either the WOCMM or a control group. Assignment was based on the availability of a caseload opening at the time of probation intake. If caseloads were at their maximum and a WOCMM opening was unavailable, women were then assigned to a control sample and received regular probation services. At the evaluation cut-off date of April 2010, a total of 485 women had been assigned to the control group. **Table 7** shows the profile of these women and compares their characteristics to the WOCMM group. Results show no statistically significant differences emerged between the two groups, suggesting that the random assignment process was conducted with integrity.

The goal of constructing a control sample was to create an equivalent group of women for comparing recidivism outcomes at follow-up. Accordingly, comparison analyses were repeated for women in each group that had a minimum one-year of follow-up time since the start of WOCMM or regular probation. **Table 8** shows that a total of 263 WOCMM participants met the one-year minimum follow-up period. The comparable figure for the control sample was 268. Analyses showed there were no statistically significant differences between the two groups on any of the demographic or assessment (LSI-R and ASUS-R) results. However, the two groups differed significantly on supervising region and office of WOCMM implementation.

To address the differences by region and probation office, a matched sample methodology was employed to control for possible regional differences that may be present in terms of probation practices, criminal activity, arrest rates, or other matters. Matching algorithms were constructed with the goal of matching as many women as possible on a number of key variables. In addition to region and office of WOCMM implementation, age, ethnicity, probation length, LSI-R, and the ASUS-R Involvement scale were included as matching factors.

The matching process yielded a solution such that 174 WOCMM participants were matched to 174 comparison women[8][9]. **Table 9** shows the variables included in the final matching algorithm as well as the additional variables used to compare earlier samples. The results supported the effectiveness of the matching process with no significant differences found between the two groups on the non-matching variables.

[8] Of the 174 matched cases, 80 (46%) were still active as of the evaluation cut-off date of April 2010. Of the 94 women that were no longer active, 38 (40.4%) were removed due to unsatisfactory participation, 4 (4.3%) were transferred to a non-participating office and 10 (10.6%) discontinued for other reasons. A total of 42 (44.7%) had successfully completed by April 2010.

[9] Analyses showed no significant differences on demographic factors, probation sentence length and LSI-R results between the group of WOCMM participants included in the matched sample (n=174) and those in the WOCMM sample that were not included in the matched sample (n=313).

WOCMM AND RANDOM ASSIGNMENT CONTROL SAMPLES — *Table 7*

	Samples		Statistical Tests*
	WOCMM (n=487)	Random Assignment Control (n=485)	
Age (years)			
18 - 24	17.0%	17.3%	χ^2=0.3, p=0.97
25 - 34	31.6%	32.6%	
35 - 44	32.9%	31.3%	
45+	18.5%	18.8%	
Average Age (years)	34.8 (SD=9.5)	35.1 (SD=9.9)	*t*=-0.4, p=0.69
Ethnicity		(n=481)	
African-American	41.1%	44.5%	χ^2=1.2, p=0.52
Caucasian	32.2%	31.2%	
Hispanic	26.7%	24.3%	
Probation Sentence Length (years)	(n=479)	(n=477)	
1 - < 2	25.5%	26.0%	χ^2=0.9, p=0.61
2 - < 3	39.7%	36.7%	
3+	34.9%	37.3%	
Average Probation Sentence Length (days)	830.3 (SD=329.6)	854.1 (SD=335.7)	*t*=-1.1, p=0.27
Supervising Region	(n=483)	(n=485)	
Eastern	2.3%	3.9%	χ^2=7.9, p=0.09
North Central	47.2%	47.4%	
North West	3.9%	2.9%	
South Central	24.4%	19.2%	
South West	22.2%	26.6%	
LSI-R Score Levels	(n=447)	(n=456)	
18-28	44.5%	47.4%	χ^2=0.8, p=0.68
29-38	48.1%	46.1%	
39+	7.4%	6.6%	
Average LSI-R Score	29.7 (SD=5.6)	29.3 (SD=5.5)	*t*=0.9, p=0.33
Average ASUS-R SubScales	(n=429)	(n=450)	
Involvement	8.7 (SD=7.5)	7.8 (SD=6.8)	*t*=1.9, p=0.06
Disruptive	17.1 (SD=19.2)	15.7 (SD=18.3)	*t*=1.1, p=0.26
Social Non-Conforming	9.1 (SD=5.3)	8.6 (SD=4.8)	*t*=1.2, p=0.21
Legal Non-Conforming	11.5 (SD=6.5)	10.9 (SD=6.3)	*t*=0.9, p=0.37
Mood Adjustment	10.2 (SD=7.0)	9.8 (SD=6.9)	*t*=1.5, p=0.23

* Univariate tests were used (chi-square and t-tests) in order to increase the sensitivity for detecting differences between the two groups and control for Type II errors. This method was selected over multivariate techniques (i.e., MANOVA) that are more conservative in controlling for Type I errors.

WOCMM AND RANDOM ASSIGNMENT CONTROL SAMPLES – ONE-YEAR FIXED FOLLOW-UP PERIOD

Table 8

	Samples		Statistical Tests*
	WOCMM (n=263)	Random Assignment Control (n=269)	
Age (years)			
18-24	18.6%	16.0%	χ^2=2.8, p=0.43
25-34	28.9%	34.9%	
35-44	36.1%	32.0%	
45+	16.4%	17.1%	
Average Age (years)	34.6 (SD=9.2)	34.7 (SD=9.6)	*t*=-0.2, p=0.84
Ethnicity			
African-American	38.8%	44.4%	χ^2=1.7, p=0.42
Caucasian	30.4%	28.0%	
Hispanic	30.8%	27.6%	
Supervising Region			
North Central	51.7%	42.4%	χ^2=7.0, p<.05
South Central	22.8%	21.9%	
South West	25.5%	35.7%	
Office			
Bridgeport	25.5%	35.7%	χ^2=7.6, p<.05
Hartford	35.4%	27.1%	
New Britain	16.4%	15.2%	
New Haven	22.8%	21.9%	
Probation Sentence Length (years)			
1 - < 2	23.7%	28.3%	χ^2=1.7, p=0.42
2 - < 3	39.3%	35.1%	
3+	37.0%	36.6%	
Average Probation Sentence Length (Days)	863.7 (SD=354.5)	823.8 (SD=325.6)	*t*=1.4, p=0.17
LSI-R Score Levels			
22-28	48.3%	42.0%	χ^2=2.8, p=0.25
29-38	44.5%	51.7%	
39+	7.2%	6.3%	
Average LSI-R Score	29.9 (SD=5.6)	30.5 (SD=5.4)	*t*=-1.2, p=0.24
Average ASUS-R Scales			
Involvement	8.6 (SD=7.9)	8.0 (SD=7.0)	*t*=0.9, p=0.39
Disruptive	16.4 (SD=19.1)	15.7 (SD=18.9)	*t*=0.4, p=0.69
Social Non-Conforming	8.8 (SD=5.2)	8.7 (SD=5.1)	*t*=0.2, p=0.82
Legal Non-Conforming	11.0 (SD=6.3)	10.9 (SD=6.6)	*t*=0.2, p=0.87
Mood Adjustment	10.1 (SD=6.7)	10.4 (SD=7.2)	*t*=-0.4, p=0.69

* Univariate tests were used (chi-square and t-tests) in order to increase the sensitivity for detecting differences between the two groups and control for Type II errors. This method was selected over multivariate techniques (i.e., MANOVA) that are more conservative in controlling for Type I errors.

WOCMM and Random Assignment Control Matched Samples – One-Year Fixed Follow-Up Period

Table 9

	Samples		Statistical Tests*
	WOCMM (n=174)	Random Assignment Control (n=174)	
Age (years)			
18-24	17.2%	17.2%	+
25-34	32.2%	32.2%	
35-44	36.2%	36.2%	
45+	14.4%	14.4%	
Average Age (years)	34.3 (SD=8.8)	34.6 (SD=9.2)	+
Ethnicity			
African-American	46.6%	46.6%	+
Caucasian	27.0%	27.0%	
Hispanic	26.4%	26.4%	
Supervising Region			
North Central	48.3%	48.3%	+
South Central	22.4%	22.4%	
South West	29.3%	29.3%	
Office			
Bridgeport	29.3%	29.3%	+
Hartford	32.8%	32.8%	
New Britain	15.5%	15.5%	
New Haven	22.4%	22.4%	
Probation Sentence Length (years)			
1 - < 2	22.0%	29.4%	χ^2=3.9, p=.14
2 - < 3	41.6%	32.4%	
3+	36.4%	38.2%	
Average Probation Sentence Length (Days)	868.4 (SD=371.2)	823.1 (SD=327.9)	*t*=1.2, p=0.23
LSI-R Score Ranges			
22-28	44.3%	44.3%	+
29-38	48.9%	48.9%	
39+	6.9%	6.9%	
Average LSI-R Score	29.6 (SD=5.7)	29.7 (SD=5.6)	+
Average ASUS-R Scales			
Involvement	7.5 (SD=6.9)	7.5 (SD=6.4)	+
Disruptive	14.9 (SD=17.7)	14.0 (SD=17.6)	*t*=0.4, p=0.67
Social Non-Conforming	8.6 (SD=4.9)	8.3 (SD=4.7)	*t*=0.5, p=0.59
Legal Non-Conforming	11.0 (SD=6.1)	10.8 (SD=6.9)	*t*=0.3, p=0.74
Mood Adjustment	9.4 (SD=6.4)	10.1 (SD=7.1)	*t*=-0.9, p=0.32

+ For matching variables statistical tests were unnecessary.

* Univariate tests were used (chi-square and t-tests) in order to increase the sensitivity for detecting differences between the two groups and control for Type II errors. This method was selected over multivariate techniques (i.e., MANOVA) that are more conservative in controlling for Type I errors.

Data Collection and Analysis

The data collection process included two efforts. First, a comprehensive pre-test battery of measures was administered to women at the start of WOCMM and then repeated every six-month period thereafter (see **Table 10** for an overview of the data collection process). Second, contacts with service providers were recorded on a quarterly basis including name and type of service, start date and completion date, and number of sessions attended. Both the measures and contact information are entered in a separate component of the software that contains the SPIn-W assessment. Finally, CSSD provided the evaluators with additional data elements to facilitate the outcome evaluation. The data collection schedule appears in **Table 10.**

DATA COLLECTION PROCESS *Table 10*

Intake-CSSD	Intake-WOCMM	Team Meetings	3-month intervals	6-month intervals and Closure
LSI-R	SPIn-W	Review Goal Status	SPIn-W	SPIn-W
ASUS-R	Social Support Scale	Record Contacts		Social Support Scale
	Eco-Map			Eco-Map
	Self-Efficacy Scale			Self-Efficacy Scale
	Personal Strategies for Success			Personal Strategies for Success
	Parenting Scale			Parenting Scale

CHAPTER 3 | RESULTS

Intermediate Outcomes

WOCMM SPIn-W Results

As described earlier, the SPIn-W was administered at the beginning of WOCMM and at set intervals through-out participation. Re-administration provided officers with up-to-date assessment results to inform case planning and management practices. From an evaluation perspective, the SPIn data also provided an opportunity to examine changes in overall risk and protective levels and in specific domains. **Table 11** shows the results for these within group comparisons for WOCMM participants[10].

SPIn-W initial assessments and first reassessments were completed on a total of 232 WOCMM participants. The results showed a statistically significant decrease in the overall dynamic risk score from an average initial score of 47.7 to 43.9 at reassessment. The change represents an 8% reduction in dynamic risk scores. Significant decreases were also found for three of the SPIn-W domains – attitudes, social/cognitive skills and community living. Scores on the substance use, vocational/employment and aggression/violence exhibited a decrease from initial assessment to first reassessment but the changes were not large enough to reach statistical significance.

With respect to protective factor levels, the results showed an increase from an average score of 18.7 to 21.8 at the time of reassessment. This difference represents a 16.6% increase in overall dynamic protective factor scores from initial to reassessment. Review of domain level changes showed significant increases in average mean scores from initial assessment to reassessment for all seven domains that contain dynamic protective items.

Change score analyses were conducted for a subsample of 108 WOCMM participants for which there was a first and second reassessment for SPIn-W. **Table 12** shows a pattern that is consistent with the results observed earlier. For instance, changes on only two of the dynamic risk domains were statistically significant (attitudes and community living). Overall dynamic risk scores showed a decrease over the three administration periods but the difference in scores failed to reach statistical significance. In examining trends for the overall and domain level protective factor scores, the results yielded statistically significant changes across successive administrations for all but two of the domains. One implication of these findings is that in some domains, protective factors or strengths may increase while the corresponding risk levels maintain at initial levels.

[10] Table A-1 in Appendix A compares cases that had a SPIn-W assessment to those that did not have an assessment. Results showed the two groups were very similar on demographic and LSI-R/ASUS-R assessment comparisons. The only statistically significant difference was average length of WOCMM participation, not surprising given an initial timeframe of up to 30 days is required to complete a SPIn-W assessment.

RESULTS OF SPIN-W INITIAL AND 1ST REASSESSMENT — *Table 11*

	All Cases with SPIn-W (n=389)	All Cases with Initial and 1st Reassessment+ (n=232)		Statistical Tests*
		Initial	1st Reassessment	
Overall Dynamic Risk Total	51.2(SD=29.3)	47.7 (SD=26.9)	43.9 (SD=26.1)	F=18.3, p<.0001
Dynamic Risk Domains				
Family & Children	5.9 (SD=5.5)	5.8 (SD=5.0)	5.6 (SD=5.0)	F=0.7, p=0.42
Social Network	7.5 (SD=4.5)	7.1 (SD=4.2)	6.8 (SD=4.4)	F=2.2, p=0.14
Substance Use	22.1 (SD=21.4)	20.1 (SD=19.8)	19.0 (SD=19.9)	F=4.9, p=0.03
Vocational/Employment	3.0 (SD=3.0)	2.6 (SD=2.9)	2.5 (SD=2.8)	F=4.1, p=0.04
Attitudes	0.9 (SD=1.3)	0.9 (SD=1.2)	0.7 (SD=1.1)	F=11.6, p<.001
Social/Cognitive Skills	3.6 (SD=4.2)	3.4 (SD=4.0)	2.7 (SD=3.6)	F=17.6, p<.0001
Aggression/Violence	0.8 (SD=1.5	0.7 (SD=1.4)	0.6 (SD=1.3)	F=3.7, p=0.06
Community Living	7.4 (SD=3.7)	7.1 (SD=3.6)	6.0 (SD=3.3)	F=24.9, p<.0001
Overall Dynamic Protective Total	17.9 (SD=12.2)	18.7 (11.9)	21.8 (SD=13.2)	F=41.6, p<.0001
Dynamic Protective Domains				
Family & Children	5.0 (SD=3.9)	5.2 (SD=3.8)	5.7 (SD=4.1)	F=10.7, p<.001
Social Network	2.5 (SD=2.8)	2.7 (SD=3.0)	3.3 (SD=3.3)	F=20.7, p<.0001
Vocational/Employment	1.2 (SD=2.0)	1.5 (SD=2.2)	1.9 (SD=2.4)	F=21.1, p<.0001
Attitudes	2.2 (SD=2.2)	2.2 (SD=2.2)	2.6 (SD=2.4)	F=16.9, p<.0001
Social/Cognitive Skills	3.3 (SD=4.0)	3.5 (SD=4.0)	4.2 (SD=4.4)	F=16.7, p<.0001
Aggression/Violence	1.0 (SD=1.2)	1.0 (SD=1.2)	1.1 (SD=1.2)	F=8.0, p<.01
Community Living	2.5 (SD=2.1)	2.6 (SD=1.9)	3.0 (SD=1.8)	F=24.1, p<.0001

+ Average days between initial and 1st reassessment was 267.9 (SD=115.1, minimum=60, maximum=648).

* Means between initial and 1st reassessment were analyzed using one-way analysis of variance (ANOVA), repeated measures within-subjects design. A Bonferroni correction was applied setting the required level of significance (i.e., p value) to p<.01 to control the probability of Type I error.

RESULTS OF SPIN-W INITIAL, 1ST AND 2ND REASSESSMENTS — *Table 12*

	All Cases with Initial, 1st and 2nd Reassessment+ (n=108)			Statistical Tests*
	Initial	1st Reassessment	2nd Reassessment	
Overall Dynamic Risk Total	45.5 (SD=26.1)	43.8 (SD=26.3)	42.9 (SD=28.2)	F=1.9, p=0.15
Dynamic Risk Domains				
Family & Children	6.3 (SD=5.0)	6.3 (SD=5.0)	5.8 (SD=5.2)	F=1.5, p=0.23
Social Network	6.8 (SD=4.1)	6.6 (SD=4.3)	6.3 (SD=4.3)	F=2.2, p=0.11
Substance Use	19.4 (SD=20.0)	19.0 (SD=20.5)	18.9 (SD=21.4)	F=0.3, p=0.77
Vocational / Employment	2.2 (SD=2.3)	2.2 (SD=2.4)	2.3 (SD=2.5)	F=0.4, p=0.69
Attitudes	0.9 (SD=1.2)	0.7 (SD=1.1)	0.6 (SD=1.1)	F=5.0, p<.01
Social / Cognitive Skills	2.9 (SD=3.5)	2.6 (SD=3.5)	2.4 (SD=3.3)	F=2.4, p=0.09
Aggression/Violence	0.6 (SD=1.2)	0.6 (SD=1.3)	0.5 (SD=1.2)	F=1.4, p=0.25
Community Living	6.4 (SD=3.0)	5.5 (SD=3.0)	6.1 (SD=3.3)	F=4.5, p<.01
Overall Dynamic Protective Total	17.7 (10.9)	20.1 (SD=12.5)	22.2 (SD=13.3)	F=15.8, p<.0001
Dynamic Protective Domains				
Family & Children	4.9 (SD=3.6)	5.1 (SD=3.7)	5.4 (SD=3.8)	F=3.1, p=0.05
Social Network	2.8 (SD=2.9)	3.3 (SD=3.2)	3.7 (SD=3.2)	F=9.6, p<.0001
Vocational / Employment	1.1 (SD=2.0)	1.5 (SD=2.1)	1.9 (SD=2.6)	F=11.2, p<.0001
Attitudes	1.8 (SD=1.8)	2.2 (SD=2.2)	2.5 (SD=2.1)	F=9.7, p<.0001
Social / Cognitive Skills	3.3 (SD=3.50)	3.9 (SD=4.1)	4.4 (SD=4.4)	F=8.5, p<.0001
Aggression/Violence	0.90 (SD=1.1)	1.0 (SD=1.1)	1.1 (SD=1.2)	F=3.0, p=0.05
Community Living	2.8 (SD=2.0)	3.2 (SD=1.8)	3.2 (SD=1.9)	F=5.3, p<.01

+ Average days between initial and 1st reassessment was 257.6 (SD=108.0, minimum=60, maximum=589). Average days between 1st and 2nd reassessment was 232.4 (SD=83.5, minimum=58, maximum=612).

* Means between initial, 1st and 2nd reassessment were analyzed using one-way analysis of variance (ANOVA), repeated measures within-subjects design. A Bonferroni correction was applied setting the required level of significance (i.e., p value) to p<.01 to control the probability of Type I error.

WOCMM Evaluation Measures

Pre-/re-test measures are primarily used in evaluation projects to assess change over time that can be attributed to the delivery of the service. The pre-test can be used to collect baseline information on a range of knowledge, attitudinal, behavioral, and/or skill-based factors at the start of program participation. The same battery of measures is re-administered after a period of participation to determine whether any change occurred in the factors under study.

A total of 274 WOCMM participants completed the pre-test package of evaluation measures[11]. **Table 13** shows the results for 138 WOCMM women that completed the battery of pre-test measures and the first administration of the re-test measures. Review of scores across the two administration points showed changes in expected directions on all measures. Increased scores on number and satisfaction with social supports, general self-efficacy and parenting skills demonstrated improvements on these measures. Decrease in scores for use of success strategies

[11] Table A-2 in Appendix A shows comparisons to the 213 cases that did not complete the package of evaluation measures. Results showed those that had completed the measures had statistically significant lower scores on the LSI-R, the Disruptive, Legal Non-Conforming and Mood Adjustment ASUS-R subscales, and average length of WOCMM participation. Accordingly, the change scores shown may not be representative of the full sample.

also suggested positive gains in these areas. While improvement trends were evident, the only change score that achieved statistical significance was in parenting skills.

A similar pattern of results was found for a subsample of 55 cases that completed first and second re-tests. Again, changes on the scores were in the expected direction for each measure. However, positive gains in parenting skills was the only statistically significant change score difference.

RESULTS OF EVALUATION MEASURES[A] — *Table 13*

	All Cases with Pre-Test (n=274)	All Cases with Pre-Test and 1st Re-Test+ (n=138)		Statistical Tests*
	Pre-Test	Pre-Test	1st Re-Test	
Social Support Questionnaire Average No. of Support People Average Support Satisfaction	 15.1 (SD=11.0) 37.2 (SD=7.5)	 15.1 (SD=10.2) 36.4 (SD=8.1)	 15.0 (SD=9.7) 37.3 (SD=7.7)	 F=0.1, p=0.89 F=1.4, p=0.21
General Self-Efficacy Scale	8.5 (SD=6.8)	8.4 (SD=6.8)	8.9 (SD=6.7)	F=0.9, p=0.34
Personal Strategies for Success	40.4 (SD=18.2)	40.7 (SD=17.8)	37.8 (SD=20.0)	F=3.7, p=0.06
Parenting Scale	5.9 (SD=6.5)	5.7 (SD=6.6)	7.0 (SD=6.6)	F=6.2, p<.01
	All Cases with Pre-Test, 1st Re-Test and 2nd Re-Test++ (n=55)			
	Pre-Test	1st Re-Test	2nd Re-Test	
Social Support Questionnaire Average No. of Support People Average Support Satisfaction	 15.7 (SD=10.3) 36.7 (SD=7.7)	 16.1 (SD=11.2) 36.9 (SD=8.4)	 16.9 (SD=12.2) 36.8 (SD=8.6)	 F=0.4, p=0.67 F=0.1, p=0.98
General Self-Efficacy Scale	8.1 (SD=7.2)	8.2 (SD=7.6)	10.3 (SD=7.0)	F=3.6, p=.03
Personal Strategies for Success	45.0 (SD=18.3)	40.1 (SD=21.2)	38.1 (SD=18.5)	F=3.4, p=.04
Parenting Scale	4.7 (SD=7.4)	6.4 (SD=7.3)	8.2 (SD=7.5)	F=9.2, p<.001

[A] Increased scores for Social Support Questionnaire, General Self-Efficacy Scale and Parenting Scale indicate improvement in area assessed. Decreased scores for Personal Strategies for Success indicate improvement in area assessed.

+ Average days between pre-test and 1st re-test administration was 260.6 (SD=132.6, minimum=56, maximum=828).

++ Average days between pre-test and 1st re-test administration was 242.9 (SD=99.1, minimum=56, maximum=597). Average days between 1st and 2nd re-test administration was 194.6 (SD=60.9, minimum=58, maximum=398).

* Means between pre-/re-tests were analyzed using one-way analysis of variance (ANOVA), repeated measures within-subjects design. A Bonferroni correction was applied setting the required level of significance (i.e., p value) to p<.01 to control the probability of Type I error.

Recidivism Outcomes

Overall Results

Table 14 shows results for new arrests within the one-year fixed follow-up period for the matched WOCMM and random assignment control groups. In comparison to the matched control sample of women, WOCMM participants exhibited a significantly lower rate of new arrests over the one-year timeframe (31.6% versus 42.5%). The relative reduction in new arrests observed for WOCMM participants was 25.6%[12] from the base rate for the control group. Arrests for more serious felony offenses was detectably lower for the WOCMM group (10.9% versus 16.7% for the control group), but the difference failed to reach statistical significance. Similarly, any negative outcomes (including absconding and technical violations) was lower for WOCMM participants (37.9% versus 47.1% for controls) but not significantly significant.

ONE-YEAR RECIDIVISM RATES OF WOCMM AND RANDOM ASSIGNMENT CONTROL MATCHED SAMPLES — *Table 14*

	Matched Samples		Statistical Tests
	WOCMM (n=174)	Random Assignment Control (n=174)	
New Arrest	31.6%	42.5%	χ^2=4.4, p<.05
New Felony Arrest	10.9%	16.7%	χ^2=2.4, p=0.12
Any Negative Outcome[1]	37.9%	47.1%	χ^2=3.0, p=0.08

[1] *Any Negative Outcomes* include arrests as well as absconding and technical violations.

Recidivism Outcomes by Demographic Characteristics

There was an interest in exploring possible differences in program impact for sub-groups of women. **Tables 15** and **16** show the results for these analyses. New arrests, new felony arrests and rates of any negative outcomes were lower for probationers in the 18-24, 25-34 and 35-44 age groups. While new arrests were slightly lower for WOCMM participants in the 45+ age groups, new felony arrests were actually higher and any negative outcomes were the same for the WOCMM and control groups. None of the differences in the age comparisons were statistically significant.

For each ethnicity subgroup, all three recidivism indicators were lower for women in WOCMM. The most pronounced differences in recidivism rates were observed for African-American women where the rate of new arrests was 35.8% for WOCMM participants compared to 50.6% for those in the control group. A similar trend was observed for the rate of any negative outcomes (40.7% vs. 55.6%). However, as reported for the observed variations with age, the differences failed to reach statistical significance for the three ethnic group comparisons.

[12] (42.5%-31.6%=10.9%, 10.9%/42.5%=25.6%)

ONE-YEAR RECIDIVISM RATES OF WOCMM AND RANDOM ASSIGNMENT CONTROL MATCHED SAMPLES – BY AGE LEVELS

Table 15

	Matched Samples		Statistical Tests
	WOCMM	Random Assignment Control	
18-24	(n=30)	(n=30)	
New Arrest	43.3%	50.0%	χ^2=0.3, p=0.60
New Felony Arrest	10.0%	23.3%	χ^2=1.9, p=0.16
Any Negative Outcome[1]	46.7%	63.3%	χ^2=1.7, p=0.19
25-34	(n=56)	(n=56)	
New Arrest	25.0%	41.1%	χ^2=3.3, p=0.07
New Felony Arrest	8.9%	12.5%	χ^2=0.4, p=0.54
Any Negative Outcome[1]	35.7%	41.1%	χ^2=0.3, p=0.56
35-44	(n=63)	(n=63)	
New Arrest	34.9%	46.0%	χ^2=1.6, p=0.20
New Felony Arrest	11.1%	19.0%	χ^2=1.5, p=0.21
Any Negative Outcome[1]	39.7%	52.4%	χ^2=2.0, p=0.15
45+	(n=25)	(n=25)	
New Arrest	24.0%	28.0%	χ^2=0.1, p =0.74
New Felony Arrest	16.0%	12.0%	χ^2=0.2, p=0.68
Any Negative Outcome[1]	28.0%	28.0%	χ^2=0.0, p=1.00

[1] *Any Negative Outcome* includes arrests as well as absconding and technical violations.

ONE-YEAR RECIDIVISM RATES OF WOCMM AND RANDOM ASSIGNMENT CONTROL MATCHED SAMPLES – BY ETHNICITY

Table 16

	Matched Samples		Statistical Tests
	WOCMM	Random Assignment Control	
African-American	(n=81)	(n=81)	
New Arrest	35.8%	50.6%	χ^2=3.6, p=0.06
New Felony Arrest	12.3%	23.5%	χ^2=3.4, p=0.07
Any Negative Outcome[1]	40.7%	55.6%	χ^2=3.6, p=0.06
Hispanic	(n=46)	(n=46)	
New Arrest	30.4%	37.0%	χ^2=0.4, p=0.50
New Felony Arrest	8.7%	10.9%	χ^2=0.1, p=0.73
Any Negative Outcome[1]	34.8%	41.3%	χ^2=0.4, p=0.52
Caucasian	(n=47)	(n=47)	
New Arrest	25.5%	34.0%	χ^2=0.8, p=0.37
New Felony Arrest	10.6%	10.6%	χ^2=0.0, p=1.0
Any Negative Outcome[1]	36.2%	38.3%	χ^2=0.0, p=0.83

[1] *Any Negative Outcome* include arrests as well as absconding and technical violations.

Recidivism Outcomes by Risk Level

Analyses were conducted by risk level in order to examine the impact of the WOCMM initiative on higher risk women. Women in each sample were divided into two groups – women scoring 22-28 on the LSI-R and women scoring 29 or higher. **Table 17** shows that the rates of new arrests, new felony arrests and any negative outcomes were lower for women exposed to WOCMM who scored in the medium risk range of the LSI-R (i.e., 22-28). The outcome differences associated with medium risk women in the two program groups were not significant. However, consistent with the risk principle, women with higher LSI-R scores (i.e., 29 or higher) had noticeably better outcomes for new arrests, new felony arrests and overall negative outcomes. The rate of any new arrests for high risk WOCMM participants was 36.1% compared to 49.5% among high-risk matched control group members. The difference in any negative outcomes reached statistical significance (43.3% for WOCMM versus 57.7% for controls). The relative reduction was sizable for any negative outcomes, representing a 25.0% decrease relative to the base rate for the control group.

ONE-YEAR RECIDIVISM RATES OF WOCMM AND RANDOM ASSIGNMENT CONTROL MATCHED SAMPLES – BY RISK LEVEL — Table 17

	Matched Samples		Statistical Tests
	WOCMM	Random Assignment Control	
LSI-R Score < 29	(n=77)	(n=77)	
New Arrest	26.0%	33.8%	χ^2=1.1, p=0.29
New Felony Arrest	9.1%	10.4%	χ^2=0.1, p=0.79
Any Negative Outcome[1]	31.2%	33.8%	χ^2=0.12, p=0.73
LSI-R Score 29+	(n=97)	(n=97)	
New Arrest	36.1%	49.5%	χ^2=3.6, p=0.06
New Felony Arrest	12.4%	21.7%	χ^2=2.9, p=0.09
Any Negative Outcome[1]	43.3%	57.7%	χ^2=4.0, p<.05

[1] *Any Negative Outcomes* include arrests as well as absconding and technical violations.

Recidivism Outcomes by Probation Office

As described earlier, WOCMM was implemented in four probation offices across Connecticut (Bridgeport, Hartford, New Britain and New Haven). **Table 18** shows the results for analyses that were conducted to determine whether outcome results varied by site – name of each office was anonymized, randomly sorted, and then labeled Site's A through D. In the B, C and D sites, the rate of new arrests was noticeably lower for WOCMM participants compared to the control group. Only the difference in site D was large enough to reach statistical significance (33.3% vs. 59.0%). WOCMM rates for new felony arrests were lower for sites B, C and D compared to the control group, however the differences failed to reach significance. Finally, rates for any negative outcomes were lower for three of the four sites. Small sample sizes for each office did not produce statistically significant differences.

ONE-YEAR RECIDIVISM RATES OF WOCMM AND RANDOM ASSIGNMENT CONTROL MATCHED SAMPLES – BY OFFICE

Table 18

	Matched Samples		Statistical Tests
	WOCMM	Random Assignment Control	
Site A			
New Arrest	23.5%	21.6%	χ^2=0.1, p=0.81
New Felony Arrest	9.8%	7.8%	χ^2=0.1, p=0.73
Any Negative Outcome[1]	25.5%	25.5%	χ^2=0.0, p=1.0
Site B			
New Arrest	35.1%	47.4%	χ^2=1.8, p=0.18
New Felony Arrest	12.3%	17.5%	χ^2=0.6, p=0.43
Any Negative Outcome[1]	38.6%	54.4%	χ^2=2.9, p=0.09
Site C			
New Arrest	37.0%	48.2%	χ^2=0.7, p=0.41
New Felony Arrest	14.8%	25.9%	χ^2=1.0, p=0.31
Any Negative Outcome[1]	44.4%	51.9%	χ^2=0.3, p=0.59
Site D			
New Arrest	33.3%	59.0%	χ^2=5.2, p<.05
New Felony Arrest	7.7%	20.5%	χ^2=2.6, p=0.10
Any Negative Outcome[1]	48.7%	61.5%	χ^2=1.3, p=0.26

[1] *Any Negative Outcomes* include arrests as well as absconding and technical violations.

Further scrutiny of the outcomes in **Table 18** reveals that results for site A were contradictory to those observed for the other three probation offices. New arrests and new felony arrests were actually higher for WOCMM participants than those in the control sample and the rates for any negative outcomes were the same for WOCMM and controls. Discussions with the WOCMM implementation team did not identify any noteworthy concerns with this site compared to other sites in terms of general probation practices, available services, or other factors that might account for the results. In an attempt to understand the contrasting findings, a series of analyses were used to determine if women in the WOCMM and control groups differed in a substantive manner from those in the other offices. **Tables 19** and **20** show demographic and assessment results by site for the WOCMM and control groups.

For the WOCMM group, **Table 19** shows four statistically significant differences between offices. Site C had a significantly lower percentage of African-American probationers and a significantly higher proportion of Caucasian probationers compared to those in the other three offices. As well, site D had a significantly lower percentage of Hispanic participants compared to the other offices. In comparison to sites B and D, site C had significantly higher ASUS-R Disruptive subscale score, and a significantly higher score on the Mood subscale compared to site D. Lastly, women at site C had a significantly greater number of days in WOCMM compared to site B. All other comparisons between offices for WOCMM participants were not found to be statistically significant.

CHARACTERISTICS OF WOCMM GROUP BY OFFICE — *Table 19*

	Site				Statistical Tests*
	A	B	C	D	
Age (yrs)					
18-24	13.7%	22.8%	18.5%	12.8%	χ^2=15.2, p=0.08
25-34	27.4%	33.3%	18.5%	46.1%	
35-44	39.2%	29.8%	59.3%	25.6%	
45+	19.6%	14.0%	3.7%	15.4%	
Average Age (yrs)	36.0 (SD=8.6)	33.0 (SD=9.5)	34.5 (SD=7.8)	33.5 (SD=8.5)	F=1.1, p=0.34
Ethnicity					
African-American	49.0%	50.9%	7.4%	64.1%	χ^2=39.4, p<.0001
Caucasian	19.6%	14.0%	66.7%	28.2%	
Hispanic	31.4%	35.1%	25.9%	7.7%	
Probation Sentence Length (yrs)					
1 - < 2	13.7%	29.8%	25.9%	18.4%	χ^2=4.7, p=0.59
2 - < 3	45.1%	36.8%	40.7%	44.7%	
3+	41.2%	33.3%	33.3%	36.8%	
Average Probation Sentence (Days)	882.9 (SD=318.9)	858.3 (SD=440.9)	826.7 (SD=311.3)	892.9 (SD=372.0)	F=0.21, p=0.89
LSI-R Score Levels					
22-28	54.9%	43.9%	29.6%	41.0%	χ^2=7.0, p=0.32
29-38	41.2%	50.9%	55.6%	51.3%	
39+	3.9%	5.3%	14.8%	7.7%	
Average LSI-R Score	28.3 (SD=5.4)	29.5 (SD=5.6)	31.2 (SD=5.4)	30.3 (SD=6.4)	F=1.9, p=0.13
Average ASUS-R Scales					
Involvement	7.1 (SD=5.9)	6.8 (SD=6.5)	10.2 (SD=7.4)	7.3 (SD=7.8)	F=1.7, p=0.17
Disruptive	15.1 (SD=17.8)	13.0 (SD=15.8)	25.2 (SD=22.4)	10.1 (SD=13.7)	F=4.5, p<.01
Social Non-Conforming	7.6 (SD=4.8)	9.1 (SD=4.8)	9.6 (SD=5.2)	8.5 (SD=4.8)	F=1.3, p=0.29
Legal Non-Conforming	10.9 (SD=6.2)	11.2 (SD=5.7)	11.0 (SD=6.0)	11.0 (SD=6.6)	F=0.1, P=0.99
Mood Adjustment	8.9 (SD=5.0)	9.7 (SD=7.3)	12.1 (SD=7.6)	7.6 (SD=5.2)	F=2.9, p<.05
Average Probation Supervision Days in WOCMM	549.1 (SD=259)	629.2 (SD=215.25)	420.2 (SD=280.3)	525.5 (SD=226.3)	F=4.8, p<.01

*Univariate tests were used (chi-square and t-tests) in order to increase the sensitivity for detecting differences between the two groups and control for Type II errors. This method was selected over multivariate techniques (i.e., MANOVA) that are more conservative in controlling for Type I errors.

For the control group there were statistically significant differences across sites for ethnicity, average LSI-R score, and the Disruptive subscale as shown in **Table 20**. Since it was a matching variable, the differences observed by ethnicity for the WOCMM and control group is the same. With respect to other differences, site A had significantly lower LSI-R scores in comparison to site D; and site A had a significantly lower Disruptive ASUS-R subscale score relative to site C. There were no other statistically significant differences in other comparisons between offices.

CHARACTERISTICS OF CONTROL GROUP BY OFFICE — *Table 20*

	Site				Statistical Tests*
	A	B	C	D	
Age (years)					
18-24	13.7%	22.8%	18.5%	12.8%	χ^2=15.2, p=0.08
25-34	27.4%	33.3%	18.5%	46.1%	
35-44	39.2%	29.8%	59.3%	25.6%	
45+	19.6%	14.0%	3.7%	15.4%	
Average Age (years)	36.33 (SD=9.1)	33.4 (SD=9.4)	34.7 (SD=8.9)	34.3 (SD=9.0)	F=0.9, p=0.41
Ethnicity					
African-American	49.0%	50.9%	7.4%	64.1%	χ^2=39.4, p<.0001
Caucasian	19.6%	14.0%	66.7%	28.2%	
Hispanic	31.4%	35.1%	25.9%	7.7%	
Probation Sentence Length (years)					
1 - < 2	28.0%	38.9%	22.2%	23.1%	χ^2=5.3, p=0.50
2 - < 3	30.0%	27.8%	44.4%	33.3%	
3+	42.0%	33.3%	33.3%	43.6%	
Average Probation Sentence (Days)	820.4 (SD=341.2)	763.3 (SD=324.1)	855.4 (SD=294.5)	891.9 (SD=333.3)	F=1.3, p=0.28
LSI-R Score Levels					
22-28	54.9%	43.9%	29.6%	41.0%	χ^2=8.2, p=0.22
29-38	39.2%	50.9%	66.7%	46.1%	
39+	5.9%	5.3%	3.7%	12.8%	
Average LSI-R Score	28.1 (SD=5.4)	29.5 (SD=4.9)	31.0 (SD=4.9)	31.3 (SD=6.6)	F=3.0, p<.05
Average ASUS-R Scales					
Involvement	6.7 (SD=5.9)	6.9(SD=5.9)	9.6 (SD=7.0)	7.9 (SD=7.2)	F=1.4, p=0.23
Disruptive	8.0 (SD=13.1)	15.8 (SD=20.9)	21.1 (SD=18.2)	14.4 (SD=14.8)	F=3.8, p<.05
Social Non-Conforming	7.0 (SD=4.0)	8.6 (SD=5.3)	8.9 (SD=3.3)	9.2 (SD=5.3)	F=2.2, p=0.09
Legal Non-Conforming	9.2 (SD=5.9)	11.6 (SD=7.0)	10.5 (SD=6.3)	11.9 (SD=8.1)	F=1.6, p=0.20
Mood Adjustment	8.2(SD=6.5)	9.8 (SD=7.5)	12.4 (SD=8.3)	11.3 (SD=5.9)	F=2.6, p=0.06

*Univariate tests were used (chi-square and t-tests) in order to increase the sensitivity for detecting differences between the two groups and control for Type II errors. This method was selected over multivariate techniques (i.e., MANOVA) that are more conservative in controlling for Type I errors.

The findings demonstrate that with the exception of ethnicity, WOCMM participants in site A are similar to those in the other sites on demographic characteristics and assessment results. Given the number of similarities, an overall negative outcome rate of 25.5% is substantially lower relative to WOCMM participants in the other three offices (B – 38.6%, C – 44.4%, D – 48.7%). In terms of the control group, probationers in site A also differed by ethnicity and were found to have significantly lower scores on the LSI-R and ASUS-R Disruptive subscale compared to cases in at least one other office. Although these differences might help account for lower recidivism rates for the site A control group (25.5%), overall negative outcomes are significantly higher for controls in the other three offices (B – 54.4%, C – 51.9%, D – 61.5%).

Overall, the similarity of WOCMM and control group participants across offices makes it difficult to explain the markedly lower recidivism rates for site A. The discrepant finding is likely due to factors that are not explainable in the current study. For example, it is plausible that there are

differences in criminal justice activity or processing in site A that are accounting for the lower recidivism rates for this site.

To explore this hypothesis, offense statistics for 2008 were reviewed for the four regions in Connecticut as shown in **Table 21**. Offense rates were calculated by examining the total number of key index offenses (murder, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft) per 100,000 population. Site A exhibited the highest offense rate (5,446.5) in comparison to the other sites (C = 5,115.8; D =3,786.9; B = 3,251.7). However, for arrest rates, an opposite trend is apparent with Bridgeport showing the lowest arrest rate for the four sites (range = 744.8 to 1,118.9). Theses supplementary data suggest that the lower recidivism rates observed for site A WOCMM and control groups may have resulted because of the generally lower arrest rate for this location. In other words, a recidivism 'ceiling effect' may have occurred such that arrests do not occur for a substantial majority of offenses in site A.

CT Offense and Arrest Rates by WOCMM Office — Table 21

	Offense Rate[1]	Arrest Rate[1]
Site A	5,446.5	744.8
Site B	3,251.7	1,118.9
Site C	5,155.8	900.1
Site D	3,786.9	833.0

[1] Per 100,000 population.

Given the arrest anomalies in site A, the recidivism analyses were repeated with these cases removed. **Table 22** shows that in comparison to the control group, rates of new arrests, new felony arrests and any negative outcomes were all statistically significantly lower for the WOCMM group. The rate for any new arrests was 34.9% for WOCMM participants compared to 51.2% for women in the matched control group. The difference represents a relative reduction in new arrests of 31.8%. Reduction in new felony arrests was 43.8%, while the reduction for any negative outcomes was 23.2%.

One-Year Recidivism Rates of WOCMM and Random Assignment Control Matched Samples – Bridgeport Office Excluded — Table 22

	Matched Samples		Statistical Tests
	WOCMM (n=123)	Random Assignment Control (n=123)	
New Arrest	34.9%	51.2%	χ^2=6.6, p<.01
New Felony Arrest	11.4%	20.3%	χ^2=3.7, p<.05
Any Negative Outcome[1]	43.1%	56.1%	χ^2=4.2, p<.05

[1] *Any Negative Outcomes* include arrests as well as absconding and technical violations.

Case Management Activity and Impact on Outcome

Number and Type of Probationer Contacts

An entry is logged into CSSD's offender information system each time an officer has contact with a probationer and with service providers or other collateral contacts associated with the probationer. The date and type of contact is recorded and officers have the opportunity to document specific details regarding the contact in a freeform case note. To examine the contact activity, number and type of contacts for women in the WOCMM and control groups were compared[13]. **Table 23** displays the results.

In comparison to the WOCMM participants, the average number of overall client contacts (47.4 vs. 36.1), professional/treatment provider contacts (23.0 vs. 18.0) and collateral contacts (7.6 vs. 4.1) were all significantly lower for control group members. When specific types of client contacts were reviewed, it was discovered that field and home visits were significantly higher for the WOCMM group, as well as telephone contacts. Contacts with professionals engaged with probationers, as well as collateral contacts with employer/school or family/friends were also significantly higher for the women exposed to WOCMM.

The three main categories of contact activity, including in-person contacts, were also examined by risk level. **Table 24** shows that for women assessed as moderate risk (LSI-R = 22-28), the average number of contacts for each type was significantly higher for the WOCMM group. For instance, the average number of client contacts for WOCMM participants was 44.9, compared to only 29.8 for those in the control group. A similar pattern emerged when examining results for women assessed in the high LSI-R range. Average number of client contacts and collateral contacts were significantly higher for women exposed to WOCMM. However, the differences between the two groups were less pronounced with an average number of client contacts for the WOCMM group of 49.8 versus 40.6 for the control group. Comparing activity within each group, the results suggest that contacts varied by risk level to a greater extent with the control group as opposed to the WOCMM group. Indeed, the average number of client contacts for WOCMM participants with a moderate LSI-R score was only 4.9 contacts lower than women with high LSI-R scores (44.9 vs. 49.8).

[13] For those in WOCMM, contact activity was examined from date of WOCMM start to finish, or to April 2010 for those still active at the time of the evaluation cut-off date. Similarly, for women in the control group, contact activity was examined from probation start to finish, or to the evaluation cut-off date. Note that during WOCMM participation, officers could deviate from probation supervision standards - meaning, officers could vary the amount and type of contact with the women as required. For those in the control group, deviation from the supervision standards was not allowed (i.e., high risk – minimum of two in-person and one collateral contact per month; moderate risk - minimum two in-person and one collateral contact per month).

AVERAGE NUMBER AND TYPE OF CONTACTS FOR WOCMM AND RANDOM ASSIGNMENT CONTROL SAMPLES

Table 23

	Matched Samples		Statistical Tests[1]
	WOCMM (n=174)	Random Assignment Control (n=174)	
Client Contacts	47.4	36.1	F=25.3, p<.0001
In-Person Contacts	25.1	20.9	F=14.1, p<.0001
Field Visit	2.2	0.6	F=44.7, p<.0001
Home Visit	2.4	1.1	F=18.0, p<.0001
Office Visit	20.5	19.1	F=1.9, p=0.17
Telephone Contacts	18.9	12.1	F=23.5, p<.0001
Written Contacts	3.4	3.1	F=0.7, p=0.41
Prof/Tmt Provider Contacts	23.0	18.0	F=4.2, p<.05
Contacts w Professional	9.3	6.8	F=5.6, p<.05
Contacts w Tmt Provider	13.8	11.2	F=2.2, p=0.14
Collateral Contacts	7.6	4.1	F=23.6, p<.0001
Contacts w Employer/School	1.3	0.6	F=5.9, p<.05
Contacts w Family/Friends	2.9	2.1	F=5.1, p<.05

[1] MANCOVA revealed a significant multivariate effect for Group, Wilks' lambda=0.78, F(10,336)=9.6, p<.0001. Accordingly, results of univariate analysis of covariance (ANCOVA) are presented for each contact type.

AVERAGE NUMBER AND TYPE OF CONTACTS FOR WOCMM AND RANDOM ASSIGNMENT CONTROL SAMPLES – BY RISK LEVEL

Table 24

	Matched Samples		Statistical Tests[1,2]
	WOCMM (n=174)	Random Assignment Control (n=174)	
LSI-R Score < 29	(n=77)	(n=77)	
Client Contacts	44.9	29.8	F=24.4, p<.0001
In-Person Contacts	24.0	18.2	F=13.2, p<.001
Prof/Tmt Provider Contacts	18.3	11.2	F=4.8, p<.05
Collateral Contacts	6.8	3.3	F=9.0, p<.01
LSI-R Score 29+	(n=97)	(n=97)	
Client Contacts	49.8	40.6	F=8.5, p<.01
In-Person Contacts	26.1	22.8	F=4.7, p<.05
Prof/Tmt Provider Contacts	27.5	22.7	F=1.9, p=0.18
Collateral Contacts	8.3	4.8	F=14.4, p<.001

[1] LSI-R Score < 29 - MANCOVA revealed a significant multivariate effect for Group, Wilks' lambda=0.83, F(4,148)=7.7, p<.0001. Accordingly, results of univariate analysis of covariance (ANCOVA) are presented for each contact type.

[2] LSI-R Score 29+ - MANCOVA revealed a significant multivariate effect for Group, Wilks' lambda=0.91, F(4,188)=4.5, p<.001. Accordingly, results of univariate analysis of covariance (ANCOVA) are presented for each contact type.

In **Table 25** a final set of analyses are reported for the three main contact categories (including in-person contacts) by office. While the Bridgeport and New Haven offices had significantly higher average numbers of contacts for WOCMM participants, the analyses revealed a different pattern for the Hartford and New Britain offices. For example, average number of client contacts

and professional/treatment provider contacts were about the same for WOCMM and control groups in the Hartford office. In New Britain, these types of contacts were actually higher for the control group.

AVERAGE NUMBER AND TYPE OF CONTACTS FOR WOCMM AND RANDOM ASSIGNMENT CONTROL SAMPLES – BY OFFICE — *Table 25*

	Matched Samples		Statistical Tests[1,2,3,4]
	WOCMM (n=174)	Random Assignment Control (n=174)	
Bridgeport	(n=51)	(n=51)	
Client Contacts	50.4	29.4	F=26.2, p<.0001
In-Person Contacts	27.0	19.9	F=12.2, p<.001
Prof/Tmt Provider Contacts	21.9	8.9	F=7.7, p<.01
Collateral Contacts	8.8	2.6	F=14.1, p<.001
Hartford	(n=57)	(n=57)	
Client Contacts	43.1	41.3	F=0.2, p=0.66
In-Person Contacts	23.2	21.0	F=1.0, p=0.32
Prof/Tmt Provider Contacts	18.1	19.6	F=0.1, p=0.71
Collateral Contacts	7.5	3.9	F=10.7, p<.01
New Britain	(n=27)	(n=27)	
Client Contacts	34.3	40.2	F=1.0, p=0.32
In-Person Contacts	24.9	18.8	F=3.9, p<.05
Prof/Tmt Provider Contacts	14.6	27.5	F=7.5, p<.01
Collateral Contacts	4.2	6.3	F=1.4, p=0.24
New Haven	(n=39)	(n=39)	
Client Contacts	58.4	34.6	F=31.2, p<.0001
In-Person Contacts	25.8	22.8	F=1.7, p=0.20
Prof/Tmt Provider Contacts	37.3	21.1	F=7.7, p<.01
Collateral Contacts	8.8	5.0	F=7.1, p<.01

[1] Bridgeport - MANCOVA revealed a significant multivariate effect for Group, Wilks' lambda=0.77, F(4,96)=7.4, p<.0001. Accordingly, results of univariate analysis of covariance (ANCOVA) are presented for each contact type.

[2] Hartford - MANCOVA revealed a significant multivariate effect for Group, Wilks' lambda=0.87, F(4,108)=4.1, p<.01. Accordingly, results of univariate analysis of covariance (ANCOVA) are presented for each contact type.

[3] New Britain - MANCOVA revealed a significant multivariate effect for Group, Wilks' lambda=0.65, F(4,48)=6.4, p<.001. Accordingly, results of univariate analysis of covariance (ANCOVA) are presented for each contact type.

[4] New Haven - MANCOVA revealed a significant multivariate effect for Group, Wilks' lambda=0.58, F(4,72)=13.3, p<.0001. Accordingly, results of univariate analysis of covariance (ANCOVA) are presented for each contact type.

Quality of Probationer Contacts

While the analysis of number of contacts was important for determining whether the WOCMM group had increased contacts as a function of being exposed to the model, it was also important to demonstrate that the quality of the contacts received was consistent with the principles espoused by WOCMM. Specifically, we were interested in examining whether the case notes that documented the officer's activities were consistent with evidence-based supervision practices that were introduced in training. A keyword search of the case notes of all client contacts was conducted during the period of WOCMM participation or during regular probation supervision for the control group. An initial list of keywords was generated that represented descriptions of some of the major styles and approaches consistent with evidence-based practices (EBP).

As shown in **Table 26**, a total of 26 keywords were identified. An electronic search of each client's case notes was conducted to identify records where one or more of the keywords were used. The assumption for these analyses was that the likelihood of the occurrence of casework based on EBP increased with the frequency of keywords associated with the case notes for an individual woman. To test the assumptions further, we reviewed a random sample of ten case notes for each identified keyword in entirety to determine if the "essence" of the case notes were consistent with the evidence based practice element the specific keyword was designed to represent. If at least eight of the ten case notes were considered consistent with this criterion, the keyword was retained as a reliable of measure of the styles or skills intended by the keyword. The more detailed review identified a total of six keywords that did not meet the minimum standard of eight out of ten case notes that were consistent with evidence based practices. The keywords that were discarded included positive, priority, problem, protective, resource and risk. For example, the word positive was often associated with instances of reports of 'a positive urine test', a phrase that did not supply evidence that key evidence based principles were being followed. Similar inconsistencies were identified for the remaining five keywords.

KEYWORD SEARCH OF OFFICER CLIENT CONTACTS: CONSISTENCY WITH EVIDENCE-BASED PRACTICES (EBP)

Table 26

- Action	- Goal	- Skill
- Assist	- ~~Positive~~	- Solution
- Barrier	- ~~Priority~~	- Step
- Case plan	- ~~Problem~~	- Strategy
- Challenge	- Progress	- Strength
- Domain	- ~~Protective~~	- Success
- Encourage	- Reinforce	- Support
- Feedback	- ~~Resource~~	- Tool
- Focus	- ~~Risk~~	

Once the keyword list was finalized, analyses focused on the percentage of client contacts that contained one or more of the keywords. Results in **Table 27** show that in comparison to the control group, a significantly greater percentage of case notes were consistent with the evidence based practice keywords for the WOCMM group. For instance, 14.9% of WOCMM participants had 20-29% of their client contact case notes determined to be consistent with EBP – the comparable figure for the control group was only 8.1%. Further, while 6.3% of WOCMM participants had 30% or more of their case notes identified as consistent with EBP, only 1.2% of the control group case notes reached this frequency.

PERCENT OF CLIENT CASE NOTES CONSISTENT WITH EVIDENCE BASED PRACTICE KEYWORDS — *Table 27*

	Matched Samples		Statistical Test
	WOCMM (n=174)	Random Assignment Control (n=174)	
0 %	11.5%	37.9%	χ^2=47.8, p<.0001
1%-9%	33.3%	37.9%	
10%-19%	33.9%	14.9%	
20%-29%	14.9%	8.1%	
30+%	6.3%	1.2%	

We also examined the relationship between frequency of use of the evidence based practice keywords and recidivism. In **Table 28** we compare the outcomes of women with less than 10% of case notes using the keywords with outcomes for women with 10% or more of case notes containing the keywords. For the WOCMM group, rates of new arrests (26.0% vs. 38.5%) and new felony arrests (7.3% vs. 15.4%) were noticeably lower for women with 10% or more of their case notes containing the evidence based practice keywords. However, the differences failed to reach statistical significance. Considering the overall rate of any negative outcomes, a statistically significant difference was found between the two groups. WOCMM participants with less than 10% of case notes containing the keywords exhibited an overall negative outcome rate of 50.0%. For women with 10% or more of their case notes containing the keywords, only 28.1% were found to have any negative outcomes[14].

[14] A series of demographic and assessment analyses were conducted between the two groups of women with less than 10%, or 10% or more, of case notes containing the keywords. No statistically significant differences were found on any of the comparisons, thereby further supporting the findings regarding the likely impact of practices that reflect EBP principles. Table A-3 in Appendix A shows the results.

ONE-YEAR RECIDIVISM RATES OF WOCMM AND RANDOM ASSIGNMENT CONTROL MATCHED SAMPLES – BY % CASE NOTES CONSISTENT WITH EVIDENCE BASED PRACTICE KEYWORDS

Table 28

	% Case Notes Consistent with EBP		Statistical Tests
	< 10%	10% or more	
WOCMM	(n=78)	(n=96)	
New Arrest	38.5%	26.0%	χ^2=3.1, p=0.08
New Felony Arrest	15.4%	7.3%	χ^2=2.9, p=0.09
Any Negative Outcome[1]	50.0%	28.1%	χ^2=8.7, p<.01
Random Assignment Control	(n=132)	(n=42)	
New Arrest	40.2%	50.0%	χ^2=1.3, p=0.26
New Felony Arrest	15.2%	21.4%	χ^2=0.9, p=0.34
Any Negative Outcome[1]	45.5%	52.4%	χ^2=0.61, p=0.43

[1] *Any Negative Outcomes* include arrests as well as absconding and technical violations.

While percent of client case notes using the evidence based practice keywords differentiated recidivism outcomes for the WOCMM group, the reverse was observed for the control group. Women with case notes containing 10% or more of the keywords had higher arrests and any negative outcome rates compared to those with less than 10% of such case notes. It is not clear why the hypothesized relationship between the use of the keywords and recidivism failed to emerge for the control group. One possibility is that while control group officers may mimic some of the principles evidenced in the practice of WOCMM officers, the lack of structure to support and continue the practices may limit the level of impact in the control group.

CHAPTER 4 | DISCUSSION

This report represents a three-year effort to examine the outcomes of a collaborative case management model for criminal justice-involved women, the Women Offender Case Management Model (WOCMM). Initiated by the National Institute of Corrections (NIC), WOCMM was a response to growing demands from the field to develop and evaluate gender responsive services and supervision practices such as assessment, classification, and case planning.

This evaluation examines outcome data from the implementation of WOCMM by the State of Connecticut Judicial Branch/Court Support Services Division (CSSD) in four probation supervision offices (Bridgeport, Hartford, New Britain and New Haven). The report covers the period from October 2007 until April 2010. Profiling the characteristics and need areas of women exposed to WOCMM was the first research objective to be addressed by the evaluation. The second research question focused on the intermediate outcomes of participation in WOCMM, examining changes in risk and protective factors and gains in knowledge and skills. The final research question considered long-term outcomes related to the impact of WOCMM on recidivism rates. In order to examine the impact of WOCMM on recidivism, a matched random control group was constructed based on a large pool of women probationers that were randomly assigned to receive regular probation services.

- **What challenges and strengths do justice-involved women present and how will the use of gender-responsive assessment identify women at greatest risk for service?**

A total of 487 women participated in WOCMM during the evaluation period. Demographic data indicated that a typical WOCMM participant was about 35 years of age, African-American, serving a probation supervision sentence of just under 2.5 years, and assessed as high risk for recidivism with elevated substance use levels. SPIn-W assessment results revealed the women had multiple need areas including substance abuse, employment, domestic violence, financial issues, and a history of mental health and abuse.

The SPIn-W results were also informative for profiling the strengths or protective factors of the WOCMM sample. While the characteristics of WOCMM participants confirmed that they were a higher risk group, the assessment results also demonstrated that some of the women possessed strengths in a number of areas. In particular, family and community were two areas that identified multiple protective factors for a high proportion of women. Overall SPIn-W assessment results demonstrated that although close to 80% were assessed as moderate or high risk, almost half of this group were similarly assessed as possessing moderate or high protective levels.

The goal of targeting higher risk women for participation in WOCMM appears to have been successful. Women exposed to WOCMM had longer than average probation sentence lengths, the majority had scores of 29 or higher on the LSI-R (indicating a high risk for recidivism), and the ASUS-R subscale scores suggested substance abuse problems for many of the probationers. The SPIn-W results confirmed the high risk profile of participants, and also highlighted the multiple needs to be addressed during probation supervision.

The profile of WOCMM women supports the risk and need principles for assessment and treatment. The risk principle asserts the level of services should match the risk level to re-offend. A core component of this principle is that more intense services should be reserved for higher risk individuals. The need principle highlights the importance of focusing on criminogenic need areas that can be influenced and changed. The SPIn-W assessment results indicate service priorities in the areas of substance abuse, employment, finances, mental health and trauma for past abuse. Overall, WOCCM is responsive to the risk and need profiles of these women in that it provides comprehensive interventions at intensive levels, and attempts to provide service components that address the major need areas suggested by the profile.

- **What are the intermediate outcomes of participation in WOCMM? Can we demonstrate an increase in personal strategies and access to natural supports and resources?**

A subgroup of 232 WOCMM participants had initial SPIn-W assessments and first reassessments that were completed after approximately nine months. Examination of change scores over that timeframe revealed a statistically significant decrease in overall dynamic risk scores, representing a reduction of close to 8% in comparison to initial assessment status. As well, significant decreases were observed for three of the SPIn-W domains – attitudes, social/cognitive skills and community living. The analyses also showed that a significant increase of 17% in protective scores was evident at the time of reassessment. Significant increases were observed for all of the protective factor domains. The results related to increases in protective factors are compelling and suggest that staff were operationalizing the strength-based component of the model.

Although the sample of WOCMM participants with self-report pre-test and re-test data was not large (138 cases), changes in expected directions were observed for all of measures. Improvement was noted in the number and satisfaction with social supports, general self-efficacy, parenting skills, and use of success strategies. Similar patterns were detected on a smaller subsample of cases that had an initial pre-test and two sets of re-tests. While there were trends suggesting positive gains in all of the WOCMM-relevant dimensions measured by the self-report measures, only the change measures assessing parenting strategies and attitudes reached statistical significance. Again, it was not clear why significant changes were not detectable for the majority of these intermediate outcome measures.

Data was available on the number and type of officer contacts with probationers, as well as with those involved with the probationer such as service providers, other professionals, and collaterals (e.g., employer, school, family, friends, etc.). Compared to the random assignment control group, WOCMM participants had significantly higher numbers of contacts for all contact types – client, professional/treatment provider, and collaterals. The results support the tenets of WOCMM related to a case management strategy that engages and connects the women, reviews progress and executes case plans that help mobilize personal strategies and resources.
While an examination of the quantity of contacts experienced by WOCMM participants was important for measuring program implementation fidelity, it was also important to study the

quality of contacts with the probationers. For the current evaluation, quality of client contacts was assessed by examining keywords contained in casework notes that were consistent with evidence-based practices. (e.g., feedback, reinforce, strategy, support, etc.). A total of 20 relevant keywords were identified, and officer case notes were searched to determine the percentage of women whose files contained a high proportion of the keywords that were consistent with WOCMM. The findings indicated that a significantly greater percentage of client case notes consistent with the model were identified for the WOCMM group in comparison to the control group. Further, analysis of recidivism data supported the importance of such practices. Cases with a higher percentage of case notes consistent with evidence based practices had significantly lower recidivism than those with a less documented evidence of evidence based practice.

The results are consistent with a deliberate strategy for structuring casework contacts. The WOCMM initiative provided an opportunity for officers to receive training in evidence-based and gender informed practices. The core teams were provided with ongoing coaching, booster training and a number of quality assurance practices were implemented to ensure fidelity to the core elements and practices of the model. We regard these findings on quality of contacts as confirmation of the efficacy of the training and support efforts at initial implementation and during regular intervals throughout WOCMM implementation.

- **What is the recidivism impact of a gender-responsive case management model for women under probation supervision?**

A random assignment control procedure with a supplementary matching procedure for increasing the equivalence of the treatment and control group was used to explore the impact of WOCMM. The results indicated a significantly lower new arrest rate for WOCMM participants compared to the control group over a one-year fixed follow-up period. The relative reduction in new arrests was almost 26%, a sizeable decrease for this risk population of women. When examined for age and ethnicity, the recidivism rates also suggested a generalized effect of the model for these sub-groups. Results of this study also showed a somewhat greater impact for higher risk cases, finding that provides further confirmation of the risk principle.

Overall, the WOCMM initiative provides convincing evidence of the effectiveness of this gender informed model in producing better outcomes for women probationers who are at risk of negative criminal justice outcomes. A large number of measures were accessed in order to address the major questions raised in the evaluation framework for WOCMM. The findings offer evidence that the WOCMM principles were being followed by the teams delivering the model and that positive intermediate changes were produced in a number of relevant outcome measures. Finally, the evaluation yielded results to support the conclusion that WOCMM was successful in reducing recidivism for women who were exposed to the model.

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Appendix A

WOCMM SAMPLE BY COMPLETION OF SPIN-W ASSESSMENT — *Table A-1*

	WOCMM Sample		Statistical Tests
	No SPIn-W (n=98)	Yes SPIn-W (n=389)	
Age (years)			
18 - 24	12.2%	18.3%	χ^2=3.1, p=0.38
25 - 34	35.7%	30.6%	
35 - 44	30.6%	33.4%	
45+	21.4%	17.7%	
Average Age (years)	35.8 (SD=9.8)	34.6 (SD=9.4)	*t*=1.1, p=0.27
Ethnicity			
African-American	38.8%	41.7%	χ^2=0.3, p=0.85
Caucasian	32.6%	32.1%	
Hispanic	28.6%	26.2%	
Probation Supervision Length (years)			
1 - < 2	23.7%	25.9%	χ^2=0.2, p=0.89
2 - < 3	41.2%	39.3%	
3+	35.1%	34.8%	
Average Probation Supervision Length (days)	839.7 (SD=333.9)	827.9 (SD=328.9)	*t*=0.3, p=0.75
Supervising Region			
Eastern	4.1%	1.8%	χ^2=17.2, p<.01
North Central	55.1%	45.2%	
North West	6.1%	3.4%	
South Central	9.2%	28.3%	
South West	25.5%	21.3%	
LSI-R Score Levels			
18-28	43.2%	44.9%	χ^2=0.7, p=.71
29-38	51.1%	47.4%	
39+	5.7%	7.8%	
Average LSI-R Score	29.7 (SD=5.4)	29.7 (SD=5.7)	*t*=-0.01, p=0.99
Average ASUS-R Scales			
Involvement	8.6 (SD=6.8)	8.8 (SD=7.7)	*t*=-0.14, p=0.08
Disruptive	18.7 (SD=19.9)	16.7 (SD=19.1)	*t*=0.82, p=0.42
Social Non-Conforming	8.4 (SD=4.5)	9.2 (SD=5.4)	*t*=-1.2, p=0.22
Legal Non-Conforming	11.5 (SD=6.5)	11.5 (SD=6.4)	*t*=-0.01, p=0.99
Mood Adjustment	10.7 (SD=7.3)	10.1 (SD=6.9)	*t*=0.65, p=0.52
WOCMM Status			
Active	50.0%	54.2%	χ^2=0.6, p=.45
Discharged/Completed	50.0%	45.8%	
Average Length of WOCMM Participation (days)			
All Participants	167.1 (SD=185.9)	452.8 (SD=264.2)	*t*=-10.1, p<.001

*Univariate tests were used (chi-square and t-tests) in order to increase the sensitivity for detecting differences between the two groups and control for Type II errors. This method was selected over multivariate techniques (i.e., MANOVA) that are more conservative in controlling for Type I errors.

WOCMM SAMPLE BY COMPLETION OF EVALUATION MEASURES — *Table A-2*

	WOCMM Sample		Statistical Tests*
	No Evaluation Measures (n=213)	Yes Evaluation Measures (n=274)	
Age (years)			
18 - 24	15.5%	18.3%	χ^2=2.7, p=0.45
25 - 34	29.1%	33.6%	
35 - 44	34.7%	31.4%	
45+	20.7%	16.8%	
Average Age (years)	35.6 (SD=9.3)	34.3 (SD=9.7)	*t*=1.52, p=0.13
Ethnicity			
African-American	45.1%	38.0%	χ^2=2.7, p=0.25
Caucasian	31.0%	33.2%	
Hispanic	23.9%	28.8%	
Probation Sentence Length (years)			
1 - < 2	27.9%	23.6%	χ^2=1.9, p=0.38
2 - < 3	40.4%	39.1%	
3+	31.7%	37.3%	
Average Probation Sentence Length (days)	799.5 (SD=317.4)	853.9 (SD=337.5)	*t*=-1.8, p=0.07
Supervising Region			
Eastern	2.9%	1.8%	χ^2=27.8, p<.01
North Central	52.9%	42.9%	
North West	5.2%	2.9%	
South Central	12.9%	33.3%	
South West	26.2%	19.1%	
LSI-R Score Levels			
18-28	34.9%	51.8%	χ^2=13.0, p<.01
29-38	57.3%	41.2%	
39+	7.8%	7.1%	
Average LSI-R Score	30.6 (SD=5.5)	28.9 (SD=9.7)	*t*=3.2, p<.01
Average ASUS-R Scales			
Involvement	9.5 (SD=7.4)	8.2 (SD=7.6)	*t*=1.8, p=0.08
Disruptive	19.6 (SD=19.8)	15.3 (SD=18.6)	*t*=2.3, p<.05
Social Non-Conforming	9.5 (SD=5.4)	8.8 (SD=5.1)	*t*=1.4, p=0.16
Legal Non-Conforming	12.5 (SD=6.9)	10.7 (SD=6.0)	*t*=2.9, p<.01
Mood Adjustment	11.2 (SD=7.2)	9.5 (SD=6.8)	*t*=2.5, p<.05
WOCMM Status			
Active	44.6%	60.2%	χ^2=11.7, p<.01
Discharged/Completed	55.4%	39.8%	
Average Length of WOCMM Participation (days)			*t*=-10.4,
All Participants	262.5 (SD=241.3)	498.5 (SD=255.4)	p=0.001

*Univariate tests were used (chi-square and t-tests) in order to increase the sensitivity for detecting differences between the two groups and control for Type II errors. This method was selected over multivariate techniques (i.e., MANOVA) that are more conservative in controlling for Type I errors.

WOCMM Sample by % Case Notes Consistent with Evidence-Based Practice Keywords

Table A-3

	WOCMM Sample % Case Notes Consistent with EBP		Statistical Tests*
	< 10% (n=78)	10% or more (n=96)	
Age (years)			
18 - 24	15.4%	18.8%	χ^2=2.7, p=0.45
25 - 34	38.5%	27.1%	
35 - 44	33.3%	38.5%	
45+	12.8%	15.6%	
Average Age (years)	33.6 (SD=8.5)	34.8 (SD=9.0)	*t*=-0.9, p=0.38
Ethnicity			
African-American	45.1%	38.0%	χ^2=1.3, p=0.51
Caucasian	31.0%	33.2%	
Hispanic	23.9%	28.8%	
Probation Sentence Length (years)			
1 - < 2	21.8%	22.1%	χ^2=0.7, p=0.69
2 - < 3	44.9%	38.9%	
3+	33.3%	39.0%	
Average Probation Sentence Length (days)	860.2 (SD=361.8)	875.0 (SD=380.4)	*t*=-0.9, p=0.38
Supervising Region			
North Central	53.9%	43.7%	χ^2=11.8, p<.01
South Central	29.5%	16.7%	
South West	16.7%	39.6%	
LSI-R Score Levels			
18-28	39.7%	47.9%	χ^2=1.4, p=0.49
29-38	53.9%	44.8%	
39+	6.4%	7.3%	
Average LSI-R Score	29.7 (SD=5.9)	29.4 (SD=5.7)	*t*=0.3, p=0.75
Average ASUS-R Scales			
Involvement	6.9 (SD=6.4)	8.0 (SD=7.2)	*t*=-1.0, p=0.31
Disruptive	12.8 (SD=16.6)	16.5 (SD=18.4)	*t*=-1.4, p=0.17
Social Non-Conforming	9.0 (SD=4.7)	8.3 (SD=5.0)	*t*=1.0, p=0.31
Legal Non-Conforming	10.7 (SD=5.6)	11.3 (SD=6.4)	*t*=-0.7, p=0.46
Mood Adjustment	9.0 (SD=6.5)	9.7 (SD=6.4)	*t*=-0.7, p=0.50
Average Length of WOCMM Participation (days)			
All Participants	474.0 (SD=262.2)	611.8 (SD=221.5)	*t*=-3.8, p<.001

*Univariate tests were used (chi-square and t-tests) in order to increase the sensitivity for detecting differences between the two groups and control for Type II errors. This method was selected over multivariate techniques (i.e., MANOVA) that are more conservative in controlling for Type I errors.