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Lifetime physical and sexual abuse and substance use treatment outcomes in men

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Abstract

Although lifetime physical and sexual abuse are common among substance use disorder (SUD) patients, few studies have examined the impact of abuse on treatment outcomes, particularly for men. Men with lifetime physical (n = 49), sexual (n = 49), or no abuse (n = 117) history were assessed at entry to outpatient SUD treatment and at 6 and 12 months postintake. Men with a history of physical or sexual abuse had more severe drug problems at intake, but by 6 months, there were no group differences in drug use. However, relative to men without an abuse history, men with a sexual abuse history had more severe psychiatric problems at all three time points and were more likely to report significant suicidality at intake and 6 months. Findings suggest that men with a history of sexual abuse benefit from SUD treatment, but additional intervention may be warranted to remedy persisting psychiatric distress. © 2008 Published by Elsevier Inc.

Keywords: Substance use disorder treatment; Physical abuse; Sexual abuse; Suicide attempt; Suicidal ideation.

1. Introduction

Lifetime physical or sexual abuse is relatively common among patients in treatment for a substance use disorder (SUD), with more than 60% of women and over one third of men reporting past victimization (Fiorentine, Pilati, & Hillhouse, 1999; Rice et al., 2001). Despite elevated rates of physical and sexual abuse among patients in SUD treatment, little is known about the role of abuse in predicting SUD treatment outcomes, particularly for men. Methodological limitations and sparse research have led to confusion regarding the need for SUD treatment programs to address issues related to physical or sexual abuse history. In particular, some have argued that failure to identify and provide additional treatment for patients with a history of physical or sexual abuse may compromise SUD treatment (Pirard, Sharon, Kang, Angarita, & Gastfriend, 2005; Rice et al., 2001; Windle, Windle, Scheidt, & Miller, 1995). whereas others contend that the impact of abuse on SUD treatment outcomes is negligible (Charney, Palacios-Boix, & Gill, 2007; Fiorentine et al., 1999).

This study was designed to clarify the contribution of physical or sexual abuse to SUD treatment outcomes in men. In particular, we examined whether a history of physical or sexual abuse predicted substance use, psychiatric problems, and suicidality pretreatment and at follow-up in a sample of male SUD patients. A finding that patients with a history of physical or sexual abuse respond less favorably to SUD treatment (e.g., report more severe SUD or psychiatric problems posttreatment) relative to patients without a history of abuse would suggest that additional intervention is warranted both to aid in recovery and to prevent relapse to substance use.

1.1. Previous research on physical or sexual abuse and substance use in SUD patients

Overall, findings are mixed with regard to whether lifetime physical or sexual abuse impacts substance use...
among SUD patients. In recent research with mixed gender samples, history of physical or sexual abuse was not associated with more severe alcohol or drug use at intake or with differences in abstinence rates at 6 months postintake (Charney et al., 2007; Pirard et al., 2005). However, in a study of over 20,000 veterans with an SUD, patients with a history of physical or sexual abuse reported more severe alcohol and drug problems at treatment intake relative to patients without an abuse history (Ouimette, Kimerling, Shaw, & Moos, 2000), and history of physical or sexual abuse was associated with more severe alcohol problems but not drug problems at the 1-year follow-up (Rosen, Ouimette, Sheikh, Gregg, & Moos, 2002). In one of the few studies to examine findings separately by gender, men reporting lifetime physical or sexual abuse were as likely to be abstinent as men without an abuse history at 24 months posttreatment (Fiorentine et al., 1999). However, compared to men without a history of sexual abuse, men reporting lifetime sexual abuse were more likely to be troubled by current drug use at follow-up.

Although differences in the number of prior SUD treatment episodes may be an important indicator of future relapse (Duka, Townshend, Collier, & Stephens, 2002; Malcolm, Herron, Anton, Roberts, & Moore, 2000), little research has examined the association between abuse history and the number of SUD treatment episodes. In the only study we found to address this issue, no differences in the number of prior SUD treatment episodes emerged between SUD patients with and without a history of physical or sexual abuse (Pirard et al., 2005).

1.2. Previous research on physical or sexual abuse and psychiatric problems and suicidality in SUD patients

Findings have also been mixed with regard to relationships between physical or sexual abuse and psychiatric functioning in SUD patients. Male and female SUD patients with a history of physical or sexual abuse appear to be at greater risk for lifetime psychiatric diagnosis, lifetime suicidal ideation, and lifetime suicide attempt at treatment intake (Gil-Rivas, Fiorentine, Anglin, & Taylor, 1997; Windle et al., 1995). However, patients with a physical or sexual abuse history have shown greater improvement in the severity of psychiatric problems over time, relative to SUD patients without a history of abuse (Charney et al., 2007). In the Fiorentine et al. (1999) multisite study, no differences in depression or anxiety between men with and without a history of physical or sexual abuse emerged 24 months posttreatment, but men with a history of sexual abuse were more likely to have recently attempted suicide at the 24-month follow-up. Other studies indicate that SUD patients with a history of physical or sexual abuse consistently report more severe psychiatric problems during the year following entry to SUD treatment (Pirard et al., 2005) and at 1 year after treatment intake (Rosen et al., 2002).

1.3. This study

This study was designed to further clarify the impact of physical or sexual abuse on SUD treatment outcomes and to extend previous research in this area. In particular, because women more often suffer interpersonal abuse, they have been overrepresented in past studies of physical or sexual abuse among SUD patients. As a result, very little is known about relationships between physical or sexual abuse and SUDs in men (Langeland & Hartgers, 1998). In addition, interpretation of past findings is limited because SUD patients with a history of physical or sexual abuse have often been grouped together in analyses. Thus, inattention to differences in the sequelae of physical and sexual abuse may have obscured important relationships between individual abuse types and substance use and psychiatric outcomes. Furthermore, as noted above, little research has examined differences in the number of prior SUD treatment episodes as a function of physical or sexual abuse history.

Participants were men entering standard outpatient SUD treatment in the Department of Veterans Affairs (VA). Patients were divided into three groups: no abuse, physical abuse, and sexual abuse. The aims of the study were to examine potential group differences in (a) demographics; (b) the number of previous SUD treatment episodes; (c) the severity of alcohol and drug use at treatment intake, 6 months, and 12 months; (d) the severity of psychiatric problems at treatment intake, 6 months, and 12 months; and (e) suicidal ideation and suicide attempt at intake and follow-ups. Our goal was to clarify the impact of lifetime physical or sexual abuse on men in SUD treatment, with the long-term goal of improving SUD treatment outcomes.

2. Methods

2.1. Participants

Patients entering outpatient SUD treatment at the VA, who were judged by program staff as oriented to time and place and competent to provide informed consent, were invited to participate. Data were collected as part of an ongoing evaluation of SUD treatment at a VA facility in northern California. Standard outpatient SUD treatment at the VA involved a cognitive–behavioral/12-step facilitation approach delivered in individual and group therapy sessions. Eight patients who consented to the larger study were women and were not included in this study. Of the remaining 337 patients, 41 (12%) had missing data and were excluded from analyses. Patients who died \( n = 8; 2% \) or were otherwise lost to 6-month or 12-month follow-up \( n = 73, 22% \) were also excluded, yielding a total sample of 215 male SUD patients. With regard to substance use in the month prior to treatment intake, 49% of participants used alcohol to intoxication on at least one occasion, 38% used cocaine, 23% used cannabis, 10% used amphetamine, 10%
used methadone, 7% used heroin, 6% used another opiate, 4% used a sedative, and fewer than 1% used barbiturates, hallucinogens, or inhalants, respectively. Almost half of the sample (45%) used more than one substance a day in the past month.

2.2. Procedure

Baseline self-report data were collected from participants in person at intake to SUD treatment. Follow-up interviews were conducted by telephone at 6 and 12 months postintake. Areas assessed included demographics, physical and sexual abuse history, SUD treatment history, alcohol and drug use, psychiatric problems, and suicidality (i.e., suicidal ideation and attempted suicide). In-person and telephone interviews were administered by trained research assistants. Patients received $20 for each assessment. Procedures, including those used to insure the confidentiality of protected health information, were approved by Stanford University’s Institutional Review Board for Human Subjects in Medical Research.

2.3. Measures

2.3.1. Demographics

Demographic data were collected at treatment intake and included patients’ age, race/ethnicity, marital status, education, employment, and income.

2.3.2. Physical or sexual abuse history

At intake, two items from the Addiction Severity Index (ASI; McLellan et al., 1992) were used to assess physical and sexual abuse. Patients were asked, “Has anyone ever abused you physically?” and “Has anyone ever abused you sexually?” Patients were asked whether “anyone” had perpetrated abuse because research suggests that under-reporting of physical abuse by men is minimized when the perpetrators of abuse are not limited to persons close to or known to the patient (Langeland, Draijer, & van den Brink, 2003). The validity of the physical and sexual abuse items for use with male SUD patients is supported by previous research (Langeland et al., 2003).

2.3.3. SUD treatment history

At intake, using items from the ASI (McLellan et al., 1992), patients were asked, “How many times in your life have you been treated for alcohol abuse?” and “How many times in your life have you been treated for drug abuse?” Patients were prompted to include discrete episodes of inpatient, residential, and outpatient treatment.

2.3.4. Alcohol and drug use

The ASI (McLellan et al., 1992), a structured 40-minute clinical interview, was used to assess the severity of patients’ alcohol and drug use. In each domain, questions are asked that measure the number, extent, and duration of symptoms in the past 30 days. Responses are then standardized and summed to produce composite scores. ASI composites range from 0 to 1, with higher scores indicative of more severe problems. Composite scores provide internally consistent ratings of patient status in the alcohol use and drug use domains (Alterman, Brown, Zaballero, & McKay, 1994; McLellan et al., 1985). Previous research supports the validity of the ASI for use with SUD treatment samples (Leonhard, Mulvey, Gastfriend, & Schwartz, 2000; McLellan et al., 1985). In this study, the ASI was administered at treatment intake, 6 months, and 12 months.

2.3.5. Psychiatric problems

Data on the severity of patients’ psychiatric problems in the past 30 days was also assessed with the ASI at intake, 6 months, and 12 months. Patients’ responses were standardized and summed to produce a composite score, ranging from 0 to 1, with higher scores reflecting greater severity. Previous research supports the internal consistency of the ASI psychiatric items and the convergent and discriminant validity of the ASI psychiatric problem composite score (Alterman et al., 1994; Leonhard et al., 2000).

The Brief Symptom Inventory (BSI; Derogatis, 1993) was administered at intake and at each follow-up assessment to provide a measure of psychiatric distress. The BSI is a self-report measure frequently used to assess psychiatric symptoms among mental health, medical, and SUD patients. Patients were asked to indicate how distressed they were in the past 30 days by each of 53 symptoms in nine domains (e.g., somatization, depression, anxiety, and paranoid ideation) using a 5-point scale ranging from 0 (not at all) to 4 (extremely). Responses to individual items are summed and then divided by the total number of responses to calculate the Global Severity Index (GSI), which is considered the best BSI indicator of psychiatric distress (Piersma, Boes, & Reume, 1994). Scores on the GSI range from 0 to 4, with higher scores reflecting more severe psychiatric distress. The psychometric properties, including the internal consistency and construct validity of the BSI, are well established (Boulet & Boss, 1991; Derogatis & Melisaratos, 1983).

2.3.6. Suicidality

Suicidality was assessed with items derived from the ASI (McLellan et al., 1992). At intake, patients were asked whether they had ever attempted suicide or ever had serious thoughts of committing suicide. At all three time points, patients were asked whether they had serious thoughts of suicide in the past 30 days. The concurrent validity of the suicidality items is supported by previous research (Petry & Kiluk, 2002).

2.4. Analytic plan

SPSS 11.5 was used to analyze the data. First, chi-square analyses were used to examine potential group differences.
(no abuse, physical abuse, and sexual abuse) in follow-up rates and demographics. Continuous demographic variables (i.e., age and income) were dichotomized using a median split. Univariate one-way analysis of variance (ANOVA) with planned simple contrasts was used to examine differences between the physical or sexual abuse group and the no abuse group in the number of past alcohol and drug treatment episodes. Next, repeated measures ANOVA was used to examine group differences in the severity of alcohol and drug use and psychiatric problems at treatment intake, 6 months, and 12 months. When the overall $F$ test for time was significant, differences between intake and 6 months and between 6 months and 12 months were examined using planned repeated contrasts. When the overall $F$ test for group was significant, the physical and sexual abuse groups were each compared to the no abuse group using planned simple contrasts. Univariate ANOVA was used to interpret significant Time $\times$ Group interactions and to further examine group differences in alcohol use, drug use, and psychiatric problems at each time point. Finally, logistic regressions with simple contrasts were conducted to determine the odds of reporting a suicide attempt and lifetime and recent suicidal ideation, given a history of physical or sexual abuse.

3. Results

Of the 215 male patients in the study, 49 (23%) reported lifetime physical abuse, 49 (23%) reported lifetime sexual (or sexual and physical) abuse, and 117 (54%) reported no abuse. No differences in follow-up rates between patients with or without a history of physical or sexual abuse for the 6-month, $\chi^2(2, N = 324) = 2.83, ns$, and 12-month, $\chi^2(2, N = 324) = 2.05, ns$, interviews were found.

### Table 1
Baseline demographic characteristics and treatment history of patients with no abuse ($n = 117$), physical abuse ($n = 49$), or sexual abuse ($n = 49$)

<table>
<thead>
<tr>
<th>Demographics</th>
<th>No abuse ($n = 117$, %)</th>
<th>Physical abuse ($n = 49$, %)</th>
<th>Sexual abuse ($n = 49$, %)</th>
<th>$\chi^2$ (df = 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (% $\leq$ 51 years)</td>
<td>50 (42.7)</td>
<td>30 (61.2)</td>
<td>27 (55.1)</td>
<td>5.45</td>
</tr>
<tr>
<td>Race/ethnicity (% Black, Hispanic, or other)</td>
<td>66 (56.4)</td>
<td>24 (49.0)</td>
<td>23 (46.9)</td>
<td>1.57</td>
</tr>
<tr>
<td>Marital status (% married)</td>
<td>18 (15.4)</td>
<td>3 (6.1)</td>
<td>9 (18.4)</td>
<td>3.50</td>
</tr>
<tr>
<td>Education (% $&gt;^-$ high school)</td>
<td>78 (66.7)</td>
<td>32 (65.3)</td>
<td>24 (49.0)</td>
<td>4.84</td>
</tr>
<tr>
<td>Employment (% employed)</td>
<td>103 (88.0)</td>
<td>40 (81.6)</td>
<td>38 (77.6)</td>
<td>3.16</td>
</tr>
<tr>
<td>Income (% $\geq$ $800 per month)</td>
<td>60 (51.3)</td>
<td>24 (49.0)</td>
<td>25 (51.0)</td>
<td>0.08</td>
</tr>
<tr>
<td>Number of prior treatment episodes</td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
<td>$F(2, 212)$</td>
</tr>
<tr>
<td>Alcohol</td>
<td>4.2 (6.5)$^a$</td>
<td>3.8 (4.2)</td>
<td>6.5 (8.9)</td>
<td>2.42</td>
</tr>
<tr>
<td>Drug</td>
<td>3.7 (6.5)$^a$</td>
<td>3.4 (3.4)</td>
<td>6.1 (6.3)$^a$</td>
<td>3.32$^*$</td>
</tr>
</tbody>
</table>

$^a$ Group means are significantly different at $p < .05$.

$^b$ Group means are significantly different at $p < .01$.

$^* p < .01$.

Table 2
Alcohol and drug use at intake, 6 months, and 12 months

<table>
<thead>
<tr>
<th>ASI composite</th>
<th>No abuse ($n = 117$, M (SD))</th>
<th>Physical abuse ($n = 49$, M (SD))</th>
<th>Sexual abuse ($n = 49$, M (SD))</th>
<th>$F$ (2, 212)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>0.30 (0.28)</td>
<td>0.38 (0.30)</td>
<td>0.31 (0.26)</td>
<td>1.41</td>
</tr>
<tr>
<td>6 months</td>
<td>0.12 (0.19)</td>
<td>0.15 (0.24)</td>
<td>0.13 (0.18)</td>
<td>0.42</td>
</tr>
<tr>
<td>12 months</td>
<td>0.12 (0.19)</td>
<td>0.14 (0.23)</td>
<td>0.10 (0.18)</td>
<td>0.72</td>
</tr>
<tr>
<td>Drug use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>0.10 (0.12)$^{ab}$</td>
<td>0.14 (0.11)$^*$</td>
<td>0.16 (0.13)$^b$</td>
<td>5.59$^*$</td>
</tr>
<tr>
<td>6 months</td>
<td>0.05 (0.09)</td>
<td>0.05 (0.08)</td>
<td>0.07 (0.10)</td>
<td>1.23</td>
</tr>
<tr>
<td>12 months</td>
<td>0.04 (0.07)</td>
<td>0.03 (0.07)</td>
<td>0.06 (0.07)</td>
<td>1.31</td>
</tr>
</tbody>
</table>

$^a$ Group means are significantly different at $p < .05$.

$^b$ Group means are significantly different at $p < .01$.

$^* p < .01$.

Results of chi-square analyses used to compare groups on baseline demographic variables are reported in Table 1. No between-group differences were found.

Table 1 also reports results of ANOVAs examining group differences in the number of prior SUD treatment episodes.
reported at intake. Although group differences did not emerge on the number of past alcohol treatment episodes, patients in the sexual abuse group reported a greater number of prior drug treatment episodes relative to patients in the no abuse group, $t(164) = 2.33, p < .05$. No difference in the number of past drug treatment episodes was found between the physical abuse group and no abuse group, $t(164) = .00$. Planned contrasts also revealed that patients in the sexual abuse group reported more severe psychiatric distress relative to the no abuse group, $t(164) = 3.38, p < .01$, although no difference between the physical abuse group and no abuse group was

### Table 3

<table>
<thead>
<tr>
<th>Psychiatric problems at intake, 6 months, and 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASI composite and GSI</td>
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<tr>
<td>-----------------------</td>
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<tr>
<td><strong>ASI psychiatric composite</strong></td>
</tr>
<tr>
<td>Intake</td>
</tr>
<tr>
<td>6 months</td>
</tr>
<tr>
<td>12 months</td>
</tr>
<tr>
<td><strong>GSI</strong></td>
</tr>
<tr>
<td>Intake</td>
</tr>
<tr>
<td>6 months</td>
</tr>
<tr>
<td>12 months</td>
</tr>
</tbody>
</table>

* Group means in the same row with this superscript are significantly different at $p < .01$.

** $p < .01$.

*** $p < .001$.

### 3.2. Group differences in SUD problems over 12 months

Scores on the ASI alcohol and drug use composites at each time point are reported in Table 2. The repeated measures ANOVA for drug use problems revealed a significant main effect for time, $F(2, 424) = 71.44, p < .001$, but not a significant main effect for group, $F(2, 212) = 1.17, ns$, or a significant Time × Group interaction, $F(4, 424) = .02, ns$. The severity of alcohol use problems declined between intake and 6 months, $F(1, 212) = 95.96, p < .001$, but not between 6 months and 1 year, $F(1, 212) = .71, ns$. In addition, as can be seen in Table 2, neither the physical abuse group nor the sexual abuse group differed from the no abuse group in reported alcohol use problems at any of the three time points.

The repeated measures ANOVA for drug use revealed a significant main effect for time, $F(2, 424) = 76.44, p < .001$; a significant main effect for group, $F(2, 212) = 3.78, p < .05$; and a significant Time × Group interaction, $F(4, 424) = 3.22, p < .05$. The severity of drug use problems decreased between intake and 6 months, $F(1, 212) = 87.54, p < .001$, and between 6 months and 1 year, $F(1, 212) = 4.76, p < .05$. Furthermore, overall, the sexual abuse group reported more severe drug problems relative to the no abuse group, $t(164) = 2.75, p < .01$. However, no difference between the physical abuse group and no abuse group was found, $t(164) = 1.00, ns$. With regard to the interaction, a significant group difference in drug problems was found at treatment intake but not at 6 months and 12 months. As reported in Table 2, at intake to SUD treatment, both the physical abuse group and the sexual abuse group had more severe drug problems relative to the no abuse group.

### 3.3. Group differences in psychiatric problems over 12 months

Table 3 reports scores on the ASI psychiatric problems composite at the three time points. Significant main effects for time, $F(2, 424) = 16.62, p < .001$, and group, $F(2, 212) = 6.16, p < .01$, but not a significant interaction, $F(4, 424) = 1.32, ns$, were found. The severity of psychiatric problems decreased between intake and 6 months, $F(1, 212) = 24.24, p < .001$, but not between 6 months and 12 months, $F(1, 212) = .00, ns$. In addition, relative to the no abuse group, the sexual abuse group reported more severe psychiatric problems across time, $t(164) = 3.00, p < .01$. However, no difference in psychiatric problems was found between the physical abuse group and no abuse group, $t(164) = -.79, ns$. Table 3 reports results of univariate ANOVAs comparing group means at intake, 6 months, and 12 months. A significant main effect for group emerged at all three time points, with the sexual abuse group reporting more severe psychiatric problems relative to the no abuse group at intake and 6 months. At 12 months, there was a trend for the sexual abuse group to report more problems relative to the no abuse group ($p < .10$).

Scores on the GSI of the BSI are also reported in Table 3. A significant main effect for time, $F(2, 424) = 15.53, p < .001$, and a significant main effect for group, $F(2, 212) = 6.28, p < .01$, were found. However, a significant time by group interaction did not emerge, $F(4, 424) = 1.75, ns$. Scores on the GSI decreased between intake and 6 months, $F(1, 212) = 24.50, p < .001$, but not between 6 months and 12 months, $F(1, 212) = .00, ns$. Planned contrasts also revealed that patients in the sexual abuse group reported more severe psychiatric distress relative to the no abuse group, $t(164) = 3.38, p < .01$, although no difference between the physical abuse group and no abuse group was
found, $t(164) = −0.05$, ns. In addition, as noted in Table 3, the sexual abuse group had more severe psychiatric distress relative to the no abuse group, as indicated by GSI scores, at intake and 12 months.

3.4. Group differences in attempted suicide and suicidal ideation

Results of logistic regression analyses used to examine the odds of a lifetime suicide attempt are reported in Table 4. Findings revealed that patients in the sexual abuse group had approximately 4.5 times the odds of patients in the no abuse group of reporting a lifetime suicide attempt. No differences in the odds of a lifetime suicide attempt were found between patients in the physical and no abuse groups. As seen in Table 4, relative to patients without a history of abuse, patients in the sexual abuse group were at elevated odds for reporting lifetime suicidal ideation and suicidal ideation in the 30 days prior to treatment intake and prior to the 6-month assessment. No group differences in suicidal ideation were found at 12 months, and no differences in suicidal ideation between the physical and no abuse groups emerged at any of the three time points.

4. Discussion

Although men with a history of physical or sexual abuse presented with more severe drug problems, by 6 months postintake, patients who reported physical or sexual abuse were comparable to patients who reported no physical or sexual abuse with regard to the severity of alcohol and drug use problems. However, group differences in psychiatric problems persisted across the duration of the study, with the sexual abuse group reporting more severe psychiatric problems at 6 and 12 months and more severe psychiatric distress at 12 months relative to the no abuse group. In addition, patients in the sexual abuse group were more likely to report a past suicide attempt at intake and recent suicidal ideation at intake and 6 months. Overall, findings suggest that additional intervention in the context of standard SUD treatment may be warranted to address lingering psychiatric problems reported by men with a history of sexual abuse.

4.1. Physical and sexual abuse and substance use

Despite initial differences in drug use severity, no group differences in alcohol or drug use emerged at 6 or 12 months, indicating that a physical or sexual abuse history does not preclude benefit from SUD treatment. However, coupled with previous findings, results presented here suggest that men with a history of sexual abuse may be at greater risk for long-term relapse to drug use. Patients with a history of sexual abuse reported more previous drug treatment episodes relative to patients without an abuse history, and the number of previous SUD episodes has been linked to subsequent relapse via increased urges to use substances (Doherty, Kinnunen, Militello, & Garvey, 1995; Malcolm et al., 2000) and reductions in self-efficacy associated with the ability to maintain sobriety (Miller, Westerberg, Harris, & Tonigan, 1996). Future research should, therefore, examine not only long-term risk for relapse to substance use conferred by multiple treatment episodes among men with a sexual abuse history but also factors that may mediate this relationship, including urges to use and self-efficacy related to abstinence.

No group differences in the severity of alcohol use emerged at any of the three time points. This is surprising given that research with veterans has found more severe alcohol misuse at baseline (Ouimette et al., 2000) and follow-up (Rosen et al., 2002) as a function of abuse history. However, in these studies, men and women were grouped together in analyses. It is possible that the severity of alcohol problems differs as a function of abuse history for women but not men, and future studies should examine potential gender differences in relations between abuse history and alcohol problem severity among SUD patients.

4.2. Physical and sexual abuse and psychiatric problems

Sexual abuse, though not physical abuse, was associated with more severe psychiatric problems and greater psychiatric distress at intake. Findings are consistent with population-based research demonstrating that child sexual abuse is
associated with a broader array of mental health problems and accounts for greater variance in mental health problems relative to child physical abuse (Briere & Elliott, 2003). Child and adult sexual abuse have been linked to both deficits in adaptive coping (e.g., greater reliance on wishful thinking) and increases in shame and self-blame, all of which may function to heighten risk for psychopathology (cf., Lisak, 1994; Ruch, Gartrell, Amedeo, & Coyne, 1991; Valentinier, Foa, Rigg, & Gershuny, 1996). However, more work is needed to understand the long-term sequelae of physical and sexual abuse and the mechanisms that underlie relations between different abuse types and the development of psychopathology.

Although across groups psychiatric problem severity and distress declined between intake and 6 months, patients with a sexual abuse history continued to report more severe psychiatric problems at 6 and 12 months and more distress at 12 months relative to patients without a history of sexual or physical abuse. Findings indicate that SUD treatment alone may be insufficient to remedy the psychiatric distress experienced by patients with a history of sexual abuse. Lingering psychiatric problems may then function to increase long-term risk for relapse among men with a history of sexual abuse, given prior research demonstrating that intense affective states are significant risk factors for relapse to substance use (Marlatt, 1996; McKay, 1999).

4.3. Physical and sexual abuse and suicidality

Sexual abuse was associated with lifetime suicide attempt, lifetime and recent suicidal ideation at intake, and recent suicidal ideation at 6 months postintake. However, the number of patients in the sexual abuse group reporting suicidal ideation decreased over the course of the study, and by 12 months, there were no group differences in rates of suicidal ideation. Findings are consistent with research demonstrating that SUD treatment may protect against suicide in at-risk patients (Ilgren, Harris, Moos, & Tiet, 2007). However, previous research has also shown that a history of attempted suicide is a significant predictor of future suicide, even after controlling for other factors (e.g., hopelessness and depression; Joiner et al., 2005), suggesting the importance of assessing for lifetime suicide attempt at intake to SUD treatment, particularly among patients with a sexual abuse history. Identification, monitoring, and treatment of patients reporting past suicide attempt or significant current suicidal ideation may decrease rates of attempted and completed suicide among patients undergoing SUD treatment.

4.4. Limitations and future directions

This study extends previous research on the impact of physical or sexual abuse on SUD patients by focusing on a relatively neglected segment of the SUD population, men with a history of interpersonal abuse. Despite the strengths of this study (i.e., longitudinal data and analyses of the effects of physical and sexual abuse separately), some limitations should be noted. All patients were veterans, and it is possible that relationships between physical or sexual abuse and SUD treatment outcomes will differ for veteran and nonveteran populations. Veterans have higher rates of substance use and mental health problems, and they score lower on health-related quality of life measures (Larson & Welch, 2007; Kazis et al., 1998). The use of broad definitions of physical and sexual abuse further limits interpretation of findings. Use of multi-item scales that assess specific abusive experiences (e.g., “Did anyone ever beat you up?”) may improve the sensitivity of assessment in future studies (Langeland et al., 2003). It will also be important to examine characteristics of physical and sexual abuse that may moderate relations between abuse and adjustment, including relationship of victim to perpetrator, age at which abuse occurred, and frequency of abuse. In addition, detailed data on the types of previous SUD treatment episodes (e.g., outpatient and residential) reported by patients with an abuse history and the short-term and long-term effectiveness of these treatments for patients with an abuse history should be collected to improve services for this segment of the SUD population.

Research should address the relative contributions of child and adult abuse to the etiology of SUDs. Because experiences in childhood shape personality development, there is reason to suspect that child abuse confers greater vulnerability to an SUD. In general, research supports an association between physical or sexual abuse in childhood and substance abuse in adulthood (Dube, Anda, Felitti, Edwards, & Croft, 2002). However, in a recent study, we found that child physical or sexual abuse was not associated with binge drinking in women, after adjusting for adult physical or sexual abuse (Timko, Sutkowi, Pavao, & Kimerling, 2007). Clearly, more studies are needed to delineate relations among child abuse, adult abuse, and substance use, particularly for men.

Given evidence to suggest that men with a history of sexual abuse continue to experience psychiatric distress following reductions in substance use, SUD treatment programs should consider offering integrated treatments (i.e., treatments that address both substance use and psychiatric problems) or mental health services to men with a sexual abuse history. Although data are limited, preliminary findings support the efficacy of integrated treatments for men with an SUD and comorbid posttraumatic stress disorder (PTSD), a common sequela of sexual abuse (Brady, Dansky, Back, Foa, & Carroll, 2001; Cook, Walser, Kane, Ruzek, & Woody, 2006; Najavits, Weiss, Shaw, & Muenz, 1998). In particular, a cognitive–behavioral substance use intervention combined with exposure therapy has been associated with decreases in both substance use and PTSD symptoms in men (Brady et al., 2001; Najavits et al., 1998), although hypotheses have yet to be tested in a large, randomized controlled trial.
will also be important to investigate risk for long-term relapse to drug use among patients with a sexual abuse history and the efficacy of integrated treatments for reducing relapse rates. In addition, routine screening for lifetime and recent suicidality in SUD treatment programs may be warranted given the prevalence of lifetime sexual abuse among SUD patients and the relationship between sexual abuse and attempted suicide.

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