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REGULAR ARTICLES

Treatment Utilization by Women with PTSD and Substance Dependence

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This study reports the treatment utilization of 77 women with post-traumatic stress disorder (PTSD) and substance dependence in three areas: lifetime utilization, past thirty days utilization, and perceived helpfulness/harmfulness of current treatments. Results indicated high lifetime treatment utilization overall, yet, for one subgroup, no treatment exposure at all. Most current treatments were focused on SA, in striking contrast to participants' preference: over 80% would choose either combined SA/PTSD treatment or PTSD-alone treatment. The most common treatments were individual therapy, medication, and hospitalization. Some treatments were perceived as harmful by some participants. The discussion addresses how to help patients obtain needed treatments. (Am J Addict 2004;13:215–224)

The dual diagnosis of post-traumatic stress disorder (PTSD) and substance use disorder (SUD) represents an important clinical population. This dual diagnosis is highly prevalent, with estimates of 12–34% for mixed-gender substance abuse treatment samples and even higher rates (33–59%) among women in substance abuse treatment.[1] It is also a highly impaired population with multiple problems, other co-occurring disorders, and significant treatment challenges.[1–4] Questions of how best to treat people with this dual diagnosis have become a focus of much discussion and research.[5–7]

Yet there are only a few published studies that describe treatment utilization patterns of this population. Brady et al.[4] found that women with PTSD/SUD reported lower compliance with aftercare than did

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women with SUD alone. Brown and colleagues[8] found that a mixed-gender sample of PTSD/SUD patients had higher utilization of inpatient admissions than did patients with SUD alone. In a later study,[9] they found that PTSD/SUD patients preferred simultaneous treatment of their two disorders but the majority were never referred to treatment for PTSD. A subsequent report[10] indicated that PTSD/SUD patients, compared to those with SUD alone, had a greater number of hospital days for addiction treatment (which was not explainable by greater substance use) yet not a greater rate of treatment for psychiatric problems (despite greater psychiatric problems). They also found a low use of PTSD treatment. Ouimette and colleagues,[11] studying a male veteran sample, reported PTSD/SUD patients to have better outcomes at discharge from inpatient SUD treatment the more treatment they attended while inpatients. In other studies derived from the same sample, they found PTSD/SUD patients had higher inpatient readmission rates compared to patients with SUD alone,[12] and PTSD/SUD patients who attended more outpatient treatment sessions after an inpatient SUD admission had better outcomes.[13]

In this paper, we describe what appears to be the most comprehensive data yet available on the treatment utilization of a sample with PTSD and SUD. Four key areas are addressed, all based on self-report:

1. lifetime treatment utilization;
2. current treatment utilization (prior 30 days);
3. helpfulness and harmfulness of current treatments (prior 30 days);
4. focus of treatment (PTSD, SUD, or both).

The data are particularly strong, moreover, in several methodologic features: a larger sample than has typically been addressed ($N = 77$), rigorous diagnoses, interview-based assessment of treatment utilization, and wide recruitment of the sample from community as well as clinical sources (eg, through newspaper ads, fliers, word-of-mouth, and clinician referral).

Information on treatment utilization can be helpful in several ways. First, it is widely known that many treatment systems are split such that patients with this dual diagnosis may receive only SUD treatment or mental health treatment. Better understanding of what services patients naturallistically receive can inform efforts to provide more integrated services, a widely-endorsed goal in service provision.[5,9,14] Second, obtaining patients' own views of what services are most and least helpful may have implications for treatment acceptance and retention, another area of clinical concern.[4,9] Third, exploration of both lifetime and current treatment utilization provides the broadest description of service utilization, which is particularly important for this population, whose two disorders often persist chronically for many decades.

METHOD

The sample consisted of 77 women who completed the Treatment Summary Questionnaire (TSQ)[15] at entry into a randomized controlled psychotherapy outcome study on outpatient women with PTSD/SUD. All met current *DSM-IV* criteria[16] for both PTSD and substance dependence using the Structured Clinical Interview for *DSM-IV* (SCID),[17] administered by a trained diagnostician.

Participants were recruited through newspaper advertisements, posted fliers, and word-of-mouth, with the offer to participate in the outcome study. They were informed that half of the participants in the study would be randomized to a treatment designed for PTSD and SUD, titled Seeking Safety,[6] with the other half randomized to treatment-as-usual in the community. At intake, when the TSQ was

completed as part of a larger battery of measures, participants had not yet been randomized. Participants were excluded if they had a history of any psychotic disorder or mania (assessed on the SCID), were formally mandated to treatment, or had characteristics that would interfere with completion of assessments (eg, organic mental disorder, mental retardation, chronic homelessness, impending incarceration, or a life-threatening and/or unstable medical illness). In addition, all participants were asked to restrict themselves to no more than five hours per week of professionally led psychosocial treatment, including the Seeking Safety treatment, and asked to remain stable on their current dose of medications, both of which were intended to heighten the internal validity of the study.

The TSQ, the key measure used in this paper, is a 42-item interview that assesses participants' self-reported lifetime and current treatment histories, including frequency (number of treatment episodes for each type of treatment), perceived helpfulness of each treatment (scaled −2[harmful] to +2[helpful]), and focus of treatment (eg, PTSD, SUD, both PTSD and SUD, or other psychiatric conditions). For example, one set of items is:

"Are you currently in individual psychotherapy?"
"How many days have you seen your current therapist in the past 30 days?"
"How long have you been seeing your current therapist (years/months)?"
"How helpful or harmful have you found this treatment?"

No psychometric properties are available for this measure as it was newly constructed for the study. The interview was conducted by trained bachelor-level research assistants with supervision by the study's principal investigator (LN). Sociodemographic and descriptive information on the sample was drawn from the Addiction Severity Index,[18] the Trauma History Questionnaire,[19] the SCID, and an initial screening form, all assessed at intake. Data analysis consisted of descriptive statistics for each item on the TSQ for all participants.

RESULTS

Substance Use

Breakdown by substance dependence type on the SUD module of the SCID-IV at intake, along with sociodemographic information, is noted in Table 1. All participants met criteria for at least one dependence diagnosis; 10.4% ($n = 8$) also met a substance abuse diagnosis. The predominant substance use disorder was alcohol dependence. Participants met an average of 1.94 SUD diagnoses ($SD = 1.56$). On the ASI, patients reported an average of 20.96 days of substance use ($SD = 17.18$) in the month prior to intake.

Trauma/PTSD

On the Trauma History Questionnaire, participants were assessed for self-reported trauma in four categories: 95% percent ($n = 61$) reported a general disaster; 89% ($n = 57$), sexual abuse; 84% ($n = 54$), crime related victimization; and 73% ($n = 47$), physical abuse. All women reported two or more different categories of trauma during their lifetime, with the first trauma experienced at a mean age of 8.44 ($SD = 6.60$).

Lifetime Treatment Utilization

Participants' self-reported lifetime treatment utilization is shown in Table 2. Of the eight types of treatments addressed in the survey, individual psychotherapy and medication evaluation were the two most frequently utilized, each by 75% of participants. The next most frequent were inpatient hospitalization (psychiatric or substance

TABLE 1. **Sociodemographics and Substance Dependence**

	%	*n*
Race		
Caucasian	74	57
African-American	13	10
Hispanic	9	7
American Indian	1	1
Multi-ethnic	1	1
Unidentified	1	1
Marital status		
Never married	47	36
Divorced	29	22
Married/cohabitating	18	14
Separated	4	3
Widowed	3	2
Employment status		
Employed*	77	59
Unemployed†	23	18
Religious preference		
Protestant	25	19
Catholic	24	18
No religious affiliation	24	18
Unidentified other	5	4
Jewish	1	1
Had children	51	39
Age	$M = 36.77$	$SD = 10.10$
Substance dependence		
Alcohol dependence	74	51
Cocaine dependence	45	31
Cannabis dependence	25	17
Opioid dependence	18	12
Sedative/hypnotic/anxiolytic dependence	16	11
Amphetamine dependence	12	8
Polysubstance dependence	3	2
Hallucinogen dependence	3	2
Other substance dependence	3	2

*Working at least part time or attending school.
†Retired, disabled, or unemployed.

use), group therapy and drug/alcohol counseling, all utilized by more than half of participants. Treatments utilized by fewer than half of the sample were family/couples therapy, day treatment, and residential treatment.

In addition to those in Table 2, further descriptive statistics revealed that, for the

TABLE 2. **Lifetime Treatment Utilization**

Type of treatment	Percent who ever utilized this treatment* (*n*)	Mean treatment episodes for those who utilized the treatment (*SD*)	Range of treatment episodes for those who utilized the treatment	Mean treatment episodes for all participants
Individual psychotherapy†	74.6 (53)	4.78 (4.33)	19	3.42 (4.25)
Medication evaluation‡	74.6 (50)	—§	—§	—§
Inpatient hospitalization (psychiatric or substance abuse)	61.0 (47)	6.38 (9.97)	49	3.90 (8.37)
Group therapy	54.1 (40)	5.42 (11.28)	54	2.75 (8.43)
Drug/alcohol counseling	52.5 (31)	—§	—§	—§
Family/couples therapy	45.9 (28)	—§	—§	—§
Day treatment	42.5 (31)	2.19 (2.92)	16	.88 (2.12)
Residential treatment	26.4 (19)	2.53 (3.89)	14	.56 (2.07)

*Percentage of participants who reported participating in a given treatment in their lifetime. Available sample size ranged from 59 to 77 due to missing data.
†For this item, participants were asked how many different therapists they had seen on a regular basis in their lifetime.
‡Includes medication evaluation for psychiatric, substance use, or medical issues.
§Participants were not asked the number of times they received this treatment.

full sample, participants had utilized an average of 3.84 ($SD = 2.00$) different types of treatment during their lifetime out of the eight addressed in the TSQ and had attended a large number of treatment episodes ($M = 13.79$, $SD = 16.98$).

We also sought to identify the types of inpatient hospitalizations reported by the sample. Among the 47 participants who reported any inpatient hospitalization, there were a total of 61 admissions. Of these, 35.1% ($n = 27$) were psychiatric hospitalizations, 28.6% ($n = 22$) were substance use hospitalizations, and 15.6% ($n = 12$) were a combination of substance use and psychiatric.

Finally, we identified the number of participants who reported no treatment whatsoever during their lifetime (6.5% [$n = 5$]).

Current Treatment Utilization

Table 3 lists participants' self-reported utilization of treatments in the thirty days prior to intake, including the type of treatment, the number of days utilized, and the most common focus of the treatment. A dichotomy is clearly apparent: only two treatments were utilized by approximately half or more of participants (medication and individual psychotherapy). For some, those treatments were utilized simultaneously; 63% ($n = 38$) of those currently receiving medication management concurrently utilized psychotherapy. All other treatments were utilized by 16% of participants or fewer. Twenty-two percent ($n = 17$) had no treatment of any kind in the prior thirty days, which is notable given the level of psychopathology in the sample.

The most common focus of treatment was SUD (for group therapy, day treatment, and by definition for drug/alcohol counseling); notably, however, only individual psychotherapy addressed the dual diagnosis of both PTSD and SUD as its most common focus. The next most common focus of treatment (not reported in the table)

TABLE 3. **Current Treatment Utilization (prior 30 days)**

Type of treatment	Percent who utilized treatment (*n*)*	Mean days in past 30 the treatment was utilized, among those who utilized the treatment (*SD*)	Percent most common focus of treatment (*n*)†	Mean days in past 30 the treatment was utilized, among all participants (*SD*)
Any medication‡	68.0 (51)	—§	—¶	—§
Psychiatric medication	55.3 (42)	—§	—¶	—§
Individual psychotherapy	44.7 (34)	3.52 (2.61)	Both PTSD and SUD, 54.5 (12)	1.51 (2.44)
Legal Involvement (civil only)‖	16.0 (12)	1.83 (2.89)	—¶	.29 (1.29)
Group therapy	13.5 (10)	3.00 (2.65)	SUD 44.4 (4); Other** 44.4 (4)	.35 (1.30)
Day treatment	10.7 (8)	8.50 (5.58)	SUD 50.0 (3)	.88 (3.11)
Family/couples therapy	9.3 (7)	1.43 (1.27)	—¶	.13 (.55)
Drug/alcohol counseling	9.2 (7)	5.00 (2.37)	SUD 100.0 (6)	.39 (1.48)
Methadone maintenance	5.2 (4)	—§	—¶	—§
Residential treatment	4.0 (3)	—§	—¶	—§
Naltrexone medication	3.9 (3)	—§	—¶	—§
Acupuncture	1.3 (1)	—§	—¶	—§

*Sample size ranged from 74 to 77. Participants were asked "Are you currently in ___?" or "In the past thirty days, have you participated in ___?"
†The sample sizes in this column refer only to participants who answered this item; thus, they may not correspond to the sample sizes in the previous two columns.
‡Includes medication for psychiatric, substance use, or medical issues. Naltrexone and methadone are reported separately as well in this table because they are two key medications for SUD.
§Participants were not asked to report frequency of participation in these treatments.
¶Participants were not asked to report primary focus of these treatments.
‖This category included, for example, filing for bankruptcy, car accident, and divorce.
**Included eating disorder group, women's support group, etc.

was as follows: for individual therapy, PTSD (36.4%, $n = 8$); for day treatment, SUD plus psychiatric (25%, $n = 2$); and for group therapy, PTSD and SUD (16.7%, $n = 1$). Thus, while not necessarily the most prominent focus, there appeared to be some attention to both SUD and psychiatric problems, including PTSD.

We also analyzed two additional areas not reported in Table 3: the professional degree of the clinicians providing individual psychotherapy and the length of each treatment session. Training of clinician, in order of frequency, was a master's degree in social work (45.2%, $n = 12$), doctoral psychologist (23.1%, $n = 6$), psychiatrist (23.1%, $n = 6$); a master's degree in counseling (3.8%, $n = 1$), and nurse (3.8%, $n = 1$). For length of service by treatment type (in minutes), day treatment was longest ($M = 185.63$, $SD = 131.73$), followed by group therapy ($M = 68.13$, $SD = 17.10$), family/couples therapy ($M = 56.43$, $SD = 6.27$), drug/alcohol counseling ($M = 51.67$, $SD = 13.29$), and individual therapy ($M = 50.86$, $SD = 9.3$).

Perception of Helpfulness and Harmfulness of Current Treatments

Participants' helpfulness and harmfulness ratings of current treatments are listed

TABLE 4. **Perception of Helpfulness/Harmfulness of Treatments (prior thirty days)**

Type of therapy	Mean helpfulness rating* (*SD*)	*n*(%)†	Minimum helpfulness rating	Maximum helpfulness rating
Acupuncture	2.00 (—)	1 (1.3%)	2	2
Methadone maintenance	1.75 (.50)	4 (5.2%)	1	2
Group therapy	1.63 (.52)	8 (10.4%)	1	2
Residential treatment	1.50 (1.00)	4 (5.2%)	0	2
Family/couples therapy	1.43 (0.79)	7 (9.1%)	0	2
Day treatment	1.38 (0.74)	8 (10.4%)	0	2
Individual psychotherapy	1.34 (1.21)	32 (41.6%)	–2	2
Medication‡	1.26 (0.61)	52 (67.5%)	–2	2
Naltrexone medication	1.00 (1.00)	3 (3.9%)	0	2
Drug/alcohol counseling	0.83 (0.98)	6 (7.8%)	–1	2

*Participants rated their treatments on a scale of −2 to +2 (where −2 was "harmful," +2 was "very helpful," and 0 was "neither harmful nor helpful").
†The sample size (*n*) refers to the number of participants who answered ratings of helpfulness; these are lower than the full sample of 77 because only participants who participated in a given treatment in the prior thirty days could rate its helpfulness. No participants reported current utilization of hypnosis, antabuse, or "other" treatments.
‡Includes medication for psychiatric, substance use, or medical issues.

in Table 4. The three highest ratings were for acupuncture ($n = 1$, rating of 2.0), methadone maintenance ($n = 4$, $M = 1.75$, $SD = .5$), and group therapy ($n = 8$, $M = 1.63$, $SD = 1.52$). These ratings should be interpreted with caution, however, due to the very low number of participants who utilized these treatments. All current treatments had a mean helpfulness rating of at least 1, indicating "slightly helpful," except for drug and alcohol counseling, which was .83.

It is notable that three treatments had a minimum rating that was on the "harmful" end of the scale (ie, below zero): drug and alcohol counseling ($n = 1$), individual psychotherapy ($n = 4$), and medication ($n = 8$).

Desired Focus of Current Treatment

Participants were asked their preference for treatment focus, with the following choices: PTSD alone, SUD alone, both PTSD and SUD, or neither PTSD nor SUD. The most common preference was for combined PTSD and SUD treatment (50%, $n = 38$), followed by PTSD alone (30.3%, $n = 23$), SUD alone (18.4%, $n = 14$), and neither PTSD nor SUD (1.3%, $n = 1$).

DISCUSSION

We sought to explore treatment utilization among a sample of 77 women with current PTSD and substance use disorder as a way to better understand their potential treatment needs. Overall, participants showed a high rate of lifetime treatment utilization, with approximately fourteen treatments per person and four different types of treatments per person. The most common treatments were individual therapy and medication (lifetime and current) and inpatient hospitalization (lifetime). While we did not obtain cost data, in general these types of treatments tend to be expensive,

suggesting that future research might benefit from cost/benefit analysis.

Nonetheless, some participants reported no treatment utilization whatsoever: 6.5% lifetime and 22% currently. Given the degree of psychopathology in the sample, this suggests a serious lack of adequate outreach and care for this population. Such findings may reflect our recruitment methods for the study, primarily ads and fliers, which likely drew a wider sample than clinic-based recruitment (in contrast to all previous studies of treatment utilization of this population, which assessed only patients already engaged in treatment).

The focus of treatment was also notable, with SUD being the primary focus in most current treatment (ie, group therapy, day treatment, and, by definition, drug and alcohol counseling). Only individual psychotherapy was reported to focus on both PTSD and SUD. This referral of patients to SUD treatment fits the "old school" model that SUD needs to be treated before PTSD or other psychiatric disorders. However, it stands in stark contrast to what most participants wanted: 80.3% of the sample wanted combined PTSD/SUD treatment, with the next largest group favoring PTSD alone treatment. Only a minority, fewer than 20%, wanted SUD treatment alone. These findings are notable in that most experts in the area of PTSD and SUD also believe that combined treatment is preferred, rather than delaying PTSD and other mental health treatment until the SUD is under control.[5–7,20] Patients' preference for combined PTSD/SUD treatment was also found in the study by Brown and colleagues.[9] In general, the literature indicates that PTSD typically occurs first for women and SUD later,[1] which may help explain patients' wish for more PTSD treatment.

Several implications emerge from these results. First, it might improve clinical practice if patients were asked on intake what type of treatment they would most prefer. Generally, adapting to patients' treatment goals is currently considered good clinical practice[21] and in this case would be consistent with current state-of-the-art treatment recommendations for this dual diagnosis in particular. Traditional treatments that address only SUD (eg, some therapeutic communities, outpatient referral solely to twelve-step groups) may need to adapt their focus accordingly, given the high incidence of PTSD among substance abuse patients. Indeed, the lowest helpfulness rating in our sample was for drug and alcohol counseling; however, the sample size for this item was small, and thus it is difficult to generalize. Conversely, mental health and PTSD treatment programs likewise may need to adapt their focus by allowing patients with current SUD into their programs. It is important to note, however, that thus far in the literature, there are very little data on actual outcomes where the dual focus on PTSD/SUD has been compared to single diagnosis treatment alone (SUD or PTSD). In short, more research is needed to better understand the value of patient preference in the focus of treatment with regard to dual diagnosis. For example, it could be argued that SUD patients might have preferences based on denial or defense mechanisms and may resist SUD treatments that could benefit them. Patients also may not be sufficiently aware or educated about different treatment types, and thus their preferences should be addressed in a careful manner with clear clinical oversight.

It was also found that the treatments used most heavily, individual therapy and medications, were the only ones that obtained ratings of "harmfulness" by some participants. This could reflect the fact that by being the most utilized, they are the most likely to have the widest impact, both for good and ill. However, this might also indicate a need to monitor the quality of such treatments carefully, to further study

what participants found harmful, and perhaps to develop improved training programs for clinicians who work with this population. Our sample was comprised of women who experienced primarily childhood and repeated trauma, which is believed to lead to difficult dynamics in treatment.[1]

Another of our results also would be interesting to understand more fully: the lack of high utilization of family/couples therapy, day treatment, and residential treatment were surprising in that people with this dual diagnosis might be predicted to benefit from them. Indeed, those who did participate in them rated them very favorably, and they obtained higher helpfulness ratings than the more commonly utilized individual therapy, medications, and drug counseling (all lifetime data). Here, too, further research and the training of clinicians to refer patients to a broader array of services might be warranted. A similar finding of low utilization of such treatments in another dual diagnosis sample (bipolar disorder and SUD) further underscores these issues.[22]

Our data need to be interpreted carefully, however. It is not clear, for example, whether high or low treatment utilization is desirable. Clearly the goal is to help patients locate treatments that work, but the issue of cost in a managed care era creates tension with this broader public health perspective. Defining over- or underutilization of treatment is a topic that leads to philosophical and policy questions about how health care is apportioned when there are not sufficient resources to treat everyone and how much treatment should be offered if patients do not get better. Our data would suggest that patients are cycling through many different treatments in an attempt to find help, both within and across treatment types. Yet the sample also reports an overall high degree of helpfulness from treatment, with no type of treatment obtaining an average in the harmful range. Perhaps only long-term research can help untangle such discrepancies.

Finally, it should be noted that our data are limited by their reliance on retrospective self-report, their primarily Caucasian sample, the small sample size for some ratings, and sampling based on participants' willingness to volunteer for a clinical trial. Despite these weaknesses, this represents the most comprehensive study to date on the topic of treatment utilization in this population; it is hoped that clinical and policy discussion might be stimulated by some of our findings.

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