

**ENHANCING PRISON TREATMENT FOR
WOMEN OFFENDERS:
AN IN-DEPTH FOLLOW-UP STUDY**



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Enhancing Prison Treatment for Women Offenders: An In-Depth Follow-Up Study

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EXECUTIVE SUMMARY

UCLA Integrated Substance Abuse Programs (ISAP) conducted a two-year pilot study to test the efficacy of a drug abuse treatment program designed for drug-dependent women in prison. Specifically, the study examined the relative effectiveness of a “relational-based,” multifaceted program called Women’s Integrated Treatment (WIT) compared to a standard prison therapeutic community (TC) treatment program. Relational-based programs emphasize the important role of relationships and intimate partners in women’s addiction and recovery.

The WIT program is a multi-faceted curriculum organized into four modules: 1) self module, 2) relationship module, 3) sexuality module, and 4) spirituality module. A trauma-informed curriculum was also delivered in conjunction with these modules. Other WIT program elements concern, for example, parenting techniques, child custody issues, grief and loss, and decision-making skills. The comparison TC program is comprised of an array of services, including, for instance, individual and group counseling, 12-step meetings, recreational and mutual self-help group discussions, and anger management training. Both programs offer 6 months of aftercare treatment in the community.

Although the WIT curriculum has been fully developed (Covington, 1999, 2003), this study is the *first empirical test of the curriculum*. The pilot study involved the expertise of the Center for Gender and Justice; the cooperation of Valley State Prison for Women (VSPW) in Chowchilla, California; and the treatment experience of Walden House, Inc.—the prison treatment provider. An already existing program (i.e., Integrity) at VSPW was modified to incorporate the WIT curriculum and is thus the target program. The study used an

experimental design with random assignment of participants to the two treatment conditions (Integrity vs. TC).

A total of 115 participants were recruited, randomly assigned to either the Integrity or TC program, and interviewed at three time points: 1) program entry; 2) 6-months post parole; and 3) 12-months post parole. Data were collected from the participants at 6- and 12-month follow-up interviews, regardless of whether they completed the programs or not. Interviews at 6 months were conducted with 50 Integrity participants and 44 TC participants. Interviews were also conducted at 12 months with 44 Integrity participants and 41 TC participants.

Results for Main Hypotheses

The present study examined four hypotheses about the WIT curriculum:

Hypothesis 1

Women in the Integrity (WIT) treatment program will have a more positive change in their psychological well-being over the course of treatment than will women in the TC treatment program.

- The Addiction Severity Index-Lite (ASI) was used to assess Hypothesis 1. The ASI measures well-being in regard to addiction severity and service needs.
- Women from both treatment groups improved in their psychological well-being over time. There were no significant differences between groups in the ASI composite scores. Thus, Hypothesis 1 was not supported.

Hypothesis 2

Women in the Integrity (WIT) treatment program will be more likely to participate in aftercare treatment and remain in such treatment longer than will women in the TC treatment program.

- Hypothesis 2 was partially supported. There was no significant difference between treatment groups in aftercare treatment participation. Approximately 50% of those who participated in the prison treatment programs voluntarily entered aftercare treatment.
- However, of those who participated in the aftercare programs, Integrity WIT participants tended to stay in aftercare treatment longer than women from the TC program (4.9 months vs. 3.4 months, respectively).
- Integrity WIT participants also stayed significantly longer in the first residential treatment episode than those in the TC program (2.6 months vs. 1.8 months).
- To further examine the significance of time-in-aftercare treatment, the strength of the group differences were examined. These comparisons indicated greater success in aftercare treatment (as measured by length of stay and completion) for Integrity WIT participants than for TC participants.

Hypothesis 3

Women in the Integrity treatment program will be less likely to report post-release drug use than will women in the TC program.

- There were no significant differences between groups in ASI Alcohol or Drug Use Composite Scores across time points. There were no differences between groups in alcohol or primary drug use at 6-months or 12-months follow-up. Both groups largely reported no drug or alcohol use. Thus, Hypothesis 3 was not supported.

Hypothesis 4

Women in the Integrity WIT treatment program will be less likely to return to custody than will women in the TC program.

- Women in the TC program were more likely to have returned to CDCR custody within one year after parole than Integrity WIT participants (45% vs. 31%, respectively). In addition, more TC women were incarcerated at the time of

their 12-month follow-up interview compared to Integrity women (39% vs. 25%). Thus, Hypothesis 4 was supported.

- Women from the TC program also returned to custody after a shorter period following their parole compared to Integrity WIT program participants (6- months vs. 8-months post parole, respectively).
- Comparisons also indicated that Integrity WIT participants were more successful on parole than TC program women with regard to reincarceration.

It should be noted that the official records data (i.e., aftercare participation and return to custody records) revealed more observed differences between the groups than did self report data (i.e., ASI interview data). This enhances the reliability of the findings.

Taken together, the results of this pilot study show positive trends that support the beneficial effects of including components oriented toward meeting women's needs (e.g., gender responsiveness, trauma-informed services, parenting training, self-esteem and assertiveness training, and sexuality and family planning) within corrections-based substance abuse treatment. The findings suggest that these components add value to the expected effects of WIT treatment programs, particularly with regard to increasing time in aftercare following parole and reducing the time to recidivism.

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ENHANCING PRISON TREATMENT FOR WOMEN OFFENDERS: AN IN-DEPTH FOLLOW-UP STUDY

The main purpose of this 2-year pilot study was to determine whether a substance abuse treatment program for women in prison, based on an established theoretical model of women's psychological development, provides better outcomes than standard prison substance abuse treatment for women offenders. The experimental pilot study was a cooperative agreement between UCLA Integrated Substance Abuse Programs (ISAP), Walden House, the Center for Gender and Justice, California Department of Corrections and Rehabilitation (CDCR) Valley State Prison for Women, and CDCR Division of Addiction Recovery Services (DARS). The primary aim of the study was:

To pilot test the efficacy of a theoretically based, multi-faceted, women's integrated treatment (WIT) curriculum to promote positive behaviors among women offenders (i.e., increased self-efficacy and psychological well-being, aftercare participation and retention, and reductions in drug use and recidivism) compared to the impact of a standard prison therapeutic community (TC) program.

BACKGROUND

Women in the criminal justice system are typically women with complex histories of abuse, trauma, and addiction (Bloom et al., 2003; Messina et al., 2003). Moreover, abuse and addiction are the most common pathways to criminal behavior for women (Messina & Grella, 2006). Despite the rising numbers of women convicted of drug-related crimes and the progress that has been made in understanding the treatment needs of women, few initiatives have focused specifically on treatment of women offenders (Bloom, Owen, & Covington, 2004). Because published data influence funding directions as well as public perceptions of treatment for women, the lack of in-depth data on specific treatment approaches for women offenders can effectively exclude their interests from critically important policy decisions.

A large body of research has shown that drug-dependent women offenders' greatest needs are multi-faceted treatment for addiction and trauma recovery, with the addition of education for vocational and parenting skills (Covington & Surrey, 1997; Messina & Grella, 2006). The strikingly consistent findings regarding the greater severity of women's drug abuse, past trauma, and psychological disorders have led many researchers, theorists, and clinicians to propose gender-responsive treatment¹ for women as a more appropriate and effective way to facilitate their recovery. In particular, relational theory describes women's psychological development in the context of women's relationships and their connection to others, which is very different from models of development for men, which typically focus on separation and independence (Covington & Surrey, 1997; Jordan et al., 1991).

Covington and Surrey (1997) suggest that relational theory, with its emphasis on the role that relationships and intimate partners play in women's addiction and recovery, provides a useful conceptual basis for planning and implementing appropriate drug abuse treatment services for women offenders. Thus, Dr. Covington (1999, 2002, 2003) developed *"Helping Women*

¹ "Creating an environment through site selection, staff selection, program development, content and materials that reflects an understanding of the realities of the lives of women and girls that addresses and responds to their strengths and challenges" (Bloom, Owen, & Covington, 2003).

Recover: A Comprehensive Integrated Treatment Model for women offenders, which focuses services on women's specific needs and incorporates services that are implemented in a manner that promotes women's psychological growth and helps them to discontinue the cycle of substance abuse and criminal behavior. In addition, Dr. Covington developed "*Beyond Trauma: A Healing Journey for Women*." Women begin a process of understanding what has occurred in their past (i.e., sexual or physical abuse, or other victimization) that has been traumatizing. These curricula, however, had not previously been empirically tested.

Relational theory could help to create the kinds of programs in the criminal justice system that will be most effective for drug-dependent women offenders. The expectation is that programs that focus on women's specific needs, guided by a theoretical understanding of women's psychological development, are in a better position to meet these needs than a more generic treatment program using the typical TC approach.

As policy makers and treatment providers consider expanding treatment options for women offenders, it is critical to determine whether theoretically driven WIT programs do produce better outcomes than standard prison TC programs.

STUDY DESIGN

The study was conducted at the Valley State Prison for Women (VSPW). At the time of the study there were two TC programs operated by Walden House within the prison (Integrity and Destiny), which provided approximately 6 months of treatment. Inmates with a history of substance abuse were transferred into the two programs near the end of their prison sentence under CDCR mandate (entrance into the programs was based largely on bed availability for eligible women). Although the two Walden House programs followed the same entry, orientation, and discharge protocols, they maintained separate counseling staff, separate treatment trailers, and separate housing units for participants in each program. This arrangement meant that program staff and participants from each program did not mix (reducing the possibility of external contamination). In addition, 6 months of aftercare treatment in the community (outpatient or residential) was available to program graduates on a voluntary basis upon release from prison. CDCR Prison Treatment Initiative findings show that approximately 24% of 1,213 graduates from the existing VSPW programs previously entered aftercare treatment for an average of 4.4 months (Messina et al., 2004.)

Standards and Practices for Prison TC

The standards and practices for prison TC programs in California are intended to be a guide for required minimum program components and operational procedures and principles. Program staff are specifically trained on TC treatment philosophy and standardized program elements. Prison programs are required to provide individual and group counseling (with a strong emphasis on vocational/educational counseling), 12-step meetings, recreational/mutual self-help group discussions, and random urine testing. Additional services beyond the minimum requirements, including relapse prevention, family planning, anger management, and HIV/AIDS education, have been incorporated into the Walden House TC program. Participants typically spend 20 hours per week in required programming activities.

Modifications for WIT Program

The treatment protocol of the WIT program is based on clinical experience and relational theory (described earlier). The manualized, multi-faceted curriculum is specifically designed to be relevant to the needs of drug-dependent women in correctional settings, although it is widely used in community programs as well. The program is organized into four modules that reflect the areas of greatest change in women's recovery: 1) *Self module*: Women discover what the "self" is; learn that addiction can be understood as a disorder of the self; learn the sources of self-esteem; consider the effects of sexism, racism, and stigma on a sense of self; and learn that recovery includes the expansion and growth of the self. 2) *Relationship module*: Women explore their roles in their families of origin, discuss myths and realities about motherhood and their relationships with their mothers, review relationship histories, and consider how they can build healthy support systems. To assist the participants' growth, counselors role model healthy relationships among themselves and with the participants. 3) *Sexuality module*: Women explore the connections between addiction and sexuality, body image, sexual identity, sexual abuse, and the fear of sex when clean and sober. Women may enter recovery with arrested sexual development, because substance abuse often interrupts the process of healthy sexual development. Many also struggle with sexual dysfunction, shame, fear, and trauma that must be addressed so that they do not return to addiction to manage the pain of these difficulties. 4) *Spirituality module*: Women are introduced to the concepts of spirituality, prayer, and meditation. Spirituality deals with transformation, connection, meaning, and wholeness. Each woman is given an opportunity to experience aspects of spirituality and to create a vision for her future in recovery. *Beyond Trauma* was developed to be used in conjunction with *Helping Women Recover*. Women begin a process of understanding what has occurred in their past (i.e., sexual or physical abuse, or other victimization) that has been traumatizing. They explore how this abuse has impacted their lives and learn coping mechanisms, while focusing on personal safety, using a strengths-based approach. In addition, WIT program elements are delivered within the safety and comfort of a same-gender environment, encompassing nonconfrontational and nonhierarchical learning experiences. Other elements include groups on parenting techniques and child custody issues, perinatal services, health and hygiene, grief and loss, and decision-making skills.

Provider Training

The *Integrity Prison Program* at VSPW was transformed into the WIT specialized program and the *Destiny Program* remained as a standard TC program. Female counseling staff members at the Integrity program were specially trained for this study. The training was conducted by Dr. Stephanie Covington, Co-Director of the Center for Gender and Justice. The training took place in the community and follow-up training took place at the prison. At this time, peer mentors also participated in the curricula training. The Principal Investigator and Dr. Covington visited the programs and observed the delivery of the curricula over time. Feedback was provided, but there was not a formal fidelity assessment.

Study Hypotheses and Research Questions

Four hypotheses were tested regarding the aim of the study: *To pilot test the efficacy of a theoretically based, WIT model to promote positive behaviors among women offenders compared to the impact of a standard prison TC program.*

Hypothesis 1

Women in the WIT treatment condition will have a more positive change in their psychological well-being over the course of treatment compared with those in the TC treatment condition.

Hypothesis 2

Women in the WIT treatment condition will be more likely to participate in aftercare treatment and will remain longer than will women in the TC treatment condition.

Hypothesis 3

Women in the WIT treatment condition will be less likely to report post-release drug use than will women in the TC treatment condition.

Hypothesis 4

Women in the WIT treatment condition will be less likely to have been returned to custody within one year than will women in the TC treatment condition.

Data Sources

The measures used to describe the study participants and to test hypotheses were collected from standardized instruments such as the Addiction Severity Index-Lite (ASI; McLellan, Alterman, Cacciola, Metzger, & O'Brien, 1992) and the Post Traumatic Stress Diagnostic Scale (Foa, 1997). Prison treatment intake procedures and surveys, the Motivation and Readiness for Treatment Scale (Knight, Holcom, & Simpson, 1994), the Self Efficacy Scale (Annis & Graham, 1988), and official record data from CDCR and the treatment providers (admission and discharge dates, completion status, aftercare participation, criminal justice records) were also used to test hypotheses. Details are provided next.

Addiction Severity Index-Lite

The ASI-Lite is a structured interview instrument that is widely used for both clinical and research purposes to determine problem severity and service needs (McLellan et al., 1992). It consists of questions pertaining to demographics, education, employment, living situation, past and current health status, past and current drug and alcohol use, past and current drug treatment history, past and current criminal and criminal justice involvement, and past and current mental health status and treatment. The measure has excellent inter-rater and test-retest reliability as well as discriminant and concurrent validity. The ASI-Lite was administered at baseline and at the 6-month and 12-month follow-up assessments.

Intake Assessment

At the time of the study, all clients entering the prison TC programs were administered an Intake Assessment (IA) instrument by treatment program personnel. The IA data were available to ISAP and used as an additional source of client-level data for the pilot study (i.e., for additional background characteristics). The IA is designed to assess a client's pre-incarceration socio-demographic background, criminality, employment, sexual/physical abuse history, and substance dependence. Adopted from the Initial Assessment developed at the Institute of Behavioral Research at Texas Christian University (Broome, Knight, Hiller, & Simpson, 1996), the IA has been used extensively with criminal populations.

Post Traumatic Stress Diagnostic Scale (PDS). The PDS was administered at baseline to assess symptoms of posttraumatic stress disorder as an additional descriptive of client

functioning at baseline. The PDS items represent the 17 symptoms of this disorder. The sum of the ratings provides an overall indicator of symptom severity, with higher scores indicating greater severity. Studies have shown test-retest reliability for the PDS as .70 (Foa, 1997; Foa, Cashman, Jaycox, & Perry, 1997).

Self-Efficacy Scale. This self-assessment measures the extent to which women feel confident in their ability to resist using drugs in different situations. The scale is based on the Situational Confidence Questionnaire (Annis & Graham, 1988). Twenty items are rated on a 3-point scale. Items are summed to create a continuous scale, with higher scores indicative of greater self-efficacy. This scale was administered at baseline and the 6- and 12-month follow-up.

Prison Treatment Admission and Discharge Dates. Treatment participation data were obtained from client participation logs maintained by Walden House. These data permitted calculation of the average length of prison treatment and the rate at which participants entered aftercare following release from prison.

Aftercare Participation. Aftercare participation data from CDCR were collected on all clients at the end of the study. Data were obtained on those who participated in aftercare, the type of aftercare program entered upon release from prison (e.g., sober living, outpatient, residential), admission and discharge dates, and reason for discharge.

Criminal Justice Records. Incarceration history and additional information on parole violations was obtained from official records maintained by the CDCR Offender Based Information System (OBIS). Incarceration history records on all participants were obtained to determine return to custody rates 12 months from release from prison.

Randomization Procedures

A total of 115 women entering prison-based treatment *who agreed to participate* in the study were randomly assigned to the *Integrity Prison Program*, a Women's Integrated Treatment (WIT) program model using two gender-responsive, trauma-informed manualized curricula, "Helping Women Recover" and "Beyond Trauma," or the *Destiny Prison Program*, a standard prison TC treatment program. All study procedures with human subjects were reviewed and approved by the respective agency Internal Review Boards. None of the women approached declined to participate in the study. Randomization took place at the prison. The Assignment Lieutenant was instructed to place all women with even CDCR numbers into the Integrity Program and all women with odd CDCR numbers into the Destiny Program. Women are not assigned CDCR numbers with any specificity. Thus, this was the simplest way to randomize women between the two programs while also being able to monitor any randomization violations.

Participant Background Characteristics

The sample size of at least 55 participants per group allowed a detection of moderate effect size of approximately $d = 0.33$ in comparing differences on participant background variables with power = .80 and alpha level = .05 (Cohen, 1988). (The effect size represents the strength of group differences, and the power represents the statistical ability to detect those differences.) Analysis of variance (ANOVA) was used to compare the Integrity WIT program and the Destiny TC program for background characteristics prior to treatment represented by a single continuous variable. For categorical and binary variables, chi-square analysis was used. Participants were compared to determine if there were program entry-level differences that

would affect outcome. No significant differences were found in background characteristics and drug and criminal histories between the two randomized groups (see Table 1 and Table 2).

Table 1
Background Characteristics of Sample Participants at Treatment Admission, by Program

| Characteristics | Integrity (<i>n</i> = 60) | | Destiny (<i>n</i> = 55) | | Total (<i>N</i> = 115) ^a | |
|--|-------------------------------|------------------------|-----------------------------|------------------------|---|------------------------|
| | % | <i>M</i> (<i>SD</i>) | % | <i>M</i> (<i>SD</i>) | % | <i>M</i> (<i>SD</i>) |
| Race/Ethnicity | | | | | | |
| White | 52 | | 44 | | 48 | |
| Black | 20 | | 15 | | 17 | |
| Hispanic | 20 | | 33 | | 26 | |
| Other | 8 | | 9 | | 9 | |
| Marital Status | | | | | | |
| Never Married | 48 | | 36 | | 43 | |
| Married | 12 | | 26 | | 18 | |
| Divorced/Separated/Widowed | 40 | | 38 | | 39 | |
| Age at Admission | | 36.1 (9.3) | | 35.7 (9.9) | | 35.9(9.6) |
| Number of Years of Education | | 11.2 (1.7) | | 11.4 (2.1) | | 11.3(1.9) |
| Employment Status Prior to Incarceration | | | | | | |
| Full Time/Part Time | 23 | | 30 | | 27 | |
| Unemployed | 18 | | 22 | | 20 | |
| Not in the Labor Force | 58 | | 49 | | 54 | |
| Primary Source of Income Prior to Incarceration | | | | | | |
| Job | 15 | | 17 | | 16 | |
| Family/Friends/Mate | 25 | | 25 | | 25 | |
| Welfare/Unemployment/Assistance | 13 | | 23 | | 18 | |
| Illegal Activities | 46 | | 36 | | 41 | |
| Ever Experienced Depression | 80 | | 78 | | 79 | |
| Ever Experienced Anxiety/Tension | 78 | | 75 | | 56 | |
| Ever Had Trouble Concentrating/Remembering | 58 | | 47 | | 53 | |
| Ever Had Trouble Controlling Violent Behavior | 42 | | 47 | | 44 | |
| Ever Had Thoughts of Suicide | 35 | | 47 | | 41 | |
| Ever Sexually Abused | 52 | | 58 | | 55 | |
| Ever Physically Abused | 73 | | 69 | | 71 | |
| DSM-IV Criteria for Substance Use Disorder ^c | 96 | | 93 | | 95 | |
| Taking Prescribed Psychotropic Medications | 32 | | 31 | | 31 | |
| Post Traumatic Stress Disorder ^d | 25 | | 26 | | 26 | |
| Correctional Clinical Case Management (CCCMS) ^e | 9 | | 7 | | 8 | |

^a No significant differences were found at admission using the $p < .05$ value.

^b Includes PCP, alcohol, and non-prescription methadone.

^c A proxy measure using Diagnostic and Statistical Manual (DSM-IV) criteria for Substance Use Disorder.

^d Diagnosis assessed via the Posttraumatic Stress Diagnostic Scale.

^e Determined by the CDCR and data provided by Offender Based Information System.

The lack of differences at program admission indicates success of the randomized design of the study, and thus covariates were not included in the analyses.

Participants were predominantly either White (48%) or Hispanic (26%), and 43% had never been married at the time of program admission. Thirty-nine percent reported being divorced, separated, or widowed at program admission. On average, participants were approximately 36 years old with 11 years of completed education. The majority of the women were either unemployed (20%) or not in the labor force (54%) prior to incarceration. The majority of the women also reported histories of depression (79%), sexual abuse (55%), and physical abuse (71%). Twenty-six percent of the women met the criteria for a diagnosis of Post Traumatic Stress Disorder (PTSD), with 63% of these having a range of moderate to severe PTSD symptoms as derived from the PDS. Ninety-five percent met DSM-IV criteria for either alcohol or drug abuse or dependence upon program entry. Methamphetamine was the primary drug problem (58%), and many participants reported daily use prior to incarceration (47%). In addition, the majority of women were initially incarcerated for property (44%) or drug crimes (37%).

Table 2
Drug Use and Criminal History at Treatment Admission, by Program

| Characteristics | Integrity (<i>n</i> = 60) | | Destiny (<i>n</i> = 55) | | Total (<i>N</i> = 115) ^a | |
|--|-------------------------------|------------------------|-----------------------------|------------------------|---|------------------------|
| | % | <i>M</i> (<i>SD</i>) | % | <i>M</i> (<i>SD</i>) | % | <i>M</i> (<i>SD</i>) |
| Primary Drug Problem (Self-Report) | | | | | | |
| Methamphetamine/Amphetamines | 57 | | 59 | | 58 | |
| Cocaine/Crack | 18 | | 20 | | 19 | |
| Heroin | 16 | | 10 | | 13 | |
| Other ^b | 6 | | 4 | | 5 | |
| None | 3 | | 7 | | 5 | |
| Age of 1 st Primary Drug Use | | 17.6(8.8) | | 18.1(11.7) | | 17.9(10.2) |
| Drug Use 30 Days Prior to Incarceration: | | | | | | |
| No Use | 19 | | 22 | | 20 | |
| 1-3 Times Past Month | 7 | | 6 | | 6 | |
| 1-2 Times/Week | 7 | | 7 | | 7 | |
| 3-6 Times/Week | 14 | | 15 | | 14 | |
| Daily | 49 | | 44 | | 47 | |
| Daily Poly-Drug Use Prior to Incarceration | 19 | | 26 | | 22 | |
| Under the Influence at Time of Arrest | 70 | | 62 | | 66 | |
| Controlling Offense | | | | | | |
| Violent | 16 | | 13 | | 14 | |
| Property | 41 | | 46 | | 44 | |
| Drug | 40 | | 33 | | 37 | |
| Other ^b | 3 | | 7 | | 5 | |
| Number of Years Incarcerated in Lifetime | | 4.8 (4.7) | | 4.7 (4.6) | | 4.7(4.6) |
| Number of Felony Convictions | | 4.7(6.2) | | 3.8(4.2) | | 4.3(5.3) |
| Number of Terms Served in Prison | | 3.5(4.5) | | 2.8(4.3) | | 3.2(4.4) |

^a No significant differences between groups were found at admission using the $p < .05$ value.

^b Other controlling offenses include driving under the influence, possession of a weapon, or arson.

Table 3
Motivation and Readiness for Treatment, by Program

| Characteristics | Integrity (<i>n</i> = 60) | | Destiny (<i>n</i> = 55) | | Total (<i>N</i> = 115) | |
|--|-------------------------------|------------------------|-----------------------------|------------------------|----------------------------|------------------------|
| | % | <i>M</i> (<i>SD</i>) | % | <i>M</i> (<i>SD</i>) | % | <i>M</i> (<i>SD</i>) |
| Problem Recognition | | 1.62(.30) | | 1.65(.32) | | 1.63(3.1) |
| Desire for Help | | 2.95(.19) | | 2.88(.34) | | 2.92(.28) |
| Treatment Readiness | | 2.80(.28) | | 2.78(.28) | | 2.79(.28) |
| Completed <u>SAP</u> Treatment (Program Records) | | | | | | |
| Completed Treatment | 85 | | 89 | | 87 | |
| Disciplinary Removal/CDCR Removal | 12 | | 10 | | 11 | |
| Other ^c | 3 | | 2 | | 3 | |
| Months in <u>SAP</u> Treatment (Program Record) | | 5.8(3.3) | | 5.4(1.7) | | 5.6(2.7) |

Note: Prison-based Substance Abuse Program (SAP).

^c Removal for health reasons or prison transfer.

Table 3 shows that there were no significant differences with regard to motivation and readiness for treatment scores between treatment groups (derived from the Motivation and Readiness for Treatment Scale). Scores range from 1 to 3, with higher scores indicating more motivation for treatment. Both groups appeared to have a strong desire for help and acceptance for treatment. However, both groups scored much lower with regard to their problem recognition. As expected, approximately 87% of both groups completed the prison-based SAP program over a period of approximately 6 months.

OUTCOME FINDINGS FOR 6- AND 12-MONTH FOLLOW-UP

Recruitment began in April, 2006 and ended in March, 2007 with a total sample of 115 participants (60 treatment, 55 control). Ninety-four (83% of the sample) participants were located and completed the 6-month follow-up; one participant was found to be deceased and removed from the potential follow-up sample. Additional funding was provided for face-to-face 12-month follow-up interviews via a contract with CDCR (Contract No. C06.514) through a sub-award with the University of California, Davis (Contract No. 07-002467). Eighty-five participants were located and completed the 12-month follow-up interviews (76%). The remaining women either could not be located or were located and did not keep their appointments for the follow-up interview. Funding ended December 10, 2008.²

This report contains results from participants who completed the 6- and 12-month follow-up interviews, whether they completed SAP treatment or not. Interviews at 6 months were conducted with 50 WIT participants (Integrity) and 44 standard TC program participants (Destiny). Follow-up interviews were also conducted at 12 months for 44 WIT participants and 41 standard TC participants. Average time from parole to the 6-month Interview was 8.8 months (*SD* = 5.5) for the WIT participants and 9.8 months for the TC group participants (*SD* = 4.7). Average time from parole to the 12-month Interview was 15.5 months (*SD* = 3.2) for the WIT participants and 13.9 months for the TC group participants (*SD* = 2.9).

² A major factor in the reduced rate of 12-month follow-up interviews was a 2-3 month hold during a statewide contract suspension due to the CA state budget crisis, beginning July 2008 and ending in October 2008. When this order was lifted, follow-up activities resumed; however, funding for follow-up ended shortly thereafter in December 2008.

Attrition at 12 Months

Due to the higher attrition at the 12-month follow-up time-point, those lost to follow-up at 12 months were compared to those who were located and interviewed in regard to their baseline characteristics. There were no significant differences in age, education, or marital status between those interviewed and those not interviewed at 12-months post release. Race/ethnicity mirrored the demographics of the full sample. The majority of those interviewed at 12 months were White (54%) as compared to Hispanic (26%) or African American (14%). There were also no significant differences in criminal history or drug use history.

Analyses

Hypotheses assessed the difference between the two groups in regard to specific post-treatment measures (see Table 4). ANOVA was used to compare the Integrity WIT program and the Destiny TC program for outcomes represented by a single continuous variable. For categorical and binary outcome variables, chi-square analysis was conducted. A General Linear Modeling for repeated measures approach was used to consider change over time (e.g., Self Efficacy and ASI composite score changes from baseline to post-release 6- and 12-month follow-ups).

Table 4
Primary Hypothesis-Analysis Chart

| Primary hypotheses Compared to women in the TC, women in WIT treatment will: | Data Sources | Primary analysis procedures |
|---|---|--|
| <i>1. Have a more positive change in psychological well-being.</i> | <i>Self-Efficacy Scale Time 1, Time 2, Time 3; ASI-Lite Psychological Status SubScale</i> | <i>ANOVA and GLM for repeated measures.</i> |
| <i>2. Be more likely to participate in and remain in aftercare treatment.</i> | <i>Self-Report Interview Location Aftercare Provider Admission and Discharge Dates</i> | <i>Chi-Square and ANOVA.</i> |
| <i>3. Be less likely to report post-release drug use.</i> | <i>ASI-Lite Drug and Alcohol Use SubScale</i> | <i>ANOVA and GLM for repeated measures.</i> |
| <i>4. Be less likely to be returned to custody within one year of release.</i> | <i>ASI-Lite Criminal Involvement SubScale Interview Location (In prison/In community) Offender Based Information System</i> | <i>Chi-Square, ANOVA, and GLM for repeated measures.</i> |

Because of the reduction in the sample size due to the number of follow-up interviews completed at the respective time points, we opted to use a less stringent alpha level (p value = .10 to discuss changes over time and differences between the groups in the outcome domains. Some observed differences between groups may be meaningful to discuss, yet may not reach significance at the typical $p < .05$ value (Urdan, 2005).³ When small sample sizes are unavoidable, researchers also rely on “effect sizes” when interpreting the data (i.e., the strength

³ The p -value (probability) is a measure of how confident one can be that what is observed in the sample is also true for the population from which the sample is drawn. An alpha level of .05 (resulting in 95% certainty that what was found in the sample is true of the population) is generally considered "preferable." Sample size directly affects the ability to find significant differences between two groups. Small sample sizes may not have enough power to detect significant differences at the preferable p value of .05 (Urdan, 2005). For purposes of the pilot study, a p value of .10 was accepted to discuss observed differences. Thus, one can be 90% certain that what was found in the study sample is also true for the population.

of group differences). Effect sizes (ES) were calculated using Cohen's d in order to discuss meaningful differences in outcomes between the WIT and standard treatment groups (Cohen, 1988).

Results for Main Hypotheses

The ASI Psychological Composite Score and Self Efficacy Score differences measuring change over time between groups were analyzed in exploration of Hypothesis 1. This hypothesis was not supported. Table 5 shows mean score change *between subjects* by program and by time-point. For example, between group Psychological Composite means were not significantly different between programs at baseline (Integrity mean = .34 vs. Destiny mean = .39, $p = .29$) or at the 6- or 12-month follow-up (Integrity mean at 6 months = .24 vs. Destiny mean at 6 months = .21, $p = .56$; Integrity mean at 12 months = .23 vs. Destiny mean at 12 months = .24, $p = .85$). Post hoc analyses⁴ did show that there was improvement *within subjects* over time, as both group's mean composite scores generally improved from baseline to follow-up. Table 6 shows the mean score change *within subjects* by time-point. Participants from the WIT Integrity program show significant and positive mean score changes over time on all of the ASI Composites measured. No change was demonstrated on the Self Efficacy Measure. Similar improvement was demonstrated for the Destiny program participants for all ASI measures with the exception of the Family Composite Score. Destiny program participants showed significant improvement in their Self Efficacy Scores over time.

Table 5
Addiction Severity Index Composite and Self Efficacy Score, Between Groups Change

| Addiction Severity Index (ASI) | WIT Integrity $M(SD)$ | Destiny $M(SD)$ | P Value |
|--------------------------------|-----------------------|-----------------------|---------|
| | Baseline ($n = 60$) | Baseline ($n = 55$) | |
| Psychological Composite | .34(.27) | .39(.29) | .29 |
| Alcohol Composite | .18(.30) | .20(.24) | .65 |
| Drug Composite | .21(.17) | .17(.15) | .20 |
| Family Composite | .20(.25) | .25(.28) | .34 |
| Self Efficacy Scale | 2.3(.57) | 2.2(.58) | .11 |
| | 6-Month ($n = 50$) | 6-Month ($n = 44$) | |
| Psychological Composite | .24(.25) | .21(.26) | .56 |
| Alcohol Composite | .02(.07) | .03(.08) | .56 |
| Drug Composite | .04(.09) | .03(.06) | .37 |
| Family Composite | .08(.16) | .14(.24) | .13 |
| Self Efficacy Scale | 2.7(.39) | 2.6(.47) | .21 |
| | 12-Month ($n = 44$) | 12-Month ($n = 41$) | |
| Psychological Composite | .23(.24) | .24(.26) | .85 |
| Alcohol Composite | .03(.08) | .07(.14) | .13 |
| Drug Composite | .04(.08) | .02(.05) | .24 |
| Family Composite | .10(.19) | .14(.24) | .47 |
| Self Efficacy Scale | 2.6(.52) | 2.6(.55) | .72 |

Note: Composite scores were calculated from numerous questions on behavior over the past 30 days from the ASI using an electronic calculation software program. Higher scores indicate poorer functioning on the ASI. Higher scores indicate better functioning on the Self Efficacy test. To test the hypotheses, p values are provided for between group comparisons.

⁴ Post hoc analyses refer to analyses of the data—after the experiment has concluded—to identify patterns that were not specified initially.

Table 6
Addiction Severity Index Composite and Self Efficacy Score, Within Group Change

| Addiction Severity Index | WIT Integrity (n = 59) | | | |
|--------------------------|------------------------|---------------|----------------|------------------------|
| | Baseline M(SD) | 6-Month M(SD) | 12-Month M(SD) | Within Subject P Value |
| Psychological Composite | .34(.27) | .24(.25) | .23(.24) | .013 |
| Alcohol Composite | .18(.30) | .02(.07) | .03(.08) | .003 |
| Drug Composite | .21(.17) | .04(.09) | .04(.08) | .001 |
| Family Composite | .20(.25) | .08(.16) | .10(.19) | .040 |
| Self Efficacy Scale | 2.3(.57) | 2.7(.39) | 2.6(.52) | .143 |
| Addiction Severity Index | Destiny (n = 56) | | | |
| | Baseline M(SD) | 6-Month M(SD) | 12-Month M(SD) | Within Subject P Value |
| Psychological Composite | .39(.29) | .21(.26) | .24(.26) | .002 |
| Alcohol Composite | .20(.24) | .03(.08) | .07(.14) | .001 |
| Drug Composite | .17(.15) | .03(.06) | .02(.05) | .001 |
| Family Composite | .25(.28) | .14(.24) | .14(.24) | .098 |
| Self Efficacy Scale | 2.2(.58) | 2.6(.47) | 2.6(.55) | .003 |

General Linear Models for Repeated Measures was used to assess within group change over time (significant change over time represented by *p* value).

Hypothesis 2 was partially supported (see Table 7). Results showed no significant difference between the groups with regard to women volunteering for community-based aftercare treatment following parole. There were, however, substantial increases in the percentage of women opting for aftercare treatment compared to previous VSPW reports. Approximately 50% of those who participated in the SAP programs voluntarily entered aftercare treatment (6% of the women who did not complete SAP treatment had also volunteered for community-based aftercare and were included in these analyses). However, WIT Integrity graduates who opted for aftercare treatment appear to have stayed in aftercare treatment longer than women from the standard Destiny program (4.9 months vs. 3.4 months, respectively, $p < .10$).

Aftercare participants typically enter several programs after release from prison. For example, women generally participate in residential treatment upon release, and then may step down to outpatient treatment, followed by sober living. The women who went to aftercare treatment in this study had several documented community treatment episodes (up to 6 separate episodes during the time period extracted from CDCR records). The first treatment episode was typically residential and also the longest. Table 7 shows that the WIT Integrity participants also stayed significantly longer in the first residential treatment episode than those in the standard Destiny program (2.6 months vs. 1.8 months, $p < .04$).

When comparing the two programs on length of aftercare participation, effect size reached or exceeded medium effect thresholds (see Table 7). Total length in aftercare treatment resulted in a medium ES ($d = .49$); contrasts for total time in first residential treatment episode exceeded the medium ES threshold ($d = .58$); contrasts for completion of residential treatment episode also exceeded the medium ES threshold ($d = .67$). The mean ESs were positive and in the

hypothesized directions, indicating more success in aftercare treatment (as measured by length of stay and completion) for the WIT treatment participants.

Hypothesis 3 was not supported. Table 5 indicates that there were no differences in ASI Alcohol or Drug Use Composite Scores across time points by treatment group. No differences between the groups in days of use for alcohol or primary drug problem were reported at the 6-month or 12-month follow-up. Both groups predominantly reported no use (Tables 8 and 9).

Hypothesis 4 was supported. Table 7 shows that the percent of Destiny women who were returned to CDCR custody within one year after parole appeared to be higher than participants from the Integrity program (45% vs. 31%, respectively, $p < .10$). In addition, women from the Destiny program were also returned to custody after a shorter period following their parole compared with those from the Integrity program (6 months vs. 8 months post parole, respectively, $p < .10$). The contrast assessing return to custody rates by group exceeded the small ES ($d = .28$). The contrast assessing time to returned to custody exceeded the medium ES threshold ($d = .61$), indicating more success on parole for the WIT Integrity women compared to the standard Destiny program women with regard to reincarceration.

It should be noted that the official records data (i.e., aftercare participation and return to custody records) more often resulted in observed differences between the groups in contrast to the self report data (i.e., ASI interview data), enhancing the reliability of our findings. Taken together, the preliminary findings from our pilot study show positive trends that support the beneficial effects of including components oriented toward meeting women's needs (e.g., gender responsiveness, trauma-informed services, parenting training, self-esteem and assertiveness training, and sexuality and family planning) within corrections-based substance abuse treatment. The findings suggest that these components add value to the expected effects of WIT treatment programs, particularly with regard to increasing time in aftercare following parole and reducing the time to recidivism.

PILOT STUDY CONCLUSIONS

This pilot study begins to address the gap in the literature regarding appropriate treatment for drug-dependent women in a correctional setting. Although there is a paucity of literature on the *outcomes* of prison treatment for women, the large body of literature on the *specific needs* of drug-dependent women offenders is overwhelmingly consistent. These needs are multi-faceted and complex as demonstrated by previous research—the greater severity of women's drug abuse, past trauma, and physical and mental health problems compared with their male counterparts has led many researchers, clinicians, and theorists to advocate for gender-responsive treatment for women as a more effective way to facilitate their recovery. Yet, there has been a lack of empirical studies to support these beliefs, particularly experimental studies that apply rigorous controls. For practical and ethical reasons, random assignment of participants to either a treatment or control group is rare in evaluations of correctional programs. A major strength of our design was the use of random assignment, allowing all participants to receive minimally the standard treatment of care, with some participants receiving enhanced treatment designed specifically for women offenders. This rigorous design enhances the internal validity of our findings for this pilot study by eliminating potential confounds due to self-selection into groups. Our study is also the first randomized study assessing a theoretically driven, multifaceted, manualized treatment curriculum for women in a prison setting. The study

Table 7
Time in Treatment, Completion Status, and Return to Custody Status, by Program

| Treatment and Return to Custody ^a | WIT Integrity (n = 60) | | Destiny (n = 55) | | P Value | ES |
|---|---------------------------|----------|---------------------|----------|---------|-----|
| | % | M(SD) | % | M(SD) | | |
| Participated in <u>Aftercare</u> Treatment upon Release (CDCR) | 47 | | 56 | | .20 | .19 |
| Total Time in <u>Aftercare</u> Treatment (months) | | 4.9(3.6) | | 3.4(3.0) | .10 | .49 |
| Months in <u>1st Community Residential</u> Treatment Episode | | 2.6(1.5) | | 1.8(1.4) | .04 | .58 |
| Completed <u>1st Residential</u> Treatment Episode (CDCR) | | | | | .13 | .67 |
| Completed Treatment | 54 | | 36 | | | |
| Disciplinary Removal | 14 | | 16 | | | |
| Voluntary Quit | 18 | | 32 | | | |
| Transferred/Continuing Treatment/Other | 14 | | 16 | | | |
| Returned to Custody Post Parole (OBIS) | 31 | | 45 | | .10 | .28 |
| Months from Parole to Return to Custody (OBIS) | | 7.8(4.5) | | 5.9(3.1) | .10 | .61 |

^a Numbers vary slightly due to missing data (OBIS data were provided on 112 cases).

^b Participant was transferred to other prison, removed for other program, or illness.

Note: Chi-square analysis was used for categorical variables, *t*-tests were used for continuous variables, and effect size (ES) thresholds are based on the benchmarks developed by Cohen (1988): .20 = small; .50 = medium; .80 = large.

Table 8
Self-Report Outcomes at 6-Months Post Release, by Prison Program

| Outcomes at 6-Months Post Release Interview | WIT Integrity (n = 50) | | Destiny (n = 44) | | P Value | ES |
|---|---------------------------|-----------|---------------------|------------|---------|-----|
| | % | M(SD) | % | M(SD) | | |
| No Alcohol Use Past 30 Days | 86 | | 91 | | .34 | .15 |
| No Primary Drug Use Past 30 Days | 95 | | 94 | | .58 | .07 |
| Incarcerated at <u>6-month</u> Interview | 32 | | 41 | | .24 | -- |
| Mean Days Past 30 Incarcerated | | 7.8(12.9) | | 11.9(14.7) | .15 | -- |

Table 9
Self-Report Outcomes at 12-Months Post Release, by Prison Program

| Outcomes at 12-Months Post Release Interview | WIT Integrity (n = 44) | | Destiny (n = 41) | | P Value | ES |
|--|---------------------------|-----------|---------------------|-----------|---------|-----|
| | % | M(SD) | % | M(SD) | | |
| No Alcohol Use Past 30 Days | 72 | | 83 | | .18 | .26 |
| No Primary Drug Use Past 30 Days | 85 | | 88 | | .56 | .06 |
| Incarcerated at <u>12-month</u> Interview | 25 | | 39 | | .10 | -- |
| Mean Days Past 30 Incarcerated | | 5.2(11.3) | | 8.6(13.5) | .21 | -- |

examined existing treatment models based on relational theory, *Helping Women Recover and Beyond Trauma*, created by Dr. Stephanie Covington (Covington, 1999, 2000, 2002, 2003).

Predominantly the findings were in the hypothesized direction, with WIT model participants showing more success at the follow-up time points (6- and 12-months post parole) compared to the standard treatment group of women. However, both treatment groups generally showed improvement in self-report measured outcomes over time. Both groups also equally volunteered for continued treatment in the community upon parole. Yet, the WIT participants voluntarily remained in aftercare treatment (predominantly residential treatment) for a longer period of time, on average, than those in the standard treatment group. Time in treatment has been consistently found to be significantly associated with positive outcomes in the community. In fact, previous UCLA ISAP evaluations of the SAP program graduates also showed that those who spent longer periods of time in aftercare treatment were less likely to be reincarcerated within one year of parole (Burdon, Messina, & Prendergast, 2004; Messina, Burdon, & Prendergast, 2006).

The WIT participants were also less likely to be returned to custody within a year of parole. The CDCR OBIS records data indicated that the standard TC program participants (i.e., usual care) were more often returned to custody and were returned sooner than the WIT participants. The findings from this pilot study suggest that traditional TC treatment may not be the most effective treatment strategy for drug-dependent women offenders.

As this was a pilot study, the research design was limited by time, budget, and sample size, but identification was still possible of important and positive trends in post-release behavior upon which policy recommendations can be based. The findings are strengthened by the rigorous design of the study, and thus there is a reasonable probability that the differences detected are relevant findings to guide recommendations to CDCR. The study was further strengthened by the large percentage of women who met criteria for Substance Use Disorder, a standard treatment control group, standardized instruments, two post-parole follow-up time points assessing behavioral change, use of official records and self-report, and a larger sample size than in most pilot studies. In addition, Dr. Covington provided the necessary trainings for the prison-based program staff and peer mentors, thus increasing the likelihood that the intervention was delivered as planned (although quantitative fidelity measures were not implemented).

Recommendations⁵

1. Previous CDCR evaluations consistently indicate that participation in community-based aftercare creates an increased opportunity for success. Thus, it is an important finding that the women in the WIT group stayed longer in aftercare than those from the standard treatment group and suggests that CDCR focus efforts towards also providing gender-responsive treatment in the community for women parolees. The importance of aftercare, the benefits that it offers to the parolee, and the planning for successful transition to aftercare should be presented early in the participant's program and become an integral part of the prison-based curriculum.
2. The finding that WIT participants were less likely to be returned to custody compared with the standard program women provides important information for CDCR with regard to successful rehabilitation. Although a cost-benefit analysis was not part of this pilot study, one can speculate that providing gender-responsive treatment may be more

⁵ Since the completion of this study, CDCR has taken various steps toward providing gender-responsive programs for the women under its supervision, including those in prison-based treatment.

costly than standard treatment initially, with regard to curriculum materials, technical assistance, and specific training needs. However, keeping women from returning to prison by delivering appropriate services provides a large benefit in future expenditures.

3. There are a number of implementation challenges when integrating a gender-responsive treatment program within an institution. To improve the ability to implement this type of program within a correctional setting, there needs to be ongoing staff training and monitoring of adherence to the protocol. Direct observations from the Principal Investigator and Dr. Covington revealed concerns with the fidelity of the implementation and additional training within the institution was provided. Low fidelity to the curricula may significantly affect any measured outcomes by reducing the potential strength (i.e., effect) of the intervention. Also, the “usual care” group was not a “no treatment” group. Thus, the differences between groups were possibly minimized.
4. There is a need for further exploration to replicate the findings from this pilot study. Experimental studies are needed to continue to address the gap in knowledge regarding drug abuse treatment for women offenders in general and by providing specific information on the types of services and approaches that should be emphasized when treating women in prison. Future studies would also benefit from a quantitative fidelity measure for the specific curriculum being delivered.

Given the severity of addiction and criminal history of our sample prior to incarceration and the small sample size, results are promising. Findings from this pilot study will be used as a platform for the development of a larger and more in-depth study on gender-responsive treatment within a prison setting. Future studies should continue to explore and incorporate additional predictors of post-treatment outcomes that more appropriately reflect paths of recovery and success for women, such as improved relationships with children, better living situations, and greater economic status.

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