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Sub-Clinical Trauma in the Treatment of Partner Violent Offenders with Substance Dependence

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Abstract

Purpose—With an established association between PTSD and the perpetration of intimate partner violence, evaluating the effectiveness of emerging integrated treatments for dual substance use and partner violent behavior on individuals with a significant trauma history may serve to improve treatment outcomes for clients with axis I psychopathology. This paper examined the association between sub-clinical trauma, treatment compliance, and recidivism in a sample of male, substance dependent intimate partner violence offenders.

Design/methodology/approach—The described investigation utilized violence perpetration, substance use, and trauma data collected during a larger, randomized control treatment evaluation study. Data was collected from 56 participants at 4 time points throughout treatment.

Findings—Participants with a significant trauma history comprised 33.9% of the sample and demonstrated poorer treatment attendance, as well as heightened partner violence recidivism throughout treatment, as compared to participants who denied experiencing a significant trauma. This finding held across participants receiving substance treatment only and combined treatment addressing substance use and violence.

Practical Implications—IPV perpetrators often have a trauma history themselves. The association between sub-clinical trauma symptomatology and poor treatment outcomes calls for the adaptation of current partner violence intervention models to accommodate the large subset of clients who suffer from either sub-clinical or clinically significant trauma.

Originality/value—This paper is the first to address the potential influence of sub-clinical trauma on the integrated treatment of substance use and partner violence within a forensic sample.

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Suggestions are offered to adapt existing treatment models to accommodate dual diagnosed clients.

Keywords

Dual diagnosis; trauma; PTSD; substance use; partner violence; integrated treatment

An estimated 20% of males in relationships perpetrate some form of intimate partner violence (IPV) each year, resulting in significant financial, legal, and psychological consequences (Schafer et al., 1998). Current treatments have proven ineffective at reducing recidivism among male IPV offenders (Babcock et al., 2004). Innovative interventions have been introduced to integrate treatment for IPV and often co-occurring substance use disorders (Easton et al., 2007; O'Farrell and Fals-Stewart, 2000). While these treatments demonstrate improved outcomes over programs that address IPV and substance use independently, none have further accounted for psychopathology in dually diagnosed clients (for a review of IPV risk factors, see Stith, Smith, Penn, Ward, and Tritt, 2004). The present study examines discrepancies in treatment outcomes among substance dependent, male IPV offenders with and without a self-reported trauma history.

Easton (2012) recently published the results of an investigation examining differences in treatment outcome and behavior among 63 substance dependent, male, IPV offenders with (23%) and without (77%) previous psychiatric treatment for co-occurring mental health symptoms. Easton (2012) concluded that clients enrolled in integrated substance abuse/domestic violence (SADV) or drug counseling treatments who had previous mental health treatment were more aggressive, more likely to use alcohol and drugs, and more impaired in anger control than clients without a prior mental health treatment history. The author offered the recommendation that future treatment models attempt to assess and focus treatment on co-occurring mental health concerns in general, but stopped short of addressing the need for specific trauma focused therapy in the SADV population. The high prevalence of IPV perpetration among clients diagnosed with childhood and combat-related post-traumatic stress disorder (PTSD) in substance dependent IPV offenders warrants further examination of this specific co-occurring mental health disorder (Bell & Orcutt, 2009).

The relationship between IPV and trauma has been observed across populations. Most investigations have utilized military samples and found that veterans who experienced trauma perpetrated IPV at greater rates than non-traumatized veterans (Orcutt et al., 2003; Taft et al., 2007). Taft and colleagues (2008) examined both distal (occurring in the past) and proximal (recently occurring) trauma, as well as IPV, using the reports of 164 couples in a community sample. Trauma experiences in both childhood and adulthood increased the likelihood of experiencing PTSD symptoms and PTSD symptoms were positively associated with physical IPV perpetration. Most relevant to the current investigation, the relationship between IPV and trauma has been researched to a lesser degree within forensic samples. Wang and colleagues (2008) collected self-report data from 492 male IPV offenders mandated to attend a domestic violence assessment. Wang and colleagues found that witnessing parental violence in childhood predicted IPV perpetration in generally violent

and exclusively family violent offenders, even after controlling for substance use and victimization.

In a recent commentary, Bell and Orcutt (2009) reviewed the evidence linking PTSD to IPV and concluded that current findings warranted further integration of trauma treatment in IPV interventions. They contextualized the link between IPV and trauma with the model advanced by Chemtob and colleagues (1997). Briefly, this model suggests that men with a significant trauma history may experience hypervigilance to perceive greater potential threats both in the stability of an intimate partnership and toward self-image than men without a trauma history. The perception of a threat would naturally trigger schema associated with anger and aggressive responding while concurrently limiting the ability to conceptualize non-violent, prosocial conflict resolution techniques (for a detailed review, see Bell and Orcutt, 2009).

The relationships between substance use and both IPV and PTSD are substantial. The consumption of alcohol and illicit drugs is associated with increased aggressive responding in intimate partnerships, as evidenced by both epidemiological and experimental designs (Echhardt, 2007; Leonard, 2005; Chermack and Blow, 2002). The overlap between IPV and problematic substance use is approximately 50% in both batterer intervention programs as well as substance use treatment programs (e.g., Chermack et al., 2000; O'Farrell and Murphy, 1995). The IPV-substance use association has been most thoroughly explored within the alcohol literature, which offers several explanatory theories. The most well supported is the proximal effects theory, which states that the psychopharmacological properties of alcohol have direct and proximal effects that result in decreased inhibition, maladaptive social information processing, and deficits in executive functioning (Giancola, 2000).

The prevalence of substance use disorders among PTSD clients is comparable in community samples and even greater, reaching up to 75%, in veteran samples (e.g., Jacobsen et al., 2001). PTSD is often thought to be causally linked to substance use through the self-medication hypothesis, which theorizes that substance abuse begins as an attempt to reduce the negative thoughts, feelings, or behaviors that result from specific trauma symptoms, and is sustained by negative reinforcement as continued use is required to prevent the symptoms of withdrawal (Chilcoat and Breslau, 1998). The self-medication model is controversial, but it has received support from longitudinal investigations (Shipherd et al., 2005).

The Current Study

The present investigation represents an extension of Easton's (2012) paper, which examined mental health disorders as a whole, by exploring the influence of a subclinical trauma history on treatment outcomes among a sample of substance dependent male IPV offenders mandated to complete outpatient psychotherapy. We hypothesized that (1) participants reporting no trauma, relative to those reporting trauma, would evidence greater treatment success as indicated by increased session attendance and decreased recidivism over the treatment period. We further hypothesized that (2) violent intimate partner behavior would

remain elevated in the trauma group across treatment, as neither the experimental nor the treatment-as-usual (TAU) protocol directly addressed co-occurring psychopathology.

Method

Sample

Eligible participants were arrested for partner violence in the past year and were substance dependent at the time of the offense. Clients who were suicidal, homicidal, or met full criteria for PTSD and/or other serious mental health diagnoses were excluded and referred to a higher level of care. Of the 77 male offenders who volunteered to participate in the current study, a final sample of 56 completed all study materials and were included in the current analysis. Clients who endorsed sub-clinical levels of distress related to one or more traumatic event were retained ($n = 19$) as were participants who denied previous trauma ($n = 37$).

Participants were, on average, 39.04 years old ($SD = 8.81$) and most had graduated from high school or received additional post-secondary training (80.4%). The majority of clients were employed full time (73.2%) while comparatively few were under-employed (10.7%) or unemployed (14.3%). Participants self-identified as Caucasian (51.8%), African American (32.1%) or Hispanic (14.3%). The primary drug of choice was alcohol, with all participants reporting use and 16 (28.6%) meeting criteria for an alcohol use disorder, including abuse or dependence. Illicit drugs were less prevalent with 14 (25.0%) meeting criteria for a marijuana use disorder, and 10 (17.9%) diagnosed with a cocaine use disorder.

Measures

CTS2—Participants completed the Revised Conflict Tactics Scale (CTS2; Straus et al., 1996) to quantify the occurrence of IPV perpetration at baseline and on 3 subsequent occasions after each month of treatment. The 78-item, Likert measure is widely used in IPV research and assesses physical, psychological, and sexual aggression as well as injury and negotiation. Items are divided evenly between IPV perpetration and experience. Only the perpetration item set was used in the current investigation.

Trauma—The Structured Clinical Interview for DSM-IV (SCID; First et al., 2002) was administered by trained clinicians to detect the experience of significant traumatic events in each participant's past. Males who endorsed having experienced a traumatic event, as described by the DSM-IV TR (American Psychiatric Association, 2000), were asked to endorse or deny the presence of each symptom that composes the criteria for a PTSD diagnosis. Participants who reported having experienced a significant traumatic event and endorsed at least one re-experiencing, avoidant, or hyperarousal symptom were compose the trauma group. Participants who denied a trauma history or reported a trauma history without any PTSD symptoms were classified into the no trauma group. None of the participants in the sample met criteria for a diagnosis of PTSD.

Substance Use—Standard quantity and frequency scales were adapted using the *Timeline Follow-Back* interview method (TLFB; Miller and DelBoca, 1994; Sobell and Sobell, 1992)

to quantify the use of alcohol and drugs throughout the assessment period. Scores were calculated for the number of days on which the participant consumed alcohol and drugs over the treatment period.

Procedure

The current study was approved by the Yale University School of Medicine Human Investigation Committee (HIC). Participants were post-adjudicated offenders who were court mandated to complete treatment at an outpatient diversion clinic associated with Yale University. All eligible offenders were extended the opportunity to participate in the larger study designed to evaluate the efficacy of an integrated CBT treatment for joint substance use and domestic violence. Participants who consented were randomly assigned to either the SADV or treatment as usual (TAU) group. Both groups received a course of 12 individual, 60-minute psychotherapy sessions delivered at weekly increments. The contents of the SADV and TAU treatments were previously described using a different sample group (Easton et al., 2007). Briefly, manualized SADV was designed to address co-occurring substance use and domestic violence through structured sessions involving 20 minutes of review, 20 minutes of skills acquisition and 20 minutes of skills practice in the areas of 1) interrelationships between substance use and aggression, 2) identification of high-risk situations and coping skills to resolve risk, 3) mood management, and 4) effective, non-violent interpersonal communication. TAU was an adapted twelve-step-facilitation intervention divided into modules addressing 1) substance use psychoeducation, 2) managing the recovery process, 3) relapse prevention, and 4) reestablishing interpersonal relationships effected by substance use. Participants completed baseline demographic questionnaires and responded to the CTS2 after each month of treatment. Treatment compliance, recorded as attendance versus no attendance for weekly sessions, was recorded by the counselors.

Results

Data Analytic Plan

Chi square analyses and t-tests were used to detect differences between trauma groups on demographic, substance use, and legal characteristics (See Table). All analyses examined group differences between the trauma group whose participants reported at least one PTSD symptom and the non-traumatized group whose participants denied all PTSD symptoms. Repeated measures analysis was applied to CTS2 data to map IPV onto change over time, treatment condition, and trauma history.

Treatment Type

Analyses revealed few group demographic differences. SADV clients ($n = 25$) failed to differ from TAU clients ($n = 31$) in age, $t(54) = 0.37, p = .72$, employment, $\chi^2(2) = 0.50, p = .78$, educational background $\chi^2(1) = 0.20, p = .65$, ethnicity, $\chi^2(2) = 0.14, p = .93$, marital status, $\chi^2(1) = 0.48, p = .49$, or the number of days alcohol was consumed during the treatment period, $t(36) = 0.70, p = .49$. Participants in the trauma and no trauma groups were also similar in terms of age, $t(54) = 0.18, p = .86$, employment, $\chi^2(2) = .96, p = .62$, educational background, $\chi^2(1) = .16, p = .48$, ethnicity, $\chi^2(2) = .34, p = .84$, marital status

$\chi^2(1) = 1.43, p = .23$, and the number of days alcohol was consumed during the treatment period, $t(36) = .53, p = .60$. The trauma group did, however, report significantly more prior arrests than the no trauma group, $t(53) = 2.24, p = .03$.

Treatment Compliance and Violent Recidivism

Irrespective of treatment group (SADV or TAU), participants reporting no trauma demonstrated more positive treatment outcomes than the trauma group. First, the trauma group attended fewer treatment sessions compared to the no trauma group, $t(54) = -2.48, p = .02 (d=0.70)$. Second, the trauma group reported marginally more days of IPV perpetration than the no trauma group, $t(40) = 1.88, p = .07 (d=0.62)$. Thus, the first hypothesis was supported as the trauma group responded less favorably to treatment based upon both objective indicators of success.

Change in IPV

Repeated measures analysis predicting IPV perpetration at each of the four assessment points revealed main effects for both trauma history, $F(1, 36) = 4.76, p = .04$, and time in treatment, $F(1, 36) = 5.36, p = .03$, with greater IPV perpetration among the trauma group and earlier in treatment. The main effect of treatment group was not significant in the current sub-sample, $F(1, 36) = .32, p = 0.56$.

The time-trauma interaction effect approached, yet failed to reach, significance, $F(1, 36) = 2.96, p = .09$. Analyses revealed non-significant interactions between time and treatment group, $F(1, 36) = 1.86, p = .18$, as well as trauma and treatment group, $F(1, 36) = 2.66, p = .11$.

Follow-up analyses were conducted to examine trauma history group differences at each of the four assessment periods. Trauma participants reported greater IPV perpetration than participants without trauma at each time point throughout treatment, including the baseline assessment, $t(52) = 1.96, p = .06 (d = .57)$, 1 month, $t(50) = 1.94, p = .06 (d = .58)$, 2 months, $t(43) = 1.16, p = .25 (d = .37)$, and 3 months, $t(44) = 2.59, p = .01 (d = .83)$ into treatment. While the no trauma group marginally decreased aggression from pre to post treatment, $t(30) = 1.94, p = .06 (d = .39)$, the trauma group did not, $t(13) = 1.55, p = .15 (d = .30)$. The results offered partial support for our second hypothesis, as the trauma group demonstrated consistently more IPV across treatment and failed to significantly reduce violent behavior from pre-to-post treatment.

Discussion

The present study evaluated the influence of trauma symptoms related to a significant trauma history, as defined by the DSM, on treatment compliance and recidivism at four separate time points in a sample of substance abusing male IPV offenders who had been randomly assigned to receive either an integrated SADV treatment or a standard drug counseling treatment. The results indicated that demographic variables and substance use were consistent across trauma groups. The trauma group, in general, had worse treatment outcomes in terms of session attendance and the frequency of IPV perpetration over the three month treatment period, as compared to the group that denied any trauma history. The

repeated measures analysis revealed that IPV decreased over treatment, but follow up analyses found that decreases only occurred in the group without a trauma history and that IPV was elevated in the trauma group, compared to the no trauma group, at each of the four assessment periods.

The levels of alcohol and drug use were lower than expected in the current sample and interestingly, trauma history was unrelated to the frequency of substance use throughout treatment, despite consistent research describing an association between PTSD and increased substance use, which is often explained by the aforementioned self-medication hypothesis (Chilcoat and Breslau, 1998). The participants in the current investigation endorsed sub-clinical levels of trauma symptoms. It is possible that the reported sub-clinical symptoms may interfere with interpersonal behavior and treatment compliance while not prompting the urge to self-medicate. The use of self-report data may also have been partially responsible for lower-than-expected rates of substance abuse and dependence.

Nevertheless, participants who reported a previous traumatic experience had lower treatment engagement and recidivated in greater numbers than participants without a trauma history. A number of factors may explain the association between traumatic experiences and low treatment compliance. As previously mentioned, PTSD and trauma are positively associated with substance use; substance use is similarly associated with both IPV as well as failure to meet obligations in everyday life (Jacobsen et al., 2001). Alternatively, traumatized clients have demonstrated a high level of mistrust toward treatment providers, resulting in poor therapeutic rapport and associated treatment outcomes (Zaslov, 1994).

Increasing evidence suggests that an examination of the symptom clusters of PTSD (i.e., hyperarousal, re-experiencing, avoidance) may provide a more comprehensive understanding of the relationship between trauma and aggression. Hyperarousal represents a specific trauma symptom that has been directly associated with IPV perpetration (Taft et al., 2007). As reported by Bell and Orcutt (2009), the immediate consequences of hyperarousal include increased physiological activation, sleep difficulty, and irritability, which increase the likelihood of aggressive responding to provocation, and may partially account for the increased frequency of partner violence observed during treatment in the current study. Symptoms clusters, particularly hyperarousal, should be assessed and addressed during intervention using standard relaxation and cognitive restructuring techniques as well as medication as warranted.

Findings from the current sample of offenders were limited in that participants with psychopathology reaching clinical levels had been excluded because of acuity. It is expected that the trauma present in unadulterated partner violence and substance abuse treatment samples exceeds current levels and includes a great many clients who meet criteria for PTSD, as substantiated by epidemiological reports (Jacobsen et al., 2001). The present findings suggest the need to integrate a trauma-focused component into SADV treatment, but the need is likely much greater within the wider treatment community.

There are a variety of effective approaches for the treatment of co-occurring trauma symptoms and either IPV or substance use. Both PTSD diagnoses and IPV perpetration are

associated with low levels of readiness to change problematic behavior (e.g. Murphy and Eckhardt, 2005; Murphy et al., 2002). Carrilla and Zarza (2008) suggested that treatment of culturally traumatized Latino IPV offenders should focus upon a motivational model within a general CBT framework. Motivational enhancement in trauma-based treatments have been found to help patients progress through the stages of change and facilitates rapport with clinicians (Prochaska and DiClemente, 1983; Miller and Rollnick, 1991). Benish and colleagues (2008) produced the most recent meta-analytic review of 17 studies that directly compared the outcomes of two or more empirically supported PTSD treatments to conclude that all approaches, including hypnotherapy, trauma desensitization, psychodynamic techniques, exposure, stress inoculation, cognitive processing, and eye movement desensitization reprocessing, were equally effective at reducing symptoms. Pharmacological interventions have also proven effective for some clients (Steckler and Risbrough, 2011).

Ample research supports the conclusion that IPV perpetration significantly reduces with substance abuse treatment alone (Stuart et al., 2009). Reductions may be the result of treatment effects and/or a consequence of being connected to a treatment provider. Reductions may also be the result of legal monitoring, which has proven almost as effective at reducing partner violence as attending a treatment program, in the short term (Babcock et al., 2003). Future research should consider the possibility that participation in trauma-focused psychotherapy alone may positively impact substance use, aggressive behavior, or both. This approach may be most practical as a preventative treatment modality, instituted for at-risk individuals in advance of legal involvement. With the inception of special veteran courts, however, the treatment of IPV offending through PTSD-focused diversionary treatment may soon be a reality (Russell, 2009).

This initial, exploratory study of the relationship between sub-clinical trauma and treatment outcomes for substance dependent IPV offenders utilized secondary analyses and possesses some *limitations*. Although we were interested in sub-clinical trauma as the more prevalent or normative occurrence in our population of interest, the exclusion of clients with PTSD, by design, limited the generalizability of our findings. The small sample size available for analysis may have further diminished our ability to reach significance with the advanced hypotheses. Finally, we cannot dismiss the possibility that participant responding may have influenced the observed relationships such that participants may have falsely denied trauma symptoms, despite having experienced distress, due to a lack of therapeutic trust, fear of legal repercussions, or general trauma coping strategies. Efforts were taken to minimize each of these influences. Clinicians were trained to approach the discussion of trauma symptoms compassionately and toward the end of the session. Participants were assured that a trauma history would not extend their treatment obligation. We further suspect that defensive participants who withheld a trauma history may have also withheld reports of partner violence, artificially reducing the magnitude of the relationship between sub-clinical trauma and IPV.

In conclusion, exposure to one or more traumatic event is predictive of both treatment dropout and recidivism. Clients who did not report a history of trauma reported reductions in IPV perpetration over the course of treatment, but clients reporting trauma did not report a similar pattern of prosocial behavior change. The current results suggest that trauma

experience may represent a significant impediment to achieving the goals of treatment, possibly accounting for a degree of the noted failure of intervention programs to change behavior (Babcock et al., 2004) and warranting further evaluation as a significant individual differences variable in IPV and substance abuse treatment planning. We recommend that future investigations examine the prevalence of clinically significant PTSD and additional axis I disorders within SADV offenders to determine which populations may be at greatest risk for treatment attrition and recidivism in an effort to maximize effects by adjusting treatment options accordingly. It would also be beneficial to conduct an investigation into the proximal co-occurrence and reduction of specific PTSD symptoms with joint IPV and substance abusing offenders using an experience sampling methodology throughout treatment.

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Table

Demographic Data by Trauma History.

	Trauma (<i>n</i> = 19)	No Trauma (<i>n</i> = 37)		
	Mean(<i>SD</i>) or <i>n</i>(%)	Mean (<i>SD</i>) or <i>n</i>(%)	<i>t</i> or χ^2	<i>p</i>
Demographic				
Age Mean (SD)	38.74 (8.66)	39.19 (9.00)	−0.18	.86
Education	12.13 (1.84)	12.24 (1.82)	−0.20	.84
Prior Arrests	6.05 (10.57)	1.89 (2.75)	2.24	.03
Hours/Day with Partner	3.87 (2.99)	3.16 (3.01)	0.72	.48
Minority <i>n</i> (%)	9 (47.37)	20 (54.05)	0.33	.56
Full Employment	14 (73.68)	27 (72.97)	0.01	.92
IPV Mean (SD)				
Pretreatment	3.78 (7.13)	1.19 (2.52)	1.96	.06
1 st Month	3.71 (6.72)	1.11 (2.96)	1.94	.06
2 nd Month	3.13 (4.85)	1.40 (4.64)	1.16	.25
3 rd Month	2.07 (3.12)	0.41 (1.23)	2.59	.01
Treatment Mean (SD)				
Alcohol Use	11.54 (9.96)	14.36 (17.62)	−0.53	.60
Drug Use	9.85 (23.49)	3.84 (8.26)	1.16	.25
Session Attendance	7.05 (3.66)	9.05 (2.36)	−2.48	.02

Note: IPV = Intimate Partner Violence.