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Executive Summary

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Treatment of Incarcerated Women with Substance Abuse  
and Posttraumatic Stress Disorder

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FINAL REPORT *Archives*

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**PROJECT DESCRIPTION**

The dramatic increase in numbers of the female prison population since 1980 has been attributed to drug offenses, increasingly punitive responses to these crimes, and the lack of viable treatment for these women (Bloom, 1994). Between 1990-1996, the rate of women's drug possession convictions increased by 41% and drug trafficking convictions rose by 34% (U.S. Department of Justice, 1999a). A 1997 survey of State prisoners documented that over 40% of female inmates were under the influence of drugs at the time of their offense, compared to 32% of male inmates (U.S. Department of Justice, 1999b). Prevalence rates for drug abuse or dependence in women prisoners range from 26% to 63%, and alcohol abuse or dependence rates range from 32% to 39% (Jordan et al., 1996; Teplin et al., 1996; Daniel et al., 1988). Current drug abuse or dependence rates range from 30% to 52%, and alcohol abuse or dependence rates range from 17% to 24% (Jordan et al., 1996; Teplin et al., 1996). Women inmates are five to eight times more likely to abuse alcohol than women in the general population, ten times more likely to abuse drugs and 27 times more likely to use cocaine (Desjardins et al., 1992; Jordan et al., 1996; Teplin et al., 1996).

In addition to high rates of substance use disorders (SUD) among women prisoners, incarcerated women report extensive histories of interpersonal violence (Singer et al., 1995). An epidemiologic study of female jail detainees awaiting trial found that PTSD was the most common disorder, besides SUD, with prevalence rates of 33.5% for lifetime PTSD and 22.3% for current PTSD (Teplin et al., 1996). These rates of PTSD among women prisoners are nearly three times the rates of PTSD reported in a community sample of women (Kessler et al., 1995).

The co-occurrence of SUD and PTSD among incarcerated women is high (Zlotnick, 1997); a finding that is consistent with research with community samples that have found that women with current PTSD have a 1.4 to 5.5 times higher risk for

comorbid SUD compared to women without PTSD (Helzer et al., 1987; Kilpatrick et al., 1996; Kessler et al., 1995; Kulka et al., 1990). Moreover, a dual diagnosis of PTSD and SUD is associated with a more severe course and greater criminal behavior than would occur with either disorder alone (Brady et al., 1994; Ouimette et al., 1997). The high rates of recidivism among women prisoners has been explained, in part, by the use of illegal substances compounded by high levels of physical and sexual abuse (Bloom, 1994). Thus, the use of illegal substances and interpersonal victimization appear to play key roles in the lives of women prisoners.

Unfortunately, there is little research available describing the effectiveness of treatment for substance-abusing women prisoners (Henderson, 1998; Peters et al., 1997). Moreover, there is a dearth of treatments that have been developed specifically to meet the needs of women prisoners with SUD (Prendergast & Wellisch, 1995). The few programs that exist in jails and prisons are often designed using approaches first developed for male inmates (Peters et al., 1997). Numerous authors have advocated the need for gender-specific substance abuse treatments for incarcerated women based on research findings, which have identified differential needs between male and female inmates (e.g., Austin et al., 1992; Henderson, 1998; Peters et al., 1997; Prendergast & Wellisch, 1995). In particular, these authors have consistently stressed the importance of services for incarcerated women that address both drug abuse and victimization (i.e., sexual violence and domestic violence). To date, no treatment that address the specific clinical needs of incarcerated women with comorbid PTSD and SUD have been developed or systematically evaluated.

An existing treatment, Seeking Safety: A Cognitive-Behavioral Psychotherapy (SS) treatment, which is based on an integration of the literature on SUD and PTSD, is currently is the treatment with the most efficacy data for this population (Najavits, 2002). This appears to be a promising intervention for incarcerated women with PTSD

and SUD because SS treatment targets many of the deficits found in this population that may interfere with their recovery and place these women at risk for reoffending, such as impulsiveness, anger dyscontrol, and maladaptive lifestyle activities.

## SCOPE AND METHODOLOGY

The overall goal of this study was to evaluate the initial efficacy, feasibility, and acceptability of "Seeking Safety (SS)" treatment in a sample of incarcerated women with comorbid PTSD and substance abuse. More specifically, the aims of this study were to conduct an open feasibility trial of the proposed treatment in a sample of 6 incarcerated women with SUD and PTSD, and to conduct a randomized controlled pilot study to evaluate the initial efficacy, feasibility, and acceptability of the proposed treatment as an adjunct to treatment as usual (TAU) compared to a control group (TAU) in a sample of 22 incarcerated women with comorbid PTSD and SUD. Regarding the randomized study, our primary hypothesis was that, compared to the TAU condition, women in the SS treatment condition will have less severe drugs and alcohol use as well as fewer PTSD symptoms and legal problems.

Participants were recruited from the substance abuse treatment program (Discovery Program) in the minimum security arm of Women's Facility of the Adult Correctional Institution (ACI) in Rhode Island. All participants met DSM-IV criteria for PTSD within the last month as determined by the Clinician Administered Posttraumatic Stress Disorder Scale-I (CAPS-I) (Blake et al., 1990) and SUD within the last month and substance abuse or dependence prior to entering prison as determined by the Structured Clinical Interview for DSM-IV (SCID) (First et al., 1996). Subjects were excluded if they a) were actively psychotic (hallucinating or delusional) at the time of recruitment, b) could not understand English well enough to understand the consent form or the assessment instruments, and benefit from the treatment, c) were

diagnosed with organic brain impairment.

Protocol:

The first 6 participants received SS group treatment (pilot group). The remaining participants were randomly assigned to either the control group (TAU) (N=10) or received SS treatment (N=12) as an adjunct to TAU (experimental group). The treatment groups were conducted by clinicians who worked as substance abuse therapists in the Discovery Program and a clinical psychologist from Brown University. The SS therapists received training in delivering SS therapy from Lisa Najavits who developed SS treatment, and received weekly supervision for the duration of the study from Dr. Najavits. Sessions were 90-minutes long and were held twice a week for 12 weeks.

Measures:

Assessments were conducted at pretreatment, posttreatment (during incarceration) and 6- and 12-weeks postrelease for PTSD-related measures. Measures of severity of substance abuse and legal problems were given at pretreatment and the 6- and 12-weeks postrelease intervals. A trained research assistant administered all measures.

*Substance Use Disorder (SUD).*

The Addiction Severity Index (ASI) (McLellan et al., 1992) was used to assess change in severity of substance abuse in the past 30 days. The SCID module on substance use was used to provide a diagnosis of a SUD. Urine drug screens were completed at each postrelease point to detect recent drug use. Also, a significant other (SO) was contacted and interviewed to provide collateral information, at each postrelease period.

*Posttraumatic Stress Disorder (PTSD).*

The CAPS provided a diagnoses of PTSD as well as an assessment of the degree of PTSD symptoms (a composite score from the CAPS of the intensity and

severity of PTSD symptoms).

#### *Traumatic Event History.*

At pretreatment to assess lifetime history of trauma: the Trauma History Questionnaire (THQ; Greene, 1995) was given which yields four frequency scores: physical, sexual, general disaster, and crime-related traumas.

#### *Legal Problems.*

The legal composite score from the ASI was used to assess change in criminal activities. The legal composite index contains information about arrests, incarcerations, and engagement in criminal activity since release from prison.

#### *Patient Satisfaction with Treatment.*

At posttreatment, participants' view of treatment was assessed on the Helping Alliance Questionnaire-II (Haq-II; Luborky et al., 1996) and the Client Satisfaction Questionnaire (Attkisson & Zwick, 1982). The End-of-Treatment Questionnaire (Najavits, 1994) addressed patients' perceptions of the helpfulness of treatment components at posttreatment.

#### *Therapist Assessment.*

An Adherence-Competence Scale (Najavits & Liese, 1993) assessed therapist performance of specific interventions and group processes, each rated on adherence (amount of the behavior) and competence (skillfulness of the behavior). Ratings were completed by Dr. Najavits on all sessions. She found that the therapists met at least adequate levels of competence and adherence.

#### *Data Analysis.*

Several topics were addressed: (1) characteristics of the total participants sample at baseline, (2) participant satisfaction with SS treatment, (3) outcome of participants who received SS treatment (open trial study including participants from phase one (pilot study) and phase two (experimental study), and (4) outcome of participants who

received SS treatment compared to those in the control condition (TAU). Outcome was defined as degree of drugs and alcohol use as measured by the ASI subscale for severity of alcohol and drug use, PTSD symptoms as measured by the composite score of the CAPS, and legal problems as measured by the ASI subscale for legal severity.

Topics 1 and 2 were addressed using frequency data. Topic 3 was analyzed via paired *t*-tests. Topic 4 was analyzed using a split-plot test analyses of variance (ANOVA) with Time [pretreatment, posttreatment, 6-weeks postrelease, 3-months postrelease] X Treatment (treatment group, treatment as usual) with time as a repeated measure

## **FINDINGS**

The sample of incarcerated women who participated in the present study had similar sociodemographic and criminologic characteristics (i.e., age, ethnicity, type of offense, and length of sentence) to the population of incarcerated women in the Discovery Program at the ACI. Sixty-seven percent of the women were Caucasian, 32% were high school graduates, 14% were in prison for the first time, and 39% had committed a felon. All of the women met criteria for drug dependence, 96% reported a history of sexual abuse and 100% of the women had histories of repeated trauma. There were no significant differences between the participants in the pilot group and those in the experimental group at intake in sociodemographic and criminologic characteristics, trauma histories, degree of PTSD symptoms, and degree of legal problems at intake. Likewise, there were no significant differences between the treatment group and control group in these intake variables.

### Satisfaction with SS Treatment.

- Only two women (11%) dropped out of treatment after session two. Among the remaining women (N=15), the attendance rate among the



women who received SS treatment was 83% of available sessions.

- All the items on the End-of-Treatment Questionnaire (Najavits, 1994), which provide information on the specific aspects of SS treatment clients found most helpful, were rated very highly (2.50 or above).
- On every measure of client satisfaction with treatment (Attkisson & Zwick, 1982), results were consistently high with the average rating of 3.45 (scaled 1 to 4 with 4 the highest) for both therapists at the end of treatment.
- Patient alliance with treatment as measured by the Helping Alliance Questionnaire-II (Luborsky et al., 1996) (scaled 1 to 6, with 6 the strongest alliance) showed a combined average of 4.7 for both therapists at the end of treatment.

#### Outcome of Participants who received SS Treatment

- Of the women who received SS treatment, there was follow-up data for 17 woman at posttreatment, 16 at 6-weeks postrelease, and 15 at 3-months postrelease.
- At posttreatment, 53% women no longer met criteria for PTSD, at 6-weeks postrelease 44% no longer met criteria for PTSD, and at 3-months postrelease 46% no longer met criteria for PTSD.
- The women who received SS treatment showed a significant decrease in PTSD symptoms from pretreatment to: posttreatment, 6-weeks postrelease, and 3-months postrelease.
- Within 6-weeks of postrelease, 2 (11%) of the woman returned to prison, and within 3-months postrelease 6 (33%) returned to prison.
- Based on the self-report of substance use from the SCID and the results of

the urinalysis, 6 (35%) of the women reported the use of illegal substances within 3-months postrelease.

- Participants showed a significant decrease in drug and alcohol use, and in degree of legal problems from pretreatment to 6-weeks postrelease and at 3-months postrelease

### Comparison of Outcome Between Participants who received SS Treatment and

#### Control Group

- Three (30%) of the women in the control group dropped out of the study.
- There were no significant differences in outcome between the control group (N=7) and the group who received the treatment (N=12) in rates of PTSD and in severity of PTSD symptoms at any of the follow-up periods.
  - In the control group, only 1 (10%) woman returned to prison within 3 months postrelease, whereas in the treatment group 6 (50%) returned to prison within 3 months postrelease.
  - Based on the self-report of substance use from the SCID and the results of the urinalysis, 5 (45%) of the 11 women in the treatment group and 2 (33%) in the control group (N=6) reported using illegal substances.
  - There were no significant differences between the two groups in use of illegal substances, severity of drug and alcohol use, and in degree of legal problems from pretreatment to 6-weeks postrelease and at 3-months postrelease.

## **DISCUSSION**

Preliminary findings from the open clinical trial showed: 1) initial acceptability

and feasibility of the project (i.e., appropriate participants were recruited and retained),

2) the treatment appears to be highly appealing to our target sample (there was very strong alliance and satisfaction with SS treatment and retention rate in treatment was high), and 3) the treatment has the potential to be helpful (treatment had some favorable outcomes and the women felt helped by the treatment). In general, these results suggest that women prisoners are able to engage in treatment and view treatment as beneficial, despite their marked impairment. More specifically, in the open trial of women who received SS treatment as an adjunct to TAU, there were significant improvements in PTSD symptoms from pre- to posttreatment, which were maintained until three-months postrelease. At 6-weeks posttreatment, there was a significant decrease in severity of substance use and legal problems. The treatment, however, did not reduce the recidivism rate below the existing recidivism rate for women within the prison setting of the study. While the current form of SS treatment appears a promising approach for incarcerated women with PTSD and SUD, the expansion of SS treatment to the postrelease period may substantially improve upon our initial findings.

The present study found no differences between the group that received SS treatment and the TAU group on any indices of interest. One explanation is that, due to the small sample size in the control group, significant differences between the treatment and the control groups were difficult to detect and, with a 30% attrition rate in the control group, the control group may not have been representative of women who received "treatment-as-usual." Alternatively, since the SS treatment was an adjunct treatment, perhaps SS treatment did not contribute beyond the effects of the substance use treatment (Discovery Program) that prisoners received during incarceration.

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