

Complex PTSD in Victims Exposed to Sexual and Physical Abuse: Results from the DSM-IV Field Trial for Posttraumatic Stress Disorder

Susan Roth,^{1,5} Elana Newman,² David Pelcovitz,³ Bessel van der Kolk,⁴ and Francine S. Mandel³

Two hundred thirty four participants in the DSM-IV Posttraumatic Stress Disorder (PTSD) Field Trial who reported sexual and/or physical abuse were evaluated. Participants were categorized according to type of abuse (physical, sexual, both), duration of abuse (acute versus chronic), and onset of abuse (early versus late). Separate logistic regression analyses examined the relationship between age of onset, duration, abuse type, and the complex PTSD (CP) lifetime diagnosis for women and men. Sexually abused women, especially those who also experienced physical abuse, had a higher risk of developing CP, although CP symptoms occurred at a high base rate among physically abused women. The theoretical implications and incremental clinical usefulness of targeting CP symptoms with abused populations are discussed.

KEY WORDS: disorder of extreme stress; PTSD; diagnosis; childhood abuse; complex PTSD.

Between 1991 and 1992, several investigators specializing in the treatment of trauma-related disorders collaborated on the DSM-IV Posttraumatic Stress Disorder (PTSD) Field Trial to investigate: (a) alternative versions of the PTSD stressor criterion, (b) the validity of the items across stressors, (c) the adequacy of the tripartite division of symptoms, and (d) potential changes in the minimum required PTSD symptoms (Davidson &

¹Duke University, Durham, North Carolina 27708.

²University of Tulsa, Tulsa, Oklahoma 74104.

³Cornell University Medical College, North Shore University Hospital, Ithaca, New York 14853.

⁴Boston University School of Medicine, Boston, Massachusetts 02118.

⁵To whom correspondence should be addressed.

Foa, 1991; Kilpatrick & Resnick, 1992; Kilpatrick et al., 1997). An additional goal of this PTSD Field Trial was to examine the feasibility of a constellation of trauma-related symptoms not addressed by the PTSD diagnosis, and the reliability of a structured interview to measure this constellation. The symptom constellation has been referred to under a variety of names, including complex PTSD (CP), complicated PTSD, disorders of extreme stress (DES), and disorders of extreme stress not otherwise specified (DESNOS). Most recently this symptom constellation was incorporated into the DSM-IV nomenclature under associated features of PTSD (American Psychiatric Association, 1994). Nine of the 12 symptoms listed under the associated features of PTSD are derived from the CP theory and constellation.

Initial conceptualizations of this symptom constellation (Pelcovitz, van der Kolk, Roth, & Mandel, 1997) describe a clinical presentation reflective of the profound impact that traumatic experiences may have on self-regulation, self-definition, interpersonal functioning, and adaptational style (see Table 1). These psychological sequelae are not well characterized by PTSD, but have been noted frequently among treatment-seeking trauma survivors (e.g., Briere, 1992; Herman, 1992a, 1992c). Risk factors hypothesized to be associated with the proposed disorder are early age of onset, exposure to an interpersonal stressor, and prolonged duration (American Psychiatric Association [APA], 1994; Herman, 1992a; Spitzer, Kaplan, & Pelcovitz, 1989).

The constellation of symptoms subsumed under the CP nomenclature is consistent with empirical findings and developmental models regarding the long-term impact of childhood sexual abuse. For example, health problems of unknown etiology (e.g., Leserman et al., 1996; Walker, Gelfand, Gelfand, Koss, & Katon, 1995), dissociation (e.g., Waldinger, Swett, Frank, & Miller, 1994), chronic self destructiveness (e.g., Boudewyn & Liem, 1995), and problematic affective and cognitive constructions of the self, world, and others (e.g., Roth & Newman, 1991) have been noted among incest survivors. In a review paper which synthesizes current knowledge about the impact of childhood sexual abuse, the authors argued for the development of a psychiatric nomenclature that accounts for the complex syndrome resulting from the multiple dynamics and associated adaptations present in situations of interpersonal exploitation (Kendall-Tackett, Williams, & Finkelhor, 1993). Likewise, Cole and Putnam (1992) theorized that the impact of sexual abuse can be understood most accurately from a developmental psychopathology model that focuses upon the self and social functioning. A consensus is emerging which suggests the clinical utility of the CP construct for understanding and treating sexual abuse survivors. Although the theory underlying CP does not focus upon sexual abuse ex-

Table 1. Symptom Categories and Diagnostic Criteria for DES

I. Alterations in Regulation of Affect & Impulses (A and one of B-F required)	
A. Affect Regulation (2)	D. Suicidal Preoccupation
B. Modulation of Anger (2)	E. Modulation of Sexual Involvement
C. Self-Destructive	F. Excessive Risk Taking
II. Alterations in Attention or Consciousness (A or B required)	
A. Amnesia	
B. Transient Dissociative Episodes & Depersonalization	
III. Alterations in Self-Perception	
A. Ineffectiveness	D. Shame
B. Permanent Damage	E. Nobody Can Understand
C. Guilt & Responsibility	F. Minimizing
IV. Alterations in Perception of the Perpetrator (Not required)	
A. Adopting Distorted Beliefs	
B. Idealization of the Perpetrator	
C. Preoccupation with Hurting Perpetrator	
V. Alterations in Relationships with Others (One of A-C required)	
A. Inability to Trust	
B. Revictimization	
C. Victimizing Others	
VI. Somatization (Two of A-E required)	
A. Digestive System	D. Conversion Symptoms
B. Chronic Pain	E. Sexual Symptoms
C. Cardiopulmonary Symptoms	
VII. Alterations in Systems of Meaning (One of A-B required)	
A. Despair and Helplessness	
B. Loss of Previously Sustaining Beliefs	

clusively, sexual abuse may be a critical risk factor for the development of the symptoms subsumed under the CP heading.

Preliminary reliability and validity data from the Field Trial attest to the value of continued research of the CP symptom cluster. A structured interview to measure the symptoms (van der Kolk et al., 1992) has been developed and used with success. The symptom constellation is internally consistent and reliably indexed across raters (see Pelcovitz et al., 1997). Preliminary results from the Field Trial demonstrate that CP is specific to trauma, since it was rarely found among non-trauma exposed survivors (3% among those exposed to stressors that did not qualify for Criterion A; Pelcovitz et al.). In addition, CP was typically co-morbid with PTSD diagnosis; CP occurred without concurrent PTSD in only 6% of the treatment sample and 4% of the community samples (Pelcovitz et al.). Recent reports which examine CP symptoms among combat veterans (Newman et al., 1995),

among battered women (Pelcovitz & Kaplan, 1995), and in response to fluoxetine (van der Kolk et al., 1994), all support the clinical utility of the symptom complex. Its utility is bolstered further by the inclusion of a similar diagnosis in the ICD-10 nomenclature (enduring personality change after catastrophic experience; World Health Organization, 1994).

In a recent study that focused exclusively on the CP symptom clusters of affect regulation, dissociation, and somatization (van der Kolk et al., 1996), 284 Field Trial participants were divided into three groups: (1) those who experienced physical or sexual assaults prior to the age of 14 (early interpersonal group); (2) those who experienced physical or sexual assaults after age 14 (late interpersonal group); and (3) those who experienced disaster at any time in their life (disaster group). As anticipated, significantly more members of the early interpersonal trauma group endorsed all three clusters as compared to those members of the disaster group. In addition, more of those with early interpersonal trauma endorsed items indicating problems with anger modulation, self-destructiveness, suicidal behavior, dissociative symptoms, and somatization as compared to those with later onset interpersonal trauma. These patterns of endorsements support the hypothesis that early interpersonal trauma may result in more severe trauma symptoms.

Since the clinical relevance and conceptual implications of the full set of CP symptoms have not yet been examined in a large sample, further questions about the clinical utility and theoretical underpinning of all the CP symptoms remain. For example, although the previous work has focused on the age of exposure to trauma, the role of chronicity which is integral to the CP theory has not been examined. Similarly, now that interpersonal risk has been supported as a potential risk factor for CP, future work needs to evaluate if CP may demonstrate better specificity for sexual abuse. The current study evaluated the utility of CP for sexual abuse survivors and assessed which factors (i.e., chronicity, age of onset, and type of abuse) significantly increased the risk of a CP diagnosis. A substantial percentage of the sexually abused participants were also physically abused, resulting in two distinct sexual abuse groups, those who were sexually abused and those who were sexually *and* physically abused. Physically abused (only) participants served as a comparison group for sexually abused participants.

Method

Participants

The current study involved treatment-seeking and community participants from the DSM-IV PTSD Field Trial study. [For a complete descrip-

tion of the methodology employed and the results of the PTSD Field trial see Kilpatrick et al. (1997).]

Clinical sample. Three hundred and ninety five treatment-seeking individuals were recruited from various psychiatric clinics across the five sites. Potential participants at each treatment setting completed a brief screening questionnaire that included questions about lifetime exposure to the following “high-magnitude” stressor events: (a) combat; (b) physical assault; (c) sexual assault; (d) homicide; (e) disaster; (f) chemical/radiation exposure; and (g) other extraordinary stressful events or life-threatening experiences. It also included questions regarding exposure to the following “low magnitude” stressor events over the course of the previous 12 months: (a) financial stress (e.g., lay off, repossession); (b) problems within or due to a dissolution of a relationship with an intimate partner; (c) personal serious illness; (d) serious illness or death in family; and (e) family or close friend participating in the Persian Gulf War effort that was ongoing at the time. Individuals who reported exposure to at least one high or low magnitude stressor event were invited to participate in the study without financial compensation.

Community sample. Potential participants were recruited from a pool of 308 participants who were screened by random digit dial telephone employed at the South Carolina and Missouri sites. All participants who reported exposure to a “high magnitude” stressor were invited to participate in the study. Of 308 participants who were determined to be eligible for the study, 128 (41%) completed the Field Trial protocol and comprised the community sample.

Procedure

In both the clinical and community samples, participants completed informed consent procedures at the beginning of the session and were then interviewed by staff who were specially trained in PTSD assessment.

Measures

Potential Stressor Events Interview (PSEI). The PSEI is a structured clinical interview that assesses exposure to sexual and physical abuse, serious motor vehicle accident, combat, homicide of loved one, additional bereavement, injury or property loss, evacuation, and other stressful life changes within any time frame the interviewer specifies (Falsetti, Resnick, Kilpatrick, & Freedy, 1994; Kilpatrick, Resnick, & Freedy, 1991). The interview classifies each experience by type of experience, age of onset, and

Table 2. Questions Used to Define if Participants Experienced Sexual or Physical Abuse

Term	Questions
Sexual Abuse	<ol style="list-style-type: none"> <li data-bbox="319 282 1003 404">1. Did you ever have sexual contact with anyone who was five or more years older than you before you reached the age of 13? When we say sexual contact, we mean any sexual contact between someone else and your sexual organs, or between you and someone else's sexual organs? <li data-bbox="319 421 1003 517">2. Before you were age 18, has anyone every used pressure, coercion, or non-physical threats to have sexual contact with your sexual organs, or to make you have sexual contact with their sexual organs? <li data-bbox="319 534 1003 612">3. At anytime during your life, has anyone used physical force or threats of force to make you have some type of unwanted sexual contact?
Physical Abuse	<ol style="list-style-type: none"> <li data-bbox="319 633 1003 699">1. Has anyone, including family members or friends, ever attacked you with a gun, knife, or some other weapon, regardless of when it happened or whether you ever reported it or not? <li data-bbox="319 716 1003 782">2. Has anyone, including family members and friends, ever attacked you without a weapon, but with the intent to kill or seriously injure you? <li data-bbox="319 800 1003 895">3. Were you ever involved in a situation where the same person attacked you with a weapon or without a weapon but with the intent to kill or seriously injure you a number of times over a period of days, weeks, months or years?

duration. The questions used to define sexual and physical abuse are listed in Table 2.

Structured Clinical Interview for DSM-III-R (SCID-Patient Version). Clinical diagnosis was based, in part, on the SCID module for posttraumatic stress disorder (Spitzer, Williams, Gibbon, & First, 1990) which has been widely used for diagnosing PTSD. Several studies have documented the reliability and validity of this instrument (e.g., Kulka et al., 1990; McFall et al., 1990). PTSD was assessed in relation to a maximum of 4 events identified by the individual: the first, most recent, and worst high magnitude stressor from throughout their lifetime; and the worst low magnitude stressor that occurred over the past year.

Diagnostic Interview Schedule (DIS). Clinical diagnosis of PTSD was also based on the DIS (Robins, Helzer, Croughan, Williams, & Spitzer, 1981), a highly structured interview designed to yield reliable diagnosis among lay interviewers. Although its 3-week test-retest reliability appears

adequate (Breslau & Davis, 1987), several investigators have questioned its diagnostic sensitivity (e.g., Keane & Penk, 1989; Kulka et al., 1990). For purposes of the Field Trial, the instrument was modified to assess if each symptom was linked with the first, most recent, and worst high magnitude stressor from throughout their lifetime; and the worst low magnitude stressor that occurred over the past year.

Structured Interview for Disorders of Extreme Stress. This structured interview assesses the presence of impaired affect modulation; self-destructive and impulsive behavior; dissociation; somatic complaints; feelings of ineffectiveness; shame; despair or hopelessness; impaired relationships with others; and loss of previously sustaining beliefs. Lifetime CP diagnosis was determined from criteria listed in the DSM-IV DESNOS final report (van der Kolk et al., 1992). The structured interview has excellent interrater reliability with kappa coefficients ranging from .88 to 1.00 and high internal consistency (Cronbach's alpha = .96; Pelcovitz et al., 1997). Interrater agreement on the CP diagnoses at three of the five sites was perfect (kappa = 1.00).

Study Design

All participants who reported experiencing sexual and/or physical abuse were initially considered for inclusion in the current study. From this pool of 287 physical or sexual abused participants, those who also reported the homicide of a close friend or family member, or combat exposure, were excluded, leaving 234 participants (45% of the full Field Trial sample) in the current analyses. There were a total of 128 (56%) participants who were sexually abused (only), 11 (9%) were men and 117 (91%) were women; there were a total of 67 who were physically abused, 31 (46%) were men and 36 (54%) were women; and, there were 39 subjects who were both sexually and physically abused, 3 (8%) were men and 36 (92%) were women. Although the group of physically abused subjects was nearly equally distributed between men and women, both groups of sexually abused participants were disproportionately women.

Using a multi-method procedure (e.g., Keane, Wolfe, & Taylor, 1987), lifetime PTSD status was established when both the PTSD modules of the SCID and DIS were positive for the PTSD diagnosis. All participants were categorized according to whether their abuse was acute or chronic, and to whether it was early or late onset. "Acute" participants ($n = 114$) were exposed to physical or sexual abuse for less than one year (age of offset minus age of onset equals zero). "Chronic" participants ($n = 120$) were exposed to physical or sexual abuse for 2-42 years. "Early onset" partici-

pants ($n = 130$) were first exposed to physical or sexual abuse before the age of 13. Finally, "late onset" ($n = 104$) participants were first exposed to physical or sexual abuse after age 13.

As shown in Table 3, chronicity and onset were related, $\chi^2(1, N = 234) = 28.64, p < .001$. Among the participants whose age of abuse onset was at an earlier age, the abuse was twice as likely to be chronic; whereas among participants first abused after age 13, the abuse was twice as likely to be shorter in duration. However, when controlling for type of abuse, this pattern did not hold for those who were both sexually and physically abused, $\chi^2(1, N = 39) = 1.00, p < .32$. In fact, 90% of those participants both sexually and physically abused were chronically abused, whereas 48% of those physically abused and 42% of those sexually abused were chronically abused. This proportion of chronic abuse was significantly higher, $\chi^2(2, N = 234) = 28.42, p < .001$. Pairwise comparison shows that the sexual abuse group and physical abuse group did not significantly differ with regard to chronicity, $\chi^2(1, N = 195) = .72, p < .40$. However both the physical abused group, $\chi^2(1, N = 106) = 18.68, p < .001$, and the sexually abused group, $\chi^2(1, N = 167) = 28.02, p < .001$, significantly differed from the physically and sexually abused group in terms of chronicity of abuse.

Statistical Methods

First, we examined the relative rates of a lifetime diagnosis of CP across the three abuse groups. Second, in order to estimate the effects of chronicity of abuse, age of onset of abuse, and type of abuse on the development of CP, a series of univariate analyses were conducted for males

Table 3. Chronicity by Abuse Onset by Type of Abuse

Onset	Chronicity			
	Less than 1 year		More than 1 year	
	<i>n</i>	(%)	<i>n</i>	(%)
13 Years of age or below	43	18	87	37
Sexual abuse	33		42	
Physical abuse	9		27	
Sexual and physical abuse	1		18	
Over 13 years of age	71	30	33	14
Sexual abuse	42		11	
Physical abuse	26		5	
Sexual and physical abuse	3		17	

and females separately due to the disproportionate number of women in all but the physically abused only group. Type of abuse was represented using two dummy coded variables: presence of sexual abuse (no = 0, yes = 1) and presence of both sexual and physical abuse (no = 0, yes = 1). This makes physical abuse the reference category to which the other types of abuse are compared. Each predictor variable was first examined in a univariate manner to determine which variables to include in the multiple logistic regression model. Any variable which was determined to be somewhat predictive of CP was included in the initial multiple logistic regression model (a univariate p value $\leq .25$). In addition, if one of the abuse type variables was somewhat predictive of CP, the other needed to be included in the multiple logistic regression model. Given the small number of men, the multiple logistic regression model was conducted only for the women. A primary multiple logistic regression model for the women participants was then evaluated using all of these included variables. A final multiple logistic regression model was then calculated using only those variables which were significant in the first multiple logistic regression model for the women participants. A Hosmer-Lemeshow Goodness-of-Fit test was used to evaluate the "fit" of the final multiple logistic regression model (here a nonsignificant p value indicates that the model is a good fit of the observed data).

Results

Participants

In total, 234 participants contributed the data used in the present study. Participants' ages ranged from 12 to 75 ($M = 33.2$, $SD = 12.0$). The median age was 31 with an interquartile range of 25 to 41. One hundred and eighty nine (81%) of the sample were women and 45 (19%) were men. Eighty nine percent (207) of the sample were White, 9% (22) were Black, and 2% (5) were Other.

PTSD and CP Rates

Initial comparisons were conducted on diagnostic status (no diagnosis, PTSD only, CP only, Both CP and PTSD) across the types of abuse to examine the particular relevance of CP for sexually abused adults. Table 4 shows the distribution of lifetime PTSD and CP diagnoses for each of the abuse groups, $\chi^2(6, N = 234) = 36.40, p < .001$. One hundred and eighteen

Table 4. Distribution of PTSD and CP Diagnoses by Type of Abuse

Type of Abuse	Diagnostic Status							
	Both CP & PTSD		PTSD only		CP only		Neither	
	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)
Sexual abuse	68	53	26	20	1	1	33	26
Physical abuse	16	24	14	21	2	3	35	52
Sexual and physical abuse	29	74	5	13	2	5	3	8
Total	113		45		5		71	

participants (50%) met criteria for a lifetime CP, and 116 (50%) did not. The physical abuse only group was significantly different from both the sexual abuse only group, $\chi^2(3, N = 195) = 18.96, p < .001$, and the combined sexual and physical group, $\chi^2(3, N = 106) = 29.64, p < .001$. The sexually abused group exhibited a trend toward differing from the combined sexual and physical abuse group, $\chi^2(3, N = 195) = 10.91, p < .02$, although the difference did not meet our cut-off for statistical significance. Consistent with increased symptoms in the sexual and physical abuse group, it is notable that there was a lower percentage of people who were not at all symptomatic.

Examining only those participants with PTSD, 72% of all the participants who carried a lifetime diagnosis of PTSD also met lifetime CP criteria. Among both groups of sexually abused participants, the rates of having concurrent CP and PTSD appeared especially high. In fact, when collapsing all those who experienced sexual abuse into one group and comparing them to those who were physically abused (but not sexually abused), the psychological impact of sexual abuse becomes apparent. Seventy six percent of the sexually abused participants (regardless of physical abuse status), who carried a lifetime diagnosis of PTSD also carried a lifetime diagnosis of CP, as compared with 53% of the physically abused participants, $\chi^2(1, N = 158) = 6.01, p < .02$. While sexual abuse survivors with PTSD seem especially vulnerable, the pattern of results suggests that the particular difficulties listed under the CP diagnosis appear relevant to all abused trauma survivors suffering from PTSD.

Risk Factors for CP

In order to determine if the effects of type of abuse, chronicity, and onset were the same for men and women, univariate models to predict the

diagnosis of CP were conducted separately for men and women. Table 5 shows the univariate results for each of the predictors of CP for men and women separately. The final multiple logistic regression model for women only is also presented.

For the men, the variables of chronicity, onset and type of abuse were not able to predict the development of lifetime CP. This is not surprising given the small number of men overall ($n = 45$) or more specifically the small number of men who reported being sexually abused ($n = 11$) or sexually and physically abused ($n = 3$). Chronicity, $\chi^2(1, N = 45) = 2.0, p = .16$, was the only variable that had a p value less than .25. Onset, $\chi^2(1, N = 45) = .05, p = .83$, sexual abuse, $\chi^2(1, N = 45) = .004, p = .95$, and sexual/physical abuse, $\chi^2(1, N = 45) = 1.3, p = .26$, all had nonsignificant p values greater than .25.

For women, chronicity, $\chi^2(1, N = 189) = 29.71, p < .01$, sexual abuse, $\chi^2(1, N = 189) = .31, p < .58$, and sexual/physical abuse, $\chi^2(1, N = 189) = 13.6, p < .01$, all had a p value of less than .25 and were therefore included in the multiple logistic regression model. There was a significant relationship among these variables and the diagnosis of CP, $\chi^2(4, N = 189) = 29.71, p = .0001$. The only variables which were significant in the multiple logistic regression model related to type of abuse, OR = 4.4 (sex abuse) and OR = 14.5 (sex and physical abuse). We examined all possible interaction terms and none of them contributed significantly to the model. The Hosmer-Lemeshow Goodness-of-Fit statistic = 0, indicating a very good fit of the model to the data. The highest risk was associated with the presence of both sexual and physical abuse, indicating that a subject who had both sexual and physical abuse was 14.5 times more likely to have a diagnosis of CP than a patient who was not both sexually and physically abused. The presence of sexual abuse resulted in a risk of 4.4 times the risk of developing a diagnosis of CP.

Discussion

The pattern of results is consistent with the theoretical underpinnings of the CP construct. The CP psychiatric nomenclature aims to account for the multiple dynamics and associated adaptations present in situations of complicated interpersonal exploitation beyond the symptoms of PTSD (Herman, 1992b; Pelcovitz et al., 1997; van der Kolk et al., 1996). Our current results suggest that physical and sexual abuse are risk factors for CP among women. However, sexual abuse, particularly when in combination with physical abuse, appears to be a greater risk than physical abuse alone.

Table 5. Risk Factors for Lifetime CP Diagnosis

Variable	Univariate for Men		Univariate for Women		Multiple Logistic Regression for Women	
	Unadjusted OR	95% CI	Unadjusted OR	95% CI	Unadjusted OR	95% CI
Chronicity	2.443	.708-8.842	2.083	1.168-3.751		
Onset	.864	.221-3.129	.650	.364-1.153		
Sexual abuse	1.048	.235-4.232	1.182	.656-2.134	4.375	1.913-11.025
Sexual and physical abuse	4.000	.354-90.456	4.540	1.971-11.836	14.500	4.903-48.743

Both physical and sexual abuse share several characteristics involving terror and captivity at the hands of another that may increase the likelihood of resultant problematic self-regulation, self-definition, interpersonal functioning, and adaptational style consistent with the CP nomenclature (Herman, 1992a, 1992b). However, based on the current results, it appears that the symptoms of CP may demonstrate better specificity for sexual abuse. Women who experience sexual abuse may have problems more consistent with CP than those who experienced physical abuse because: (a) shame and secrecy may be intensified in sexually abusive interactions; (b) the boundary violations and intrusiveness of sexual abuse may be greater; (c) dissociation may be used more often to cope with sexual violations; and (d) sexual abuse may interact with cultural constructions about sexuality to influence women's constructions of themselves and others (Lebowitz & Roth, 1994). Finally, there is also some emerging evidence suggesting that sexual abuse may lead to a number of psychobiological mechanisms that may put women at greater risk for alterations in regulation of affect, impulses and consciousness (Trickett & Putnam, 1993). Further research to evaluate these hypotheses can enhance our understanding of the relative specificity of CP symptoms for sexual and physical abuse.

The current study found that the group that was both physically and sexually abused was at greatest risk for CP symptoms. This may result from the doubly harmful impact of two forms of abuse on an individual. Alternatively, our data suggest this group may fare worse because of the relative greater chronicity of sexual and physical abuse compared to sexual abuse alone or physical abuse alone regardless of onset. It will be important to evaluate if this pattern of chronicity is observed among other groups of individuals who are both physically and sexually abused.

Unlike the findings of van der Kolk et al. (1996) on a similar subset of the Field Trial sample, the current study did not find that age of onset predicted CP symptoms. There are several reasons to explain this difference. First, interpersonal abuse in the van der Kolk et al. article combined physical and sexual abuse into one category by age of onset whereas the current study not only looked at sexual and physical abuse separately but also examined chronicity and onset. Chronicity and onset were related in the anticipated direction; abuse tended to be chronic among those participants first abused before age 13, and the abuse tended to be shorter in duration among those women first abused after age 13. However, among those women who were both sexually and physically abused, length of abuse was longer in duration regardless of onset. Thus there is a complex pattern to understanding onset, chronicity, and type of abuse in predicting CP symptoms that the current study reveals. In addition, the current study fo-

cused on the presence of all CP symptoms unlike the van der Kolk et al. study which focused on particular symptom endorsement patterns.

Several limitations to the current study should be noted. Although the gender distribution among the physical abuse group was virtually equivalent, women were overrepresented in the sexual abuse groups. While this is consistent with current evidence suggesting that women are more likely than men to report a history of sexual violence (e.g., Breslau, Davis, Andreski, & Peterson, 1991; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), this may have resulted in limited generalizability for the analyses of CP risk factors among the men. In addition, the study was based primarily on interviews with treatment-seeking volunteers, so that the generalizability of the current findings to other populations is unclear. Furthermore, the reliance on retrospective reports of abuse may introduce some bias. Finally, the presence of a non-trauma-exposed group, a group absent in the Field Trial, would have provided a meaningful contrast to amplify our understanding of trauma-related distress, especially among those physically abused. For example, it is quite likely that if such a group was used, physical abuse may have emerged as a more significant risk factor.

Despite these potential limitations, the current results have meaningful clinical implications. Among individuals who report sexual abuse and/or physical abuse, the existing evidence strongly suggests that symptoms listed under CP should be routinely assessed and treated. Expanding the range of treatment targets and outcome measures can help to scientifically inform clinical practice and develop viable treatments (Roth & Batson, 1997). For example, fluoxetine had a significant positive effect on affect dysregulation, interpersonal alterations, and loss of sustaining beliefs (van der Kolk et al., 1994). In addition, Newman and colleagues (1995) have noted that the systematic assessment of CP symptoms among veterans allowed clinicians a means of conceptualizing, anticipating, and managing difficult interpersonal behaviors and intrapsychic patterns that otherwise potentially thwart the therapeutic alliance; the use of the CP construct allowed clinicians to remain compassionate and engaged with a client.

While CP appears clinically meaningful, its name and criteria were not officially included in the DSM nomenclature, as they were in the ICD nomenclature. However the CP symptoms are listed in the text describing associated features of PTSD (American Psychiatric Association, 1994). Since CP co-occurs with PTSD, it is unclear whether CP may be a qualitatively distinct subtype of PTSD (Pelcovitz et al., 1997) or whether it is a severity marker of PTSD symptoms (Newman, Riggs, & Roth, 1997). Therefore, the more conservative decision to not incorporate the CP name into the diagnostic system was followed.

There continues to be on-going professional debate about the methodological and conceptual considerations of the CP construct. Critics have argued that the conceptualization and instrument development associated with this construct proceeded too rapidly without first establishing the sensitivity and specificity of the symptoms subsumed under the construct and the relationships of these clusters to one another. In addition, some critics have asserted that the questions in the CP interview did not have precise behavioral anchors making the instrument far from ideal. While these are valid scientific concerns, our results reveal that survivors of physical abuse and sexual abuse, particularly those who experience both, are at greater risk for developing CP symptoms. The CP symptoms index relevant trauma symptomatology that extend beyond the PTSD criteria. Although research testing the limits of these findings and debates about the best scientific method to develop and measure new disorders is necessary and should continue, the data thus far strongly suggest that we need to scientifically and clinically address those trauma-related problems currently catalogued under the CP rubric regardless of our a priori epistemological positions.

Therefore, we hope to see future clinical research focus on using CP to assess treatment efficacy as well as creating new viable treatment programs. Continued psychometric refinement of the CP assessment method and the relationship of the CP clusters to one another and other disorders also seems warranted. In addition, the relevance of the CP symptoms to non-trauma exposed individuals, and the relationship of CP symptoms to Axis II symptomatology are areas requiring future research.

Acknowledgments

Supported by National Institute of Mental Health Grant 1 PO1 MH47200-01. The opinions expressed in this article are those of the authors and do not necessarily reflect the position of the American Psychiatric Association or its Task Force on DSM-IV. The authors wish to acknowledge the contributions of Dean Kilpatrick, Heidi Resnick, Patricia Resick, and John Freedy in the design and execution of the PTSD Field Trial.

References

- American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th ed). Washington DC: Author.
- Boudewyn, A. C., & Liem, J. H. (1995). Childhood sexual abuse as a precursor to depression and self-destructive behavior in childhood. *Journal of Traumatic Stress, 8*, 445-459.

- Breslau, N., & Davis, G. C. (1987). Posttraumatic stress disorder. The stressor criterion. *Journal of Nervous and Mental Disease, 175*, 255-264.
- Breslau, N., Davis, G. C., Andreski, P., & Peterson, E. (1991). Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry, 48*, 216-222.
- Briere, J. L. (1992). *Child abuse trauma: Theory and treatment of the lasting effects*. Newbury Park, CA: Sage.
- Cole, P. M., & Putnam, F. W. (1992). Effect of incest on self and social functioning: A developing psychopathology perspective. *Journal of Clinical and Consulting Psychology, 60*, 174-184.
- Davidson, J. R. T., & Foa, E. B. (1991). Diagnostic issues in posttraumatic stress disorder: Considerations for the DSM-IV. *Journal of Abnormal Psychology, 100*(3), 346-355.
- Falsetti, S. A., Resnick, H. S., Kilpatrick, D. G., & Freedy, J. R. (1994). A review of the Potential Stressful Events Interview: A comprehensive assessment instrument of high and low magnitude stressors. *The Behavior Therapist, 17*, 66-67.
- Herman, J. L. (1992a). *Trauma and recovery*. NY: Basic Books.
- Herman, J. L. (1992b). Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. *Journal of Traumatic Stress, 5*, 377-391.
- Herman, J. L. (1992c). Sequelae of prolonged and repeated trauma: Evidence for a complex posttraumatic syndrome (DESNOS). In J. R. T. Davidson & E. B. Foa (Eds.) *Posttraumatic stress disorder: DSM-IV and beyond* (pp. 213-228). Washington, D.C.: American Psychiatric Press.
- Keane, T. M., & Penk, W. (1988). The prevalence of post-traumatic stress disorder: Letter to the editor. *New England Journal of Medicine, 318*, 1690-1691.
- Keane, T. M., Wolfe, J., & Taylor, K. L. (1987). Post-traumatic stress disorder: Evidence for diagnostic validity and methods of psychological assessment. *Journal of Clinical Psychology, 43*, 32-43.
- Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin, 113*, 164-180.
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry, 52*, 1048-1060.
- Kilpatrick, D. S., & Resnick, H. S. (1992). A description of the posttraumatic stress disorder field trial. In J. R. T. Davidson & E. B. Foa (Eds.) *Posttraumatic stress disorder: DSM-IV and beyond* (pp. 243-250). Washington, D.C.: American Psychiatric Press.
- Kilpatrick, D. G., Resnick, H. S., & Freedy, J. R. V. (1991). *Potential Stressful Events Inventory*. Charleston, SC: Crime Victims Treatment and Research Center, Medical University of South Carolina.
- Kilpatrick, D. G., Resnick, H. S., Freedy, J. R., Pelcovitz, D., Resick, P., Roth, S., & van der Kolk, B. (1997). The posttraumatic stress disorder field trial: Evaluation of the PTSD construct: Criteria A through E. In T. A., Widiger, A. J., Frances, H. A., Pincus, M. B., First, R. Ross, & W. Davis (Eds.) *DSM-IV sourcebook (Volume IV)*. Washington, DC: American Psychiatric Press.
- Kulka, R. A., Schlenger, W. E., Fairbank, J. A., Hough, R. L., Jordan, B. K., Marmar, C. R., & Weiss, D. S. (1990). *Trauma and the Vietnam war generation: Report of findings from the National Vietnam Veterans Readjustment Study*. New York: Brunner/Mazel.
- Lebowitz, L., & Roth, S. (1994). I felt like a slut: The cultural context and women's response to being raped. *The Journal of Traumatic Stress, 7*, 363-390
- Leserman, J., Drossman, D. A., Li, Z., Toomey, T. C., Nachman, G., & Glogau, B. A. (1996). Sexual and physical abuse history in gastroenterology practice: How types of abuse impact health status. *Psychosomatic Medicine, 58*, 4-15.
- McFall, M. E., Smith, D. E., Rozwell, D. K., Tarver, D. J., & Malas, K. L. (1990). Convergent validity of measures of PTSD in Vietnam combat veterans. *American Journal of Psychiatry, 147*, 645-648.

- Newman, E., Orsillo, S. M., Herman, D. S., Niles, B. L., & Litz, B. (1995). The clinical presentation of disorders of extreme stress in combat veterans. *Journal of Nervous and Mental Disease, 183*, 664-668.
- Newman, E., Riggs, D., & Roth, S. (1997). Thematic resolution, posttraumatic stress disorder and complex posttraumatic stress disorder: The relationship between meaning and trauma-related diagnoses. *Journal of Traumatic Stress, 10*, 197-213.
- Pelcovitz, D., & Kaplan, S. (1995, July). *Psychological characteristics of battered women: Complex posttraumatic stress disorder in partner abuse*. Paper presented at the fourth annual meeting of the Family Violence Conference, Durham, New Hampshire.
- Pelcovitz, D., van der Kolk, B. A., Roth, S., Mandel, F. S., Kaplan, S., & Resick, P. (1997). Development of a criteria set and a structured interview for disorders of extreme stress (SIDES). *Journal of Traumatic Stress, 10*, 3-16.
- Robins, L. N., Helzer, J. E., Croughan, J. L., Williams, J. B. W., & Spitzer, R. L. (1981). *NIMH Diagnostic Interview Schedule, Version III*. Rockville, MD: NIMH, Public Health Service (Publication number ADM-T-42-3 {5-81,8-81}).
- Roth, S., & Batson, R. (1997). *Naming the shadows: A new approach to individual and group psychotherapy for adult survivors of childhood incest*. New York: Free Press.
- Roth, S., & Newman, E. (1991). The process of coping with trauma. *Journal of Traumatic Stress, 4*, 279-299.
- Spitzer, R., Kaplan, S., & Pelcovitz, D. (1989). *Victimization disorder*. New York: New York State Psychiatric Institute.
- Spitzer, R. L., Williams, J. B., Gibbon, M., & First, M. B. (1990). *Structured Clinical Interview for DSM-III-R—patient edition (SCID-P)*. New York: Biometrics Research Department, New York State Psychiatric Institute.
- Trickett, P. K., & Putnam, F. W. (1993). Impact of child sexual abuse on females: Toward a developmental, psychobiological integration. *Psychological Science, 4*, 81-87.
- van der Kolk, B., Dreyfuss, D., Michaels, M., Shera, D., Berkowitz, R., Fislser, R., & Saxe, G. (1994). Fluoxetine in posttraumatic stress disorder. *Journal of Clinical Psychiatry, 55*, 517-522.
- van der Kolk, B., Pelcovitz, D., Herman, J. L., Roth, S., Kaplan, S., & Spitzer, R. L. (1992). *The Disorders of Extreme Stress Inventory*. Unpublished measure.
- van der Kolk, B., Pelcovitz, D., & Roth, S. (1993, October). *The DSM IV Field Trials for PTSD: Further analyses*. In B. A. van der Kolk (Chair) *Disorders of extreme stress: Further analyses*. Symposium presented at the 9th annual meeting of the International Society for Traumatic Stress Studies, Chicago: Ill.
- van der Kolk, B., Pelcovitz, D., Roth, S., Mandel, F., McFarlane, A., & Herman, J. L. (1996). Dissociation, affect dysregulation, and somatization: The complexity of adaptation to trauma. *American Journal of Psychiatry, 153*, July Festschrift Supplement, 83-93.
- van der Kolk, B. A., Roth, S., Pelcovitz, D., Kaplan, S., Mandel, F., & Resick, P. (1992). *Report of the findings of the DSM-IV PTSD Field Trial for the disorders of extreme stress—no otherwise specified (DESNOS) category*. Unpublished report.
- Waldinger, R. J., Swett, C. Frank, A., & Miller, K. (1994). Levels of dissociation and histories of reported abuse among women outpatients. *Journal of Nervous and Mental Disease, 182*, 625-630.
- Walker, E. A., Gelfand, A. N., Gelfand, M. D., Koss, M. P., & Katon, W. J. (1995). Medical and psychiatric symptoms in women gastroenterology clinic patients with histories of sexual victimization. *General Hospital Psychiatry, 17*, 85-92.
- World Health Organization (1994). *The ICD 10 classification of mental and behavioural disorders with glossary and diagnostic criteria for research*. Washington DC: American Psychiatric Press, Inc.