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## Short communication

# Domestic violence in women with PTSD and substance abuse

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## Abstract

This study reports rates of domestic violence for women with posttraumatic stress disorder (PTSD) and substance dependence. The Conflict Tactics Scale-Revised (CTS2) was used to assess the rates of both physical and psychological aggression, lifetime and current, by self and partner. Results showed substantial rates, both lifetime and current by both partner and self and, for a substantial number in the sample, for multiple events within the past year. Consistent with prior studies, analyses indicated that the correlation between self and partner negative relationship behaviors was high. A significant association was found between past-month substance use and increased self and partner negative relationship behaviors. The complex dynamics of women as both recipients and enactors of negative relationship behaviors are discussed.

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## 1. Introduction

Among women with substance use disorder (SUD), 30–59% have posttraumatic stress disorder (PTSD), typically from childhood physical or sexual abuse (Najavits, Weiss, & Shaw, 1997). It would thus appear important to evaluate whether such women have issues of domestic violence. Studies have shown linkages, for example, between domestic violence and both

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PTSD and SUD (Jones, Hughes, & Unterstaller, 2001; Stewart & Israeli, 2002). Yet the study of dual diagnosis and domestic violence remains in “its infancy” (Stewart & Israeli, 2002, p. 111).

In this paper, we address behaviors both by partner and by self, per the Conflict Tactics Scale-Revised (CTS2; Straus, Hamby, Boney McCoy, & Sugarman, 1996). No empirical study on this population has yet addressed both types of behaviors. As part of a larger study, women with current PTSD and substance dependence (SD) completed the CTS2, a widely used measure of domestic violence. The measure assesses negative and positive relationship behaviors, physical and psychological, current and lifetime, by self and by intimate partner. We address four questions: (1) What is the lifetime rate of CTS2 relationship behaviors? (2) How frequent and chronic in the past year are the CTS2 relationship behaviors? (3) What is the level of severity for past-year relationship behaviors? (4) Is there a relationship between the amounts of domestic violence, substance use, and trauma?

## 2. Method

The sample consisted of 58 women who completed the CTS2 at entry into a psychotherapy outcome study on outpatient women with current PTSD and SD, as assessed by the *Structured Clinical Interview for DSM-IV* (SCID; Spitzer, Williams, & Gibbon, 1997). Domestic violence was not an entry criterion. Exclusion criteria were a history of psychotic disorder or mania, organic mental disorder, being mandated to treatment, or any characteristic that would interfere with assessment (e.g., mental retardation or homelessness). Participants were recruited via ads and fliers.

The key measure, the CTS2 (Straus et al., 1996), has 78 items on self-reported domestic violence behaviors with a romantic partner. The participant rates her own behavior and her partner’s, for example, “I slammed my partner against a wall” and “My partner did this to me.” Of the measure’s five subscales, four are negative (psychological aggression, physical assault, sexual coercion, and injury) and one is positive (negotiation). The measure has strong psychometric properties (Straus et al., 1996). It addresses both lifetime (“ever”) and past year (“current”) behaviors. Frequency and chronicity were also assessed for current behaviors. The former is the total number of events across the sample, and the latter is the total number of incidents for anyone with one or more incidents. These terms are per Straus et al. (1996); however, note that chronicity does not address the pacing of behaviors over time, but just their number. Scaling for the past year is 1 = once, 2 = twice, 3 = 3–5 times, 4 = 6–10 times, 5 = 11–20 times, 6 = more than 20 times, 7 = not in the past year, but it did happen before, and 0 = this has never happened. Frequency/chronicity scoring is as follows: 1 = once, 2 = twice, 4 = 4–5 times, 8 = 6–10 times, 15 = 11–20 times, and 25 = more than 20 times. Data analysis of the CTS2 includes descriptive statistics per subscale, the Mantel–Haenszel test to compare self versus partner prevalence rates (which were dichotomous), and paired-samples *t* tests to compare self versus partner frequency and chronicity rates (which were continuous). In addition, two-tailed Pearson correlations were used for the overall association between the total number of self and partner behaviors and the relation of these to the amount of substance use in the past month and the number of lifetime traumas. We do not address the issue of Type 1

error, as this is an exploratory study, but have limited our analyses to subscales to reduce its likelihood. Description of the sample is from the intake addiction severity index (ASI; McLellan, Luborsky, Cacciola, Griffith, & Evans, 1985), trauma history questionnaire (THQ; Green, 1996), and *SCID* (*DSM-IV*). In addition, from the ASI, the number of days of substance use in the prior month was obtained for alcohol, heroin, cocaine, hallucinogens, inhalants, methadone, opiates, barbiturates, sedatives, amphetamines, and cannabis (omitting days taken as prescribed). Because the “number of days in the past 30” is asked for each substance type but not across substances, it cannot be determined whether participants used multiple substances on the same day and, thus, the “total” can equal more than 30 days. From the THQ, lifetime trauma history was also obtained. The THQ has 23 items in three categories: crime-related, general disaster and trauma, and unwanted physical and sexual experiences. Items are rated for lifetime (yes or no), frequency (0 = never, 1 = once, 2 = 2–10 times, 3 = 10–20 times, 4 = 20 or more times, 5 = too many times to remember, or 6 = cannot remember how many times), and age of event. For the average number of traumas, the frequency data were recorded as 0 = 0, 1 = 1, 2 = 6, 3 = 15, 4 = 23, 5 = 25, or 6 = 5. The THQ does not address whether traumas were domestic violence.

### 3. Results

#### 3.1. Description of the sample

Race was 69% White, 19% African-American, 8.6% Hispanic, 1.7% Native American, and 1.7% multiethnic. The mean age at intake was 38.17 (S.D. = 8.56). Most (43.1%) were never married, 29.3% were divorced, 19% were married, 5.2% were separated, and 3.4% were widowed. Most (65.5%) were employed, 20.7% were unemployed, 8.6% were students, and 5.2% were retired or on disability. On the THQ, participants reported an average of 4.84 general disaster traumas (S.D. = 2.53), 3.50 physical/sexual traumas (S.D. = 1.76), and 1.75 crime traumas (S.D. = 1.24). Average age at first trauma was 8.66 (S.D. = 6.34), and average total traumas was 5.70 (S.D. = 3.27). With multiple diagnoses possible, rates of current SD were 69% alcohol, 46.6% cocaine, 22.4% cannabis, 13.8% opioid, 12.1% sedative-hypnotic, 12.1% amphetamine, 3.4% polysubstance, and 3.4% other. The “total” number of days across the 11 substance types in the prior month (see Method) was 23.00 (S.D. = 17.59).

#### 3.2. What are the lifetime and past-year prevalence rates for CTS2 subscales?

The number and percentage of the sample, per subscale, who experienced at least one event within each subscale are provided in **Table 1** (lifetime) and **Table 2** (past year). It is evident that a substantial proportion reported negative behaviors both by self and partner, lifetime and in the past year. In addition, the majority experienced both physical assault and psychological aggression, lifetime and in the past year. However, they also reported a substantial number of positive behaviors (the negotiation subscale) during both time frames. Only one subscale, sexual coercion, differed significantly for self versus partner (with the

Table 1

Lifetime prevalence for all CTS2 subscales, percentage of sample who experienced at least one event within subscale (“ever-prevalence”)

Subscale	<i>n</i>	Percent	MH	<i>P</i>
Physical Assault				
By partner	38	65.52		
By self	43	74.14	.38	.15
Injury				
To partner	20	34.48		
To self	25	43.10	.44	.18
Psychological aggression				
By partner	52	89.65		
By self	54	93.10	.50	.48
Sexual coercion				
By partner	33	56.90		
By self	23	39.66	2.67	.04*
Negotiation				
By partner	54	93.10		
By self	56	96.55	.50	.48

All values in table represent total scores. MH refers to the Mantel–Haenszel estimate testing self versus partner rate per subscale.

\**P*<.05.

latter higher), both lifetime and past year. Finally, a correlation (not in the tables) of total lifetime negative relationship behaviors by self and partner was significant at .86 (*P*=.000, *n*=58), indicating a high association.

Table 2

Past year, percentage who experienced at least one event within subscale (“past-year prevalence”)

Subscale	<i>n</i>	Percent	MH	<i>P</i>
Physical Assault				
By partner	29	50.0		
By self	31	53.5	.71	.57
Injury				
To partner	11	18.9		
To self	14	24.1	.40	.27
Psychological aggression				
By partner	50	86.2		
By self	51	87.9	.50	.57
Sexual coercion				
By partner	26	44.8		
By self	15	25.9	3.20	.02*
Negotiation				
By partner	51	87.9		
By self	53	91.8	.50	.48

All values in table represent total scores. MH refers to the Mantel–Haenszel estimate testing self versus partner rate per subscale.

\**P*<.05.

### 3.3. How frequent and chronic are behaviors in the past year?

**Table 3** shows CTS2 subscales for the past year for mean number of events for the full sample (“frequency”) and for those reporting at least one event within the subscale

Table 3  
Past year subscale frequency and chronicity

Subscale	Mean	S.D.	t	df
Physical Assault				
Frequency				
By partner	12.40	29.86		
By self	9.52	24.45	.83	57
Chronicity				
By partner	24.79	38.69		
By self	17.81	31.36	−.01	23
Injury				
Frequency				
To partner	1.67	7.99		
To self	3.52	9.02	−2.04*	57
Chronicity				
To partner	8.82	17.18		
To self	14.57	13.54	−.82	8
Psychological aggression				
Frequency				
By partner	36.60	37.15		
By self	34.16	30.44	1.19	57
Chronicity				
By partner	42.46	36.76		
By self	38.84	29.51	1.23	48
Sexual coercion				
Frequency				
By partner	8.43	14.72		
By self	4.29	12.13	2.51*	57
Chronicity				
By partner	18.81	17.06		
By self	16.60	19.50	−.10	9
Negotiation				
Frequency				
By partner	51.60	40.66		
By self	60.38	44.27	−3.02**	57
Chronicity				
By partner	58.69	38.22		
By self	66.08	42.04	−2.89**	50

Frequency refers to the number of events across the entire sample; chronicity refers to the number of events only for those with at least one event within the subscale. All *t* tests are paired samples comparing partner versus self.

\**P*<.05.

\*\**P*<.01.

(“chronicity”). Results indicate that the following frequency subscales were significantly different for self versus partner: injury and sexual coercion (both indicating self more often as recipient) and negotiation (with self having more positive behaviors). The only significant chronicity subscale was negotiation, again with self having more positive behaviors. We also computed an average number of events in the past year across all four of the negative behavior subscales and across both self and partner. The goal was to elucidate whether some women had either very high or very low chronicity of domestic violence events in the past year. The mean was 7.52 (S.D. = 4.92,  $n=52$ ). However, the five women with highest values ranged from 18.88 to 15.65. The distribution is in Fig. 1 and indicates a heavily left-skewed sample, with a notable small group at the right tail who experienced many events. The majority ( $n=52$ ) experienced at least one event in the past year. However, the values should be interpreted cautiously as they do not represent an exact number of events but rather an average across categories.

### *3.4. What are the rates based on level of severity?*

Table 4 provides lifetime scores for each of the negative subscales of the CTS2 categorized by severity (minor, severe) per Straus' definitions. Significant differences were found for the injury and sexual coercion subscales at the severe level.

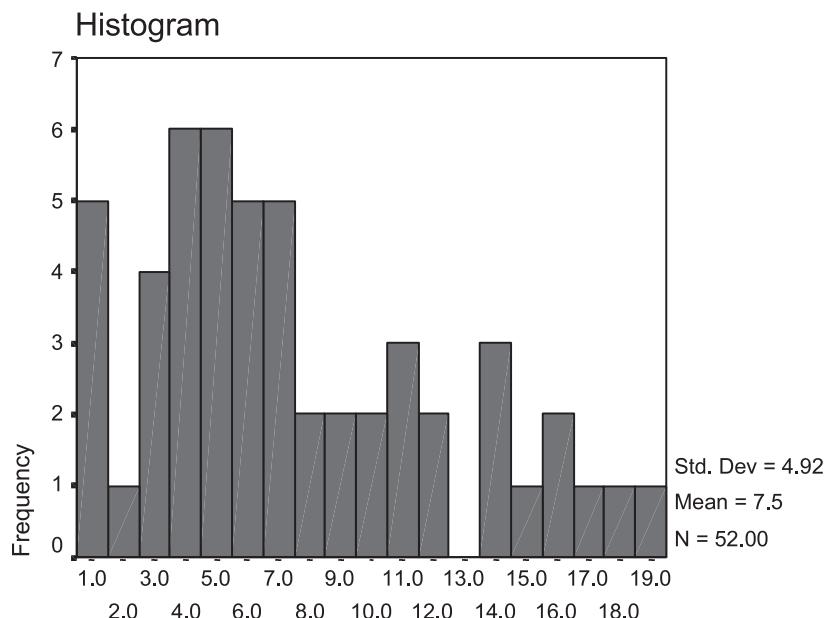


Fig. 1. Distribution of past-year chronicity of events, for those experiencing at least one event.

Table 4  
Lifetime prevalence by severity level per subscale

	Partner	Self	MH	<i>p</i>
<b>Minor</b>				
Physical assault	35 (60.3)	39 (67.2)	.50	.26
Injury <sup>a</sup>	24 (41.4)	20 (34.5)	.50	.26
Psych. aggression	52 (89.7)	54 (93.1)	.50	.48
Sexual coercion	30 (51.7)	21 (36.2)	2.29	.07
<b>Severe</b>				
Physical assault	27 (46.6)	22 (37.9)	2.25	.18
Injury <sup>a</sup>	3 (5.2)	17 (29.3)	12.07	.001**
Psychological aggression	34 (58.6)	32 (55.2)	1.40	.57
Sexual coercion	17 (29.3)	6 (10.3)	12.00	.02*

MH refers to the Mantel–Haenszel estimate testing self versus partner rate per subscale.

<sup>a</sup> Injury rates for the partner column denotes injury experienced by the partner; for the self column, it refers to injury experienced by the study participants. For all other subscales, partner refers to behaviors by the partner, and self refers to behaviors by the study participants.

\**P*<.05.

\*\**P*<.01.

### 3.5. Is there a relationship between the amounts of domestic violence, substance use, and trauma?

We correlated the average number of lifetime traumas and the prior month “total” number of substance use days with three CTS2 variables: average number of lifetime negative behaviors by partner toward self, by self toward partner, and by both self and partner in the prior year. Significant correlations were found for number of substance use days with both average lifetime negative behaviors by partner toward self ( $r=.31$ ,  $P=.02$ ,  $n=57$ ) and by self toward partner ( $r=.37$ ,  $P=.004$ ,  $n=57$ ).

## 4. Discussion

We explored domestic violence in 58 women with current PTSD and SD. Strengths of the project include a rigorously diagnosed sample and a well-known measure, the CTS2. A notable finding was the quite high rate of negative relationship behaviors as recipients (i.e., “partner did this to me”) and as enactors (“self toward partner”). However, there is no way to ascertain the complex dynamics of the incidents. For example, a woman might have harmed her partner in self-defense because of a long history of violence from the partner, prior victimization, or her own aggressiveness. The average age of first trauma for these women was 8.7, with a high degree of childhood physical and sexual abuse, indicating early origins of interpersonal violence.

Our results were higher for some subscales than for those reported in the initial validation of the CTS2 (Straus et al., 1996). For example, past-year prevalence for physical assault by

partner was 50% in our sample compared with 31%, sexual coercion was 44% compared with 30%, and injury (by partner to self) was 24% compared with 14%. For behaviors by self, physical assault was 53% compared with 35%, sexual coercion was 26% compared with 18%, and injury (by self to partner) was 24% compared with 9%. The Straus et al. (1996) sample was college students, however, which would be expected to be lower.

For most lifetime behaviors, there was no difference between the rate of behaviors by partner versus self. Indeed, the correlation between total number of lifetime events by partner versus self was high (.86). However, the subscales that showed a difference were injury and sexual coercion (with the women more often the recipient of these negative behaviors) and negotiation (with the women more often enacting these positive behaviors). These results are comparable with other studies (e.g., Straus, 1997) and is cause for serious concern for these women's safety. For those with high rates of trauma and SD, as in this sample, the tendency to be involved in dangerous relationships is well known (Najavits, 2002). Hypotheses for this pattern include cognitive distortions, state-dependent learning, dissociation, physiologically based response to trauma, repetition compulsion, and search for mastery. The high rates of negative relationship behaviors were found not only lifetime, but also in the past year, with some women showing high chronicity (repeated behaviors). To improve clinical services, it may be important to provide more assessment of dual diagnosis and domestic violence, linkages between programs for domestic violence, mental health, and substance abuse treatment, improved staff training, and the use of manualized treatments that address these areas (e.g., Najavits, 2002).

Both PTSD and SD may have a connection to domestic violence. Trauma, particularly when repetitive in childhood, is associated with later interpersonal trauma. Substance use can result in disinhibition and aggression (Stewart & Israeli, 2002). In this study, we found a positive correlation between past-month substance use by the women and the rates of negative relationship behaviors by partner and by self. We cannot know, however, what incidents actually occurred while either was intoxicated.

Various limitations suggest the need to interpret our results cautiously. The women were research volunteers and, thus, may not be representative. On some measures, important information was not available (on the THQ, whether lifetime traumas included domestic violence, and on the CTS2, partner gender and who instigated the incidents). Our analysis was post hoc, we did not control for Type I statistical error, and data were collected only at one time point. Behaviors were not verified by partners or observers. However, Straus et al. (1996) have found a high correspondence between partner and self reports and states that the CTS2 can be used in this fashion. Despite these limitations, our study suggests a need for concern for women, who appears to be at substantial risk for dangerous intimate relationships.

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