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Effects of Coordinated Services for Drug-Abusing Women Who Are Victims of Intimate Partner Violence

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This article summarizes outcomes from a demonstration project on collaboration between substance abuse and domestic violence agencies. Researchers recruited women seeking services for substance abuse or intimate partner violence at 1 of 6 participating agencies. Admitted women were both victims of domestic violence and abusing alcohol or drugs. Following an initial screening, participants were interviewed at program entry \((n = 255)\) and again 4 to 6 months later \((n = 128, 50\%)\). Key outcomes were the number of days substances were used in the past 30 days, women’s perceptions of harm from battering, and domestic violence self-efficacy. Results suggest participants used substances less frequently and experienced themselves as more efficacious following services, but they were also more fearful of the consequences of domestic violence. Repeated-measures MANOVA found that substance abuse days and domestic violence self-efficacy significantly contributed to the multivariate function. Implications for services for women with co-occurring substance abuse and domestic violence victimization are discussed.

**Keywords:** domestic violence services; interagency collaboration; substance abuse services

Based on estimates from the National Violence Against Women Survey, 1.9 million women are assaulted in the United States each year (Tjaden & Thoennes, 1998). Among women in community samples, the lifetime prevalence of substance abuse and domestic violence is on the order of 18% and 34%, respectively (Miller & Downs, 1993), but the history of violence and trauma for women in substance abuse treatment samples is even more prevalent than for women in the general population, with lifetime abuse histories ranging from 55% to 99% (Najavits, Weiss, & Shaw, 1997). Likewise, battered women have a much higher prevalence of substance abuse. In a study of 222 women receiving domestic violence services in Iowa, Downs (2001)

**Authors’ Note:** This research was supported by a contract from the Illinois Department of Human Services to Dr. O’Brien.
found that 26.2% had a CIDI-based lifetime diagnosis of alcohol or drug abuse more than 5 times the rate in the general population.

The relationship between substance abuse and victimization by partners appears to be bidirectional. Substance use may increase their risk of victimization through numerous paths, such as impairing both their judgment and the perpetrator’s judgment alike, increasing financial dependency, and exposing women to violent men who also abuse substances (El-Bassel, Gilbert, Schilling, & Wada, 2000). Women’s risk for alcohol and drug abuse is also increased by their victimization (Harris & Fallot, 2001; Stark & Flitcraft, 1996). Other factors may also moderate or mediate the relationship between current drug use and victimization, such as childhood abuse (Dunneegun, 1997) and marital conflict (Hotaling & Sugarman, 1990). At present, all available evidence suggests that substance abuse by women and domestic violence toward women have a reciprocal relationship; either problem increases the risk for the other. In a longitudinal study using a national probability sample of 3,006 women followed for 2 years, Kilpatrick, Acierno, Resnick, Saunders, and Best (1997) identified a cyclic relationship where drug use increased the risk of domestic violence and domestic violence increased the risk of both drug and alcohol use. In particular, active drug use (but not alcohol use) was predictive of future victimization for women who had a history of being battered, and both lifetime and recent battering were predictive of future alcohol and drug use.

Women with co-occurring substance abuse and interpersonal victimization present a dilemma to social service and treatment providers. The complex needs of these women, coupled with constraints on providers to link and coordinate services, increase the likelihood of service failure, future injury, and relapse. Improvements in well-being most likely occur when systems coordination results in improved access to high-quality and effective services that appropriately address the need for both safety and sobriety (Collins, Kroutil, Roland, & Moore-Gurrera, 1997; Moses, Huntington, D’Ambrosio, Mazelis, & Reed, 2004). However, examples and evaluations of such coordination have been slow to appear.

**Background**

Given the issues outlined above, it is not surprising that substance abuse professionals and domestic violence professionals do not agree about best practices when these problems co-occur. By the 1980s, observers were noting barriers to cooperation between substance abuse and domestic violence programs (Harner, 1987-1988; Levy & Brekke, 1990; Rogan, 1985-1986; Wright & Popham, 1982). Such barriers arose not only from a lack of knowledge and experience with the other problem focus but also from differing worldviews by the professionals and volunteers involved. One study of 388 substance abuse and domestic violence staff in 74 programs found little awareness
of the co-occurring condition coupled with professional prejudice, misinformation, paradigmatic conflicts, and weak or nonexistent linkages between agencies (Bennett & Lawson, 1994). Despite these barriers, the researchers found that more than 70% of staff had a strong desire for cross-collaboration between substance abuse agencies and domestic violence agencies, regardless of their setting or discipline.

In 1997, the Center for Substance Abuse Treatment (CSAT) published a protocol (TIP 25) for improving treatment when domestic violence and substance abuse co-occur (CSAT, 1997). This protocol suggested that domestic violence and substance abuse are separate problems requiring distinct interventions. TIP 25 did not endorse the dominant practice wisdom of the day in the substance abuse field that women needed to be abstinent before receiving help with other problems in their life, in this case domestic violence. Neither did TIP 25 endorse a widespread belief among domestic violence advocates that battered women’s substance abuse was caused primarily by their victimization. TIP 25 recognized domestic violence and substance abuse as serious primary problems and designated safety of the person experiencing domestic violence as the primary consideration in intervention planning in these situations.

To date, there has been little empirical documentation of collaboration between substance abuse agencies and domestic violence agencies. In an organizational study, Reed and her colleagues (2002) identified 6 distinct organizational arrangements in 17 domestic violence–substance abuse collaborations. Six of 17 (35%) organizational modifications were characterized as either adding domestic violence services to an existing substance abuse agency or adding substance abuse services to an existing domestic violence agency. Another 6 (35%) organizational modifications involved independent substance abuse and domestic violence agencies cooperating to provide services. The remaining agencies were either combined agencies, multiservice agencies, or third-party brokerage of services. The authors presented no data indicating the processes involved in forming and maintaining these various collaborations or the outcomes of the services provided by the collaborations.

In 1998, the Substance Abuse and Mental Health Services Administration (SAMHSA) launched the Women Co-occurring Disorders and Violence Study to examine the development of comprehensive, integrated service model approaches for women with mental health or substance abuse issues and a history of physical or sexual abuse (McHugo et al., 2005). Fourteen U.S. treatment program sites and 2,000 women participated in the intervention development phase of this study, and 9 sites were continued into the evaluation phase. This study included a range of organizations including residential and outpatient mental health and substance abuse service providers, hospitals, jails, public health agencies, universities, and other community groups. A process evaluation of each of the 5 years of the study has been completed (Moses et al., 2004), and empirical findings of outcomes of program participants are just now emerging (e.g., Cocozza et al., 2005; Morrissey et al., 2005).
In the first randomized clinical trial of an integrated relapse prevention and relationship safety program for women in a methadone maintenance program, researchers found marginally significant changes in physical and psychological abuse, illicit drug use, risky sexual behavior, and psychological distress compared to controls (Gilbert et al., 2005). Although only 34 women participated in this small study, the findings suggest that a group-based, relatively short-term intervention (12 sessions during 6 weeks) with an integrated format targeting both safety and relapse may be effective for substance-abusing women who are victims of domestic abuse.

Our article will add additional findings to the emerging research on substance-abusing battered women and the services designed to help them by summarizing the substance use and IPV outcomes for a sample of women receiving services in an Illinois demonstration project. The Illinois Department of Human Services (IDHS, 2000) supported a pilot study to explore how substance abuse and domestic violence collaboration and integration would work at the community level. In 2000, domestic violence and substance abuse treatment programs in four communities were selected by IDHS to develop and implement service models. The purpose of the outcome evaluation was to describe the impact of the services provided using goals of reduced substance use or increased sobriety, resolution of personal and family safety issues, and satisfaction with services.

**Conceptual Framework**

Central to this article and to the demonstration project is the view that violence against women is located and maintained by the use and threat of power and control (Schechter, 1982). This analysis, which still grounds practice in the shelter and walk-in programs where women in this study received services, recognizes that abuse in relationships may be physical or nonphysical. Rather than simply enumerated events, a partner’s abuse establishes a context where fear maintains women in situations in which it is difficult if not impossible to see other, nonabusive options available to them. Substance use and abuse and intimate partner violence overlap in multiple ways, and there are not discrete categories where the woman’s use is associated with her experience of violence. Active substance abuse by the perpetrator of domestic violence or active substance abuse by the victim of domestic violence threatens the safety of the victim. Domestic violence impairs the opportunity for addiction recovery and threatens sobriety. Although there are multiple causes for both substance abuse and domestic violence, there is little evidence that one causes the other. Regardless of setting, helpers will be more able to support women healing from both violence and substance abuse if they are responsive to women’s multiple and interconnected needs, recognizing that no one treatment is appropriate for all individuals and should be assessed and modified as necessary, the importance of treatment or services being readily available.
Method

Sample and Design

A nonrandom sample of 255 women seeking services from pilot agencies was admitted to the evaluation study. The typical woman in this sample was a 36-year-old African American (45%) mother of one child who did not work either full- or part-time (54%). Of the women, 58% were required to attend treatment, and 33% were on probation or parole. Participants had been treated an average of 2.42 times for substance use problems, and nearly half (42%) were living with someone with a substance abuse problem.

All women entering service at 1 of the 6 agencies were screened for the co-problem. A substance abuse screen was administered to women entering through domestic violence programs consisting of nine yes-no questions and a substance use history. Questions included family history, DUI, arrest, concern expressed by others, attendance at support group meetings, treatment history, using more than intended, and guilt. Substance use history was organized by eight classes of substances by age started, how much used, effect, and last date used. The domestic violence screen was administered to women entering substance abuse treatment and consisted of 16 yes-no questions and an observational guide. The questions covered stress in the family, eight items modified from the revised Conflict Tactics Scale (Straus, Hamby, Boney-McCoy, & Sugarman, 1996), police response, fear of the partner, and concerns about harm. Observations recorded appearance, bruises, affect, anger, and anxiety at questioning. There was no “cutting score” or minimum response, but admission was based on at least one positive response and the screener’s opinion that the woman met the criteria for the study. Women who screened positive were invited to participate in the program and in the research. Following screening and securing their informed consent to participate in the research, staff members interviewed participants at the onset of service delivery (baseline) and research assistants interviewed them again 4 to 6 months after baseline (follow-up).

Service and Program Characteristics

All of the pilot agencies had a similar mix of treatment and services for the women who had been identified as eligible for the pilot through their agency-wide screening process. Two pilot sites used integrated service models, providing both substance abuse services and domestic violence services within their single agency. The other two settings were collaborations of local domestic violence and substance abuse agencies. In all four settings, the services provided were typical services provided by substance abuse agencies (assessment, referral for detoxification, intensive outpatient treatment, toxicology, 12-step groups, individual and group counseling, linkage to
methadone maintenance, relapse prevention, and recreation) and domestic violence agencies (24-hour crisis, shelter, case management, psychoeducation, advocacy or protection orders, transportation, children’s program, and individual, group, or mother-child counseling).

Measures

Women’s Experience of Battering (WEB). The WEB is a 10-item scale created by asking about chronic experiences of battering and the psychological terror associated with intimate partner violence (Smith, Smith, & Earp, 1999). The WEB quantifies the experience of battering rather than the frequency of battering events. Possible scores on the WEB are between 10 and 60. A lower score on the WEB indicates more perceived vulnerability to the effects of domestic violence. Sample items in the WEB are, “I feel like he keeps me prisoner.” and “He can scare me without laying a hand on me.” Scores on the WEB in this sample range from 10 to 60 (M = 29.9, SD = 15.9). Cronbach’s alpha for the WEB was .99 in the original study and .95 in this sample.

Domestic violence self-efficacy (DVSE). An 8-item index of self-confidence in managing abuse-related difficulties, solving problems, and helping oneself was developed by Riger and her colleagues (2002) for use in a statewide evaluation of domestic violence programs. Although not named as such by Riger et al., we have labeled this measure an index of DVSE. Possible scores on the DVSE are between 8 and 40. A higher score on the DVSE indicates the woman experiences herself as more capable of handling the effects of domestic violence. Sample items on the DVSE are, “I trust my ability to solve difficult problems.” and “I have ways to help myself when I feel troubled.” DVSE scores in this sample ranged between 9 and 40 (M = 27.3, SD = 6.8). Cronbach’s alpha for the DVSE was .86 in a sample of 575 domestic violence service consumers (Riger et al., 2002) and .84 for the 255 women in the current sample.

Substance use days (SUD). SUD is the woman’s report of the total number of days in the past month (30 days) when she used any psychoactive drugs and/or alcohol. A higher SUD score indicates more drinking and drugging. As is usually the case, the SUD is not normally distributed (M = 6.1, SD = 10.0, MD = 1.0, range = 0 to 30); 49% of this sample had zero drinks in the previous 30 days at baseline. For some analyses, we transformed the SUD score using a natural logarithm function, LN (1 + SUD). This transformation results in an approximately normal distribution (M = 1.9, SD = 1.2, MD = 1.8, range = 0 to 3.4). For other analyses, we dichotomized SUD into an abstinence measure (1:SUD = 0, 0:SUD > 0).

The DVSE and WEB were positively correlated at baseline (r = .35, n = 248, p < .001), suggesting the WEB and the DVSE measure different but related constructs.
This is consistent with our definition that a positive DVSE score indicates perceived competence of the participant and a positive WEB score indicates perceived resistance to the actions of the abuser. The frequency of alcohol and drug use (SUD) inversely varies with both perception of self-efficacy ($r = -0.23, n = 255, p < .01$) and perception of battering ($r = -0.13, n = 248, p > .05$).

Participants also provided demographic and historical information. In this study, we report on age, ethnicity, education in years, employment level, living situation, psychiatric treatment history, substance use and substance abuse treatment history, arrest history, number of children living with them, probation or parole status, and child protection service status. All these variables were self-reported and quantified in a traditional way.

**Procedure**

Institutional review boards of both the Illinois Office of Alcoholism and Substance Abuse and the researchers’ university approved the research protocol. From July 2000 to June 2001, all women who requested domestic violence or substance abuse services from the six pilot agencies were screened on the cross-issues. Consent to participate in the study was not obtained until after the woman was referred to the integrated program. Because this was a pilot project, providers requested that the evaluation not include a specific instrument to measure discrete acts of violence. As this was a collaborative project that depended on the buy-in of the on-site agency staff to administer the measures, the request was accommodated. If the woman screened positive for both substance abuse and intimate partner violence, self-disclosed within a week of starting services, or, in conversation with a staff member, indicated a need for cross-services, she was admitted to the specialized services and invited to participate in the evaluation, which, depending on the agency, could be in the same building, down the street, or several miles away. Trained staff members administered the baseline interview to eligible, consenting clients. Clients who consented to participate generated a code name to later link responses given at admission to information gleaned during follow-up interviews, without linking any of the data to the study participants by name. Trained interviewers working under the supervision of the second author administered telephone follow-up interviews.

Although there might have been criminal justice consequences for women’s drug use, the study was approved under a university protocol that ensured that what the participants told us about drug use at the follow-up was confidential and, in fact, was not associated with their name or agency once the information was included in the database.

**Analysis**

Following a description of the entire sample, we explore differences in characteristics between the 128 participants for whom follow-up data are available and the
127 individuals who were evaluated only at baseline. The three outcomes were then evaluated using repeated-measure multivariate analysis of variance (MANOVA). We used MANOVA rather than three ANOVAs to account for the correlation among WEB, DVSE, and SUD and to reduce the possibility of Type I error. If the multivariate function was significant for MANOVA, Roy-Bargmann stepdown analysis evaluated the relative contribution of WEB, DVSE, and SUD to the multivariate function. In the stepdown analysis, SUD was entered as the first covariate because of the unusual distribution of abstinent participants at baseline. The final step was to enter DVSE as a covariate in a repeated-measure ANCOVA of WEB. Results were then explored with bivariate statistics.

Results

Participant Characteristics

A total of 255 women met the study screening criteria of both substance abuse and domestic violence victimization. Key demographic, substance use, and violence characteristics of these women are in Table 1. To illuminate the subsequent analysis of follow-up interviews, descriptors in Table 1 are separately listed for two groups of participants: 128 women who completed follow-up interviews and 127 women who did not complete follow-up interviews. Women participating in follow-up interviews did not differ from nonparticipating women by race, current living arrangement, education, full-time employment in the past 30 days, age, residential days, overnight psychiatric days, arrests, or number of children living with them. Likewise, there were no differences between followed and not-followed women in number of prior substance abuse treatments or outpatient treatment days. There were, however, baseline differences between the two groups on all three outcomes. Women who were followed, at baseline, were less vulnerable to the effects of violence, were more efficacious with domestic violence coping skills, and used substances less often than did women who were not followed.

Overall Outcomes

The average participant received a mean of 22.2 counseling sessions ($MD = 25$, $SD = 6.1$). Baseline and follow-up values for the three outcome measures are arrayed in Table 2. The multivariate function was significant (Pillai’s trace = .41), $F(3, 116) = 26.7, p < .001$. SUD was then entered as a covariate in a within-subjects MANCOVA model of DVSE and WEB scores. The multivariate function in this first stage model remained significant (Pillai’s trace = .21), $F(2, 117) = 15.3, p < .001$. In the final stage of the stepdown, we entered both SUD and DVSE as covariates in an ANCOVA
Table 1
Means and Standard Deviations or Percentages of Key Demographic, Substance Use, and Violence Characteristics by Follow-Up Status

<table>
<thead>
<tr>
<th>Follow-Up Status</th>
<th>Followed Up</th>
<th>Not Followed Up</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>n</td>
<td>128</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>35.2 (8.1)</td>
<td>35.2 (8.0)</td>
<td>ns</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td>ns</td>
<td></td>
</tr>
<tr>
<td>African American, not Hispanic (%)</td>
<td>38</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Hispanic (%)</td>
<td>13</td>
<td>6</td>
<td>ns</td>
</tr>
<tr>
<td>European, not Hispanic (%)</td>
<td>42</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Other (%)</td>
<td>4</td>
<td>7</td>
<td>ns</td>
</tr>
<tr>
<td>Education (years)</td>
<td>11.9 (1.7)</td>
<td>11.7 (2.3)</td>
<td>ns</td>
</tr>
<tr>
<td>Full-time employment (%)</td>
<td>15</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Living arrangement past 30 days</td>
<td>ns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent or with someone else (%)</td>
<td>71</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Hospital, treatment, or incarceration (%)</td>
<td>13</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Shelter (%)</td>
<td>9</td>
<td>10</td>
<td>ns</td>
</tr>
<tr>
<td>Other (%)</td>
<td>7</td>
<td>6</td>
<td>ns</td>
</tr>
<tr>
<td>Residential days past 6 months</td>
<td>56.4 (59.9)</td>
<td>48.9 (46.4)</td>
<td>ns</td>
</tr>
<tr>
<td>Overnight psych hospital days past 6 months</td>
<td>1.4 (6.6)</td>
<td>1.6 (13.5)</td>
<td>ns</td>
</tr>
<tr>
<td>Times arrested past 6 months</td>
<td>0.5 (0.9)</td>
<td>0.5 (1.1)</td>
<td>ns</td>
</tr>
<tr>
<td>Children younger than 18 living with participant</td>
<td>1.1 (1.3)</td>
<td>0.9 (1.3)</td>
<td>ns</td>
</tr>
<tr>
<td>Times treated for alcohol or drug abuse</td>
<td>2.2 (2.3)</td>
<td>2.5 (3.5)</td>
<td>ns</td>
</tr>
<tr>
<td>Outpatient treatment days past month</td>
<td>3.9 (5.6)</td>
<td>3.0 (4.4)</td>
<td>ns</td>
</tr>
<tr>
<td>On probation or parole (%)</td>
<td>31</td>
<td>35</td>
<td>ns</td>
</tr>
<tr>
<td>Child protection services involved (%)</td>
<td>37</td>
<td>46</td>
<td>ns</td>
</tr>
<tr>
<td>Outcome variables</td>
<td></td>
<td></td>
<td>t = 6.2***</td>
</tr>
<tr>
<td>Substance use days (SUD)</td>
<td>6.4 (15.3)</td>
<td>8.4 (10.7)</td>
<td></td>
</tr>
<tr>
<td>Women’s Experience of Battering (WEB)</td>
<td>28.6 (16.9)</td>
<td>23.3 (14.6)</td>
<td>t = 2.7**</td>
</tr>
<tr>
<td>Domestic violence self-efficacy (DVSE)</td>
<td>28.6 (6.8)</td>
<td>26.1 (6.7)</td>
<td>t = 2.9**</td>
</tr>
</tbody>
</table>

a. Values in table are in drinks per month, but SUD was transformed for paired t test using natural logarithm function, ln(1 + SUD).
model of WEB. In this model, the multivariate $F$ was no longer significant (Pillai’s trace = .03), $F(1, 118) = 3.15, p > .07$. This analysis suggests that both substance use frequency and DVSE are significant contributors to overall change during the program. Although WEB also changed significantly during the program, when considered together with the other two outcome variables, WEB did not significantly contribute to our understanding of the effects of these coordinated programs.

For SUD and DVSE, pre-post differences are in the intuitive direction. Participants report significantly reduced substance use and significantly higher levels of self-efficacy at follow-up compared to the baseline period. However, because a lower score on the WEB indicates increased vulnerability to the effects of domestic violence, participants reported increased vulnerability at follow-up compared to baseline, although this increase was not significant after considering DVSE and SUD changes. To better understand these results, we will explore each individual outcome in greater detail.

As we see in Table 2, participants report higher levels of DVSE at follow-up compared to baseline, and this change remains significant when we also consider its relationship with WEB and SUD. Change in self-efficacy is unrelated ($p > .10$) to baseline age, ethnicity, education, employment, independent living, independent residential treatment during the previous 6 months, psychiatric treatment history, substance abuse treatment history, arrest history, number of children, probation or parole status, or child protection service status.

Although changes in the DVSE from baseline to follow-up were statistically significant, it is reasonable to wonder whether this is a clinically significant change. One way to address this is to compare the follow-up scores to a benchmark. In a study of counseling for domestic violence victims using the DVSE, Bennett, Riger,
Schewe, Howard, and Wasco (2004) reported that the before-service mean was 29.51 ($SD = 6.09$) and the after-service mean was 31.08 ($SD = 5.96$), reflecting a change of approximately one fourth standard deviation unit for a before-after sample of 549 battered women. In our study, using the same outcome measure and a similar elapsed time, we documented a baseline mean of 28.55 ($SD = 6.93$) and a follow-up mean of 32.20 ($SD = 6.01$), a change of approximately two thirds of a standard deviation unit for a sample of 127 women. Both studies represent modest effect sizes compared to those reported in controlled studies of treatment of mental health disorders where other disorders have been screened out (Lipsey & Wilson, 1993) but are substantial when compared to studies of domestic violence intervention (e.g., Babcock, Green, & Robie, 2004). An alternative perspective on clinical significance is that 67% of the 127 participants improved during the course of the program.

The average number of SUD declined among program participants from about 6 days per month to 1 day per month (Table 2). Changes in SUD were not related to baseline age, ethnicity, employment, independent living, residential treatment days, psychiatric treatment history, arrest history, number of children, probation or parole status, or child protection service status. Reduction in SUD score was weakly related to years of education ($r = .20, n = 127, p < .05$) and the number of times the woman had been treated for substance abuse ($r = .23, n = 127, p < .01$). Reduction in substance use was also moderated by probation or parole status. In part because of the conditions of their supervision, 39 women on probation or parole reduced their 30-day consumption from a mean 2.3 days ($SD = 6.1$) to a mean of 1.4 days ($SD = 5.8$), whereas 88 women not on probation or parole reduced their consumption days from a mean of 8.2 days ($SD = 17.7$) to a mean of 0.8 days ($SD = 2.7$).

Reporting SUD as a mean can be misleading because one goal of substance abuse treatment may be not only reduction in consumption but also abstinence. Abstinence is taken to mean zero use of all drugs, not just the drug of choice. This sample has an observable “basement effect”: Of the 128 individuals who were in the follow-up sample, 73 (57.0%) reported no substance use in the 30 days prior to the baseline interview. At follow-up, 111 (87.0%) did not use drugs or alcohol in the previous month. Of the follow-up sample, 63.0% maintained their condition of either use (9.4%) or abstinence (53.5%) during the course of the program, whereas 43 (33.9%) became abstinent at least for a month during the course of the program. In Table 3, we describe substance use at baseline and follow-up in greater detail, including abstinence. As we see in Table 3, there is considerable variation in SUD and abstinence at baseline by drug of choice, but far less at follow-up.

In part, the results of this study are compromised by the fact that a number of initial assessments were done after the participants had been in the treatment program for a substantial period, evidenced by the fact that 42% of the nonfollowed participants and 57% of the follow-up participants were abstinent for the 30 days prior to the baseline interview. In fact, 9% of the nonfollowed group and 13% of the followed group had been in substance abuse treatment during the 30-day baseline period, and
15% of the nonfollowed group and 16% of the followed group had been in some form of residential program during the previous 30 days (jail, prison, medical, or psychiatric). A typical scenario creating this situation is that of a woman who has been in substance abuse treatment and attending support groups for a few months and then discloses in treatment that she is the victim of domestic violence, triggering a referral to the demonstration project. This situation also accounts for the low rate of SUD among women in substance abuse treatment compared to women in domestic violence programs, a result that may initially seem counterintuitive.

The finding that women’s perceived vulnerability to battering increased nearly 20% of a standard score from baseline to follow-up was unexpected. The researchers initially suspected this increase represented a coding error, but review of the raw data revealed no errors. WEB at follow-up was unrelated to age, ethnicity, education, employment, independent living, residential treatment during the previous 6 months, psychiatric treatment history, substance abuse treatment history, arrest history, number of children, probation or parole status, or child protection service status.

### Discussion

In this report, we have documented that coordinated or integrated services for women with the co-occurring conditions of substance abuse and domestic violence are associated with significant changes in self-efficacy and substance use. Perception

<table>
<thead>
<tr>
<th>Substance</th>
<th>Problem Use (%)</th>
<th>Primary DOC (%)</th>
<th>SUD</th>
<th>M</th>
<th>SD</th>
<th>Abstinent (%)</th>
<th>SUD</th>
<th>M</th>
<th>SD</th>
<th>Abstinent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>71</td>
<td>38</td>
<td>3.1</td>
<td>8.4</td>
<td>71</td>
<td>1.0</td>
<td>4.4</td>
<td>87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine or crack</td>
<td>51</td>
<td>31</td>
<td>5.2</td>
<td>9.9</td>
<td>54</td>
<td>5.0</td>
<td>1.8</td>
<td>77</td>
<td></td>
<td></td>
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<tr>
<td>Marijuana</td>
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<td>12</td>
<td>31</td>
<td>25.6</td>
<td>50</td>
<td>0.3</td>
<td>1.0</td>
<td>74</td>
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<td>Heroin</td>
<td>16</td>
<td>14</td>
<td>16.4</td>
<td>24.6</td>
<td>87</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td></td>
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<tr>
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<td>5.1</td>
<td>57</td>
<td>0</td>
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<td>100</td>
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<tr>
<td>Any</td>
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<td>—</td>
<td>6.4</td>
<td>15.3</td>
<td>57</td>
<td>0.9</td>
<td>3.9</td>
<td>87</td>
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Note: SUD = substance use days. Rate of abstinence at baseline is for the 127 women in the follow-up sample.

a. Methamphetamine (n = 2), PCP (n = 3), hallucinogens (n = 1), and over the counter (n = 1).
of harm from battering may also change, but these results require additional study. All outcomes are independent of demographic factors. Pre-post differences in substance use frequency and DVSE are in the intuitive direction: Substance use declines during the period of service reception, whereas self-efficacy increases. Multivariate analysis supports a hypothesis that women with co-occurring substance abuse and domestic violence issues benefit from coordinated or integrated programs of intervention. However, the finding that they may see themselves as more vulnerable following the program, if replicated, suggests we may not fully understand the changes. Women in these programs significantly reduced substance use behavior and, independently, significantly increased their perceived effectiveness in coping with domestic violence. However, as a group, women perceived that they were more adversely affected by battering at the end of these programs than at the beginning of these programs.

At least three explanations, two substantive and one methodological, fit the data reflecting a greater vulnerability to battering. One explanation is that newfound sobriety and competence have opened the women’s eyes to the seriousness of their situation. Alcohol and drug use may have numbed their fear and made their life palatable. Lack of self-efficacy may have reduced their expectations for a safer life. Now, the veil cast asunder, they are more fearful of the abuser—or abuse—than they used to be. A second explanation involves a batterer’s response to a woman’s newfound sobriety. A woman who is successful in her recovery from substance abuse may face increasing levels of physical and nonphysical abuse from a partner in response to her abstinence or reduction in substance use, particularly if drinking and drugging were a shared activity prior to treatment. At baseline, almost one third of the follow-up sample lived with someone who was a substance abuser, and a substantial (but unknown) proportion of these roommates were probably romantic partners. A third methodological explanation fitting these data is that experiences of battering and self-efficacy are different outcroppings of an underlying construct. The MANOVA stepdown analysis is consistent with this explanation. After removing the effects of both substance use frequency and domestic violence self-efficacy, women’s experience of battering no longer changed significantly from baseline to follow-up. Disentangling these effects is beyond the scope of this evaluation project, however.

Limitations

The current research is hampered by the usual conditions of field evaluations, most notably the lack of a comparison group. Consequently, we are unable to establish beyond speculation the factors responsible for the changes in substance use, experience of battering, and self-efficacy that we observed. A second methodological problem is the rate of follow-up of research participants. Battered women and substance abusers are notoriously difficult populations to relocate and, if relocated, to reengage. This limitation certainly affects any conclusions we might draw from
this research. In particular, the fact that unfollowed women differed at baseline on all three outcome variables suggests that the outcomes may have been different had these missing women participated in the study at follow-up.

Finally, we would have preferred to measure both the events of battering and the experience of battering. Although we concur with Smith, Tessaro, and Earp (1993) that capturing women’s experience of battering is an important addition to simply counting its occurrence, in a situation where battering experience changes in an unexpected direction, the lack of event data hampers our ability to shed light on a potentially important phenomenon beyond mere speculation. In addition to a context of fear, battering is also a series of discrete events (Dutton, 1999), and research on battering, to be informative, is enhanced by more, rather than less, information. In the current evaluation, the situation beyond the initial screening did not permit using event-based measures in addition to a contextual measure, but future research should do so.

Suggestions for Further Research

In addition to addressing the problems discussed above, practice and policy with this population would be greatly enhanced by more information addressing key questions. First of all, how does the acuity of violence affect the effectiveness of services? In our sample, only 26% of the participants reported that violence was still occurring, and 19% reported that there had been no violence in the past year. This is not an unusual situation. In the Riger et al. (2002) sample of 5,260 women seeking counseling services from domestic violence programs in Illinois, only 30% of the women reported that violence was still occurring at the time of admission, and 24% reported no physical abuse in the past 12 months. The effects of domestic violence last longer than the index aggression—one of the reasons we used the WEB in this study—but we still lack information on how remote and recent violence differentially affect the measurable outcomes of services.

A second area of future work would be examining the relative effects of coordinated and integrated programs. Our four research settings featured two coordinated systems (separate agencies for domestic violence and substance abuse) and two integrated systems (the same agency provides both programs). There is much to learn about the differential effects of coordination versus integration, particularly in light of the current push toward “one stop shopping,” which encourages agencies to offer more comprehensive services. Related to this issue, future research should explore whether the path of participants into a program has a bearing on outcomes. Coordinated settings can be further divided into whether the participant entered through the “domestic violence door” or the “substance abuse door.” Are there differences in program effects depending on the path to services? More specifically, are there personal or situational characteristics that favor entry through one or another door? The current practice would suggest that door is not an important construct, to wit, “no wrong door” (Whitten,
2004). “No wrong door” is an assumption, not an empirical statement, and data would make that assumption more convincing.

**Implications for Practice**

Empirical findings, satisfaction with services, and qualitative findings from focus groups with participants in this pilot project indicate that women with substance abuse disorders and experiences of partner abuse can improve when provided with counseling and support services that address their range of service needs. Building on TIP 25 (SAMHSA, 1997), more effective treatment and support services for women must include recognition that the effects of past and present violence are central concerns in women’s lives.

This research supports current efforts to increase screening and assessment for co-occurring conditions. All domestic violence agencies should screen and refer for substance use problems, and all substance abuse agencies should screen and refer for domestic violence. Before this happens, however, these agencies need to build bridges of collaboration, made all the more difficult by important issues such as confidentiality, philosophical differences, power differentials, and competition for funding. SAMHSA’s efforts to coordinate domestic violence and substance abuse services appear to be the right policy at the right time. However, the disquieting increase in perception of the adverse effects of battering that we have identified in this study suggest that there is no free lunch, even in seemingly no-brainer policies such as coordinated services and “no wrong door.” We are particularly concerned that the architects of public awareness and programs for the victims of violence—the women’s movement, feminists, and community-based violence against women programs—are increasingly marginalized in our “ownership society,” which emphasizes both personal responsibility and personal dysfunction. We wonder how community-based domestic violence programs grounded in a social understanding of violence against women will do when they begin to coordinate services with corporate behavioral health care entities traded on Wall Street. Obviously, such concerns are beyond the sights of our little program evaluation, perhaps even beyond the pale of science.

**References**


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