Journal of Traumatic Stress, Vol. 12, No. 4, 1999

Hospitalized Adolescents' Reports of Sexual and Physical Abuse: A Comparison of Two Self-Report Measures

Deborah S. Lipschitz,[1,2,5] David P. Bernstein,[3] Robert K. Winegar,[4] and Steven M. Southwick[1,2]

This study assesses the consistency of adolescents' reports of sexual and physical abuse via two self-report questionnaires with different measurement approaches and examines demographic and psychopathological characteristics that influence abuse reporting. Seventy adolescent inpatients completed the Childhood Trauma Questionnaire (CTQ) (Likert-type items are summed to form dimensional scales, and cutoff scores determine abuse status), the Traumatic Events Questionnaire—Adolescents (multiple-choice items determine abuse status) and measures of depression, suicidal ideation, and dissociative symptoms. Consistent reports of physical and sexual abuse were given by 86% and 71% of youngsters, respectively. Discrepant reporters of sexual abuse were significantly more likely to be male, whereas consistent reporters were significantly more depressed and suicidal and reported higher levels of sexual abuse and emotional and physical neglect. Adolescents, for the most part, were consistent in their responses about sexual and physical abuse on both a Likert scale and a direct-answer-format questionnaire. The CTQ had a lower threshold for detection of sexual abuse, particularly for boys.

KEY WORDS: comparison; self-report; abuse questionnaire; adolescents.

The assessment of childhood histories of maltreatment often relies on retrospective reports provided by adults or adolescents. To date, studies have relied on four forms of data collection: chart review, self-report instruments or surveys,

[1]Department of Psychiatry, Yale University School of Medicine, New Haven, Connecticut.
[2]National Center for PTSD, Connecticut VAMC, West Haven, Connecticut.
[3]Mount Sinai School of Medicine and Bronx VA Medical Center.
[4]Communication Disorder Center, Mount Sinai Medical Center, New York.
[5]To whom correspondence should be addressed at Psychiatry Service (116A), Connecticut VA Medical Center, 950 Campbell Ave., West Haven, Connecticut 06516; e-mail: Lipschitz.deborah_S@westhaven.va.gov.

0894-9867/99/1000-0641$16.00/1 © 1999 International Society for Traumatic Stress Studies

telephone surveys, and direct face-to-face interviews. Chart reviews are known to be an unreliable means of obtaining accurate information about abuse, especially in comparison to more direct forms of questioning (Briere & Zaidi, 1989; Chu & Dill, 1990; Lanktree, Briere, & Zaidi, 1991). Face-to-face interviews with trained personnel are considered by some (Finkelhor, 1986; Peters, Wyatt, & Finkelhor, 1986) to be superior to other methods because they allow for the development of rapport during the interview process and so promote disclosure. However, other authors have found that for adults and college populations, a confidential self-report questionnaire is preferable to face-to-face contact (Dill, Chu, Grob, & Eisen, 1991; Koss, 1985). Adolescents, in particular, may be reluctant to disclose instances of maltreatment in face-to-face interviews or during the course of therapy, possibly because of ambivalent feelings toward authority figures, their need to maintain autonomy, and embarrassment or shame about disclosing sensitive topics (Bernstein, Ahluvalia, Pogge, & Handelsman, 1997; Erikson, 1969). Self-report formats are also reliable in the disclosure of psychiatric symptomatology (Reich, Cottler, McCallum, Corwin, & van Eerdewegh, 1995) and substance use patterns and delinquent behaviors (Johnson, Wish, Schmeidler, & Huizinga, 1991). Finally, a recent study of youth victimization, in a nationally representative sample of 2,000 youth, utilized a telephone interview approach to assess rates of physical and sexual assault (Boney-McCoy & Finkelhor, 1995). The authors report that the telephone interview method was well tolerated and yielded high rates of disclosure of both sexual assault and less severe forms of victimization.

There are numerous self-report measures designed to assess histories of abuse in adult populations that currently are available to researchers and clinicians. Far fewer instruments are available for use in child and adolescent populations (Stamm, 1996). Abuse instruments vary widely in their design, format, psychometric properties, and even the definitions of abuse that they incorporate. For example, some studies of prevalence rates of childhood abuse rely on measures that define sexual abuse to include only contact experiences (Russell, 1983), whereas others employ different age limits for victims and different age differentials between victims and abusers in their definitions (Briere, 1992; Wyatt & Peters, 1986). Moreover, the number and type of questions about sexual and physical abuse in surveys and questionnaires has varied from one screening question, i.e., "have you ever been sexually abused" (Mullen, Romans-Clarkson, Walton, & Herbison, 1988; Siegal, Sorenson, Golding, Burnham, & Stein, 1987) to multiple questions about behaviors or experiences that fit a definition of abuse without mention of the word "abuse" (Fromuth, 1986). In addition, there have been differences in the format of the instruments. Certain questionnaires obtain qualitative and/or descriptive data to determine whether responses meet formal abuse criteria, whereas others apply Likert-scale formats to abuse criteria to obtain a continuous measure of abuse severity. Cutoff scores then can be used to dichotomize the dimensional scales into "abused" and "nonabused" categories. Finally, there is the question of reliability and validity of the instruments. In a recent review of the psychometric properties

of 13 self-report and semistructured interviews, Bernstein and Rave (1996) report that the majority of the instruments had adequate reliability, but very few had demonstrated validity. The Childhood Trauma Questionnaire (CTQ) and Traumatic Events Questionnaire-Adolescent (TEQ-A) are two of the few self-report instruments for which concurrent validity was tested by comparing adolscent subjects' responses on the instruments with therapists' ratings of maltreatment based on "independent" evidence such as court involvement or removal of the child from the parental home (Bernstein et al., 1997; Winegar & Lipschitz, 1997). Presently, there have been no studies conducted with adolescents to ascertain if different questionnaires can be used interchangeably to measure the same construct.

For adolescents, just as for children, there are multiple legal and social ramifications of an abuse allegation. These include the involvement of child protective services, the courts, and custody battles, all of which could culminate in the removal of the youngster from the home. These considerations suggest the need for greater study of the characteristics of adolescents' maltreatment reports, including their consistency over time, agreement across different types of instrument formats, and factors that might lead to consistent versus inconsistent reporting.

In this study we examined the consistency of abuse reports in a population of psychiatrically hospitalized adolescent inpatients. We wanted to compare the rates of agreement for sexual and physical abuse using two self-report instruments that used different formats and approaches to operationalize abuse. The CTQ creates dimensional scores by summing Likert-scaled items; then, predetermined cutoff scores are used to discriminate abused and nonabused individuals. In contrast, the TEQ-A uses responses to a series of screening questions followed by multiple-choice items to determine whether individuals' experiences meet formal abuse criteria. A second aim was to examine the characteristics of youngsters who gave consistent reports on the questionnaires versus those who gave discrepant reports. Characteristics studied included gender, age, current depression, dissociative tendency, and suicidal ideation. These cognitive and psychological constructs, dissociation in particular, may influence or bias memory recall and the reporting of abuse (Brewin, Andrews, & Gotlib, 1993).

Method

Participants

Participants were consecutive admissions over a 1-year period to an acute adolescent inpatient unit in a state facility for children and adolescents. Patients with a history of significant head injuries, a pervasive developmental disorder, or a diagnosis of mental retardation (IQ < 70) were excluded from this study. Seventy participants and their parents or legal guardians gave written informed consent for the study. The sample consisted of 33 (47.1%) boys and 37 (52.9%) girls ranging

in age between 12 and 18 years ($M = 14.8$, $SD = 1.6$ years). Forty-eight percent of the sample were Latino, 41% were African American, 6% were Caucasian, and 5% were of other ethnicities (Asian or Biracial). Thirty-eight percent of the youngsters lived in single-parent households, 31% lived with two adults in the household, and 31% resided with an extended family. Forty-seven percent of the sample had parents who received public entitlements.

Materials

Trauma assessments. The CTQ is a 70-item screening inventory that assesses self-reported experiences of abuse and neglect in childhood and adolescence. Items are rated on a 5-point Likert-type scale with responses that range from "Never True" to "Very Often True." Respondents are asked about their "experiences growing up," and, therefore, the questionnaire does not distinguish between current and past episodes of maltreatment. Previous studies of adult substance abusers demonstrated excellent test–retest reliability for the CTQ over a 2- to 6-month interval, and convergent validity with a structured trauma interview (Bernstein et al., 1994; Fink, Bernstein, Handelsman, Foote, & Lovejoy, 1995). A principle components analysis of the CTQ in an adolescent psychiatric population yielded five rotated factors (Emotional Abuse, Emotional Neglect, Sexual Abuse, Physical Abuse, and Physical Neglect) with high internal consistencies (Cronbach's alpha = .81 to .95). The factors showed good convergent and discriminant validity with therapists' "best-estimate" ratings based on all available data about the patients, including independent corroborative information. Scoring algorithms for the CTQ were based on analyses of five separate normative samples ($N = 979$), including a large heterogeneous group of adolescent inpatients (Bernstein et al., 1997). Scoring the CTQ is accomplished by summing item raw scores on each respective factor. The resulting scale score can be considered an index of trauma severity. The CTQ's physical and sexual abuse scales have a possible range of 7 to 35. In addition, cutoff scores have been derived for identifying cases of abuse and neglect. In an adolescent psychiatric sample, a cutoff score of 9 on the Sexual Abuse factor has a sensitivity of .86 and a specificity of .76 when therapists' ratings of sexual abuse were used as the validating criterion. A cutoff score of 12 on the Physical Abuse factor has a sensitivity of .82 and a specificity of .73 for therapists' rating of physical abuse (Bernstein et al., 1997).

The TEQ-A is a 46-item self-report questionnaire that uses a multiple-choice format to elicit details about six forms of traumatic experiences. These include witnessing home violence, witnessing or being the victim of community violence, accidental physical injuries, physical abuse, and sexual abuse. The TEQ-A defines physical abuse as an assault on a minor (under age 18) by an adult that posed a risk of injury or bodily harm. Physical abuse is screened for in a context of punishments

and disciplinary actions. Youngsters are asked about appropriate types of punishments such as "time out" and "suspension of privileges" in addition to incidents that would be classified as physical abuse. On the TEQ-A, an affirmative response to specific questions about "beatings, beatings with objects, and being kicked, punched, thrown down, tied up, burned, and/or locked up" are considered indicative of physical abuse. Then, details associated with the incident(s) of physical abuse such as the age of onset, duration, extent of physical injuries, and identity of the perpetrator are obtained. On the TEQ-A, sexual abuse is defined as sexual contact between a minor and an adult 5 years older or a peer 2 years older. The topic of sexual abuse is introduced by obtaining a history of current sexual activity and practices, including the use of safe-sex techniques. Then, subjects are asked directly "When you were growing up, did anyone try to have some kind of sexual contact with you in a way that made you feel uncomfortable?" and "If so, how old was this person who did this?" Then, details of each sexual abuse incident such as the age of onset, duration, identity of perpetrators, use of force, and exact nature of each traumatic experience are obtained. Sexual and physical abuse are coded as Yes/No. An adult version of the scale, the TEQ, showed a high rate of agreement between responses to abuse items on the scale and responses to the same questions given in a face-to-face interview in a subset of 50 subjects (kappa = .83; Lipschitz, Kaplan, Sorkenn, Chorney, & Asnis, 1996). Intraclass coefficients for test–retest reliability were $r = .94$ for physical abuse and $r = .92$ for sexual abuse over a 3-month time interval. When adolescents' responses on the TEQ-A were compared to a best-estimate source based on information from therapist interviews, chart reviews, and child welfare agencies, the agreement for sexual abuse was 88% (kappa = .75). Participants' reports of physical abuse on the TEQ had an 84% rate of agreement with a best-estimate source (kappa = .66; Winegar & Lipschitz, 1997).

Psychiatric diagnoses were made using a best-estimate diagnostic approach. The following sources of information were used: (a) a structured, DSM-III-R–based, psychiatric diagnostic interview, the revised version of the Diagnostic Interview for Children and Adolescents (DICA-R; Welner, Reich, Herjanic, Jung, & Amado, 1987; Reich et al., 1995); (b) clinician-formulated diagnoses recorded at the time of discharge; and (c) a review of the medical record. All sources of information were combined to yield multiple diagnoses. Each participant had, on average, 3.2 psychiatric diagnoses. Seventy-one percent of the participants met criteria for at least one of the disruptive-behavior disorders (attention-deficit hyperactivity disorder, oppositional defiant disorder, and/or conduct disorder). The prevalence of a major affective disorder was 57%, and 33% of participants met criteria for an episode of current major depression. Thirteen participants met criteria for a diagnosis of alcohol abuse and 15 participants were diagnosed with a psychotic disorder (schizophrenia, schizoaffective disorder, or psychosis not otherwise specified).

Psychopathological Measures

Participants completed a battery of standardized, self-report measures of psychopatholgy 2 to 3 weeks after admission. Depressive symptoms were assessed with the Beck Depression Inventory (Beck & Steer, 1987). This is a well-established, 21-item, self-report scale that assesses current depressive symptoms. Internal consistency coefficients range from .79 for adolescent inpatients to .87 for high school students.

Dissociative symptoms were assessed with the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986). This is a 28-item self-report scale that measures lifetime or trait dissociative symptoms. It has a test–retest reliability of .84 at 4 to 8 weeks, good split-half reliability, and adequate clinical validity.

Current suicidal ideation was assessed with the Suicidal Ideation Questionnaire—JR (Reynolds, 1987). This is a 15-item, self-report measure for which responses to items about active and passive suicidal ideation over the past month are graded 0 to 6 using a Likert-scale format. Internal consistency is excellent (alpha = .97) and norms have been established on over 2,000 adolescents. A cutoff score of 31 indicates significant suicidal ideation.

Procedure

Using a counterbalanced assignment method, participants completed the first of the two self-report questionnaires, the TEQ-A or the CTQ, during the second week of their hospitalization. One week later they completed the second questionnaire. Lengths of stay on this unit averaged 4 weeks, and participants were not acutely distressed when they completed the questionnaires.

Statistical Analyses

We applied basic descriptive analyses to the data obtained from the TEQ-A to characterize the sample's abuse experiences. Chi-square analyses were used to compute the numbers and percentages of youngsters who were consistent in their accounts of abuse on the two instruments. In addition, Cohen's kappa statistic, a measure of agreement that corrects for chance, was calculated for physical and sexual abuse. Further tests of agreement between the individual items for sexual and physical abuse on the CTQ and the TEQ-A were performed with a series of point-biserial correlations. In addition, youngsters who were classified as abused on both measures were compared to those who were classified differently (as abused on the CTQ and nonabused on the TEQ-A). Student *t*-tests were used for comparison of consistent versus discrepant cases on continuous measures such as age, depression, dissociation, suicidal ideation, as well as scores on each of the

five CTQ subscales for abuse and neglect. A chi-square analysis was performed for the categorical variable of gender. All tests were two-tailed with significance set at $p < .05$.

Results

Prevalence and Characteristics of Abuse

Using the recommended cutoff score of 12, the prevalence of physical abuse, as measured by the CTQ, was 52.8% ($n = 37$). Using the recommended cut score of 9, the prevalence of sexual abuse was 70% ($n = 49$). The prevalence of physical abuse and sexual abuse, as measured by the TEQ-A, was 44.3% ($n = 31$) and 50% ($n = 35$), respectively.

Characteristic features of the 35 cases of sexual abuse obtained from responses to the TEQ-A included the following: the mean age of abuse onset was 8.5 ($SD = 3.8$) years. The mean duration was 2.1 ($SD = 3.8$) years, with a mean interval of 5.0 ($SD = 3.9$) years since the last occurrence. Seventy-one percent ($n = 25$) of cases involved penetration or oral sex, and 83% of cases ($n = 29$) consisted of genital contact. Methods of coercion included threats and bribes (61%) and physical force (48.5%). Three subjects reported physical injury at the time of abuse. Thirty of the perpetrators were adult; five were adolescents. Twenty-four subjects had a single perpetrator, and 11 youngsters had at least two perpetrators. The majority of the perpetrators of sexual abuse were intrafamilial (fathers, stepfathers, uncles, brothers, grandfathers) and known to their victims. Characteristic features of the 31 cases of physical abuse included the following: a mean age of onset of 5.3 ($SD = 3.5$) years, a mean duration of 6.4 ($SD = 4.4$) years, and a mean interval of 4.3 ($SD = 4.2$) years since the last occurrence. Twenty-four (73%) subjects sustained physical injuries from the abuse and 8 subjects (24%) received medical attention.

Table 1 reflects the numbers and percentages of youngsters who gave consistent and discrepant accounts of physical and sexual abuse on the two instruments. Physical abuse shows excellent agreement across instruments, with 86%

Table 1. Agreement of Sexual Abuse and Physical Abuse by the TEQ-A and the CTQ in 70 Adolescent Inpatients

	Sexual Abuse				Physical Abuse			
	Present[a]		Absent		Present[a]		Absent	
	n	(%)	*n*	(%)	*n*	(%)	*n*	(%)
Present[b]	32	(45.7)	17	(24.3)	29	(41.4)	8	(11.4)
Absent	3	(4.3)	18	(25.7)	2	(2.8)	31	(44.3)

[a] Affirmative answer to screening questions.
[b] Score greater than or equal to cut score of 9.

Table 2. Point-Biserial Correlations of Individual Items of CTQ Factors with TEQ-A Assessments of Physical and Sexual Abuse in 70 Adolescent Inpatients

Physical Abuse		Sexual Abuse	
CTQ Item	TEQ-A[a]	CTQ Item	TEQ-A[a]
Hit by family member	.62***	Sibling molested	.30*
Witness family violence	.40**	Sex with adult	.42***
Sustained physical injuries	.37**	Sexual touching	.74***
Bruises or marks	.65***	Bribes and threats	.54***
Belief about physical abuse	.53***	Belief about sexual abuse	.64***
Injuries noticed by others	.60***	Observed sexual acts	.66***
Punished by belt	.56***	Statement about molestation	.24*

[a] Affirmative response to screening questions on TEQ-A.
*$p < .05$. **$p < .01$. ***$p < .001$.

of participants agreeing on the presence or absence of a physical abuse history (kappa = .72). Seventy-one percent of youngsters were consistent in their reporting of sexual abuse; however, 35% ($n = 17$) of youngsters who fell above the cutoff score for positive sexual abuse by the CTQ denied it on the TEQ-A, lowering the kappa statistic to .41. In contrast, there were only three cases of youngsters endorsing sexual abuse on the TEQ-A and not on the CTQ and there were only two cases of youngsters endorsing physical abuse on the TEQ-A and not on the CTQ.

A point-biserial correlation of the total score on the physical abuse subscale of the CTQ correlated significantly with the assessment of physical abuse by the TEQ-A ($r(69) = .71$, $p < .001$) and less highly with the assessment of sexual abuse by the TEQ-A ($r(69) = .30$, $p < .05$). Similarly, a point-biserial correlation of the score on the CTQ sexual abuse subscale correlated significantly with the report of sexual abuse obtained by the TEQ-A ($r(69) = .66$, $p < .001$), but correlated less well with the assessment of physical abuse by the TEQ-A ($r(69) = .30$, $p < .05$), thus supporting the convergent and discriminant validity of the two instruments. Table 2 illustrates the point-biserial correlation for each item on the Sexual and Physical Abuse subscales of the CTQ and the assessment of abuse by the TEQ-A.

Differences in Consistent and Discrepant Reporters

Youngsters who gave discrepant accounts of sexual abuse, classified as "abused" on the CTQ and "not abused" on the TEQ-A, were significantly more likely to be male, $\chi^2(1, N = 70) = 21.2$, $p < .001$), but they did not differ significantly in age ($t < 1$) compared to consistent reporters of sexual abuse on both instruments. Youngsters who consistently reported sexual abuse on both instruments were significantly more likely to report more depressive symptoms ($t(49) = 2.5$, $p < .05$) and greater current suicidal ideation ($t(49) = 4.0$, $p < .01$)

than youngsters who were inconsistent in their reports of sexual abuse. They were not significantly more likely to report greater dissociative symptoms than those with discrepant accounts of sexual abuse, ($t(49) = 1.26$, *ns*). However, the group reporting sexual abuse on either or on both instruments reported significantly higher dissociative symptoms than subjects who did not report sexual abuse on either instrument ($t(65) = 2.94$, $p < .01$).

Similar comparisons were made between youngsters who gave discrepant accounts of physical abuse, classified as "abused" on the CTQ and "not abused" on the TEQ-A and youngsters who consistently reported physical abuse on both instruments. There were no gender differences ($\chi^2 < 1$) or age differences ($t(36) = 1.06$, *ns*) between discrepant and consistent reporters of physical abuse. Consistent reporters of physical abuse, relative to discrepant reporters, did not endorse significantly greater levels of depression, dissociation, or suicidal ideation (all $+s < 1$), than discrepant reporters of physical abuse.

Table 3 illustrates the differences in the mean scores of the five CTQ subscales of abuse and neglect between consistent and discrepant reporters of sexual abuse and physical abuse on the two instruments. There were significantly higher endorsements of emotional neglect ($t(47) = 2.22$, $p < .05$), physical neglect ($t(47) = 1.98$, $p = .05$), and sexual abuse ($t(47) = 6.74$, $p < .001$) in youngsters who gave consistent reports of sexual abuse. Youngsters who were inconsistent in their reports of physical abuse had significantly lower physical abuse scores on the CTQ than consistent reporters ($t(35) = 2.42$, $p < .05$). Youngsters who were consistent in their reports of physical abuse tended to report higher levels of emotional abuse and neglect and physical neglect than youngsters with discrepant accounts, although differences between the two groups on these scales did not achieve statistical significance.

Table 3. CTQ Factor Scores of Abuse and Neglect in Adolescents with Consistent and Discrepant Reports of Sexual and Physical Abuse

	Sexual Abuse				Physical Abuse			
	Consistent Report[a] ($n = 32$)		Discrepant Report[b] ($n = 17$)		Consistent Report[a] ($n = 29$)		Discrepant Report[b] ($n = 8$)	
CTQ Factor	*M*	(*SD*)	*M*	(*SD*)	*M*	(*SD*)	*M*	(*SD*)
Emotional Abuse	40.7	(15.4)	32.8	(15.7)	46.1	(13.9)	38.2	(14.2)
Emotional Neglect	48.2	(18.4)	39.1*	(10.6)	48.2	(17.1)	43.9	(10.9)
Physical Neglect	18.9	(7.5)	15.7*	(3.7)	19.2	(6.9)	17.7	(6.4)
Sexual Abuse	22.6	(8.0)	12.1***	(2.6)	19.3	(9.3)	20.7	(9.6)
Physical Abuse	18.8	(8.8)	14.6	(7.9)	23.0	(6.9)	16.7*	(4.7)

[a]A response of "yes" on both the CTQ and TEQ-A.
[b]A response of "yes" on the CTQ and a response of "no" on the TEQ-A.
*$p < .05$. **$p < .01$. ***$p < .001$.

Discussion

In this study, two instruments incorporating different formats and utilizing different approaches to establish maltreatment status showed good agreement in identifying cases of physical abuse and fair agreement in identifying sexual abuse. Eighty-six percent of youngsters were classified as physically abused and 71% as sexually abused on both instruments. In both instances, the CTQ, a dimensional measure that uses cutoff scores to identify cases, yielded higher rates of physical and sexual abuse than did the TEQ-A, a questionnaire that uses multiple "yes/no" screening questions and a multiple-choice format to determine whether childhood experiences meet formal definitions of abuse. Moreover, comparison of consistent versus discrepant abuse cases revealed clear differences between them. All but one of the discrepant sexual abuse reporters were boys, and they were significantly less depressed and suicidal than the group who consistently reported sexual abouse on both instruments. In addition, they endorsed significantly lower levels of maltreatment on the CTQ subscales for emotional neglect, physical neglect, and sexual abuse. In fact, the mean CTQ sexual abuse score for the discrepant reporters, 12.1, is in the range indicative of low to moderate abuse, whereas youngsters who were consistent in their reports of sexual abuse achieved a mean CTQ score of 22.6, in the range of severe to extreme abuse (Bernstein et al., 1994). Thus, the discrepant sexual abuse reporters appeared to be adolescent boys with less severe abuse experiences and less prominent abuse sequelae.

The likely explanation for these findings is that the CTQ is a more sensitive instrument than the TEQ-A for detecting physical and sexual abuse cases of lesser severity. For example, the CTQ's use of a Likert-type format might facilitate the reporting of events that were infrequent or less subjectively distressing. Such low-intensity experiences might include the sexual "initiation" of adolescent boys by older females, events that meet the legal definition of abuse, but ones that might not be considered abusive by the victims. Alternatively, the CTQ may yield some false-positive responses in which a subject's endorsement about sexual abuse involving the subject's siblings is misclassified as abusive. Further details about, and a comparison of the type of physical or sexual abuse, for example, the percentage of intrafamilial versus extrafamilial perpetrators, in the consistent and inconsistent groups would be helpful in differentiating true events and false positives.

A third possibility is that these discrepant reports represent a participant's false allegations of abuse. This possibility seems a remote one. In a review of 576 complaints of sexual abuse made to the Denver Department of Social Services, only about 2% of the allegations were false (Jones & McGraw, 1987). In the largest survey of potential false allegations, Everson and Boat (1989) surveyed 100 child protective caseworkers who handled 1,249 allegations of sexual abuse during a 12-month period. On the basis of clinical interviews with children and other sources, caseworkers estimated that 2% of children under age 6 and 8% of adolescents had fabricated an abuse allegation. If the discrepant reporters in our

study were deliberately making a false allegation with the motives of some form of a secondary gain, they would be more likely to report it on both instruments and inflate the extent of the abuse. The discrepant reporters of sexual abuse endorsed significantly low levels of all types of abuse and neglect abuse compared to the consistent reporters.

A fourth possibility for these discrepant accounts could be due to the effects of dissociative phenomena, where adolescents with prominent dissociative symptoms have less-consistent memory recall. However, in this study, youngsters who gave discrepant reports of sexual abuse were not significantly more dissociative than youngsters who gave consistent reports of abuse. Both groups scored significantly higher on the DES than did the group who did not endorse sexual abuse by either instrument, suggesting that dissociation was associated with sexual abuse per se and not an explanation for discrepant reports, at least over a 1-week time interval.

Our finding that, in general, adolescents are consistent in their reports of abuse across instruments with different formats is in agreement with research conducted in adult populations. In a recent community survey of sexual abuse in 3,000 women, Martin, Anderson, Romans, Mullen, and O'Shea (1993) concluded that adults gave consistent reports of sexual abuse via an anonymous postal survey and a face-to-face interview. However, they were more likely to disclose sexual abuse by a close family member in the anonymous postal survey and reported more noncontact-type experiences in the interview. Walker, Bernstein, and Keegan (1997) reached a similar conclusion in a study of female, chronic-pain patients that compared the CTQ to a semistructured interview developed by John Briere, the Child Maltreatment Interview (Bernstein, personal communication).

In the child literature, great attention is paid to the format and context of forensic and clinical interviews when there is an allegation of sexual abuse (Council of the American Academy of Child and Adolescent Psychiatry, 1997). There is an awareness that disclosure of abuse depends not only on whether the report is verifiable and accurate, but whether the interviewing technique includes the use of developmentally appropriate language, multiple emotional and psychological factors directly related to the child, and the social ramifications of the abuse allegation (Dent & Stephenson, 1979; Lamb, 1994). In our study the more severe cases of sexual abuse are less ambiguous and therefore likely to be reported consistently by adolescents across a variety of settings and instrument formats. Less-severe sexual abuse cases associated with male gender and lower levels of psychopathology tend to be more ambiguous. In these cases, issues such as instrument format, wording of the questions, and definitions of abuse become more salient with regard to the classification and disclosure of abuse cases.

Several limitations of this study need to be acknowledged. First, this study was conducted in an inpatient psychiatric setting with youngsters who have multiple behavioral and emotional problems. Their response rates on the two instruments might not be generalizable to community samples of adolescents. The relatively small size of our sample further reduces generalizability. Clearly, additional

sampling from clinical populations of adolescent outpatients and nonclinical populations is needed. Second, we did not have "objective" evidence that the abuse had indeed occurred, and we did not attempt to uncover the "truth" about abuse occurrences. Sexual abuse, in particular, is often a "secret" event and the verification of an abuse allegation by independent evidence such as medical evidence, a perpetrator confession, or an eyewitness report is rare even in confirmed cases. Third, test–retest reliability data for adolescents for either instrument have not yet been established. Each of the instruments has excellent test–retest reliability in adult samples and some measure of validity when participants' answers were compared to a best-estimate source. It seems unlikely that poor instrument test–retest reliability would be the only explanation for the fair rate of agreement obtained for sexual abuse.

Finally, we compared agreement and discrepancies in abuse reports between two measures, both of which used a self-report format; therefore, some of the high correlation in these findings may be due to method correlation. However, a self-report format of the CTQ in comparison to an interview format of the CTQ in adult populations yielded very high rates of agreement (Fink et al., 1995). Thus, to account for the problem of method correlation, future studies should compare the self-report and interview formats of abuse questionnaires in adolescent populations.

Acknowledgments

This work was supported in part by a Young Investigator Award from the National Alliance for Research on Schizophrenia and Depression (NARSAD) to Dr. Lipschitz. The authors thank the children and staff of the Bronx Children's Psychiatric Center.

References

Beck, A. T., & Steer R. A. (1987). *Manual for Revised Beck Depression Inventory*. New York: Psychological Corporation.

Bernstein, D. P., Ahluvalia, T., Pogge, D., & Handelsman, L. (1997). Validity of the Childhood Trauma Questionnaire in an adolescent psychiatric population. *Journal of the American Academy of Child Adolescent Psychiatry, 36*, 340–348.

Bernstein, D. P., Fink, L., Handelsman, L., Foote, J., Lovejoy, M., Wenzel, K., Sapareto, E., & Ruggiero, J. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. *American Journal of Psychiatry, 151*, 1132–1136.

Bernstein, D. P., & Rave, M. (1996). *The retrospective assessment of childhood maltreatment: A review and comparison of instruments*. Unpublished manuscript.

Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability and validity of a dissociation scale. *Journal of Nervous and Mental Disease, 174*, 727–735.

Boney-McCoy, S., & Finkelhor, D. (1995). Psychosocial sequelae of violent victimization in a national youth sample. *Journal of Consulting and Clinical Psychology, 63*, 726–736.

Brewin, C. R., Andrews, B., & Gotlib, I. H. (1993). Psychopathology and early experience: A reappraisal of retrospective reports. *Psychological Bulletin, 113*, 82–98.

Briere, J. (1992). Methodological issues in the study of sexual abuse effects. *Journal of Consulting and Clinical Psychology, 60*, 196–203.

Briere, J., & Zaidi, L. Y. (1989). Sexual abuse histories and sequelae in female psychiatric emergency room patients. *American Journal of Psychiatry, 146*, 1602–1606.

Chu, J. A., & Dill, D. L. (1990). Dissociative symptoms in relation to childhood physical and sexual abuse. *American Journal of Psychiatry, 147*, 887–892.

Council of the American Academy of Child and Adolescent Psychiatry (1997). Practice parameters for the forensic evaluation of children and adolescents who may have been sexually or physically abused. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 423–442.

Dent, H. R., & Stephenson, G. M. (1979). An experimental study of the effectiveness of different techniques of questioning child witnesses. *British Journal of Social and Clinical Psychiatry, 18*, 41–51.

Dill, D. L., Chu, J. A., Grob, M. C., & Eisen, S. V. (1991). The reliability of abuse history reports: A comparison of two inquiry formats. *Comprehensive Psychiatry, 32*, 166–169.

Erikson, E. (1969). *Identity: Youth and crisis*. New York: W. W. Norton.

Everson, M. D., & Boat, B. W. (1989). False allegations of sexual abuse by children and adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 28*, 230–235.

Fink, L., Bernstein, D. P., Handelsman, L., Foote, J., & Lovejoy, M. (1995). Initial reliability and validity of the Childhood Trauma Interview: A new multidimensional measure of childhood interpersonal trauma. *American Journal of Psychiatry, 152*, 1329–1335.

Finkelhor, D. (1986). *A source book on child sexual abuse*. Beverly Hills, CA: Sage.

Fromuth, M. E. (1986). The relationship of childhood sexual abuse with later psychological and sexual adjustment in a sample of college women. *Child Abuse and Neglect, 10*, 5–15.

Johnson, B. D., Wish, E. D., Schmeidler, J., & Huizinga, D. (1991). Concentration of delinquent offending: Serious drug involvement and high delinquency rates. *Journal of Drug Issues, 21*, 205–229.

Jones, D. P. H., & McGraw, J. M. (1987). Reliable and fictitious accounts of sexual abuse of children. *Journal of Interpersonal Violence, 2*, 27–45.

Koss, M. (1985). The hidden rape victim: Personality, attitudinal and situational characteristics. *Psychology of Women Quarterly, 9*, 193–212.

Lamb, M. E. (1994). The investigation of child sexual abuse: An interdisciplinary consensus statement. *Child Abuse and Neglect, 18*, 1021–1028.

Lanktree, C., Briere, J., & Zaidi, L. (1991). Incidence and impact of sexual abuse in a child outpatient sample: The role of direct inquiry. *Child Abuse and Neglect, 15*, 447–453.

Lipschitz, D. S., Kaplan, M. L., Sorkenn, J., Chorney, P., & Asnis, G. M. (1996). Childhood abuse, adult assault and dissociation. *Comprehensive Psychiatry, 37*, 261–266.

Martin, J., Anderson, J., Romans, S., Mullen, P., & O'Shea, M. (1993). Asking about child sexual abuse: Methodological implications of a two-stage survey. *Child Abuse and Neglect, 17*, 383–392.

Mullen, P. E., Romans-Clarkson, S. E., Walton, V. A., & Herbison, G. P. (1988). Impact of sexual and physical abuse on women's mental health. *Lancet*, 841–845.

Peters, S. D., Wyatt, G. E., & Finkelhor, D. (1986). Prevalence. In D. Finkelhor (Ed.), *A source book on child sexual abuse* (pp. 15–59). Beverly Hills, CA: Sage.

Reich, W., Cottler, L., McCallum, K., Corwin, D., & van Eerdewegh, M. (1995). Computerized interviews as a method of assessing psychopathology in children. *Comprehensive Psychiatry, 36*, 40–45.

Reynolds, W. M. (1987). *Suicidal Ideation Questionnaire*. Odessa, FL: Psychological Assessment Resources.

Russell, D. E. H. (1983). The incidence and prevalence of intrafamilial and extrafamilial sexual abuse of female children. *Child Abuse and Neglect, 7*, 133–146.

Siegal, J. M., Sorenson, S. B., Golding, J. M., Burnham, M. A., & Stein, J. A. (1987). The prevalence of child sexual abuse: The Los Angeles epidemiological catchment area project. *American Journal of Epidemiology, 126*, 1141–1153.

Stamm, B. H. (1996). *Measurement of stress, trauma and adaptation*. Lutherville, MD: Sidran Press.

Walker, E., Bernstein, D., & Keegan, D. (1997). *A comparison of categorical and dimensional methods of assessing childhood interpersonal trauma.* Manuscript submitted for publication.

Welner, Z., Reich, W., Herjanic, B., Jung, K. G., & Amado, H. (1987). Reliability, validity and parent-child agreement of the Diagnostic Interview for Children and Adolescents (DICA). *Journal of the American Academy of Child and Adolescent Psychiatry, 26*, 649–653.

Winegar, R. W., & Lipschitz, D. S. (1997, June). *The reliability of adolescents' reports of maltreatment and a comparison of different inquiry formats.* Paper presented at the 5th International Family Violence Research Conference, Durham, NH.

Wyatt, G. E., & Peters, S. D. (1986). Issues in the definition of child sexual abuse in prevalence research. *Child Abuse and Neglect, 10*, 231–240.