Potential Pathways From Stigmatization and Internalizing Symptoms to Delinquency in Sexually Abused Youth

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Although childhood sexual abuse (CSA) has been linked to risk for delinquency, research is limited on the potential pathways from CSA to subsequent delinquent outcomes. A total of 160 youth with confirmed CSA histories were interviewed at the time of abuse discovery, when they were 8 to 15 years of age, and again 1 and 6 years later. The findings supported the proposed relations from stigmatization following the abuse (abuse-specific shame and self-blame attributions) and internalizing symptoms to subsequent delinquency through anger and affiliation with deviant peers. This longitudinal research suggests that clinical interventions for victims of CSA must be sensitive to these affective and cognitive processes and how they affect delinquent activity.

Keywords: *childhood sexual abuse; delinquency; peer deviancy; stigmatization; internalizing symptoms*

Youth with a history of childhood sexual abuse (CSA) are at risk for a range of antisocial outcomes, including aggressive, delinquent, and criminal behaviors (Herrera & McCloskey, 2003; McKnight & Loper, 2002; Siegel & Williams, 2003; Swanston et al., 2003; Trickett, Noll, Reiffman, & Putnam, 2001; Widom, 1989; Widom & Kuhns, 1996; Wright, Friedrich, Cinq-Mars, Cyr, & McDuff, 2004). Despite empirical support for an association between CSA and delinquency, the mechanisms through which these phenomena are related are not well understood. This article focuses on individual differences in the development of delinquency in youth with confirmed histories of CSA. Specifically, we examine potential processes underlying links between CSA and subsequent delinquency in a sample first seen at the time of abuse discovery and followed during a 6-year period. Drawing on theory and research from the abuse, criminology, and developmental literatures, we examined the extent to which evaluative processes specific to CSA and internalizing symptoms predicted self-reports of affiliation with deviant peers and delinquent behaviors.

Individual-differences studies that track youth adaptation following CSA can provide insights into factors that explain the development of delinquency. The purpose of this study, using a within-group design, was to examine how adaptation following CSA discovery places individuals at risk for subsequent delinquency.

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Indicators of abuse severity, such as penetration and perpetration by a parent figure, have been related to a greater likelihood of delinquent behaviors (Mannarino, Cohen, Smith, & Moore-Motily, 1991; Trickett, Reiffman, Horowitz, & Putnam, 1997). However, the associations between abuse severity and poor adjustment tend to be weak and inconsistent, offering only limited understanding into the development of delinquent behaviors (Smith & Thornberry, 1995; Swanston et al., 2003; Trickett & Gordis, 2004). Previous work from this sample and other research (Andrews, Brewin, Rose, & Kirk, 2000; Bennett, Sullivan, & Lewis, 2005; Feiring, Taska, & Lewis, 2002) suggests that abuse-specific stigmatization and internalizing symptoms may enhance our understanding of how individuals' evaluation of and reaction to their CSA experience might lead to delinquency.

Stigmatization and Delinquency

The importance of stigmatization or shame in the development of delinquent behaviors is a major construct in the criminology literature. According to the labeling perspective, stigmatization can engender a deviant identity that reinforces deviant behavior consistent with this self-view (Becker, 1973). Disintegrative shaming whereby an individual's whole self (rather than a particular action) is seen as bad, in combination with social rejection, is likely to lead to association with deviant peers and to delinquent and criminal behavior (Ahmed & Braithwaite, 2004; Braithwaite, 1989). A dominant theory in the CSA literature also proposes that processes related to stigmatization are important for understanding the adjustment of victims. As originally conceptualized by Finkelhor and Browne (1985), stigmatization involves negative feelings and thoughts about the self as bad and blameworthy. Stigmatization in this view was expected to lead victims, who saw themselves as damaged goods, to associate with others viewed as deviant and through such associations to become involved in delinquent or criminal behaviors. The association between having delinquent peers and likelihood of engaging in delinquent behaviors is well established (Brendgen, Vitaro, & Bukowski, 2000; Coie & Miller-Johnson, 2001; Warr, 2002). However, the CSA field lacks prospective research that examines the potential pathways to delinquent peers and delinquent behavior.

A more recent specification of stigmatization defines the dynamic in terms of shame and a self-blaming attributional style (Feiring, Taska, & Lewis, 1996). These negative emotions and appraisals may occur during the abuse or the discovery processes and continue once the abuse and its discovery have ended. The phenomenological experience of shame is a desire to hide the damaged self from exposure to the censure of others. Self-blame involves viewing the self as responsible for the abuse or other negative events in one's life. The secretive context in which CSA takes place, the condemnation of the victim by the perpetrator, and the social taboos and legal sanctions against sexual acts of adults with children increase the likelihood that children will experience shame and self-blame for being involved in CSA. Although most of the CSA research has focused on the development of internalizing symptoms as a function of stigmatization (Andrews et al., 2000; Feiring & Taska, 2005; Feiring, Taska, & Lewis, 2002), there is reason to expect that this dynamic is related to aggressive and delinquent behaviors. The developmental literature suggests that shame can motivate retaliation such as defensive anger (Lewis, 1992; Negrao, Bonanno, Noll, Putnam, & Trickett, 2005; Scheff, 1987; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996). In other words, individuals who experience stigmatization may try to avoid this intensely negative state by displacing shame with anger, which in turn can increase the likelihood of delinquent behaviors.

Although the link between anger and delinquency is well established (Brezina, 1998; Griffin, Scheier, Botvin, Diaz, & Miller, 1999; Lochman, Barry, & Pardini, 2003; Nichols, Graber, Brooks-Gunn, & Botvin, 2006), the potential pathway from shame to delinquency through anger is less well understood. Research with children and adults who are shame prone indicates that they are at risk for higher levels of anger, aggression, and delinquency (Andrews et al., 2000; Ferguson, Stegge, Miller, & Olsen, 1999; Harper & Arias, 2004). One recent study showed that more severe physical abuse was related to higher levels of shame, which in turn predicted higher levels of anger (Bennett et al., 2005). Furthermore, the effect of shame on externalizing behavior problems was indirect, suggesting that shame was displaced with anger to affect aggressive behaviors. A longitudinal study of maltreated youth examined links from parenting behavior and a shame-prone style in middle adolescence to self-reported delinquency and arrest records in late adolescence (Stuewig & McCloskey, 2005). Harsh parenting indicative of physical abuse was related to the development of a shame-prone style through parental rejection. This style predicted subsequent depression but not delinquency.

Although theory and research on other maltreated and nonmaltreated samples suggest that stigmatization in CSA youth should be implicated in the development of delinquency, we could find only one study that partially examined this conceptualization. In a clinically substantiated CSA sample, shame was

found to be related to self-reported delinquency after controlling for family and abuse characteristics (Wright et al., 2004). The current study was intended to redress the dearth of research that examines whether stigmatization in youth with a CSA history puts them at risk for the development of anger, affiliation with delinquent peers, and delinquent behaviors. No previous study has examined stigmatization specific to sexual abuse and its relation to subsequent affiliation with deviant peers and delinquent behavior.

Internalizing Symptoms and Delinquency

Internalizing symptoms of posttraumatic stress disorder (PTSD) and depression are common reactions to CSA and were expected to predict delinquency (Gladstone et al., 2004; Nelson et al., 2002; Widom, 1999). The experience of such symptoms may further serve to make youth feel different from others. Peers are less attracted to youth with such internalizing symptoms, and this may lead to social rejection (Brendgen et al., 2000; Prinstein, Cheah, & Guyer, 2005). Such rejection is likely to reinforce stigmatization and be related to affiliation with deviant peers who are perceived as more similar to the self in social status. Depressive and PTSD symptoms have been related to anger (Andrews et al., 2000; Feeny, Zoellner, & Foa, 2000; Picardi, Morosini, Gaetano, Pasquini, & Biondi, 2004; Silver, Field, Sanders, & Diego, 2000) and antisocial and delinquent behaviors (Capaldi, Kim, & Shortt, 2005; Swan, Gambone, Fields, Sullivan, & Snow, 2005; Vermeiren, 2003), particularly for girls (Cauffman, 2004; Wasserman, McReynolds, Ko, Katz, & Carpenter, 2005).

Predictive Model

This study examined a model in which stigmatization for CSA was expected to be related to anger, which in turn was expected to be related to affiliation with deviant peers. Affiliation with deviant peers was expected to provide the context for increased opportunities to engage in delinquent behaviors. More specifically, stigmatization was expected to be directly related to anger and indirectly related to peer deviancy and delinquent behavior through anger. An additional model was examined whereby internalizing symptoms were expected to predict the proposed anger-to-delinquency pathway. Based on literature showing the age of discovery and gender to be associated with the development of delinquent behaviors (Dishion, Nelson, Winter, & Bullock, 2004; Leadbeater, Kuperminc, Blatt, & Hertzog, 1999; Moffitt, Caspi, Rutter, & Silva, 2001; Raine et al., 2006), these variables were included as covariates in the models.

METHOD

Sample Selection and Characteristics

The participants were recruited from urban and suburban populations in New Jersey. They were 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 such as child protective services (CPS), or conviction of the offender in family or criminal court. The majority of the sample (95%) came directly from CPS offices or regional child abuse medical clinics working with CPS (Feiring, Taska, & Lewis, 1998).

Children between the ages of 8 and 15 years of age, who had been brought to the attention of authorities for sexual abuse within the past 8 weeks, were approached to participate in the study. Intake logs were reviewed by project staff to identify eligible cases. The caseworkers then approached the families to obtain permission for project staff to contact them to discuss the study. Of the 180 families contacted by the project staff, 160 agreed to participate in the study. The recruited sample of children and their families were assessed at abuse discovery (T1) before they received treatment, and 147 were seen 1 year later (T2; $M = 1.2$ years, $SD = 0.3$). Attrition from T1 to T2 was because of families declining to participate ($n = 10$) and failure to locate families ($n = 3$). The third assessment was obtained approximately 6 years following abuse discovery on 121 of the original participants (T3; $M = 6.2$ years, $SD = 1.2$). Attrition from T2 to T3 was because of failure to locate participants ($n = 13$), active refusal (participants informing us they did not want to complete the third assessment; $n = 7$), and passive refusal (participants failing to show up for appointments on multiple occasions but not willing to say they did not want to participate; $n = 6$).

At T1, 55% of the sample were children (ages 8 to 11 years; $M = 9.6$, $SD = 1.1$), and 45% were adolescents (ages 12 to 15 years; $M = 13.5$, $SD = 1.1$). Females composed 73% of the sample. The majority of the participants came from single-parent families (67%) and were poor (with an income of $25,000 or less; 64%). The ethnicity of the sample was self-reported as African American (41%), White (31%), Hispanic (20%), and Other (including Native American and Asian; 8%).

Procedures

All of the procedures for this study were approved by the institutional review boards of the academic institutions where the research took place. At each of the three assessment points, when the participant was a minor, informed assent was obtained from the

child and informed consent was obtained from their parent or guardian. At T3, those participants who were 18 or older provided informed consent. The 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. The 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 systematic information about the specifics of the abuse. This checklist was completed by a staff member after reviewing the 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.

In addition to examining individual characteristics of the abuse, a summary measure of abuse severity 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, Williams, & Finkelhor, 1993). Following a procedure previously used with this sample (Feiring, Taska, & Lewis, 2002), an abuse severity score was derived for each child 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 summed score ranged from 0 to 6, with a higher score indicating a greater number of severe types of abuse experienced by the child.

Stigmatization processes. Abuse-related shame at T1 and T2 was assessed using four items developed for this study: (a) "I feel ashamed because I think that people can tell from looking at me what happened," (b) "When I think about what happened I want to go away by myself and hide," (c) "I am ashamed because I feel I am the only one in my school/work who this has happened to," and (d) "What happened to me makes me feel dirty." The items were rated on a 3-point scale from 0 to 2 (*not true*, *somewhat true*, and *very true*), with a higher score indicating greater abuse-related shame ($\alpha = .85$ at T1 and T2; potential range = 0 to 8).

At T1 and T2, abuse-specific self-blame attributions were obtained using the Attribution about Abuse Inventory (for a detailed account of how this measure was developed, see Feiring, Taska, & Chen, 2002). Participants used a 3-point scale to rate the extent to which nine causal statements were true for why the abuse happened (2 = *very true*, 1 = *somewhat true*, 0 = *not true*): "This happened to me because . . ." (a) "I was to blame for what happened," (b) "I was not smart enough to stop it from happening," (c) "I was a bad person and needed to be punished," (d) "of something I did," (e) "I was not careful enough on those days," (f) "I'm not a good person," (g) "I am not a careful person," (h) "I was not physically strong enough to stop it from happening," (i) "of the way I acted around [perpetrator name]." A sum score from the nine items was derived and evidenced moderate internal consistency (T1 $\alpha = .75$, T2 $\alpha = .75$).

A summary stigmatization score was created to reduce the probability of Type I error and to reduce the number of predictors in the planned analyses given the small sample size. A principal components analysis separately done on the T1 and T2 abuse-specific shame and self-blame scores showed that 74% and 75% of the variance was accounted for by one factor derived from the T1 and T2 scores, respectively. These results provided justification for combining the shame and self-blame scores within each time point to create a stigmatization score; the higher the score, the more stigmatization was reported.

Internalizing symptoms. The Children's Impact of Traumatic Events Scale–Revised was used at T1 and T2 to assess the PTSD symptoms of avoidance, hyperarousal, and intrusive recollections (Wolfe, Gentile, Michienzi, Sas, & Wolfe, 1991). The items were rated on a 3-point scale (3 = *very true*, 2 = *somewhat true*, 1 = *not true*). As with the previous set of measures, we created a summary PTSD score to reduce the probability of Type I error. Principal components analyses, using the PTSD subscales of avoidance, hyperarousal, and intrusive recollections, were separately conducted on the T1 and T2 data. The analyses yielded one factor that accounted for 60% and 65% of the variance in PTSD symptoms at T1 and T2, respectively. Within T1 and T2, the three PTSD scale scores that were used were averaged to create a total symptom score. The scale demonstrated very good internal consistency (T1 $\alpha = .88$, T2 $\alpha = .91$).

At T1 and T2, the Child Depression Inventory (Kovacs, 1985) was used to index depressive symptoms. This measure quantifies a range of depressive

symptoms, including mood, vegetative functions, and interpersonal behavior, and is well validated (Saylor, Finch, Spirito, & Bennett, 1984). A higher total score indicates more depressive symptoms. For this sample, the measures showed very good internal consistency (T1 $\alpha = .91$, T2 $\alpha = .90$).

As with stigmatization, a summary internalizing symptoms score was created. A principal components analysis separately done on the T1 and T2 PTSD and depressive symptom scores showed that 74% and 80% of the variance was accounted for by one factor derived from the T1 and T2 scores, respectively. The PTSD and depressive symptom scores within each time point were summed to create an internalizing symptom score; the higher the score, the more symptoms were reported.

Anger. Experiences of anger were obtained only at T3 using the Anger/Irritability scale from Trauma Symptom Inventory (Briere, 1995; Briere, Elliott, Harris, & Cottman, 1995). The participants were asked to rate how often in the past 6 months they had experienced anger using nine items, such as "becoming angry for little or no reason," "starting arguments or fights to get your anger out," and "trouble controlling your temper." The items were rated on a 4-point Likert-type scale from *never* to *often*. The internal consistency of the Anger/Irritability scale for this sample was very good ($\alpha = .89$).

Delinquency outcomes. The measure of delinquent activity was obtained only at T3. It was administered by a computer-assisted survey that included audio clips; the participant then entered his or her response into the computer. The interviewer was not present during this part of the assessment to increase the validity of the responses because of the sensitive nature of the items (although she was available in an adjacent room if questions arose). This method of administration emphasized the privacy of the assessment and has been shown to promote willingness to report sensitive information to a greater extent than during face-to-face interviews (Turner et al., 1998). Of the 121 youth seen at T3, 10 cases were lost because of a malfunction in the computer program that administered the delinquent behavior measures, and an additional 8 cases were not used in the analyses because the participant did not respond to 33% or more of the items in the delinquency measures.

Delinquency was assessed using the Delinquency Self Report Scale, a commonly used measure of delinquent activity (Elliott, Huizinga, & Ageton, 1985; Elliott, Huizinga, & Menard, 1989). The measure was developed as part of the National Youth Survey, a longitudinal study of delinquency using a national probability sample of U.S. households of youth aged 11 to 17. There is evidence that summary scores from this measure are reliable and valid indicators of the extent of delinquent behavior (Caspi, Lynam, Moffit, & Silva, 1993). We used an adapted measure of delinquency that included additional status offenses, based on work with sexually abused females (Trickett et al., 2001). Our scale included 38 items; of these, 31 items were nonviolent offenses (e.g., ran away from home, purposely broke curfew laws, snatched someone's purse or wallet) and 7 were violent offending behaviors (e.g., attacked someone with a weapon or with the idea of seriously hurting or killing him or her; used a weapon, force, or strong-arm methods to get money or things from people). For the self-reported delinquent behaviors, individuals were asked how often in their lifetime they were involved in each of the 38 items ($\alpha = .91$). Given skewness in the sample, we log transformed each individual item and then created a total score (before transformation $M = 75.0$, $SD = 178.0$; after transformation $M = 11.7$, $SD = 13.0$).

Deviant peer involvement was assessed by asking the participants to report how many youth they knew their age who had participated in particular delinquent behaviors. The questions included the same 38 behaviors that were assessed on the delinquency scale. The items were rated on a 3-point scale (0 = *none—don't know anyone my age who has done this*, 1 = *1-2 people who do this*, 2 = *lots of people my age who do this*; $\alpha = .96$).

Missing Data

Missing data were handled by the full information maximum likelihood (Schafer & Graham, 2002) method in Mplus (Muthén & Muthén, 1998-2006), which is more powerful and less biased than ad hoc methods of handling missing data (e.g., listwise deletion). This method, also known as direct maximum likelihood (Allison, 2002), works by finding model parameters that maximize the likelihood of each case's observed data (Wothke, 2000). This approach to handling missing data assumes data are missing at random (i.e., missing at random conditional on values observed).

RESULTS

First, we provide descriptive information on the abuse characteristics of the sample and the study variables used in the proposed path models. Next, the results from structural equation modeling (SEM) to examine the path models of previous stigmatization and internalizing symptoms on anger, peer deviancy, and delinquency are reported.

TABLE 1: Means, Standard Deviations, Ranges, and Bivariate Correlations of the Study Variables

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
M		11.36	7.30	4.70	14.96	11.13	56.01	24.22	11.63
SD		2.23	4.62	4.00	10.16	8.66	11.46	16.94	12.90
Range		7-15	0-26	0-21	1.4-53	1.2-44	37-80	0-71	0-71
1. Gender									
2. Age at discovery	.07								
3. Stigmatization T1	.05	.04							
4. Stigmatization T2	.08	.01	.41***						
5. Internalizing T1	.18*	.21*	.45***	.22**					
6. Internalizing T2	.17*	.17*	.23**	.47***	.60***				
7. Anger T3	.20*	.10	.09	.27**	.29**	.40**			
8. Peer deviancy T3	.03	–.04	–.07	–.02	–.04	–.05	.20*		
9. Delinquency T3	–.11	.13	–.12	–.03	.11	.13	.29**	.45***	

*$p < .05$. **$p < .01$. ***$p < .001$.

Descriptive Information

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. Of the participants, 43% lived with the perpetrator at the time of the abuse. Frequency of the reported abusive events was once for 32% of the sample, 2 to 9 times for 38%, and 10 times or more for 31% of the sample. For 39% of the participants, the abuse lasted for a year or longer. The use of force was reported in 25% of the sample and the threat of force in 20%, and in 55% of the cases, no force or threat were 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 to 6 months (33%), and 7 months or more (20%). The mean summed severity score was 2.4 ($SD = 1.5$).

Table 1 shows the means, standard deviations, and bivariate correlations among the study variables. The measures showed good variability. In addition to lifetime reports of total delinquent behaviors, we also examined violent compared to nonviolent behaviors. The analyses indicated that the predictive patterns were the same for both kinds of delinquent behaviors. For parsimony, and to reduce Type I error, we only present the findings for the total delinquent behavior score. Nevertheless, examination of the mean level and frequency of violent and nonviolent delinquent behaviors is useful to understand the extent to which such behaviors characterize this sample. The report of lifetime violent delinquent behavior is low, with a mean of 1.28 ($SD = 2.53$) and 52% of youth reporting none of these behaviors. The frequency of nonviolent delinquent behaviors is considerably higher, with a mean of 10.39 ($SD = 11.28$) and only 9% of youth reporting none of these behaviors.

Considering correlations among the variables of interest in the study, abuse characteristics showed few relations to other variables and therefore were not included in Table 1. Abuse severity was related to internalizing symptoms at T1 and T2 ($r = .17$, $p \leq .05$ and $r = .22$, $p \leq .01$ for T1 and T2 symptoms, respectively). Age at abuse discovery and gender (a trend) were positively related to internalizing symptoms at T1. Older compared to younger youth and females compared to males experienced higher levels of internalizing symptoms. Gender was also correlated with anger at T3, such that females experienced more anger than did males. Age and gender were not significantly related to the T3 variables of peer deviancy or delinquency. The stigmatization and internalizing symptoms showed moderate stability from T1 to T2. Within and across time, there were moderate to low associations among stigmatization and internalizing symptoms. Stigmatization at T2 (but not T1) was positively related to anger at T3. Internalizing symptoms at both T1 and T2 were positively related to T3 anger. Neither stigmatization nor internalizing symptoms were significantly related to peer deviancy or delinquency. Anger was positively related to peer deviancy and delinquency; these latter two delinquency variables were positively related to each other.

Predicting Delinquency Over Time

Direct and indirect effects on delinquency in the proposed path models were estimated using SEM (Kline, 1998). The models were just-identified, recursive, and included only observed variables. We conducted separate SEM analyses for the following stigmatization and internalizing symptoms pathways: (a) the covariates of age at discovery and gender to the

TABLE 2: Structural Equation Model Results (Variance Accounted for and Standardized Path Coefficients) for Pathways to Delinquency Through Stigmatization, Anger, and Peer Deviancy

	Stigmatization T1	*Stigmatization T2*	*Anger T3*	*Peer Deviancy T3*	*Delinquency T3*
R^2	.004	.175**	.108**	.053	.298**
Gender	.05	.06	.16†	.01	–.18*
Age at discovery	.04	–.01	.10	–.06	.14*
Stigmatization T1	—	.41**	–.03	–.08	–.09
Stigmatization T2	—	—	.26**	–.04	–.05
Anger T3	—	—	—	.22*	.25*
Peer deviancy T3	—	—	—	—	.40**

†$p < .10$. *$p < .05$. **$p < .01$.

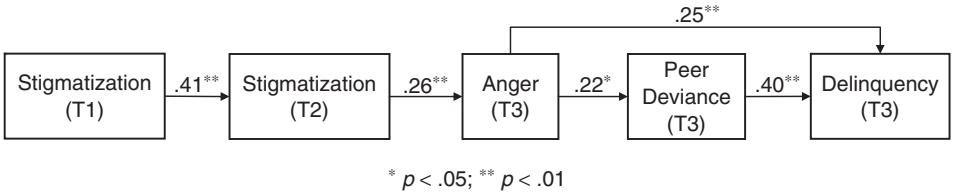

FIGURE 1: Path Model With Stigmatization
NOTE: Numbers are standardized path coefficients.

T1 variable (stigmatization or internalizing); (b) the covariates and the T1 variable predicting the T2 variable (stigmatization or internalizing); (c) the covariates and T1 and T2 variables predicting T3 anger; (d) the covariates, and T1 and T2 variables and T3 anger predicting T3 peer deviancy; and (e) the covariates, T1 and T2 variables, T3 anger, and T3 peer deviancy predicting delinquency. The relatively small sample size precluded the examination of each abuse characteristic in the SEM analyses. Given that the correlations showed no relations between abuse severity scores and anger, peer deviancy, or delinquent behavior, these variables were excluded from the SEM analyses.

Stigmatization pathway. Table 2 shows the variance accounted for and path coefficients for each endogenous variable. Beginning with the first column on the left (predicting the T1 variable from gender and age), this table shows each step leading up to the final complete model in the last column on the right (predicting delinquency from gender, age, variable of interest at T1 and T2, and anger and peer deviancy at T3). For the stigmatization pathway, together the variables of age at abuse discovery and gender did not explain a significant portion of variance in stigmatization at T1. For the next step in the pathway, stigmatization at T2 received direct effects from age, gender, and stigmatization at T1. Together, these variables explained a significant portion of variance in stigmatization at T2. Only stigmatization at T1 had a significant effect. Third, anger at T3 received direct effects from age, gender, and stigmatization at T1 and T2. Together, these variables explained a significant portion of variance in T3 anger. Gender and T2 stigmatization had significant effects on anger. Females and those with more stigmatization at T2 reported more anger at T3. The next endogenous variable in the pathway, peer deviancy at T3, received direct effects from age, gender, stigmatization at T1 and T2, and T3 anger. Together, these variables did not explain a significant portion of variance in peer deviancy, but there was a significant effect for anger. Individuals reporting more anger also reported more peer deviancy. Finally, delinquency received direct effects from age, gender, stigmatization at T1 and T2, and T3 anger and peer deviancy. Together, these variables explained a significant portion of variance in delinquency. Only the effects of gender, age, anger and peer deviance were significant. Females and those younger at abuse discovery reported less delinquency. Those individuals reporting more anger and more peer deviance reported more delinquency.

In addition to these direct effects, we were interested in whether earlier stigmatization had indirect effects on subsequent delinquency. Based on the path coefficients from this SEM, the chain of direct effects shown in Figure 1 suggested that these indirect effects might be significant. Indirect effects were calculated

TABLE 3: Structural Equation Model Results (Variance Accounted for and Standardized Path Coefficients) for Pathways to Delinquency Through Internalizing Symptoms, Anger, and Peer Deviancy

	Internalizing T1	*Internalizing T2*	*Anger T3*	*Peer Deviancy T3*	*Delinquency T3*
R^2	.070**	.361**	.182**	.062	.302**
Gender	.17*	.05	.11	.01	–.20†
Age at discovery	.20*	.07	.03	–.04	.13†
Internalizing T1	—	.57**	.06	–.04	.04
Internalizing T2	—	—	.35**	–.13	.06
Anger T3	—	—	—	.26*	.20*
Peer deviancy T3	—	—	—	—	.42**

†$p < .10$. *$p < .05$. **$p < .01$.

and tested using the resampling method suggested by MacKinnon, Lockwood, and Williams (2004). This method involves constructing bootstrap confidence intervals (CIs) for the indirect effects. The data were resampled a total of 10,000 times for each of the path models.

There were seven indirect paths that could explain associations between stigmatization at T1 and delinquency.[1] The indirect path from stigmatization at T1 to stigmatization at T2 to T3 anger and then directly to delinquency was significant ($B = 0.075$, 95% CI = 0.010 to 0.223, $\beta = .027$). The indirect path from stigmatization at T1 to stigmatization T2 to T3 anger to peer deviancy and then directly to delinquency was significant ($B = 0.026$, 95% CI = 0.002 to 0.087, $\beta = .009$). None of the other five indirect paths from stigma T1 to delinquency were significant.

Internalizing pathway. Next, we conducted a parallel SEM analysis for the internalizing pathway (see Table 3). First, age and gender explained a significant portion of variance in internalizing symptoms at T1. Both age and gender had marginally significant effects, with older and female victims reporting more internalizing symptoms. Next, age, gender, and internalizing symptoms at T1 explained a significant portion of variance in T2 internalizing symptoms, with only internalizing symptoms at T1 showing a significant effect. In the next step in the pathway, a significant portion of variance in T3 anger was explained by age, gender, and internalizing symptoms at T1 and T2, but only T2 internalizing symptoms had a significant effect. Victims with more internalizing symptoms at T2 reported more anger at T3. Fourth, peer deviance at T3 received direct effects from age at abuse discovery, gender, internalizing symptoms at T1 and T2, and anger at T3. Together, these variables did not explain a significant portion of variance in peer deviance, but there was a significant effect for anger. Individuals reporting more anger also reported more peer deviance. Finally, delinquency received direct effects from age, gender, internalizing symptoms at T1 and T2, and T3 anger and peer deviancy. Together, these variables explained a significant portion of variance in delinquency, but only the effects of anger and peer deviance were significant. Individuals reporting more anger and more peer deviance also reported more delinquency. There were marginally significant age and gender effects, with older and male victims reporting more delinquency.

The chain of direct effects in the internalizing symptoms model shown in Figure 2 suggested that the indirect effects might be significant. The indirect path from internalizing symptoms at T1 to internalizing symptoms at T2 to T3 anger and then directly to delinquency was significant ($B = 0.051$, 95% CI = 0.007 to 0.140, $\beta = .040$). The indirect path from internalizing symptoms at T1 to internalizing symptoms at T2 to T3 anger to peer deviancy and then directly to delinquency was significant ($B = 0.028$, 95% CI = 0.007 to 0.082, $\beta = .022$). None of the other five indirect paths from internalizing symptoms T1 to delinquency were significant.

DISCUSSION

The primary purpose of this study was to investigate how adaptation to sexual abuse was associated with delinquency. Differences in abuse-specific stigmatization and internalizing symptoms at abuse discovery and a year later were expected to predict subsequent anger and, through anger, to predict affiliation with deviant peers and delinquent behaviors. The proposed relations from stigmatization and internalizing symptoms to anger and delinquent behaviors were supported by the findings. In addition, consistent with expectations, the relation of anger and delinquency was mediated through affiliation with deviant peers. Although stigmatization and internalizing symptoms were indirectly related to delinquency, abuse severity was not related to delinquency. Obtaining reliable indicators of severity is difficult,

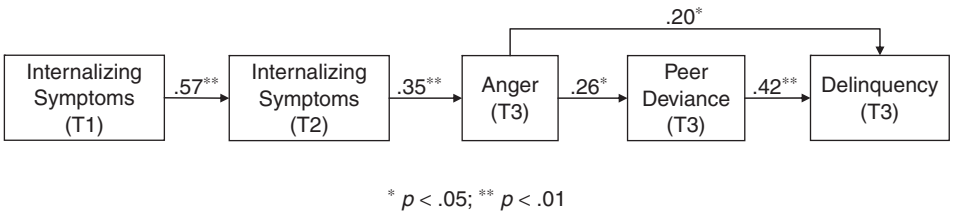

FIGURE 2: Path Model With Internalizing Symptoms
NOTE: Numbers are standardized path coefficients.

which constrains the likelihood of finding significant relations (Feiring, Taska, & Lewis, 2002). Abuse severity, in the absence of other vulnerabilities or stressors, may have limited value as a predictor of subsequent problems. Research on physically abused children shows that the abuse itself, without genetic vulnerability, is not predictive of subsequent delinquency (Caspi et al., 2002; Jaffee et al., 2005). Importantly, indicators of severity suggest but do not directly tap psychological processes that would be expected to predict delinquency. Especially as abuse events recede into the past, the psychological responses to CSA are more likely to explain how the experience of abuse is related to delinquency.

Within this sample of CSA youth, which was predominantly female, engaging in delinquent behavior was not uncommon. Importantly, however, our findings showed a good deal of variation in the extent to which these CSA youth had engaged in delinquent behaviors. Given the observation from this study and others (Siegel & Williams, 2003; Trickett et al., 2001; Widom & Kuhns, 1996) that not all CSA youth are likely to engage in high levels of delinquency, the question of understanding which youth are most at risk is central to developmental psychopathology theory and the design of interventions. Although the amount of variance explained was moderate and anger was not measured prior to subsequent delinquency, the results suggest that abuse-specific stigmatization and internalizing symptoms at the time of abuse discovery may place CSA youth at risk for subsequent problems with regulating anger and engaging in delinquent behaviors.

Anger appears to be an important negative emotion for explaining associations between abuse-specific stigmatization and delinquency. Although previous research has linked CSA with anger (e.g., Negrao et al., 2005) and anger with delinquency (e.g., Nichols et al., 2006), this is the first study to provide longitudinal evidence for early predictors of the anger-delinquency association in CSA youth. The anger measured in this study reflected hostility and the desire to strike out at others. It is this kind of explosive anger that has been hypothesized to be activated in the shame–rage spiral (Scheff, 1987). These findings support the idea that the intensely negative, self-directed thoughts and feelings that compose stigmatization can be turned outward, possibly in a self-defensive process leading to anger and antisocial behavior directed at others. In other words, one strategy for alleviating the highly negative experience of stigmatization and for preserving some self-esteem is to shift blame and negative feelings onto others. The earlier experiences of internalizing symptoms of PTSD and depression also were implicated in the subsequent development of anger and delinquency. Such symptoms may reflect a tendency to view others as threatening and hostile (Dodge, Pettit, & Bates, 1997; Kim & Capaldi, 2004). This information-processing bias for others' ambiguous or negative behaviors could explain the observed relations from internalizing symptoms to anger and delinquency.

Other findings from this sample have shown that adaptation to abuse within a year of abuse discovery, in terms of abuse-specific stigmatization and internalizing symptoms, predicts subsequent internalizing symptoms, poor self-esteem, and romantic intimacy problems (Feiring & Simon, 2006; Feiring & Taska, 2005; Feiring, Taska, & Chen, 2002). The findings reported here extend this work by highlighting the need to understand how abuse-specific stigmatization and internalizing symptoms amplify hostile responses to others and when such responses motivate delinquent behavior. Future work using a longitudinal design in which stigmatization and anger regulation are assessed along with symptoms and delinquent behaviors over time will be important for understanding how abuse-specific processes may operate through anger to increase the risk for delinquency. Such work would also benefit from consideration of how genetic risk in combination with stigmatization and anger might enhance early identification of those abused children most at risk for delinquency (Caspi et al.,

2002; Jaffee et al., 2005). The possible persistence of the effects of early stigmatization and internalizing symptoms emphasizes the need for early interventions that target stigmatization, internalizing symptoms, anger management, and peer relationships. This research suggests that such efforts are important not only to ameliorate the psychological distress of CSA youth but also to prevent delinquency.

Limitations

Although the findings from this study addressed important issues regarding the predictors of delinquent behaviors, limits to the results are acknowledged. One important caveat is that although victims of CSA are more likely than nonvictims to be at increased risk for antisocial activity, not all children who experience CSA go on to become delinquent. The within-group design of this study could not address the issue of whether CSA youth, compared to similar youth without an abuse history or to those with a history of physical abuse, were at greater risk for becoming involved in delinquent behaviors. For youth without other known concomitant risk factors for delinquency that may have been or were present in this sample (e.g., low socioeconomic status, residence in high-crime neighborhoods, parenting deficits), subsequent outcomes may be more benign. There is a clear need for future research to apply person-oriented approaches that would allow for the identification of subgroups of CSA victims and specific risk factors associated with these different pathways.

The external validity of the study is also limited to individuals for whom the abuse was reported to the appropriate authorities. Given the nonexperimental nature of the data, the findings are not conclusive concerning causal direction. Our findings pertain to processes and symptoms reported at abuse discovery and subsequently, but whether such cognitive–emotional functioning predated the CSA cannot be determined. It was not possible to examine the extent to which stigmatization and internalizing symptoms contributed to changes in anger and delinquency over time because these latter variables were only measured at T3. Causal assumptions about the potential pathways from anger to delinquency must also be viewed with caution because anger was measured in reference to the past 6 months, whereas delinquency was measured as a lifetime indicator. The study exclusively relied on self-report methodology and did not provide triangulated assessment of antisocial behavior through the use of juvenile and adult criminal records. In general, the power to detect the effects of the predictors on outcomes was limited by the small sample size. In particular, power to examine gender effects was limited by the small number of males in the sample. This limited statistical power made the examination of gender main effects preliminary and precluded the examination of gender as a moderator. Despite these limitations, this study is among the few to examine long-term effects of CSA on delinquency using data from multiple time points on confirmed cases of abuse. The findings underscore the importance of cognitive and affective mechanisms associated with the experience of CSA and how these mechanisms are implicated in the development of delinquency.

Clinical Implications

Effective intervention efforts will likely require a creative combination of evidence-based programs from both the CSA and the delinquency fields. Rigorous studies using random assignment to well-defined, manualized treatments have compared interventions to each other or to waitlist control conditions. Trauma-focused cognitive behavioral therapy (TF-CBT), compared to supportive or child-centered therapy, has been shown to be more effective in reducing symptoms of PTSD and depression, abuse-specific shame, and distorted attributions (Cohen, Deblinger, Mannarino, & Steer, 2004; Cohen & Mannarino, 1998; Deblinger, Steer, & Lippmann, 1999). Recent work has also considered how the components of TF-CBT are likely to decrease stigmatization (Deblinger & Runyon, 2005). Important elements include the development of skills in expressing emotions, gradual exposure to negative emotions such as shame through writing a trauma narrative, creating a therapeutic environment in which self-blame attributions about the abuse and its aftermath can be expressed and reexamined, and working with parents to enable them to talk about the abuse with their children rather than avoiding the topic and inadvertently reinforcing feelings of shame.

Although the components of TF-CBT may also be effective in improving the regulation of explosive anger and reducing delinquent behaviors, these goals have not been the central focus of treatment for CSA youth. Our findings suggest that clinical interventions to treat victims of CSA would benefit from greater sensitivity to the apparent links between cognitive and affective reactions to the abuse and delinquency. Despite clear connections between these phenomena, the literatures on interventions for abuse and delinquency have unfortunately tended to be quite disparate. Trauma-focused treatments might benefit from an additional emphasis on cognitive and affective coping strategies found within interventions to reduce aggressive and antisocial behaviors (e.g., social skills training in the Fast Track program—Conduct Problems Prevention Research Group, 2002; anger

coping strategies in the Coping Power program—Lochman & Wells, 2004). In addition, interventions with parents might emphasize the importance of parental monitoring and supervision, particularly relating to their child's peers (Lochman & Wells, 2004; McMahon, Slough, & Conduct Problems Prevention Research Group, 1996).

The findings also suggest how interventions serving delinquent youth would benefit from increased sensitivity to potential histories of CSA, particularly among girls who are more likely to experience this form of victimization. It is well established that up to 70% of females in the juvenile justice (JJ) system have a history of CSA (Hennessey, Ford, Mahoney, Ko, & Siegfried, 2004). Despite these data, however, trauma-focused interventions are rarely used in JJ settings. Such statistics underscore the need to assess exposure to CSA and other traumas among JJ youth and to provide evidence-based interventions such as TF-CBT (Mahoney, Ford, Ko, & Siegfried, 2004; Wolpaw & Ford, 2004).

NOTE

1. The seven possible indirect effects were as follows: (a) stigmatization T1, stigmatization T2, delinquency; (b) stigmatization T1, anger, delinquency; (c) stigmatization T1, peer deviancy, delinquency; (d) stigmatization T1, stigmatization T2, anger, delinquency; (e) stigmatization T1, stigmatization T2, peer deviancy, delinquency; (f) stigmatization T1, anger, peer deviancy, delinquency; (g) stigmatization T1, stigmatization T2, anger, peer deviancy, delinquency.

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