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Patient Violence Towards Counselors in Substance Use Disorder Treatment Programs: Prevalence, Predictors, and Responses

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Abstract

Workplace violence disproportionately impacts healthcare and social service providers. Given that substance use and abuse are documented risk factors for the perpetration of violence, SUD treatment personnel are at risk for patient-initiated violence. However, little research has addressed SUD treatment settings. Using data nationally representative of the U. S., the present study explores SUD counselors' experiences of violent behaviors perpetrated by patients. More than half (53%) of counselors personally experienced violence, 44% witnessed violence, and 61% had knowledge of violence directed at a colleague. Counselors reported that exposure to violence led to an increased concern for personal safety (29%), impacted their treatment of patients (15%), and impaired job performance (12%). In terms of organizational responses to patient violence, 70% of organizations increased training on de-escalation of violent situations and 58% increased security measures. Exposure to verbal assault was associated with age, minority, tenure, recovery status, 12-step philosophy, training in MI/MET, and higher caseloads of patients with co-occurring disorders. Exposure to physical threats was associated with age gender, minority, tenure, recovery status, and higher caseloads of patients with co-occurring disorders. Exposure to physical assault was associated with age, gender, and sample. Implications of these findings for organizations and individuals are discussed.

Keywords

counselors; workplace violence; verbal assault; physical threat; physical assault

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1. Introduction

The prevalence of workplace violence in organizations treating substance use disorders (SUDs), reactions to this violence, and predictors of its differential occurrence are the targets of this study. Workplace violence includes verbal assault, sometimes referred to as verbal harassment or psychological violence, and actual or threatened physical assault (Gillespie, Gates, Miller, & Howard, 2010). Workplace violence disproportionately impacts healthcare and social service providers. The annual rate of workplace violence among all industries in the United States is 5 violent incidents per 1,000 employed persons age 16 or older. However, more than 60% of non-fatal workplace assaults are directed at healthcare and social service providers by patients and clients (Bureau of Labor Statistics [BLS], 2005, 2006; Janocha & Smith, 2010; O'Connell, Young, Brooks, Hutchings, & Lofthouse, 2000). It has been reported that healthcare workers are the victims of workplace assault more often than any other worker group, including police officers (National Institute for Occupational Safety and Health, 1996).

Beyond the obvious potential for physical harm, workplace violence has other impacts: increased psychological and emotional distress including anxiety about workplace violence, feelings of compromised safety, a sense of powerlessness, feelings of reduced competency in dealing with violent patients, and symptoms of traumatic stress (Chen et al., 2008; Flannery et al., 2001; Gates et al. 2011; Gillespie, Bresler, Gates, & Succop, 2013; Horejski et al., 1994; May & Grubbs, 2002; McKinnon & Cross, 2008). Workplace violence also negatively impacts workplaces by increasing employee job dissatisfaction (Gates, Ross, & McQueen; May & Grubbs, 2002; Shin, 2011), absenteeism (BLS, 2005; Mckinnon & Cross, 2008), and seeking employment elsewhere (Horejski et al., 1994). In addition, workplace violence is associated with decreased organizational commitment (Shin, 2011), staff retention (Gacki-Smith, 2009; Gates et al., 2006), and productivity (Kowalenko, Gates, Gillespie, Succop, & Mentzel, 2013). Further, workplace violence interferes with clinicians' ability to manage the cognitive demands of their work (Kowalenko et al., 2013) and to handle and manage their workloads (Kowalenko et al., 2013). Further impacts on clinicians include lower mental energy, work inefficiency, decreased participation in work processes and decisions, and decreased quality of care (Arnetz & Arnetz, 2001).

Research on this occupational hazard has focused on a variety of professionals, including emergency department personnel (i.e., Gates, Gillespie, Kowalenko, Succop, Sanker, & Farra, 2011; Gillespie, Bresler, Gates, & Succop, 2013; Kowalenko, Gates, Gillespie, Succop, & Mentzel, 2013), nurses (i.e., Arnetz, Arnetz, & Petterson, 1996; Crilly, Chaboyer, & Creedy, 2004), social workers (i.e., Jayaratne, Vinokur-Kaplan, Nagda, & Chess, 1996; Newhill, 1996; Ringstad, 2005; Shields, & Kiser, 2003), psychiatric staff (i.e., Chen, Hwu, Kung, Chiu, & Wang, 2008; Cunningham, Connor, Miller, & Melloni, 2003; Flannery, 2004) and child welfare workers (i.e., Horejsi, Garthwait, & Rolando, 1994; Ringstad, 2009; Shin, 2011). The prevalence of workplace violence varies across fields and settings. For example, 98% of emergency department workers report at least one verbal assault; 68% experienced threat of physical harm, and 48% were victims of physical assault (Gates et al., 2011). A study of nurses found that 88% of emergency department, intensive care unit and general floor nurses reported being victims of verbal assault and 74% reported physical

assault in a one-year period; with rates highest among emergency department nurses and lowest among floor nurses (May & Grubbs, 2002). Among social workers, 62% of social workers experienced psychological assault and 15% experienced physical assault in the prior year (Ringstad, 2005). High rates of verbal (83%) and physical (65%) assault have also been reported in psychiatric facilities with injuries resulting 39% of the time (Cunningham et al., 2003). Nearly a third (29%) of mental health providers reported that they feared for their lives at some point during their professional career (Arthur, Brendt, & Quiroz, 2003). Rates are also substantial among child welfare workers, with verbal assault being experienced at a rate ranging from 70% to 97%, threats of physical assault at a rate of 33%, and actual physical assault at a rate ranging from 22% to 34% (Ringstad, 2009; Shin, 2011).

Among the most commonly recommended interventions to prevent workplace violence is the development of policies and practices designed to increase worker safety (Calnan, Kelloway, & Dupré, 2012). In addition, training in the prevention and management of violence is a cornerstone of organizational efforts to minimize the occurrence of workplace violence (Beech & Leather, 2006). The factors leading to patient violence are multi-factorial, thus an integrated organizational approach to dealing with the problem has been advocated (Leather, Beale, Lawrence, Brady, & Cox, 1999). Such an approach involves examining what might be done at the level of the staff member, the work group, and the organization as a whole before, during, and after incidents occur (Beech & Leather, 2006).

1.1. Correlates of patient violence

1.1.1. Worker characteristics—Existing evidence has shown that patient violence may be correlated with demographic characteristics of workers. Gender has proven to be an inconsistent risk factor, with some studies failing to find an association between victim gender and rates of patient violence (Kowalenko et al., 2013), while others provide evidence that in some settings gender is indeed a risk factor. Male workers in both inpatient psychiatric units and similar settings reported significantly more violent assaults than female workers (Campbell et al., 2011; Gillespie et al., 2010). In three different studies, male social workers were more likely to experience client violence than female social workers (Jayaratne, et al., 1996; Newhill, 1996; Ringstad, 2005). Though age of worker has not often been studied, our finding that older counselors are less likely to experience patient violence is consistent with prior research (Åström, Bucht, Eisemann, Norberg, & Saveman, 2002).

Studies have found that healthcare workers with a graduate education are less likely to experience threats of physical harm and physical assault (Kowalenko, et al., 2013). On the other hand, Shin (2011) found educational level to be positively associated with victimization. Though few studies have examined the race/ethnicity of the worker, one study found that White nurses were more likely to be physically assaulted than either Black or Asian/Pacific Islander nurses, and White nurses were more likely to experience psychological violence than Black nurses (Campbell et al., 2011).

1.1.2. Perpetrator Characteristics—There are also inconsistent associations that have been found between patient/perpetrator gender and workplace violence (Cunningham et al., 2003; Kowalenko, et al., 2013). Patients with a current SUD are more likely to be violent

towards providers (Bye, 2007; Crilly, Chaboyer, & Creedy, 2004; Fernandez-Montalvo, Lopez-Goni, & Arteaga, 2012; May & Grubbs, 2002). Alcohol, cocaine, and methamphetamine use/abuse is more consistently associated with violence than are heroin and marijuana use/abuse (Baskin-Sommers & Sommers, 2006; Bye, 2007; Darke, Torok, Kaye, Ross, & McKetin, 2010; Ostrowsky, 2010; Parker & Auerhahn, 1998). Patients demonstrating irrational and erratic behavior are also more likely to be violent towards staff (Crilly et al., 2004; Cunningham et al., 2003; Gillespie et al., 2010). Further, child or adolescent patients were more likely to commit assault against workers than adult patients and the number of assaults increased with the number of psychiatric diagnoses in the patient population (Cunningham et al., 2003).

1.2. Workplace violence in SUD treatment settings

Very few studies have been published about workplace violence in SUD treatment settings. In a study of violence experienced by social workers, Newhill (1996) found that drug and alcohol services was second among three high-risk areas of practice, preceded by criminal justice and followed by child and youth services. Approximately three-quarters (76%) of those in drug and alcohol services reported at least one incident of violence in the course of their career. Using past year data, Lipscomb and colleagues (2012) reported that 37% of staff in a state's residential addiction treatment centers reported verbal violence, 6% reported being physically threatened, and 1% reported being physically assaulted. In a study of aggressive incidents on an in-patient detoxification unit in the United Kingdom, Rajesh and Day (2005) reported that 5% of patients displayed aggression towards nursing staff with, 67% of incidents being verbal threats. Lastly, Palmistierna and Olsson (2007) conducted a study of violence perpetrated by women involuntarily admitted to three specialized inpatient treatment institutions for severe drug abuse in Sweden, reporting that 42% of the patients engaged in aggressive behavior during their treatment, with most incidents directed at staff.

1.3. Purpose of the study

Given that substance use and abuse are documented risk factors for the perpetration of violence (Baskin-Sommers & Sommers, 2006; Bye, 2007; Dack, Ross, Papadopoulos, Stewart, & Bowers, 2013; Parker & Auerhahn, 1998), SUD treatment personnel are likely at risk for patient-initiated violence. There is a paucity of research that has addressed workplace violence in SUD treatment settings. Using data nationally representative of the U.S., the present study explored SUD counselors' experiences of violent behaviors perpetrated by patients. The aims were to: (1) estimate the extent to which counselors in SUD treatment settings experience workplace violence; (2) describe organizational and counselor responses to violence; and (3) identify variables associated with counselors' exposure to workplace violence.

2. Methods

2.1. Sampling and data collection procedures

The data analyzed in this study are derived from the National Treatment Center Study (NTCS), a family of NIH-funded studies, conducted by the University of Georgia's Center for Research on Behavioral Health and Human Service Delivery, that each focus on a

specific segment of the U.S. SUD treatment system. We used two of these studies as a platform to collect preliminary data on workplace violence in SUD treatment programs. As such, this study utilized counselor-level data from two national samples of SUD treatment programs. The first sample includes 318 (80% response rate) publicly funded, community-based treatment programs recruited through a two-stage sampling strategy. In the first stage, all counties in the United States were assigned to 1 of 10 strata based on population and then randomly sampled within strata to insure that treatment centers located in areas of varying population density would be included. In the second stage, all SUD treatment facilities in the sampled counties were identified using published national and state directories. Treatment centers were then proportionately sampled across strata, with telephone screening used to establish eligibility for the study. Treatment centers were considered publicly-funded if at least 51% of their operating budgets were derived from relatively stable governmental sources such as block grants and contracts. The second sample included 215 (93%) of the community treatment programs affiliated with NIDA's Clinical Trial Network (CTN) at the time of data collection. Inclusion criteria for both samples required programs to offer at least a structured outpatient level of care in accordance with American Society of Addiction Medicine (ASAM) guidelines (Mee-Lee et al., 2001). Centers that only offered detoxification services, private practices, halfway houses, and centers whose sole modality was methadone maintenance were thus excluded. Treatment centers located in Veterans Administration facilities or correctional settings were ineligible because they are not accessible to the general public, and thus not considered to be community based.

The administrator or clinical director of each identified SUD treatment program provided a list of all counselors employed in the program; counselors were defined as employees who provide direct client care and an active caseload. All listed counselors were mailed a packet including a questionnaire, consent form, study description, and a self-addressed stamped envelope. Those who completed and returned the survey received a US\$40 incentive payment. A total of 1890 questionnaires were completed and returned, representing a 61% response rate that was equivalent across samples. The Human Subjects Committee at the University of Georgia reviewed and approved the study procedures.

2.2. Measurement

2.2.1. Workplace violence—This concept included verbal assault, threat of physical assault, and actual physical assault perpetrated by a patient towards a clinician. Respondents were asked to indicate separately whether they had personally experienced; witnessed a colleague experience, or had direct knowledge of a colleague's experience of each of the three types of patient violence during the time that they had been employed at the treatment program.

2.2.2. Counselor characteristics—Four socio-demographic variables were included: age (years), gender (0 = female, 1 = male), minority status (0 = white, 1 = minority), and personal recovery status (0 = not in recovery, 1 = in recovery). Three professional characteristic variables were included: professional experience (years), tenure at the current treatment program (years), and graduate level education (0 = less than graduate degree, 1 = graduate degree). Lastly, three treatment orientation variables were included: 12-step

orientation, confrontation, and training in motivational interviewing. Counselors' endorsement of a 12-step treatment philosophy was measured by Kasarabada and colleagues' (2001) three item summated scale. Specifically counselors indicated the extent to which they agreed that clients need to accept a lack of control over their addiction while placing faith in a higher power, that clients need to reach out to others in recovery, and that treatment should have the goal of clients working the 12-steps. Responses to these items ranged from strongly disagree (1) to strongly agree (7). Responses to these three items were summed to create a single composite indicator (Cronbach's alpha= .78). We measured counselors' endorsement of confrontation as a valid treatment technique by asking to what extent they agreed or disagreed (1 = strongly disagree to 7 = strongly agree) with the statement 'confrontational approaches should be used more in addiction treatment.' Lastly, respondents indicated if they had been trained (0 = no, 1 = yes) in either motivational interviewing (MI) or motivational enhancement therapy (MET).

2.2.3. Caseload characteristics—We examined ten variables related to caseload characteristics as reported by respondents. These variables included size of caseload, as well as the percentage of caseload that is female; percentage of caseload that misuse alcohol, marijuana, cocaine, heroin, prescription opiates, and methamphetamine; and percentage of caseload that have co-occurring psychiatric disorders. We also wished to examine the percentage of caseload that were adolescents, however only 21.5% of respondents reported any adolescents on their caseload. Thus we used a dichotomous variable to indicate whether the respondent had any adolescents on their caseload.

2.2.4. Response to workplace violence—To explore organizational and individual responses to workplace violence we asked respondents who reported any exposure to patient initiated violence to also indicate the accuracy (1 = not at all accurate, 7 = very accurate) of statements regarding two organizational and five individual responses. Organizational responses included: (1) "led to increased training within the program on de-escalating violent situations" and (2) "led to increased security measures within the program." Individual responses included: (1) "made you concerned for your personal safety," (2) "disrupted your ability to focus on performing your job," (3) "impacted the way in which you treat other clients," (4) "led you to request a transfer to another program or level of care," and (5) "led you to consider resigning your position at this program." A response of "4" was treated as a neutral response and a response higher than "4" was considered to indicate that the organizational or individual response had occurred.

2.3. Data Analyses

Data were analyzed using the Statistical Package for the Social Sciences (SPSS), version 21. We first computed descriptive statistics for each of the independent variables and conducted bivariate analyses to evaluate differences between the two samples. Chi-square analyses were performed on categorical variables and independent t-tests were performed on continuous variables. Next, we calculated estimates of counselors' exposure to each of the three categories of workplace violence by the type of exposure (personally experienced, directly witnessed, indirect knowledge) and compared counselors in the CTN and non-CTN

samples on these variables. We then calculated frequencies and means for each of the seven responses to workplace violence variables.

To model the influence of counselor socio-demographics, professional characteristics, and caseload variables on workplace violence we conducted three analyses, one for each dependent measure, resulting in three separate models. Multiple imputation was used to address missing values. Missing value analysis revealed that 43% of variables and 19% of cases had missing values while only 1% of total values were missing. Data were assumed to be missing at random based upon visual examination of missing value patterns and a non-significant value ($p > .05$) for Little's MCAR test (Little, 1998). Each missing value was replaced with five plausible values using the Markov Chain Monte Carlo method (Schaefer, 1997). Five imputed datasets were developed, merged, and analyzed. The dependent variables in these analyses were binary indicators (0 = no, 1 = yes) of counselors' direct experience of verbal assault, physical threat, and physical assault. Because there were multiple respondents from each treatment organization, we used generalized estimating equations (GEE) to correct for clustering of respondents. We chose to use GEE logistic models over random effects models because we were most interested in population-averaged effects, rather than individual subject-specific effects (Hu, Goldberg, Hedeker, Flay, & Pentz, 1998).

Dependent variables were regressed on the aforementioned 20 independent variables, controlling for the sample that they represented. To be considered a case of verbal assault or physical threat, the counselor had to be the target of the abuse. Because so few counselors ($n = 64$) in the sample directly experienced physical assault, running a model with 20 variables using direct experience of physical assault was not a viable option. We initially considered combining counselors who were physically assaulted with those who witnessed a colleague be assaulted, however, there were significant differences between these groups on four independent variables (tenure, 12-step philosophy, adolescents on caseload, and percentage of caseload that uses heroin). As such we considered a case to be those counselors who witnessed a physical assault on a colleague excluding those counselors ($n = 8$) who reported both witnessing and directly experiencing physical assault. Though this represents a different analysis than originally intended, an understanding of factors associated with witnessing physical assault is important in that witnesses of workplace violence are also at risk for negative outcomes. For example, emergency department personnel who witnessed workplace violence experienced symptoms of posttraumatic stress disorder at the same rate as those who directly experienced workplace violence (Alden, Regambal, & Laposa, 2008; Leblanc & Kelloway, 2002).

To provide a more meaningful interpretation of coefficients, certain variables (age, experience, tenure, size of caseload, and all caseload variables except adolescents) were re-scaled by a factor of ten (Babyak, 2009). For example a one-unit increase in tenure is equivalent to 10 years. Also to aid interpretation, odds ratios were calculated for significant variables in each model and reported in the results section; SPSS v21 does not provide this information in output for GEE analyses.

3. Results

Descriptive statistics for the independent variables by sample are presented in Table 1. Counselors' mean age was 45.57 (s.d. = 11.74). Slightly less than two-thirds were female (65%) or Caucasian (63%). Less than half (45%) had a Masters degree or higher or were personally in recovery (44%). The average length of experience was 9.47 years (s.d. = 7.60) and the mean tenure at their current program was 5.47 years (s.d. = 5.57). There were no statistically significant differences between the two samples on any socio-demographic variables. The mean score for 12-step philosophy was 12.54 (s.d. = 4.76) and 3.46 (s.d. = 1.73) for endorsement of a confrontational approach. More than three-quarters (78%) of the respondents had been trained in MI or MET. Statistically significant differences between the samples were found for all three of the treatment orientation variables. Counselors in the non-CTN sample had higher endorsements of a 12-step philosophy and a confrontational approach to treatment. Counselors in the CTN sample were more likely to be trained in MI or MET.

Counselors reported caseloads averaging 24.41 (s.d. = 20.8) patients. The majority of counselors (79%) had caseloads comprised solely of adult patients; the remainder (22%) had a mix of adults and adolescents on their caseloads. On average, counselors' caseloads were comprised of 37% (s.d. = 34.6) women; 21% had men-only caseloads and 13.7% had women-only caseloads. In terms of presenting problems, counselor caseloads were comprised, on average, of individuals who were dependent on alcohol (mean = 48%, s.d. = 33.8), marijuana (mean = 37%, s.d. = 32.1), cocaine (mean = 33%, s.d. = 28.9), heroin (mean = 20%, s.d. = 29.5), prescription opiates (mean = 14%, s.d. = 20.2), and/or methamphetamines (mean = 20%, s.d. = 27.8). In addition, caseloads averaged 42% (s.d. = 31.2) patients with co-occurring disorders. We found statistically significant differences between the CTN and non-CTN samples on all but two of the ten caseload-related variables. Counselors in the CTN sample reported larger caseloads overall, as well as caseloads having a lower percentage of patients dependent on alcohol, marijuana, and cocaine; and a higher percentage of patients dependent on heroin and prescription opiates. Counselors in the CTN sample were also less likely to report having adolescents on their caseload, and more individuals with co-occurring disorders. The samples were equivalent in terms of the percentage of caseloads with women.

Table 2 presents data on counselors' exposure to patient violence towards counselors by type of violence, type of exposure, and sample. A total of 1592 (84%) counselors in 393 (74%) different treatment organizations reported any experience of patient initiated violence. One half (51%) of counselors directly experienced verbal assault, 38% witnessed a colleague being verbally assaulted, and 39% had indirect knowledge of a colleague who was verbally assaulted. One-fifth (20%) of counselors experienced physical threats by a patient, 18% witnessed a colleague being physically threatened, and 38.1% had indirect knowledge of a colleague who was physically threatened by a patient. Few counselors were physically assaulted by a patient (3%) or witnessed a physical assault on a colleague (5%); though more than a quarter (27%) knew of a colleague who was physically assaulted by a patient. Combining all types of violence, more than half (53%) of counselors personally experienced any violence, 44% witnessed any violence, and 61% had knowledge of any violence directed

at a colleague. Statistically significant differences were found between the two samples on all but one of the 12 comparisons; the exception was personal experience of a physical threat. In each case the CTN sample demonstrated higher exposure to violence, whether it be verbal assault, physical threat, or physical assault.

Table 3 displays two organizational and five individual responses to workplace violence as reported any workplace violence. Of the 1592 counselors who reported any violence, 90% ($n = 1433$) completed these items and were included in the analyses presented in Table 3. The two organizational responses were the most frequently reported by counselors; 42% ($n = 603$) indicated that the organization increased training on de-escalation of violent situations and 32% ($n = 457$) reported that the organization increased security measures in response to patient violence towards staff. Because there were multiple respondents from each program, we must look at organizational level response. The 603 counselors reporting increased training represent 275 programs, thus 70% of organizations where patient violence had occurred increased training. Similarly, the 457 counselors that reported increased organizational safety measures represent 227 programs; as such 58% of organizations where patient violence had occurred increased safety measures. We found no statistically significant differences between the non-CTN and CTN samples on any of these variables.

The most frequently endorsed individual response to patient violence was increased concern for personal safety, reported by 29% ($n = 416$) of counselors, followed by “impacted the way in which you treat other clients” which was endorsed by 15% ($n = 217$) of counselors and “disrupted your ability to focus on performing your job” endorsed by 12% ($n = 169$) of counselors. The two remaining individual responses were infrequently reported. Only 6% ($n = 78$) of counselors reported that workplace violence led to consideration of resigning, and only 2% ($n = 30$) reported that workplace violence led them to request a transfer to another program or level of care.

Table 4 displays the results of the three GEE analyses. Verbal assault was significantly associated with seven variables: age, minority, tenure, recovery status, 12-step philosophy, training in MI/MET, and percentage of caseload with co-occurring disorders. Risk of verbal assault was increased for counselors who had longer tenure at the treatment program (OR = 1.53), were trained in MI/MET (OR = 1.31), and with higher percentage of clients with co-occurring disorders (OR = 1.04). Risk of verbal assault was reduced for counselors who were older (OR = 0.84), were minorities (OR = 0.59), in recovery (OR = 0.74), or had a higher endorsement of a 12-step philosophy (OR = 0.98). The risk of being physically threatened by a patient was higher for counselors who were male (OR = 1.60), had longer tenure at the treatment program (OR = 1.96), and had higher caseloads of clients with co-occurring disorders (OR = 1.06). Risk of being physically threatened was lower for counselors who were older (OR = 0.77), minority (OR = 0.76), or were in recovery (OR = 0.59). The risk of witnessing a physical assault was increased for counselors who were male (OR = 1.54) or were in the CTN sample (OR = 2.61). Risk of witnessing physical assault was reduced for older counselors (OR = 0.74).

4. Discussion

This is the first study to quantify the extent to which workplace violence occurs in SUD treatment settings on a national level. Given prior research in similar and related settings, (Baskin-Sommers & Sommers, 2006; Bye, 2007; Parker & Auerhahn, 1998; Crilly et al., 2004; Cunningham et al., 2003; Dack et al., 2013; Fernandez-Montalvo et al., 2012; Gillespie et al., 2010; May & Grubbs, 2002), it is not surprising that we found SUD treatment counselors to be at risk for workplace violence. We found that a large majority (84%) of counselors experienced some form of patient violence in their current work setting. More specifically, 51% of counselors experienced verbal assault, 20% experienced physical threats, and 3% experienced physical assault by a patient.

While these rates were lower than some studies of other healthcare workers such as emergency department personnel, nurses, and mental health workers, they were seemingly higher than the rates found by Lipscomb and colleagues (2012) in their study of counselors in residential SUD treatment programs in a single state. However, direct comparisons between these studies are not easily derived. One problem in comparing the two studies is differences in the measurement of violent acts. We used a dichotomous measure of violence occurrence (i.e., yes or no), while Lipscomb and colleagues used a 4-point Likert response option (never/very rarely, a few times a month, a few times a week, greater than once a day). As such, the rates reported by Lipscomb may underestimate the true incidence of workplace violence in that the “never” category also includes those with “very rare” occurrence of violence. A second problem in comparing the two studies is that different timeframes for reporting violence were utilized. We asked counselors to report violence that has occurred at anytime during their tenure, which could cover a number of years, while Lipscomb and colleagues confined their timeframe to the past year. Thus, the rates in the present study would be higher, even if the true rates were similar. To provide a more comparable, though not perfect, comparison between the two studies we calculated violence rates among only those counselors with tenure of one year or less. Among this sub-sample ($n = 409$), 39% experienced verbal assault, 12% experienced physical threat, and 2% experienced physical assault, rates that are also higher than those found by Lipscomb.

In addition to measurement issues, another potential explanation is that Lipscomb and colleagues' sample included only counselors in residential treatment programs. It may be that patients in residential facilities are less likely to demonstrate violence because the consequences of violent behavior may be more severe than consequences for patients in outpatient programs. For example, in both settings a common consequence of violence is discharge from the program, which for residential patients includes loss of housing and meals.

As noted previously, we found differences between the two samples in the percentage of counselors who experienced violence, with counselors in the CTN sample more likely to both personally experience and witness violence. To some degree, these differences are likely the result of differences in the two samples on risk factors. For example, after adjusting for sociodemographic, professional, and caseload characteristics, the difference between the samples on verbal assault was no longer significant. On the other hand,

counselors in the CTN sample were still more than twice as likely to witness physical assault even after adjustment. These differences may be a result of variables not measured in this study. For example, a study of assault rates in the Veterans Health Care Administration found that health care facilities with an academic affiliation had higher assault rates (Mohr, Warren, Hodgson, & Drummond, 2011). Given the mission of the CTN it is likely that a higher proportion of CTN programs were academically affiliated than in the non-CTN sample resulting in a higher likelihood of witnessing violence. In addition, there may be differences between the samples in the presence of violence prevention training and policies that may serve to prevent or reduce workplace violence.

The predictors of patient violence towards counselors found in this study were mostly related to counselor characteristics and generally consistent with previous research. Counselors' tenure at the current treatment program and age were predictors of all three forms of violence: verbal assault, physical threat, and witness of physical violence. Counselors who had longer tenure at the current program were more likely to experience patient violence, which is similar to results found with nurses (Campbell et al., 2011) and child protection workers (Shin, 2011). This is likely because the longer a counselor stays at a program, the more chance to experience patient violence in that program. Congruent with previous research (Cunningham et al., 2003; Flannery, Fishier, & Walker, 2000), younger counselors in this study were more likely to experience patient violence, although the lifetime incidence of violence will likely be higher for older workers, or those with more experience because the cumulative number of violent events will increase as each year passes. However, prior research suggests that during a defined time period (i.e., past 12 months) risk will be lower for older workers (Gillespie et al., 2010), which is also consistent with our results. Our finding that older counselors are less likely to experience patient violence is consistent with studies of workplace violence in other healthcare settings (Åström, Bucht, Eisemann, Norberg, & Saveman, 2002; Camerino, Estry-Behar, Conway, van Der Heijndend, & Hasselhorn, 2008; Hegney, Eley, Plank, Buikstra, & Parker, 2006). This seemingly consistent finding may reflect the increased life and professional experience that older counselors have accumulated (Åström, Bucht, Eisemann, Norberg, & Saveman, 2002). Due to their combined life and professional experience older workers may be better able to identify intensifying situations and take steps to de-escalate patients prior to violent behaviors occurring.

In addition to tenure and age, non-White counselors had a reduced risk of verbal assault and physical threat, consistent with Campbell et al.'s study (2011) that found White nurses were more likely to experience psychological and physical violence than Black nurses. This and Campbell's studies are the only two studies that found race/ethnicity of a worker to be a predictor for experiencing patient violence. Consequently, there needs to be more research examining race/ethnicity as a predictor for patient violence, with special attention to worker-patient racial dyads, either congruent or incongruent, and racial tension, which can lead to patient violence towards workers. Congruent with studies of other healthcare professionals (Campbell et al., 2011; Gillespie et al., 2010; Jayaratne, et al., 1996; Newhill, 1996; Ringstad, 2005), male counselors experienced higher rates of physical threats and witnessing physical violence. This relationship may be attributable to male workers being called on

more often to restrain patients or intervene in volatile situations (McKinnon & Cross, 2008). Alternatively, it may be that male workers are seen as more threatening to patients.

To date, no other study has included counselor recovery status as a predictor for patient violence. The current study illustrates that being in recovery reduced the likelihood for substance abuse counselors to experience verbal assault and physical threat from patients. Because of perceived shared experiences, patients may develop a bond with recovering counselors that they do not develop with non-recovering counselors that reduces the likelihood of that they would act violently toward recovering counselors. In addition, there are personality and attitude differences between recovering and non-recovering counselors (Culbreth, 2008) that may impact risk for patient violence. Future research should examine such factors. For example, perhaps counselors who have been patients in SUD treatment settings are better able to empathize with the frustrations of patients and therefore interact in a different manner.

In addition to these worker characteristics, counselor treatment orientation variables of 12-step philosophy and training in MI/MET were related to risk of verbal assault, which was lower for counselors who had a higher endorsement of a 12-step philosophy and higher for counselors trained in MI/MET. This result was not expected considering MI/MET's philosophy of engaging the patient and supporting the patient's self-reliance and independence (Miller & Rollnick, 2002), as opposed to 12-step's more doctrinaire philosophy of accepting a lack of control over addiction while placing faith in a higher power. In addition, this finding may be due to MI/MET encouraging patients to do what they think are in their best interests and make their own decisions regarding the treatment focus and goals (Miller & Rollnick, 2001), rather than doing what is traditional, which is the 12-step treatment that provides a clear step-by-step guideline of what they are supposed to do. Being entrusted with making decisions regarding their treatment, patients may feel discouraged or overwhelmed with the process or frustrated from lack of direction from counselors, which may contribute to verbally lashing out at counselors. However, the treatment orientations were not associated with threatened or actual physical violence, suggesting that perhaps MI/MET training permitted counselors to de-escalate after verbal assault. Thus, it may be that training in MI/MET provided counselors with the confidence and skills to engage clients who were agitated and thus increase risk of verbal assault, but those same MI/MET skills helped prevent escalation of verbal assault to threatened or actual physical assault. Another explanation may be that though counselors were trained in MI/MET they did not implement it with fidelity. Lastly, this finding may be due to reporting bias in that counselors trained in MI/MET may perceive and label verbal interactions with patients differently than counselors who were not trained in MI/MET. That is, counselors trained in MI/MET may view a particular interaction as an intense verbal disagreement while a counselor not trained in MI/MET may view the same interaction as verbal assault.

Finally, across the three models only one of the caseload characteristics predicted patient violence towards counselors. Counselors with higher caseloads of patients with co-occurring disorders had an increased risk of being verbally assaulted or physically threatened by a patient. This finding is congruent with research that demonstrates patient psychopathology

to be a consistent predictor of workplace violence (Crilly et al., 2004; Cunningham et al., 2003; Gillespie et al., 2010).

Some of the individual responses to patient violence were similar to those reported by Arthur et al. (2003) and Horejski et al. (1994): 6% reported considering resignation and 2% requested a transfer to another program or level of care. Though few counselors reported considering leaving the field, it must be noted that this may be an underestimation in that the cross-sectional design cannot capture those counselors who left the field in response to violence. In fact, this may account for the counterintuitive finding that older counselors were less likely to have experienced violence. Longitudinal research is needed to examine the role workplace violence plays in counselor turnover. In addition, 12% reported that their ability to focus on performing their job was disrupted and 29% were concerned for their personal safety while at work as the result of experiencing patient violence. These results are echoed by other research that showed lower work efficiency and reduced confidence on the job by workers who experienced workplace violence (Arnetz & Arnetz, 2001; May & Grubbs, 2002). This is a significant concern as clinicians who feel unsafe and lack confidence in their ability to manage violent patients may be less effective therapeutically and compromise quality patient care (May & Grubbs, 2002). Further, fearful staff may distance themselves from patients (Turnbull, 1999), harming the ability to establish and maintain an effective therapeutic relationship.

One noticeable result was organizational responses to patient violence. Most (70%) organizations where patient violence had occurred increased training on de-escalating violent situations and more than half (58%) increased safety measures. This represents a higher rate of organizational response to violence than is reported in studies of non-SUD treatment settings. For example, only 20% of mental health providers in Georgia reported improved training in safety techniques (Arthur et al., 2003) and few organizations took measures to increase worker safety following instances of workplace violence against nurses (May & Grubbs, 2002).

This study has several limitations. A cross-sectional survey design was used which asked respondents to recollect events over their entire employment at the treatment program, which for some respondents meant many years. Thus, accuracy of information may have been compromised for those with longer tenure. The cross-sectional design also precludes the investigation of causal mechanisms. Future studies should look at the impact of violence on counselors over time. Because of the purpose of the parent studies from which this data was derived, the sample included only counselors rather than all employees who have any client contact such as support staff, nursing and medical staff, and intake staff. Inclusion of these other employees in future studies will provide a fuller picture of the extent of patient-initiated violence in SUD treatment programs. In addition, the current study collected data on counselors' caseload characteristics, not perpetrator characteristics. Future research could examine perpetrator characteristics in order to develop a profile of high-risk patients. In addition, we did not collect data on frequency of violent events merely whether any violent events occurred. Thus a counselor who had one experience of violence in a 20-year tenure was equivalent to a counselor who had experienced six violent acts in one year. Future research should take a more nuanced approach to measuring counselors' experiences of

workplace violence. Along those lines, our use of a varied timeframe for recall of experiences of violence makes it difficult to provide direct comparisons to other studies, though there is no standard to which such studies subscribe. We suggest that future research should examine multiple timeframes, such as past year and during entire career.

In spite of these limitations, this study has several strengths. It is one of only two studies that have explored workplace violence in SUD treatment settings and the only one to use national samples. Using a large, national sample of SUD counselors acquired through multi-stage cluster sampling, this study adds important knowledge to the literature on workplace violence through its findings on the prevalence of workplace violence in SUD treatment settings and variables that are associated with counselors' exposure to workplace violence, as well as organizational and counselor responses to violence. Future studies are needed to further explore the impacts of workplace violence on counselors and effectiveness of counselor and organizational responses to violence in SUD treatment settings.

In summary, though few counselors in SUD treatment settings directly experience physical assault, most experience workplace violence in some form whether verbal assault, threats of violence, or witnessing violence directed at co-workers. The latter issue is important to consider in that prior research has demonstrated that witnessing threatening events can produce the same level of negative outcome as being the target of violent acts (Alden, et al., 2008; Leblanc & Kelloway, 2002). Witnessing workplace violence may raise concern among counselors that they themselves may face this type of violence in the future (Aytaç & Dursun, 2012). Counselor demographics and treatment orientation are associated with experiencing workplace violence, providing some insight regarding those counselors that may be at higher risk and suggestions for training and mentorship. For example, older counselors are less likely to experience any of the three forms of workplace violence, which may be attributed to their life and professional experiences dealing with conflict. Administrators may wish to implement mechanisms by which older workers mentor younger workers in conflict management with patients. Caseload characteristics, however, have little predictive value in the models examined here, suggesting that administrators should focus on counselor training rather than profiling patients. Our study design precluded the examination of organizational variables, future studies should examine whether such variables (i.e., residential treatment vs. outpatient treatment, hospital-based vs. free-standing centers, center size, non-profit vs. for-profit settings, policies, staff training, etc.) have an effect on workplace violence. We also found that overall, SUD treatment programs have responded with increased training and security measures following violent acts, though there is a sizable minority that has not done so. Further, we investigated organizational responses to violence, rather than preventive efforts. It is unclear from this data whether SUD treatment organizations are taking proactive efforts to prevent workplace violence. Given the widespread experience of workplace violence in SUD treatment settings, such proactive approaches certainly should be considered. In conclusion, workplace violence is clearly an affecting substance abuse counselor and is a topic deserving of additional research to examine the negative impact of such violence on counselor well-being, quality of treatment, and organizational effectiveness.

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Highlights

More than half (52.8%) of counselors personally experienced violence, 43.9% witnessed violence, and 61.2% had knowledge of violence directed at a colleague.

Counselors reported that exposure to violence led to an increased concern for personal safety (29.1%), impacted their treatment of patients (15.2%), and impaired job performance (11.8%).

In terms of organizational responses to patient violence, 70% of organizations increased training on de-escalation of violent situations and 57.8% increased security measures

Table 1
Comparison of non-CTN and CTN samples on demographic, treatment orientation, and caseload variables

	Non-CTN (n = 1094)		CTN (n = 796)		p
	n (%)	Mean (s.d.)	n (%)	Mean (s.d.)	
<i>Counselor Demographics</i>					
Age		45.5 (11.6)		45.7 (12.0)	.771
Female	713 (65.4)		506 (64.3)		.624
Minority	410 (37.7)		278 (35.9)		.436
Masters degree	470 (43.3)		368 (47.7)		.065
Experience		9.5 (7.4)		9.4 (7.9)	.773
Tenure		5.4 (5.5)		5.6 (5.7)	.379
In Recovery	490 (45.0)		336 (42.7)		.346
<i>Treatment Orientation</i>					
12-Step Philosophy		13.2 (4.7)		11.7 (4.7)	< .001
Confrontational		3.6 (1.7)		3.2 (1.8)	< .001
MI/MET Trained	785 (73.4)		652 (83.7)		< .001
<i>Caseload Characteristics</i>					
Size of Caseload		22.2 (19.9)		27.5 (21.6)	< .001
Adolescents	265 (24.2)		141 (17.7)		.001
% Women		36.0 (35.9)		37.7 (32.7)	.272
% Alcohol		52.8 (33.1)		41.5 (33.8)	< .001
% Marijuana		41.7 (32.6)		31.6 (30.5)	< .001
% Cocaine		34.5 (30.0)		31.1 (27.1)	.011
% Heroin		14.5 (23.7)		27.4 (34.5)	< .001
% Prescription Opiates		12.2 (19.0)		15.8 (21.6)	< .001
% Methamphetamine		20.2 (27.9)		18.6 (27.7)	.200
% Co-Occurring		39.6 (31.0)		44.5 (31.3)	.001

Table 2
Frequency of counselors' exposure to patient violence by type of violence and type of exposure (N = 1890)

	Personally Experienced		Witnessed		Indirect knowledge	
	Non-CTN	CTN	Non-CTN	CTN	Non-CTN	CTN
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Verbal Assault	525 (48.0)	364 (54.3)	364 (33.3)	351 (44.1)	403 (36.8)	335 (42.1)
		.008				.022
Physical Threat	203 (18.6)	165 (20.7)	160 (14.6)	176 (22.1)	391 (35.7)	329 (41.3)
		.240				.014
Physical Assault	28 (2.6)	36 (4.5)	33 (3.0)	60 (7.5)	267 (24.4)	240 (30.2)
		.028				.006
Any Violence	547 (50.0)	451 (56.7)	419 (38.3)	410 (51.5)	633 (57.9)	524 (65.8)
		.004				< .001

NOTE: Individuals may have experienced more than one type of violence, thus they may be reflected in more than one column.

Table 3
Counselor reports of organizational and individual responses to workplace violence (n = 1430)

	Not at all accurate			Neutral			Very accurate		Mean (s.d.)
	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)	6 n (%)	7 n (%)		
Led to increased training within the program on de-escalating violent situations	380 (26.3)	165 (11.4)	110 (7.6)	185 (12.8)	214 (14.8)	161 (11.2)	228 (15.8)	3.75 (2.21)	
Led to increased security measures within the program	488 (34.1)	197 (13.8)	128 (8.9)	162 (11.3)	170 (11.9)	145 (10.1)	142 (9.9)	3.23 (2.13)	
Made you concerned for your personal safety while at work	462 (32.3)	221 (15.4)	145 (10.1)	187 (13.1)	152 (10.6)	130 (9.1)	134 (9.4)	3.19 (2.07)	
Disrupted your ability to focus on performing your job	719 (50.3)	298 (20.8)	128 (9.0)	116 (8.1)	87 (6.1)	53 (3.7)	29 (2.0)	2.18 (1.59)	
Impacted the way in which you treat other clients	690 (48.3)	258 (18.0)	139 (9.7)	126 (8.8)	104 (7.3)	66 (4.6)	47 (3.3)	2.36 (1.74)	
Led you to request a transfer to another program or level of care	1251 (87.3)	96 (6.7)	27 (1.9)	29 (2.0)	12 (0.8)	8 (0.6)	10 (0.7)	1.27 (0.88)	
Led you to consider resigning your position at this program	1176 (82.2)	96 (6.7)	38 (2.7)	42 (2.9)	21 (1.5)	29 (2.0)	28 (2.0)	1.49 (1.28)	

NOTE: There were no significant differences between the non-CTN and CTN samples.

Table. 4
Predictors of counselors' experience of patient violence (n = 1890)

	<u>Direct Verbal Assault</u>		<u>Direct Physical Threat</u>		<u>Witnessed Physical Assault</u>	
	Beta (SE)	p	Beta (SE)	p	Beta (SE)	p
Counselor Variables						
Age ^a	-.179 (.052)	.001	-.261 (.069)	< .001	-.307 (.117)	.009
Male	.081 (.099)	.413	.467 (.144)	.001	.432 (.210)	.040
Minority	-.532 (.109)	< .001	-.281 (.135)	.037	-.155 (.244)	.525
Masters degree	-.120 (.118)	.309	-.100 (.149)	.502	-.201 (.244)	.409
Experience ^a	.038 (.093)	.679	-.038 (.111)	.731	.409 (.212)	.053
Tenure ^a	.427 (.112)	< .001	.673 (.145)	< .001	.319 (.227)	.160
In Recovery	-.307 (.111)	.006	-.538 (.151)	< .001	-.373 (.270)	.166
Treatment Orientation						
12-Step Philosophy	-.021 (.010)	.035	.010 (.014)	.497	.052 (.027)	.050
Confrontational	.031 (.029)	.281	-.011 (.041)	.782	-.079 (.075)	.290
MI/MET Trained	.269 (.112)	.016	.087 (.154)	.572	-.087 (.287)	.763
Caseload Variables						
Size of Caseload ^a	.016 (.023)	.488	.014 (.029)	.628	-.021 (.072)	.768
Adolescents	-.158 (.136)	.243	-.108 (.174)	.535	-.302 (.322)	.349
% Women ^a	.009 (.016)	.560	.021 (.021)	.322	-.002 (.032)	.945
% Alcohol ^a	-.016 (.016)	.330	.006 (.022)	.777	-.042 (.039)	.274
% Marijuana ^a	-.010 (.017)	.545	-.033 (.024)	.157	.038 (.044)	.388
% Cocaine ^a	-.015 (.020)	.443	-.026 (.027)	.327	.021 (.046)	.654
% Heroin ^a	.011 (.018)	.561	-.005 (.023)	.838	.027 (.042)	.516
% Rx Opiates ^a	-.003 (.024)	.893	.009 (.033)	.778	-.068 (.071)	.334
% Methamphetamine ^a	-.003 (.019)	.863	-.028 (.023)	.221	-.051 (.049)	.293
% Co-Occurring ^a	.043 (.017)	.012	.054 (.021)	.011	.048 (.035)	.176
Control Variables <i>Sample</i> ^b	-.127 (.109)	.243	.075 (.146)	.610	.960 (.274)	<.001

^aUnits are scaled to 10.

^bThe reference group is the non-CTN sample.

^cp-value = 0.049883.