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Childhood Sexual Abuse and Abuse-Specific Attributions of Blame over Six Years Following Discovery

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Abstract

Objective—The purpose of this study was to examine patterns of change in attributions for childhood sexual abuse (CSA) over a 6-year period and whether such patterns were related to abuse severity, age, gender, and subsequent symptoms of depression and PTSD.

Methodology—One-hundred and sixty children, 8–15 years old, were interviewed within 8 weeks of the time the CSA was reported to child protective services (i.e., the time of abuse discovery). Follow-up interviews were conducted 1-year later on 147, and 6 years later on 121 of the original participants. Abuse-specific attributions were obtained using two methods. Participants first responded to an open-ended interview question about why they believed the CSA had happened to them and then completed a rating scale about the extent to which possible attributions for the CSA applied to them (e.g., “Because I was not smart enough”).

Results—Over time, perpetrator-blame attributions were consistently more common than self-blame attributions for CSA (using both interview and rating measures). Youth were more likely to report self-blame attributions on the rating measure than the open-ended interview question. The interview method indicated that youth often felt confused about why the abuse happened up to a year following discovery but this response diminished by the third assessment. On average, ratings of perpetrator-blame attribution remained high over time ($p < .05$), whereas ratings of self-blame decreased ($p < .01$). Penetration was related to more self-blame ($p < .05$) and less perpetrator-blame ($p < .05$), and the use of force was related to more perpetrator-blame. The initial level of self-blame attribution ratings predicted subsequent symptoms of depression ($p < .05$) and intrusive experiences ($p < .05$) after controlling for age at abuse discovery, gender, and self-blame attributions for common events. Perpetrator-blame attributions were not related to symptoms.

Conclusions—The findings of this study suggest that assessing responses to open-ended interview questions about the perceived reasons for the abuse and ratings of attributions are important for understanding how youth make sense of their abuse. Abuse-specific self-blame attributions at abuse discovery have a persistent effect on internalizing symptoms and should be assessed and the target of treatment as soon as possible after CSA has been reported to the authorities.

Keywords

child sexual abuse; self-blame; perpetrator blame

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Introduction

Childhood sexual abuse (CSA) motivates a search for meaning to make sense out of experiences that violate beliefs in a safe and just world. Understanding the abuse and its consequences involves making causal attributions about why the abuse occurred. Abuse-specific attributions are recognized as important for explaining adaptation to abuse and for the design of treatment (Celano, Hazzard, Campbell, & Lang, 2002; Valle & Silovsky, 2002). Although attributions for abuse events are likely to change as individuals gain more distance from the time in their lives when the abuse occurred most of the research on abuse-specific attributions is cross-sectional. This article examines the nature of abuse-specific attributions over six years in a sample first evaluated soon after the abuse was reported to child protective services (Feiring, Taska, & Lewis, 1998).

Youth spontaneously make both self and perpetrator attributions about sexual abuse (Dalenberg & Jacobs, 1994; Feiring, Taska & Chen, 2002; Hunter, Goodwin, & Wilson, 1992; McGee, Wolfe, & Olson, 2001). Typically victims attribute more blame to the perpetrator than the self (Feiring et al., 2002; McGee et al., 2001; Spaccarelli, 1995). Most of the knowledge about abuse-specific attributions comes from children assessed within six months of the time the CSA is reported to child protective services (referred to here as abuse discovery) or from adults seen long after the abuse has occurred (e.g., Coffey, Leitenberg, Henning, Turner, & Bennet, 1996; Hunter et al., 1992; McGee et al., 2001). Little is known about how abuse-specific attributions around the time of abuse discovery are related to changes in attributions in the short- and long-term. The current study uses a longitudinal design to examine intraindividual continuity in abuse-specific attributions over a 6-year time span following abuse discovery. Intraindividual continuity involves stability over time within individuals (e.g., the same person remains consistently high in self-blame attributions over time). Intraindividual continuity was of interest because we wanted to understand when individuals were likely to maintain patterns of attribution considered to be emblematic of poor functioning and when others were likely to show patterns of positive change (e.g., a decrease in self-blame attributions or increase in perpetrator-blame attributions). The first major focus of this study was to identify patterns of self-blame and perpetrator blame attributions for CSA over time. Next, the extent to which patterns of attributions were related to abuse severity, age at abuse discovery, participant gender and internalizing symptoms was examined.

Abuse severity and abuse- specific attributions

The clinical literature suggests that more severe sexual abuse leads to both more self- as well as more perpetrator-blame (Herman, 1992). More severe and particularly persistent abuse might lead children to believe that it is something about themselves that is deserving of CSA. On the other hand, severe abuse in which the perpetrator is seen as intentionally causing great harm would be expected to be related to more perpetrator-blame. Few studies have considered the relation between abuse severity and abuse-specific attributions, and the findings are inconsistent. More abuse-specific self-blame was associated with severity of CSA in adults, but perpetrator-blame was not assessed (Coffey et al., 1996; Steel, Sanna, Hammond, Whipple, & Cross, 2004). No relation was found between self-ratings of severity and self- or perpetrator-blame in adolescent victims of CSA, although this may have been due to consistently high severity ratings across all CSA participants (McGee et al., 2001). A study that included children, adolescent and adults found that reports of the use of force during the abuse were related to perpetrator- but not self-blame for CSA (Hunter et al., 1992).

Overall, the literature on adults suggests that self-blame is related to abuse severity, while the work on youth indicates no such relation but rather an association between perpetrator-blame and severity. These findings are difficult to compare because the work on adults does not include separate measurement of perpetrator-blame, and the assessment of abuse severity

differs in regard to the use of a summary score or individual indicators of severity. Without longitudinal data it is not possible to examine whether the relations between severity and abuse-specific attributions change over time. The current study was able to address this issue as self- and perpetrator- attributions were obtained from childhood to young adulthood and related to indicators of abuse severity (e.g., use of force, duration of abuse, identity of perpetrator) obtained from child protective service records at the time of abuse discovery. Greater abuse severity was expected to be positively related to self-blame and perpetrator-blame attributions at the time of abuse discovery. Over time, individuals with greater abuse severity who were initially high in abuse-specific self-blame were expected to remain high in self-blame, whereas those who were initially lower were expected to show an increase. Thus, greater abuse severity would be expected to make it more difficult for individuals to manage negative emotions and make meaning out of their abuse experiences. Greater severity would make it more difficult to process and reject inappropriate self-blame thoughts. Regardless of abuse severity, individuals were expected to increase in perpetrator-blame over time. Over time, individuals were expected to view the perpetrator more readily as the source of harm because such attributions are voluntarily expressed, appropriate and reinforced as valid.

Gender and abuse- specific attributions

The emotional, social and cognitive processes that make each gender vulnerable to the consequences of CSA are poorly understood. Most studies of general attributional style in children and adolescents find no gender differences (Gotlib, Lewinsohn, Seeley, Rohde, & Redner, 1993; Quiggle, Garber, Panak, & Dodge, 1992; Mezulis, Hyde, & Abramson, 2006), although one study reported adolescent women were more likely to make internal attributions for negative events (Gladstone, Kaslow, Seeley, & Lewinsohn, 1997). Similarly, studies on abuse-specific attributions find no gender differences in levels of self- and perpetrator-blame (Hunter et al., 1992; McGee et al., 2001). Despite this paucity of empirical support, gender differences in abuse-specific attributions were explored because so few studies have done so, none has considered changes in abuse-specific attributions as a function of gender, and conceptually self-blame attributions have been viewed as particularly important for women's adaptation to CSA (Cutler & Nolen-Hoeksema, 1991).

Age and abuse- specific attributions

Although it is recognized that a developmental perspective is essential to understanding children's adaptation to CSA, few studies address age differences or how changing cognitive and emotional skills and social contexts are likely to influence adjustment (Trickett & McBride-Chang, 1995). Whereas some studies find prepubescent children to be more vulnerable than adolescents, other results suggest the later the abuse the more pervasive the effects (Kendall-Tackett, Williams, & Finkelhor, 1993; Downs, 1993). Previous work focuses on symptoms rather than processes such as attributions for CSA. This study examined how age at abuse discovery was related to abuse-specific attributions at discovery and over time. The limited research on abuse-specific attributions is contradictory with one study showing children having more (Hazzard, Celano, Gould, Lawry, & Webb, 1995) and another less (Hunter et al., 1992) self-blame than adolescents or adults. The theoretical literature suggests competing hypotheses for which age group is likely to make more self-blame attributions for the abuse. Latency-age children may be more likely to internalize accusations of blame from the perpetrator, parents and others because they are less able to distinguish between having participated in actions considered wrong and being responsible for these actions (Celano, 1992). Alternatively, adolescents should blame themselves more than children because they are seen by others as more responsible for or complicit in the abuse (Back & Lips, 1998; Collings & Payne, 1991; Heriot, 1996). Adolescence also is a time of increased self-reflection and self-doubt (Harter, 1990). Being an adolescent at abuse discovery was expected to be related to more self-blame attributions and greater persistence in making such attributions over time. In regard to

developmental differences in perpetrator-blame the only study to address this issue found no effects of age (Hunter et al., 1992). We did not expect age differences in perpetrator-blame at discovery because all victims, regardless of age, are encouraged by professionals to make such attributions.

Internalizing symptoms and abuse- specific attributions

Abuse-specific attributions are important in their own right because they provide insight into how individuals make meaning out of their CSA experiences. They also are important because they can help explain which CSA victims are more likely to develop adjustment problems. Although the field recognizes the need to consider individual differences in attributions for the abuse, there is a relatively small number of existing studies of children and adolescents. Negative appraisals of the abuse experience, including negative evaluations of the self, feeling negatively evaluated by others, and feeling critical of others were strongly associated with depression and PTSD symptoms in children and adolescents (Morrow, 1991; Spaccarelli, 1995; Spaccarelli & Fuchs, 1997; Wolfe, Sas, & Wekerle, 1994). Studies that have asked about abuse-related attributions, such as feeling different from peers or making personal attributions for negative events (that is they do not ask directly about attributions for the abuse), showed that negative evaluations of self and others were related to internalizing symptoms (Mannarino & Cohen, 1996a,b; Mannarino, Cohen, & Berman, 1994). This research used relatively small sample sizes, and has not assessed specific components of abuse attributions or examined their relation to symptom development over time. A recent cross-sectional study examined abuse-specific attributions to open-ended interview probes in a large sample of maltreated adolescents (McGee et al., 2001). Results showed that abuse-specific attributions explained variations in adjustment over and above that due to abuse severity.

Previous results from the current study showed that abuse-specific attributions of self-blame at the time of abuse discovery and a year later were related to symptoms of depression and PTSD, even after controlling for abuse severity, gender and age at discovery (Feiring et al., 2002). Abuse-specific attributions were assessed on a relatively large sample using both open-ended interview questions and responses to attribution items that were written to measure self and perpetrator explanations for why the abuse happened. This article extends this work by examining how patterns of abuse-specific attributions over three time points that spanned 6 years from abuse discovery were related to symptom development. Individuals who showed linear increases in abuse-specific self-blame attributions were expected to report the poorest adjustment. Individuals who showed linear decreases in abuse-specific self-blame and linear increases in perpetrator-blame were expected to report the best adjustment.

Method

Sample Selection and Characteristics

Participants were recruited from urban and suburban populations in southern, central and northern New Jersey (from 11/9/1993–11/3/1997). The majority of the sample (95%) came directly from child protective services (CPS) offices or regional child abuse medical clinics working with CPS. Intake logs were reviewed by project staff to identify eligible cases. To be eligible, children had to be between 8–15 years of age, in the custody of a non-offending parent or caregiver, and identified as a CSA case within 8 weeks from the date CPS opened the case (referred to as abuse discovery). Children were excluded if they and their non-offending parent or caregiver did not speak English, or if they had an active psychotic disorder or an active substance use disorder that resulted in significant impairment in adaptive functioning. Caseworkers contacted families to obtain permission for project staff to contact them to discuss the study. The recruited sample was comprised of children with confirmed cases of sexual

abuse by at least one of the following criteria: specific medical findings, confession by the offender, abuse validated by an expert, or conviction of the offender in family or criminal court.

All but three of the 185 families approached by caseworkers agreed to be contacted by the project staff. Of those contacted, 160 agreed to participate and completed the initial assessment at abuse discovery (T1), before any treatment was received; 147 of the original participants were seen approximately 1 year later (T2, $M = 1.2$, $SD = .3$ years). Between T1 and T2 68% of the sample had received some form of treatment, typically from community-based agencies (Mean length of treatment = 5.4 mo., $SD = 4.7$ mo.). The third assessment (T3) was obtained approximately 6 years following abuse discovery ($M = 6.2$, $SD = 1.2$ years) on 121 of the participants initially seen at T1; 118 participants were seen for all three assessments. Between T2 and T3, 39% of the sample received some form of treatment (Mean length of treatment = 8 mo., $SD = 8.5$ mo.).

At T1, 55% of the sample were children ages 8–11 years ($M = 9.6$, $SD = 1.1$), and 45% were adolescents ages 12–15 years ($M = 13.5$, $SD = 1.1$). Seventy-three percent of the sample were female. The majority of the participants came from single-parent families (67%) and were poor (64%, with an income of \$25,000 or less). The ethnicity of the sample was self-reported as African-American (41%), White (31%), Hispanic (20%), and other (8%, including Native American and Asian). There were no significant differences on demographic, abuse characteristics, attribution, or PTSD and depressive symptoms for individuals who remained in or dropped out of the study (for T1–T2, T1–T3 or T2–T3).

Procedure

All the procedures for this study were approved by the institutional review boards of the University of Medicine and Dentistry of New Jersey and the College of New Jersey where the research took place. At each of the three assessment points, when the participant was a minor, written informed assent was obtained from the children and written informed consent from their parent/guardian. At T3, those participants who were 18 or older provided written informed consent. Participants were administered a structured interview by a trained clinician in a private office. Abuse-related information was obtained from CPS and law enforcement case records at T1 after the children were interviewed. Participants were reimbursed a total of \$250 for completion of the initial and the two follow-up assessments.

Measures

Abuse characteristics—At T1 characteristics of the abuse incidents that qualified the participant for inclusion in the study were determined by using a checklist designed to collect information systematically about the specifics of the abuse. This checklist was completed by a staff member after reviewing records from law enforcement agencies and CPS. The checklist included information on: the relationship of the perpetrator to the victim; frequency and duration of the victimization; how the abuse was discovered; the types of abusive acts experienced (e.g., fondling, penetration); the use of force; medical findings; and how the case was confirmed. Based on the most serious form of contact abuse reported by this sample, 66% experienced genital penetration. Almost all of the perpetrators were known to their victims with 35% a parent figure, 26% a relative, 36% a familiar person who was not a relative, and 3% a stranger. Forty-three percent of the participants lived with the perpetrator at the time of the abuse. Frequency of the reported abusive events was once for 32% of the sample, 2–9 times for 38%, and 10 times or more for 31%. The abuse lasted for a year or longer in 39% of the sample. The use of force was reported in 25% of the sample, the threat of force in 20%, and in 55% of the cases no force or threat was reported. Latency to disclose the abuse, that is, the time lapse from the last abusive act to the time of discovery, was 2 weeks or less (47%), more than 2 weeks through 6 months (33%), and 7 months or more (20%). A summary abuse severity

index was calculated based on abuse characteristics that are related to poor outcomes and that are rated by professionals as being of greater severity (Chaffin, Wherry, Newlin, Crutchfield, & Dykman, 1997; Kendall-Tackett et al., 1993). For each child an abuse severity score was obtained by summing over the most severe level of each of six abuse characteristics as follows: penetration, parent figure perpetrator, perpetrator living with the child at the time of abuse, 10 or more abuse events, duration of abuse for a year or longer, and use of physical force. The resulting score ranged from 0–6 with a mean of 2.4 (SD= 1.5).

Attributions—At all three assessments (T1–T3), abuse-specific attributions were obtained using the same open-ended interview question and a rating scale developed for this project. First, participants were asked “Why do you think the touching problem (the term abuse was used with youth 15 and older) happened?” Participants were encouraged to talk about their explanations for the abuse. Nevertheless, explanations were rarely more than two statements. Responses were recorded verbatim. A review of these responses resulted in three basic coding categories: 1) perpetrator-blame attributions; 2) self-blame attributions; and 3) I don’t know in which the participant was unable to give any possible reason for the abuse. Two raters independently coded each participant’s responses according to whether they belonged in any of these categories. Inter-rater agreement using Cohen’s Kappa was high (range .98–1.0).

Following the open-ended attribution question participants were given the Attributions About Abuse Inventory (AAAI). The AAAI was developed to index the prevalence of self-blame and perpetrator-blame attributions (see Feiring et al., 2002, for a detailed account of how this measure was developed). The original measure was designed to differentiate characterological and behavioral self-blame attributions (Cole, Peeke, & Ingold, 1996; Dalenberg & Jacobs, 1994). It had seven items that assessed self-blaming attributions that were characterological (e.g., This happened to me because I am a bad person), seven items that assessed behavioral self-blame attributions (e.g., This happened to me because of the way I was dressed), and six perpetrator-blame items (e.g., This happened because the perpetrator has a problem). Participants were asked to rate the extent to which each item was true on a three-point scale (i.e., very true, somewhat true, or not true), with each item indicating a possible attribution for why the abuse happened.

Exploratory factor analyses were conducted to examine the pattern of loadings for 1-, 2-, 3- and 4-factor solutions at each assessment point. Maximum likelihood extraction and oblique (PROMAX) rotation of loadings were used. Our goal was to identify a solution that 1) had simple structure, 2) was relatively consistent across the three measurement occasions, 3) did not include overly specific factors measured by only a couple of items, and 4) was as congruent as possible with the factors the inventory was intended to measure. We did not consider models with more than four factors because scree plots and parallel analyses (Fabrigar, Wegener, MacCallum, & Strahan, 1999) at each assessment point suggested four or fewer factors were sufficient. In these factor analyses, separate factors for characterological and behavioral self-blame did not emerge. A 2-factor solution was most consistent with the goals stated above, with separate factors for perpetrator-blame and self-blame. Several items which did not load on either factor in the 2-factor solutions were not used when creating summary indices (e.g., I was too young to stop the abuse; The abuse happened because my mother was not there to stop it). A reliable factor-based indicator of abuse-specific self-blame attributions was obtained that used the sum of eight items as follows: 1) I was to blame for what happened; This happened to me because- 2) I was not smart enough to stop it from happening; 3) I was a bad person and needed to be punished; 4) of something I did; 5) I was not careful enough on those days; 6) I’m not a good person; 7) I am not a careful person; 8) of the way I acted around “perpetrator name.” This self-blame score had moderate internal consistency at each assessment point (T1=.75, T2=.73, T3=.80). A reliable factor-based perpetrator-blame attribution score was obtained that used the sum of four items as follows: 1) “Perpetrator name” did this to me because he/

she is a bad person; 2) “perpetrator name” was to blame for what happened; 3) This happened to me because “perpetrator name” has a problem; 4) It was “perpetrator name’s” fault that this happened. This perpetrator-blame score had moderate internal consistency at each assessment point ($T1=.75$, $T2=.78$, $T3=.69$).

For general self-blame attributions, the Children’s Attributional Style Questionnaire (CASQ, Gladstone & Kaslow, 1995; Thompson, Kaslow, Weiss, & Nolen-Hoeksema, 1998) was used for participants 16 years and under and the parallel instrument for adults, the Attributional Style Questionnaire (ASQ, Peterson & Villanova, 1988) was used with participants 17 years and older. At T1 and T2 when all the participants were 16 years or younger the CSAQ was used. At T3, the most age-appropriate measure was used for each participant. Both the child and adult attribution measures include an equal number of scenarios that describe events with positive and negative outcomes (e.g., CASQ “You get a bad grade in school;” ASQ “You meet a friend who acts hostile towards you”). The CASQ and ASQ provide three subscale scores for positive events on each dimension, Internal/External, Stable/Unstable, Global/Specific, and three parallel subscale scores for negative events. From these subscales, positive (positive outcome - internal, stable, global) and negative (negative outcome - internal, stable, global) composite scores are computed. The general self-blame attribution score is the positive composite score minus the negative composite score. This score indicates the extent to which a self-blaming style for negative events is balanced by a positive style for good events; the lower the score the more self-blaming (i.e., internal, stable, global) for negative events the individual’s attribution style. The internal consistency of this measure was moderate (CASQ, $T1=.72$, $T2=.72$, $T3=.73$; ASQ, $T3=.66$). The general attribution self-blame scores were converted to T scores to make them comparable across CASQ and ASQ instruments for analyses.

Post-Traumatic Stress Disorder symptoms—The Trauma Symptom Inventory (TSI) was used to index post-traumatic stress symptomatology at the T3 assessment (Briere, 1995; Briere, Elliott, Harris, & Cottman, 1995). The three PTSD subscales used were: anxious arousal (e.g., feeling jumpy, being startled or frightened by sudden noises), intrusive experiences (flashbacks of upsetting things, suddenly remembering something upsetting from the past), and defensive avoidance (trying to forget about a bad time in your life, staying away from places or people that remind you of something). The items for this measure were rated on a 4-point Likert scale from never to often. The TSI was normed on a sample considerably older than ours. Nevertheless, the internal consistencies of the three subscales for this sample were very good (anxious arousal $\alpha=.81$; intrusive experiences $\alpha=.89$; defensive avoidance $\alpha=.87$).

Depressive symptoms—At T3 the Child Depression Inventory (CDI, Kovacs, 1985) was used for participants 16 years and under and the parallel instrument for adults, the Beck Depression Inventory (BDI-II, Beck, Steer, & Brown, 1996) was used with participants 17 years and older. These measures each quantify a range of depressive symptoms including mood, vegetative functions and interpersonal behavior although their items differ somewhat as does their scoring format. Both instruments are well validated (Saylor, Finch, Spirito, & Bennett, 1984; Beck et al., 1996). The higher the total score the more depressive symptoms are evidenced. For this sample both measures showed good internal consistency (CDI $\alpha=.80$; BDI $\alpha=.92$). The CDI and BDI total scores were converted to T scores to make them comparable in the analyses.

Data analyses

In preliminary analyses, descriptive statistics for all the continuous variables included in subsequent analyses and correlations between the ratings of abuse-specific self-blame and

perpetrator-blame within and over time were calculated. The continuity of abuse-specific attributions in response to the open-ended interview question was examined using McNemar's Chi-squared analyses. Because more than one type of response could be given by the same individual at the same assessment (even though multiple response were rare), separate analyses were conducted for each type of response (i.e., each type of response was a separate variable).

Multilevel models were used to examine patterns of intraindividual continuity and change in the abuse-specific attribution ratings and to examine these patterns as a function of abuse severity, age at discovery, and gender. The *NLME* package (Pinheiro & Bates, 2000) of the freely-available, open-source *R* program (*R* Development Core Team, 2006) was used to fit the multilevel growth models. Composite models for change (Singer & Willett, 2003) were fit to determine whether abuse characteristics, age at discovery and gender could account for variance in attribution scores over time. Separate models were run for abuse-specific self- and perpetrator-blame attributions and general self-blame attributions. To ease interpretation, effects in the multilevel model for change are translated from the composite specification to the simpler Level-1/Level-2 specification (i.e., effects on initial status and slopes are reported separately); these alternative specifications (composite and Level-1/Level-2) are mathematically equivalent (Singer & Willett, 2003).

Empirical Bayes estimates (Morris, 1983) of T1 status and rate of change in abuse-specific attribution ratings were used in multiple regression analyses to predict PTSD and depressive symptomatology at T3 with general self-blame attribution (T1 status and rate of change), age at discovery, gender, and abuse severity as covariates. For perpetrator-blame, the covariates were entered on a first block, T1 estimates of abuse-specific perpetrator-blame on a second block, and abuse-specific perpetrator-blame slope on a third and final block. For abuse-specific self-blame, the covariates were entered first followed by the T1 estimates for abuse-specific self-blame. Abuse-specific self-blame slope was not included in the final step of the regression because it did not show significant individual differences (i.e., since all participants showed a similar decrease in self-blame, self-blame change could not account for variance in T3 symptoms).

Results

Preliminary results

Table 1 shows the descriptive statistics for the continuous variables used in the analyses to follow. All the measures showed good variability. Approximately one-fifth of the sample scored in the clinical range for symptoms of depression. There were a moderate number of individuals with elevated symptoms of PTSD with 26, 13, and 28 percent in the clinical range for intrusive experiences, anxious arousal, and defensive avoidance respectively (a T- score of 65 or higher is considered clinically significant).

Correlations between abuse-specific self- and perpetrator-blame attributions within each time point were negative ($-.25, p \leq .01$; $-.29, p \leq .01$; $-.17, p < .10$ for T1, T2 and T3 respectively) as were the relations between these variables across time (ranging from $-.04$ to $-.27, p \leq .01$, for T2 abuse-specific self-blame and T3 perpetrator-blame and T1 self-blame and T3 perpetrator-blame, respectively). These results suggest that the two types of abuse-specific attributions were distinct and not mutually exclusive. In addition to these descriptive analyses, the relations between treatment duration and attributions were examined using correlations (while participants reported a variety of treatment modalities duration was a treatment variable comparable across modalities). There were no significant findings for the duration of treatment and abuse-specific attribution measures. This was not surprising as provision of treatment was not part of the study, and participants did not systematically receive uniform abuse-specific intervention.

Continuity in abuse-specific attribution: Responses to the open-ended interview question over time

Table 2 gives the percentage of individuals who made perpetrator-blame, abuse-specific self-blame and don't know responses to the open-ended question about perceived reasons for why the abuse happened as reported at each assessment (for individuals who were assessed at all three time points, $N=118$). The large majority of participants offered only one type of attribution to explain why the abuse happened. At abuse discovery and a year later (T1 and T2) perpetrator-blame and don't know were the most common responses in contrast to self-blame attributions. Six years following discovery (T3), perpetrator-blame attributions were the most common. At all three time points perpetrator-blame attributions typically involved statements of mental illness ("Because he was sick in the head") or simple statements of blame ("Because it was his fault"). Abuse-specific self-blame attribution statements typically concerned being too young to stop the abuse.

From T1–T2, the percentage of participants reporting the three types of responses remained similar, and none of these changes was statistically significant. From T2–T3, the percentage of don't know responses significantly decreased, while perpetrator and self-blame attributions significantly increased (all $p < .05$).

Intraindividual patterns of continuity and change in abuse-specific attribution ratings

Multilevel models used to examine patterns of intraindividual continuity and change showed significant individual differences in the T1 abuse-specific self-blame ratings. This simply means there was more variability from person to person in the abuse-specific self-blame ratings at the time of discovery than would be expected from sampling variation alone (T1 variance = 2.05, $p < .05$). On average, individuals scored 2.5 on abuse-specific self-blame at T1, which was significantly above zero ($p < .01$). On average, individuals showed a significant decrease in abuse-specific self-blame attribution ratings over time (slope mean = -0.12 , $p < .01$). The slope variance was not significantly different from zero, indicating that individuals did not differ in their patterns of change (i.e., variation around the average change was not larger than what would be expected due to sampling variation alone).

There were significant individual differences in the T1 perpetrator-blame scores such that the variance for perpetrator-blame was significantly different from zero (T1 variance = 1.44, $p < .01$). On average, individuals scored 6.7 on perpetrator-blame at T1, which was significantly above zero ($p < .01$). On average, individuals increased significantly in perpetrator-blame attributions over time (slope mean = 0.05, $p < .05$). However, there was significant individual variation in the slopes, suggesting that individuals changed in different ways over time (slope variance = 0.033, $p < .01$). Inspection of the individual trajectories revealed that most individuals remained high while a small number increased, or decreased in perpetrator-blame. (A complete set of individual trajectories for attributions are available from the corresponding author upon request.)

Predicting patterns of change in attribution ratings

In examining the effects of abuse severity on attributions over time, gender, and age at discovery were included as additional explanatory variables. When gender and age at discovery were considered alone, there were no significant effects of gender. Individuals who were adolescents at T1 showed larger increases in perpetrator-blame over time compared to individuals who were children at T1 (Cohen's $d = .30$, $p < .01$). There were no other age at discovery effects.

Controlling for gender and age at discovery, the experience of penetration was associated with more abuse-specific self-blame and less perpetrator-blame at T1 (Cohen's $d = .39$, $p < .05$;

Cohen's $d = .38, p < .05$). Abuse by a parent figure was related to less abuse-specific self-blame at T1 (Cohen's $d = .51, p < .01$). The use of force was related to more perpetrator-blame at T1 (Cohen's $d = .33, p < .05$), but also smaller increases in perpetrator-blame over time, possibly due to a ceiling effect (Cohen's $d = .31, p < .05$). Frequency of abuse was related to larger increases in perpetrator blame over time (Cohen's $d = .25, p < .05$). The sum abuse severity score, living with the perpetrator during the time of abuse and duration of abuse did not yield any significant findings.

Intraindividual patterns of abuse-specific attribution ratings over time and internalizing symptoms

Table 3 shows the correlations for the covariates and the abuse-specific estimates with symptom outcome scores at T3 used in the multiple regression analyses. The percentage of variance accounted for in the full regression model to predict T3 depressive symptoms using the abuse-specific self-blame variable was significantly different from zero ($F(6,113) = 8.05, R^2 = .30, p < .05$). The covariates accounted for a significant amount of variance in depression ($R^2 = .27, p < .01$). Less general self-blame at T1, larger decreases in general self-blame over time, and male gender were each associated with less depression. After controlling for the covariates, abuse-specific self-blame at T1 explained additional variance ($R^2 = .30; \Delta R^2 = .03$); more abuse-specific self-blame at T1 was related to more depressive symptoms at T3 ($B = 1.65; t(113) = 2.19, p < .05$).

The percentage of variance accounted for in the full regression model to predict T3 intrusive experiences using the abuse-specific self-blame variable was significantly different from zero ($F(6,113) = 2.65, R^2 = .12, p < .05$). The covariates did not account for significant variance in PTSD symptoms of intrusive experiences ($R^2 = .08$). However, after controlling for the covariates, abuse-specific self-blame at T1 explained additional variance in intrusive experiences ($R^2 = .12; \Delta R^2 = .04$). More abuse-specific self-blame at T1 was associated with more intrusive experiences at T3 ($B = 2.31; t(113) = 2.43, p < .05$).

The percentage of variance accounted for in the full regression model to predict T3 anxious arousal using the abuse-specific self-blame variable was significantly different from zero ($F(6,113) = 2.95, R^2 = .14, p < .05$). The covariates accounted for a significant amount of variance in anxious arousal ($R^2 = .13, p < .01$). Less general self-blame at T1, larger decreases in general self-blame over time, and male gender were each associated with less anxious arousal. Two of these associations were not observed in the bivariate correlations reported in Table 3 and only emerged in the context of the multivariable regression model (i.e., general self-blame at T1 and gender). After controlling for the covariates, abuse-specific self-blame at T1 was not associated with anxious arousal at T3.

The percentage of variance accounted for in the full regression model to predict T3 defensive avoidance using the abuse-specific self-blame variable was significantly different from zero ($F(6,113) = 2.79, R^2 = .13, p < .05$). The covariates accounted for a significant amount of variance in defensive avoidance ($R^2 = .12, p < .05$). Less general self-blame at T1 and larger decreases in general self-blame over time were associated with less defensive avoidance. There was a trend for males to report less defensive avoidance than females. After controlling for the covariates, abuse-specific self-blame at T1 did not account for a significant amount of additional variance.

For each of the four internalizing symptom T3 outcomes, the percentage of variance accounted for in the full regression models with the perpetrator-blame variables was significantly different from zero: depression, $F(7,112) = 5.94, R^2 = .27, p < .05$; intrusive experiences, $F(7,112) = 1.56, R^2 = .09, p > .10$; anxious arousal, $F(7,112) = 2.52, R^2 = .14, p < .05$; defensive avoidance, $F(7,112) = 2.51, R^2 = .14, p < .05$. However, after controlling for the covariates, perpetrator

blame at T1 and changes in perpetrator blame over time were not significantly related to any T3 symptoms.

Discussion

This study is the first to examine patterns of change within particular types of abuse-specific attributions in a CSA sample. The results suggest that: the tendency to report different types of attribution for the abuse change over time; the type of assessment method plays a role in the kinds of attributions observed; abuse severity is related to change in attributions over time but age shows only one and gender no relations; and higher levels of self-blame attributions at abuse discovery are predictive of internalizing symptoms 6 years later.

Consistent with previous research, perpetrator-blame attributions were more common than abuse-specific self-blame attributions (Hunter et al., 1992; McGee et al., 2001; Spaccarelli, 1995). Extending prior work, this pattern held true over time and using two different assessment methods (responses to open-ended interview question and ratings of attributions).

For the attributions made to the open-ended interview question, “don’t know” responses were common at discovery and a year later but became infrequent 6 years after abuse discovery. These findings suggest that around the time of abuse discovery youth were likely to express confusion about why the abuse happened to them. Searching for reasons to explain the abuse may be difficult. Experiences during CSA and its aftermath can violate assumptions about self-worth, agency, safety, and expectations for supportive relationships with others (Spaccarelli, 1994). Attributions of perpetrator-blame also are commonly expressed and such explanations are readily offered and reinforced by professionals (e.g., CPS workers, law enforcement and doctors). To the extent that perpetrator-blame attributions are viewed as appropriate evaluations of abuse events most youth initially report this adaptive response and continue to do so over time.

Abuse-specific self-blame attributions, made in response to the open-ended interview question, showed no continuity over time. Such responses were extremely unlikely at T1 and T2 but increased somewhat at T3 with participants typically saying that the abuse happened because they were too young to stop it. For the ratings of abuse-specific attributions, intraindividual growth curve modeling revealed that contrary to expectation, there were no individual differences in patterns of change in self-blame ratings of attribution. Over time, all youth on average were likely to decrease their ratings of self-blame for the CSA.

The contrasting results for the open-ended question compared to the rating responses may be explained by the types of self-blame attributions elicited by each measurement strategy. The items that formed a reliable measure from the rating scale all concerned pejorative self-blame statements (“I was not smart enough to stop it from happening”) whereas the open-ended question elicited responses that some have labeled self-excusing attributions (“The abuse happened because I was too young to stop it from happening”). Self-excusing attributions place the locus of cause on the self but without the same negative valence as pejorative self-blame statements (Snyder & Higgins, 1988). To some extent such attributions serve to exonerate the self from intensely negative blame (McGee et al., 2001). Individuals may have been more concerned with managing how they were perceived by the interviewer when they were asked to tell her about their attributions. It is possible that the desire to manage impressions may have motivated participants to share exonerating rather than pejorative self-blame explanations for the CSA. In contrast, the rating measure is a more private index in which pejorative self-blame attributions can be reported without communicating them directly to the interviewer. The original rating scale did include items that concerned exonerating self-blame attributions (“I was too young to do anything about it” and “I was not physically strong enough to stop it from

happening”). Endorsement of these specific items did increase slightly from T1 to T3 which is consistent with the findings from the open-ended interview question (66 to 79 % for the “I was too young” item and 64 to 74 % for the “I was not strong enough” item). Although these were the most frequently endorsed items at each time point they did not form an exonerating factor over time. In general, the findings suggest that each method for assessing abuse-specific attributions, spontaneous verbal responses and ratings, provides valuable insight into the attribution process. The open-ended interview question enabled insight into the confusion experienced by many youth trying to make sense of why the abuse happened, while the rating measure enabled the expression of pejorative self-blame attributions that are likely more difficult to express publicly.

Abuse-specific self-blame attribution ratings were related to abuse severity but not always with the expected positive relations. Consistent with previous work on adults, penetration at T1 was related to more abuse-specific self-blame (Coffey et al., 1996; Steel et al., 2004). This suggests that victims who were penetrated are particularly vulnerable to viewing themselves as at fault for the abuse. Contrary to expectation, having a perpetrator who was a parent-figure was related to lower levels of abuse-specific self-blame at T1. Perhaps in cases of incest, which are unambiguously viewed as wrong, victims are given strong and consistent messages that the abuse was not their fault but that of the perpetrator. However, such an explanation would suggest that youth abused by a parent-figure perpetrator would be more likely to report perpetrator-blame, but this was not the case. The attribution process is evidently more complex when the perpetrator is viewed as a source of both harm and love. Consistent with previous research abuse severity was related to more perpetrator-blame (Hunter et al., 1992). In particular, the use of force was related to more perpetrator-blame at T1 and smaller increases in this type of attribution over time (ceiling effect). More frequent abuse was associated with a greater increase in perpetrator-blame over time. When coercion is used to overcome resistance or abuse occurs on multiple occasions, such behaviors should be more readily interpreted by victims as caused by perpetrators’ intentional choice to harm them. Taken together these findings also underscore the importance of understanding each type of abuse-specific attribution, because indicators of severity related to self-blame were different from those related to perpetrator-blame.

No gender differences were found for abuse-specific self-blame attribution ratings. While this is consistent with previous research on non-abuse samples examining general self-blame attribution, the power to detect gender differences was limited by the small proportion of males relative to females in the sample. Contrary to prediction, age differences in abuse-specific self-blame attribution ratings were not found. However, being adolescent at abuse discovery was related to larger increases in perpetrator-blame. This single age difference must be interpreted with caution as it was not predicted. The CSA literature with its almost exclusive focus on self-blame attributions offers little guidance. Clearly, work is needed to understand how experiences in the transition from adolescence to adulthood might lead to a stronger endorsement of the perpetrator as at fault for the abuse.

Higher ratings of abuse-specific self-blame at T1 predicted more symptoms of depression and intrusive experiences at T3, after controlling for age at discovery, gender, abuse severity, and general self-blame attribution. The additional amount of variance explained by abuse-specific self-blame attributions was small over and above that accounted for by general self-blame attributions. The small effect of abuse-specific self-blame attributions in part may have been a function of the moderate level of symptomatology experienced by this sample. Nevertheless, such findings are consistent with previous work pointing to the significance of abuse-specific self-blame for understanding the development of depressive and PTSD symptoms in youth who experience CSA (Valle & Silovsky, 2002). Our findings add to the literature by demonstrating the long-term effects of self-blame attributions on adjustment. Of the three

types of PTSD symptoms measured only intrusive experiences yielded significant relations with abuse-specific attributions. It may be the case that abuse-specific self-blame attributions provided internal cues that triggered reexperiencing symptoms (Ehlers & Clark, 2000).

The findings from this study must be considered in light of several limitations in the measurement of abuse-specific attributions. Our relatively small sample size and limited number of assessments spaced far apart diminished our ability to detect individual differences in patterns of change in abuse-specific self-blame. The wording of abuse-specific attribution items did not provide systematic differentiation between judgments of blame from those of causality and responsibility. Youth may be less likely to endorse blame as compared to causal statements because blame carries a more negative connotation (Dalenberg & Jacobs, 1994). Further, the items included in this study focused on self- and perpetrator-blame attributions which precluded a broader understanding of other types of attributions. Other aspects of the attribution process not measured in this study are important for understanding adjustment. These include: self-blaming attributions that are exonerating rather than pejorative; the role of non-offending parents and fate; and indexing the aspects of the abuse events to which the attributions apply, such as actions not taken to prevent the abuse (responsibility for foreseeable events) and behavior during and in the aftermath of the abuse (Celano et al., 2002; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999; McGee et al., 2001). Research that incorporates a more complex view of different types of attributions and the contexts to which these attributions apply would provide a better understanding of how individuals make meaning of the abuse and related events. Such research could enhance treatments designed to change attributions, process the meaning of the abuse and its consequences, and alleviate symptoms.

The apparent persistent effect on symptoms of T1 abuse-specific self-blame suggests the importance of effective treatment at the time of abuse discovery. Diverse attribution retraining techniques are available for use with youth who have experienced CSA that vary according to the degree of cuing used to elicit attributions and with respect to the specificity of self-attribution retraining (Celano et al., 2002). The majority of these techniques discourage self-blame and promote perpetrator-blame attributions. The findings from this study suggest that at least for internalizing-type symptoms perpetrator-blame attributions play a minimal role in adjustment. Neither perpetrator-blame at discovery or patterns of change over time was related to subsequent symptoms of PTSD or depression. Because the large majority of youth maintained high levels of perpetrator-blame over time, it cannot be determined if such attributions are necessary for good adjustment.

Overall, the longitudinal findings suggest that while abuse-specific and general self-blame attributions as measured in this study are maladaptive, perpetrator-blame attributions are not necessarily adaptive. Attributional processes are complex such that interpreting abuse events due to the perpetrator does not preclude making attributions of self-blame. The fact that blame is not a unipolar dimension is critical to consider in planning interventions. It cannot be assumed that encouraging youth to make perpetrator-blame attributions will remove or diminish the likelihood that they will make self-blame attributions (Celano et al., 2002; Fincham, 2002). Discovering and reflecting on abuse-specific attributions is one way for youth to begin to reevaluate their assumptions about the reasons and circumstances surrounding their victimization in order to develop healthier views of themselves and others (Deblinger & Hefflin, 1996; Deblinger & Runyon, 2005).

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Table 1

Descriptive Statistics for the Continuous Measures of the Sample

Variable	N	M	SD	Skewness	Kurtosis	Range
Abuse-specific Attributions:						
Self-blame T1	160	2.89	2.90	1.43	2.47	0 – 16
Self-blame T2	146	1.93	2.33	1.65	3.00	0 – 12
Self-blame T3	121	1.79	2.38	1.84	3.46	0 – 11
Perp-blame T1	160	6.56	1.97	-1.52	1.86	0 – 8
Perp-blame T2	146	6.86	1.77	-1.77	2.72	0 – 8
Perp-blame T3	121	6.99	1.55	-1.94	4.03	0 – 8
General Attributions (T-scores):						
Gen Self-blame T1	160	50.24	9.78	-0.55	0.42	14 – 68
Gen Self-blame T2	146	49.95	10.02	-0.57	0.24	13 – 68
Gen Self-blame T3	121	50.13	9.85	-0.27	1.70	15 – 86
Symptoms T3:						
Depression T3	121	50.32	10.02	1.06	0.81	35 – 84
Intrusive Experiences T3	121	55.96	11.31	0.53	-0.72	39 – 85
Anxious Arousal T3	121	52.46	10.01	0.56	-0.23	35 – 76
Defensive Avoidance T3	121	56.11	10.41	0.16	-0.98	38 – 77

Table 2

Percent of Participants (N=118) Making Abuse-Specific Perpetrator-Blame, Self-blame, and Don't Know Responses to the Open-ended Interview Question

	T1	T2	T3
Responses:	%	%	%
Perpetrator-Blame	47	42	58
Self-Blame	3	8	24
Don't Know	50	51	19

Table 3

Correlations of Age at Abuse Discovery, Gender, Abuse Severity, General Self-blame Attributions and Abuse-specific Attributions with Depressive and PTSD Symptoms at T3.

	Depression	Intrusive Experiences	Anxious Arousal	Defensive Avoidance
Age	.03	-.01	.03	.02
Female Gender	.23*	.06	.14	.14
Abuse Severity	.11	.05	.07	.11
Gen T1	-.17	-.16	-.06	-.20*
Gen Slope	-.23*	-.08	-.22*	-.07*
Self T1	.19*	.23**	.03	.12
Perp T1	.06	.05	.05	.11
Perp Slope	-.06	-.02	-.03	-.07

Notes: Gen T1 = T1 intercept score for general self-blame attribution (lower score more self-blame); Gen Slope = slope for the general self-blame attribution score (lower score more self-blame); Self T1 = T1 intercept score for abuse-specific self-blame attribution; Perp T1 = T1 intercept score for perpetrator-blame attribution; Perp Slope = slope score for perpetrator-blame attribution;

* $p < .05$;

** $p < .01$. The values in this table are zero-order correlation coefficients, but the text reports regression coefficients with several other variables controlled. Two associations (Anxious Arousal with Gen T1 and Anxious Arousal with Gender) only became significant in the context of the multivariable regression models, while the corresponding bivariate correlations in this table were not significant.