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The Effects of Adolescent Victimization on Self-Concept and Depressive Symptoms

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Using two waves of the Developmental Victimization Survey (DVS), this research examined the effects of different forms of child victimization on changes in self-concept in a national sample of 11- to 18-year-old youth. Specifically, we (a) assessed the independent effects of past-year sexual victimization, nonsexual child maltreatment, peer victimization, and nonvictimization adversity on changes in mastery and self-esteem, (b) investigated the effects of these stressors on levels of depressive symptoms, and (c) determined the extent to which changes in mastery and/or self-esteem mediate associations between victimization and depression. Results indicate that only sexual victimization independently reduced self-esteem, and there were no significant changes in mastery in response to victimization exposure. Declines in self-esteem partially mediated the association between past-year sexual victimization exposure and levels of depressive symptoms. Strong direct effects of each form of victimization and nonvictimization adversity on depression were also evident. Results suggest that sexual victimization experiences may have uniquely powerful effects on self-esteem that are not apparent for other types of victimization and stress.

Keywords: child victimization; adolescence; self-esteem; mastery; depression

Introduction

Child victimization is an important etiologic factor in the development of several psychiatric disorders in both childhood and adulthood (Molnar, Buka, & Kessler, 2001; Terr, 1991). The evidence linking both child maltreatment (Bryer, Nelson, Miller, & Krol, 1987; Holmes & Robins, 1988) and sexual abuse (Browne & Finkelhor, 1986; Green, 1993) to subsequent disorder is considerable. Linkages between distress and exposure to peer violence and bullying (Kumpulainen, Rasanen, & Henttonen, 1999; Swearer, Song, & Cary, 2001) are also well established.

The psychosocial processes by which different forms of childhood victimization lead to emotional and behavioral problems are less well understood. One mechanism that may help to explain both shorter term distress in children and long-term outcomes in adults is the potential damage to self-concept that occurs in response to victimization exposure. There is reason to suspect that two core aspects of self-concept—mastery and self-esteem—could both be affected by such experiences.

Mastery has been defined as "the extent to which one regards one's life chances as being under one's own control in contrast to being fatalistically ruled" (Pearlin & Schooler, 1978, p. 5). Other constructs that share conceptual ground with mastery include locus of control (Rotter, 1966), personal control and self-efficacy (Bandura, 1982), and fatalism (Wheaton, 1983). Although not identical, all these constructs incorporate the notion that personal agency—perceiving that one is causally relevant in life outcomes—is an important contingency in human development and functioning (Turner & Roszell, 1994). With respect to self-esteem, one of the most influential and enduring conceptualizations is provided by

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Rosenberg (1965, 1986) who defines the construct as "the evaluation which the individual makes and customarily maintains towards himself or herself: it expresses an attitude of approval or disapproval towards oneself" (Rosenberg, 1965, p. 5).

Research on the impact of stress exposure in general and the effects of child abuse in particular suggest the significance of changes in self-processes that stem from adverse conditions and experience in the social environment. Significant stressors, such as victimization, are presumed to damage normal psychosocial processes responsible for the development of positive self-concept. Given that children's experience with successes and failures in the social environment and their perceptions of how they are viewed by others would inevitably help to shape mastery and selfesteem, exposure to victimization is likely to be damaging to both these aspects of self-concept.

Research in this area has tended to consider the effects of only a single type or category of victimization at a time. Thus, we have less information on whether different forms of victimization are more or less damaging to self-concept than other forms. It is also unclear whether self-esteem and mastery dimensions of self-concept are differentially affected by victimization, and whether changes in these two aspects of self-concept represent mediating factors between different forms of victimization exposure and increased levels of symptomatology.

Child Victimization and Self-Concept

The effects of victimization on the development of self-concept in children and adolescents have received the most attention with respect to child maltreatment and sexual victimization. The particular concern regarding child maltreatment arises from the child development field that emphasizes the role of the parent-child relationship and the importance of secure attachment figures in normal development. Based on positive interactions with caregivers (usually parents), children develop a sense of the world as dependable and trustworthy and a sense of themselves as competent and lovable (Bowlby, 1982). Children whose caregivers are unresponsive, neglectful, or use excessively harsh physical punishment are less equipped to accomplish critical developmental tasks and more likely to develop perceptions of themselves as ineffective and unworthy (Kim & Cicchetti, 2006).

Consistent with these ideas, several studies have found maltreated children to have less positive self-concepts than nonmaltreated children as measured by both teacher ratings and child self-reports (Bolger, Patterson, & Kupersmidt, 1998; Cicchetti & Rogosch, 1997; Kim & Cicchetti, 2006; Toth, Cicchetti, Macfie, Maughan, & Vanmeenen, 2000). This evidence points to deficits in both self-esteem and mastery aspects of self-concept. For example, Cicchetti, Beeghly, Carlson, and Toth (1990) found that, beginning in middle school, maltreated children report lower self-efficacy relative to nonmaltreated peers, and numerous studies have shown reduced self-esteem among emotionally and physically abused children (Bolger et al., 1998; Conger, 1992; Oates, Forrest, & Peacock, 1985; Toth & Cicchetti, 1993). The effects of maltreatment and associated parenting behaviors on self-concept have also been found in adolescent samples (Loeb, Horst, & Horton, 1980; Stiffman, 1989).

Similar to the literature on maltreatment, sexual victimization of children has been linked to deficits in self-processes and development. Psychosocial theory posits that sexual abuse disrupts cognitive components of the self, leading to a proliferation of negative selfevaluations and negative core beliefs, including a sense of inferiority and low self-efficacy (Finkelhor & Browne, 1985; Harter, 1999; Putnam, 1990). Many studies have demonstrated an association between sexual abuse and low self-esteem in children (Feiring, Taska, & Lewis, 2002; Stern, Lynch, Oates, & O'Toole, 1995), even when some other forms of victimization were controlled (Bolger et al., 1998). Moreover, research shows that both children and adults with a history of sexual abuse are more likely to blame themselves for negative events and demonstrate lower self-efficacy than nonabused individuals (Feiring et al., 2002; Mannarino, Cohen, & Berman, 1994; Paunovic, 1998).

Although there is less research linking peer victimization with self-concept, some studies have suggested deficits in self-development among peer victimized children. For example, victims of bullying have been found to have lower scores on global self-esteem, display less selfconfidence, and are more likely to rate themselves as low in "social competence," relative to bullies and children uninvolved in perpetration or victimization (Boulton & Underwood, 1992; Houbre, Tarquinio, Thuillier, & Hergott, 2006; Olweus, 1978).

A limitation of research that focuses on one particular type of victimization is the fact that children often experience multiple forms of victimizations even within a relatively short time frame. Finkelhor, Ormrod, Turner, and Hamby (2005) found that in any given year the average child who is victimized at all, experiences three distinct types of victimization over three different incidents (e.g., peer assault, sexual harassment, child neglect). Therefore, as has been argued elsewhere

(Finkelhor, Ormrod, & Turner, 2007; Turner, Finkelhor, & Ormrod, 2006), focusing on only one form of victimization is likely to underestimate the full burden of victimization, while at the same time overestimating the impact of any single type of victimization exposure. As a result, it is important to control for exposure to other forms of victimization when considering the impact of individual types.

Self-Concept as a Mediator

Given that declines in mastery and self-esteem may be direct outcomes of child victimization, these aspects of self-concept may represent mediators victimization exposure and mental health outcomes. In fact, the links between self-concept and depression have been discussed widely in the literature. Research involving a variety of different populations has demonstrated a clear connection between mastery (and the related concepts of helplessness, perceived control, fatalism, and self-efficacy) and symptoms of distress and depression (Aneshansel, 1992; Gecas, 1989; Mirowsky & Ross, 1989; Seligman, 1975; Wheaton, 1983). The same appears to be true of self-esteem. Turner and Rozell (1994) review substantial evidence linking self-esteem with depressive symptoms and point out that such evidence is consistent with the theoretical proposition of Rosenberg, Schooler, and Schoenbach (1989): "If the desire for positive regard is a major motive of human beings, then the frustration of such a motive would almost inevitably be experienced as depressing" (Rosenberg et al., 1989, p. 1007).

Consistent with these ideas, Robertson and Simons (1989) found that perceived parental rejection among adolescents (a likely corollary of maltreatment) had both a direct and indirect effect on depression through diminished self-esteem. Similarly, in a longitudinal study, Bolger and Patterson (2001) found that the effects of maltreatment on children's internalizing problems were partially mediated through declines in perceived personal control. Low self-esteem has also been found to mediate the link between verbal peer victimization during childhood and depression in young adults (Benas & Gibb, 2007). Studies that explicitly address potential mediating effects of both self-esteem and mastery in the associations between different forms of victimization and depression are still needed. Although the research cited above suggests that both self-esteem and mastery could be affected, these two aspects of self-concept may not be equally relevant or may operate differently for different types of victimization.

Although not central to the goals of this study, it may also be important to consider potential gender differences in the effects of victimization on self-concept and depression. There is some evidence that adolescent boys and girls are differentially vulnerable to stressful experiences (Ge, Lorenz, Conger, Elder, & Simons, 1994; Meadows, Brown, & Elder, 2006). Thus, it is possible that the lower levels of mastery, self-esteem, and depressive symptoms typically reported by adolescent girls (Rosenfield, 1999) may, in part, be a function of stronger associations between victimization exposure and these outcomes among girls.

Differentiating Stressful Experiences: Victimization and Nonvictimization Events

We have hypothesized that different forms of victimization (maltreatment, sexual victimization, peer victimization) each represent stressors that may have significant implications for the development of selfconcept in youth. To the extent that victimization does lead to declines in self-esteem and/or mastery, it would be of theoretical importance to determine whether such effects are specific to victimization experiences or whether they reflect a more general consequence of stress exposure. Thus, it may be that self-concept is compromised when children are forced to adapt to any set of negative life changes or conditions in their social environment; these may include a wide range of personal and family adversities, including major accidents and illnesses, parental job loss, parental divorce or separation, the death of a friend or family member, or experiencing a natural disaster. If this was the case, an index of recent life events might uncover stress effects on self-concept similar to those that arise from exposure to child maltreatment, sexual victimization, and/or peer victimization.

However, it could be argued that there is something unique about victimization that is particularly damaging to youth's self-concept. The argument here is that victimization represents a more direct assault on children's perceptions of their own worth and efficacy. Although a variety of adverse family conditions can create adaptive challenges that erode well-being, victimization is more likely to be perceived by children as explicitly reflecting negative self-qualities and personal incompetence. As such, the damaging effects of victimization may be more likely to involve changes in self-esteem and mastery, because they have more direct implications for self-appraisals. If this was the case, the effects of victimization exposure should be stronger than the effects of nonvictimization adversity on self-concept.

Moreover, we should find that declines in self-concept have a stronger mediating influence between victimization and depression than between nonvictimization adversity and depression.

This research uses data from Waves II and III of the Developmental Victimization Survey (DVS) involving a national sample of youth aged 11-18. The primary objectives of the current study are to (a) examine the independent effects of specific categories of victimization occurring in the past year (any sexual victimization, any nonsexual maltreatment, any peer victimization) and total number of nonvictimization stressors on changes in mastery and self-esteem; (b) assess the independent effects of the three specific categories of victimization and total nonvictimization stress on subsequent levels of depressive symptoms; and (c) determine the extent to which changes in mastery and/or self-esteem mediate associations between different forms of victimization, nonvictimization stress, and symptoms of depression. As a secondary objective, we will also consider potential gender differences in the above processes.

Methods

Participants

The DVS is a three-wave longitudinal study of the U.S. children and adolescents. The DVS was designed to obtain incidence estimates of a comprehensive range of childhood victimizations across gender, race, and developmental stage. The Wave I survey, conducted between December 2002 and February 2003, assessed the experiences of a nationally representative sample of 1,000 youth aged 10-17 living in the contiguous United States. Wave II of the survey was conducted between December 2003 and May 2004, approximately 1 year after the baseline interview, and Wave III was conducted between December 2005 and August 2006, approximately 2 years after Wave II. Although some of the demographic data used in the current research were collected in Wave I, the analyses are based primarily on second and third waves of data collection, the only time points in which the core variables of mastery and self-esteem were assessed.

The sampling methodology and study procedures are detailed extensively elsewhere (Finkelhor, Ormrod, et al., 2005) and will only be summarized briefly here. The sample selection procedures were based on a listassisted random digit dial (RDD) telephone survey design. One child aged 10-17 was randomly selected from all eligible youth living in a household by selecting the child with the most recent birthday. First, a short interview was conducted with the adult caregiver (usually a parent) who indicated being "most familiar with the child's daily routine and experiences," and then the target respondent was interviewed. Up to 13 callbacks were made to select and contact a respondent and up to 25 callbacks were made to complete the interview. Consent was obtained from both the parent and the child. Respondents were promised complete confidentiality and were paid US\$10 for their participation. The average length of the main interview was 45 min. Interviews were successfully completed with 79.5% of the eligible persons contacted.

A total of 754 respondents (75.4\% of the baseline sample) were reinterviewed in Wave II. Attrition analyses show that respondents lost to follow-up were more likely to be Hispanic and lower in socioeconomic status (SES; as assessed by a composite of income and parent education). However, there were no significant differences between Wave II respondents and those lost to follow-up on level of victimization reported at baseline. In Wave III, 523 of the respondents who had been interviewed in Wave II (70% of the Wave II sample) were reinterviewed; this represents the sample (aged 11-18 at Wave II) used in the current analyses. Again, higher risk respondents, as indexed by victimization rates, were no less likely to participate in Wave III than were lower risk respondents. In total, 53% of this sample were female, 81% White, 10% Black, 6% Hispanic, 3% other race, and 19% resided in single-parent families.

Measurement

Victimization. Measures of victimization exposure are based on items from the Juvenile Victimization Questionnaire (JVQ), a recently constructed inventory of childhood victimization (Hamby, Finkelhor, Ormrod, & Turner, 2004). The JVQ was designed to be a more comprehensive instrument than has typically been used in past research, providing a description of all the major forms of offenses against youth. Moreover, its use of simple language and behaviorally specific questions enable the JVQ to be used for self-report by children as young as age 8. In the current analyses, we use three components of the JVQ assessed in Wave III: nonsexual child maltreatment (four items), peer and sibling victimization (six items), and sexual victimization (six items). Respondents were asked about events that happened in the last year, using time-bounding techniques to increase accuracy of reports within the designated time frame. Specific screener items reflecting the 16 types of events are presented in Appendix A. It should be noted that "sexual victimization" includes a broader array of victimizations than is typically considered in the child sexual abuse literature. The JVQ has shown evidence of good test-retest reliability and construct validity (Finkelhor, Hamby, Ormrod, & Turner, 2005).

Dichotomous measures indicating whether respondents were exposed to any victimization within each of the three categories (sexual victimization, nonsexual child maltreatment, peer/sibling victimization) were constructed. Almost 24% of the youth reported at least one type of peer victimization, 11.5\% reported nonsexual maltreatment, and 13.7% reported a sexual victimization in the year prior to the interview.

Nonvictimization adversity. Nonvictimization adversity was measured in Wave III with a summary score of 20 life events. Respondents were asked whether each of the events occurred in the last year (no = 0; yes = 1). Items included events such as "Did you have a really bad accident or injury?," "Did your parents get divorced or separated?," "Did your family lose a home because of a fire or other disaster?," "Was a parent fired or laid off from work?," "Did one of your parents, brothers, or sisters have a really bad illness?," "Did a close friend die?," and "Did the family move to a worse house or neighborhood?."

Mastery. Mastery was assessed using a modified version of a 7-scale developed by Pearlin and Schooler (1978); slight modifications were made to simplify the language and response categories, making items more appropriate for the youth. Mastery was assessed at both Waves II and III. Respondents rated each item of a 3-point scale: "very true," "a little true," and "not true." Sample items include "you have little control over the things that happen to you" and "you feel helpless in dealing with problems." A summary score of all seven items was constructed, with higher values representing higher levels of mastery. The original scale has been extensively used and its psychometric properties are well established (see Pearlin, Lieberman, Menaghan, & Mullan, 1981). Given the importance of ensuring conceptual clarity between mastery, a hypothesized mediator, and the outcome variable of depression, we conducted a factor analysis that included items from both the mastery and depression measures. This analysis confirmed two distinct factors. In the current study, the α coefficient for the mastery scale is .62 for both Waves II and III.

Self-esteem. Self-esteem was measured with a modified version summary score of an instrument developed by Rosenberg (1965); again, given the younger respondents in our sample, item wording was slightly simplified. Self-esteem was assessed at both Waves II and III. The psychometric properties of the original scale are well established (see Rosenberg, 1986). The current scale is composed of 7 of the original 10 items reflecting different "self-statements" or beliefs. Respondents rate each statement on a 3-point scale ranging from "very true" to "not true." Sample items include "you can do things as well as most other kids," "you have a lot to be proud of," and "you think you are a failure." Again, given the importance of ensuring that the self-esteem measure is conceptually distinct from the depression index (described below), a factor analysis that included all esteem and depression items was performed. In this analysis, two items from the self-esteem measure and two items from the depression index loaded similarly on both dimensions. These items were dropped and another factor analysis was conducted, showing two distinct factors. A summary score was constructed from the resulting five self-esteem items, with higher values representing higher levels of self-esteem. Additional factor analyses that included this shortened self-esteem measure together with all items from the mastery scale also revealed two clear dimensions. Thus, the self-esteem and mastery measures appear to represent separate constructs that are distinct from the depression index and from each other. The reliability coefficient for the self-esteem measure is .73 for Wave II and .76 for Wave III.

Depressive symptoms. The current study uses the depression component of the Trauma Symptom Checklist for Children (TSCC), assessed at Wave III. Youth were presented with a list of thoughts, feelings, and behaviors and asked to indicate how often each of these things happened to him or her in the last month. Each item was rated on a 4-point scale ranging from 0 (not at all) to 3 (very often). All components of the TSCC have shown very good reliability and validity in both population-based and clinical samples (Briere, 1996). As described above, factor analyses were performed to guard against conceptual overlap between this measure and the self-concept indices and, as a result, two depression items were dropped. The TSCC α coefficient for the resulting seven-item depression scale is .79. A summary measure was constructed, with higher values representing higher levels of depressive symptoms.

Sociodemographic factors. Demographic information obtained in the initial parent interview includes the child's age (in years) and race/ethnicity (coded into four

	1	2	3	4	5	6	7	8	9
1. Any nonsexual maltreatment	1.00								
2. Any sexual victimization	.153**	1.00							
3. Any peer victimization	.328**	.327**	1.00						
4. Nonvictimization adversity	.238**	.182**	.288**	1.00					
5. Wave II self-esteem	093*	120**	108*	167**	1.00				
6. Wave II mastery	210**	125**	112*	217**	.423**	1.00			
7. Wave III self-esteem	165**	182**	188**	145**	.515**	.289**	1.00		
8. Wave III mastery	.173**	144**	176**	173**	.341**	.483**	.482**	1.00	
9. Wave III depressive symptoms	.241**	.251**	.210**	.220**	366**	246**	601**	445**	1.00
Mean	.11	.14	.24	1.18	14.00	20.58	14.14	21.06	9.58
SD	.32	.34	.43	1.47	1.49	2.57	1.41	2.43	2.74

Table 1 Correlations Among Victimization Categories, Adversity, Self-Esteem, Mastery, and Depressive Symptoms (N = 523)

groups: White non-Hispanic, Black non-Hispanic, Hispanic any race, and other non-Hispanic race). SES and family structure were constructed from Wave II data. SES was a composite based on the sum of the standardized household income and standardized parental education (parent with the highest education) scores, which was then restandardized. In cases where the data for one of the SES indices (most often income) were missing, the SES score was based on the standard score of the remaining index. Family structure was coded into three groups: child living with two biological or adoptive parents, child living with one biological parent and a stepparent or unmarried partner, and child living with a single parent. In all regression analyses, gender is a dummy variable (female = 1), White non-Hispanic is the comparison group for race/ethnicity, and two biological parents is the comparison group for family structure.

Statistical Analyses

To assess whether exposure to victimization and/or nonvictimization adversity is related to changes in self-concept, Wave III mastery and self-esteem scores were each regressed on (a) Wave II levels of mastery or self-esteem and (b) exposure to each category of victimization and total nonvictimization adversity measured at Wave III. Therefore, coefficients represent associations between victimization that occurred within the year prior to Wave III with changes in mastery or self-esteem occurring between Waves II and III.

We also sought to determine (a) whether the different types of victimization and nonvictimization adversity occurring in the year prior to Wave III are independently associated with Wave III levels of depressive symptoms;

(b) whether changes in self-concept between Waves II and III are related to Wave III levels of symptoms; and (c) whether changes in self-concept help to explain associations between the different forms of stress and depressive symptoms. To this end, we first regressed Wave III depression scores, all types of victimization and adversity (occurring between the two waves), and then entered change scores for self-esteem and mastery (i.e., Wave III score – Wave II score).¹

Results

Means, standard deviations, and bivariate correlations among all the primary variables of interest are presented in Table 1. Table 2 presents regression analyses to determine the effects of different forms of victimization on changes in mastery and self-esteem. As seen in Equation 1 of the left-half side of the table, Wave III levels of mastery were first regressed on Wave II scores on this variable and several sociodemographic factors. Although, as expected, Wave II mastery is highly related to levels at Wave III, only age and "other race" are associated with changes over time. Older youth experience greater increases in this aspect of self-concept, whereas youth classified as other race (primarily Asians) experience fewer increases. When individual categories of past-year victimization and nonvictimization adversity were added to the model in Equation 2, none of their coefficients reached statistical significance. Levels of mastery did not significantly change in response to victimization and adversity exposure in this sample.

A somewhat different pattern is evident with respect to self-esteem. As seen in Equation 1, girls are more

^{**}p < .01.

The Effects of Victimization on Changes in Mastery and Self Esteem: Unstandardized and Standardized Regression Coefficients Table 2

		Mastery (W3)	y (W3)			Self Esteem (W3)	em (W3)	
	Equation 1	1 1	Equation 2	n 2	Equation 1	n 1	Equation 2	ın 2
	В	β	В	β	В	β	В	β
W2 Mastery	.439 (.036)	.475	.416 (.037)	.450				
W2 Self Esteem					.483 (.036)	.501***	.461 (.036)	.478
Gender (Female $= 1$)	225 (.184)	047	229 (.185)	048	341 (.107)	.120**	332 (.107)	.116**
Age	.090 (.042)	.082	.072 (.043)	990.	.035 (.025)	.053	.026 (.025)	.040
\mathbf{Black}^1	.192 (.330)	.024	0.231 (.329)	.029	.389 (.192)	*080	.420 (.190)	.087
Hispanic ¹	416 (.398)	041	480 (.397)	047	082 (.232)	013	155(.231)	025
Other Race ¹	-1.114 (.533)	081^{*}	-1.246 (.533)	*060.—	408 (.310)	049	493 (.308)	060
Socioeconomic Status	.010 (.106)	.004	016 $(.106)$	900'-	005 (.061)	003	007 (.061)	004
Single Parent ²	.013 (.258)	.002	.041 (.257)	.007	.044 (.150)	.012	.063 (.149)	.017
Step Family ²	012 (.282)	.002	.098 (.284)	.014	078 (.164)	018	014 (.164)	003
Any Sexual Victimization			404 (.274)	090.—			398 (.159)	*860.—
Any Child Maltreatment			210 (.309)	028			291 (.176)	065^{+}
Any Peer Victimization			342 (.218)	068			137 (.126)	045
Non-Victimization Adversity			059 (.067)	037			.009 (.039)	600.
Adjusted R ²	.237		.247		.285		.301	
+ + +								

 ${}^{+}p < .10;$ ${}^{*}p < .05;$ ${}^{**}p < .01;$ ${}^{***}p < .01;$

comparison group = white non-Hispanic; comparison group = two biological/adoptive parents. standard errors in parentheses; N=522.

			Depression	n (W3)		
	Equation	on 1	Equation 2		Equation 3	
	В	β	В	β	В	β
Gender (Female = 1)	1.60 (.221)	.292***	1.579 (.207)	.288***	1.483 (.216)	.269***
Age	.018 (.043)	.017	.061 (.042)	.057	.057 (.051)	.045
Black ¹	.153 (.395)	.016	.077 (.368)	.008	.023 (.384)	.002
Hispanic ¹	.299 (.486)	.025	.482 (.455)	.040	.511 (.465)	.043
Other Race ¹	.962 (.654)	.059	1.380 (.611)	.085*	1.363 (.622)	.085*
Socioeconomic Status	074(.126)	027	015(.119)	005	002(.123)	001
Single Parent ²	036(.331)	005	190 (.290)	027	257(.300)	037
Step Family ²	.333 (.341)	.040	131 (.322)	016	209(.331)	025
Any Sexual Victimization			1.246 (.313)	.157***	1.139 (.319)	.146***
Any Child Maltreatment			1.228 (.341)	.143***	1.172 (.357)	.136**
Any Peer Victimization			.681 (.241)	.120**	.512 (.256)	.088*
Non-Victimization Adversity			.271 (.075)	.146***	.299 (.078)	.161***
Mastery Change W3-W2			, ,		156(.044)	143^{***}
Self Esteem Change W3-W2					271 (.078)	140^{***}
Adjusted R ²	.077		.201		.235	

Table 3 The Effects of Victimization and Changes in Self Concept on Depressive Symptoms

likely to experience reductions in self-esteem between Waves II and III than boys, with other sociodemographic factors controlled. In addition, Black youth report greater increases (or less decrease) in self-esteem than do White youth. When the past-year victimization and adversity variables were entered into the equation, only sexual victimization was found to be significantly related to declines in self-esteem, although nonsexual maltreatment was also marginally related to reductions in self-esteem. Gender and race (Black-White contrast) remain significant predictors of change in self-esteem, with victimization and adversity controlled.

Table 3 presents the associations between sociodemographic factors, past-year victimization exposure, and changes in mastery and self-esteem on levels of depressive symptoms. As seen in Equation 1, gender is related to depression, with girls reporting more symptoms than boys. No other sociodemographic factors are significantly related to depression. In the next model, the three categories of victimization and nonvictimization adversity were added to the equation. Any sexual victimization, any nonsexual child maltreatment, and any peer victimization all had independent positive effects on depressive symptoms. Total number of nonvictimization adversity events was also significantly related to depressive symptoms, with victimization controlled.

Scores reflecting the change in mastery and self-esteem between Waves II and III were added to Equation 3. The significant negative coefficients mean that greater reductions in these aspects of self-concept were related to greater levels of depressive symptoms and/or greater increases in mastery and self-esteem were related to lower levels of depression. Thus, both dimensions of self-concept were related to depression in the expected direction.

Because past-year sexual victimization was associated with both changes in self-esteem and level of depression, we conducted additional analyses to test whether the indirect effect of sexual victimization, through change in self-esteem, is statistically significant. Based on the statistical procedure outlined by Holmbeck (2002), we tested for the significance of the change score in self-esteem as a mediator by testing whether the drop in the total effect of sexual victimization on change in depression is significant when the mediator is included in the model (with all other factors controlled). Holmbeck's procedure makes use of Sobel's (1988) equation for computing the standard error of the indirect effect.

p < .05;** p < .01;

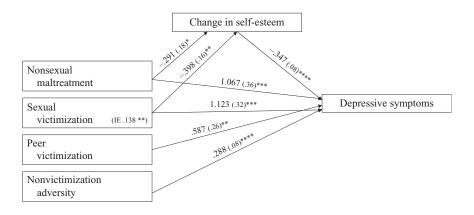
p < .001 (two-tailed);

¹ comparison group = white non-Hispanic;

² comparison group = two biological/adoptive parents. standard errors in parentheses; N = 522.

Figure 1

Direct and Indirect Effects of Victimization and Nonvictimization Adversity on Level of Depressive Symptoms (Unstandardized Coefficients). *p < .10; **p < .05; ***p < .01; ****p < .001.



In this case, the indirect effect was the drop in the total sexual victimization-to-depression effect when the mediator (change in self-esteem) is included in the model. Once the standard error of the indirect effect was determined, a z test was used to test its significance. Because none of the stressors were related to mastery, we dropped mastery from the mediation analyses. The indirect effect of sexual victimization [IE = b(-.398) * b(-.347) = .138; SE = .064] is significant (p < .05). The model depicting both direct and indirect effects of victimization and adversity on depressive symptoms is shown in Figure 1.

It is important to note that, although change in self-esteem partially mediates the sexual victimization—depression association, much of the effect of sexual victimization is direct. Moreover, the other forms of victimization and nonvictimization adversity are not significantly associated with changes in self-concept, but all show substantial direct effects on depressive symptoms.

Because of the possibility that the effects of different victimization types on self-concept could potentially differ for male and female youth, we reran the analyses presented in Equation 2 of Table 2, adding gender interaction terms for each type of victimization and non-victimization adversity (not shown). No interactions were significant with respect to mastery. However, the gender * peer victimization interaction was statistically significant for self-esteem, such that females experienced greater reductions in self-esteem in response to peer victimization (b = -.52; p < .05). We also ran analyses presented in Equation 3 of Table 3, adding gender interaction terms for each type of victimization and nonvictimization adversity as well as interactions between gender and changes in self-esteem and mastery

(not shown). Results indicate one significant interaction with respect to levels of depressive symptoms: female youth were more negatively affected by reductions in self-esteem than male youth (b = -.51; p < .001).

The smaller sample sizes of the separate gender groups did not allow sufficient statistical power for detailed within-gender mediation analyses. However, the significant gender interactions suggest some modification of Figure 1: peer victimization leads to greater declines in self-esteem among adolescent girls and, importantly, such declines produce more symptoms of depression in adolescent girls, relative to adolescent boys. Thus, the indirect effects of peer victimization, through reductions in self-esteem, operate more strongly for girls.

Discussion

Earlier research has identified deficits in self-concept as a potentially important outcome of childhood exposure to victimization. Focusing on two core components of self-concept—mastery and self-esteem—the current study sought to address a number of questions involving victimization, self-concept, and mental health. One question concerned whether individual categories of victimization, such as nonsexual child maltreatment or sexual victimization, are related to reductions in mastery and/or self-esteem when other forms of victimization are controlled. Most past research in this area has considered only one type of victimization at a time, leaving open the possibility that associations between individual forms of victimization and self-concept are mis-specified because of co-occurring victimizations.

We found that only exposure to sexual victimization was independently related to reductions in self-esteem. Thus, our findings point to the unique importance of sexual victimization for creating harmful changes in self-conceptions. Consistent with past research showing the tendency for sexually abused youth to exhibit negative cognitive distortions about the self, the current study suggests that damaging effects on self-esteem are evident among adolescents, which emerge relatively quickly after the victimization occurs. Given the importance of adolescence for sexual development, negative sexual experiences involving violence, derogation, or exploitation may have particularly crucial implications for self-esteem in this age group.

A potentially unique element of adolescent's reactions to sexual victimization, one that may be less likely to emerge from other forms of victimization, is the emotional experience of shame. Several investigators have discussed the importance of shame in stigmatization processes associated with sexual abuse (Feiring, Taska, & Lewis, 1996; Finkelhor & Browne, 1985; Whiffen & MacIntosh, 2005). Because of the intensity of the emotional state of shame, it can have severe consequences on the global sense of self and on affective disorders, such as depression and posttraumatic stress disorder (Andrews, 1995; Feiring & Taska, 2005; Feiring, Taska, & Lewis, 1998; Lewis, 1992). To the extent that shame is particularly likely to emerge in response to sexual victimization (Feiring et al., 2002) and to have especially potent consequences for self-evaluations (Lewis, 1992), this may help to explain the unique effect of sexual victimization on self-esteem in this study.

Although there was a marginal association between nonsexual maltreatment and reductions in self-esteem (p < .10), we were surprised that this type of victimization did not have a stronger effect. It may be that the consequences of nonsexual maltreatment for self-concept are more evident earlier in the child's life course. Because we considered victimization that occurred within the year prior to Wave III, when respondents were 11–19 years old, we may have missed the developmental stages when this type of maltreatment is most detrimental. In other words, maltreated youth in this sample may have already had lower self-concept prior to the recent incidents of maltreatment. It is also important to remember that sexual abuse by caregivers was included in our sexual victimization measure rather than the maltreatment measure. Although sexual abuse by caregivers was rare in this sample, including it in the maltreatment measure might have yielded a slightly different pattern of results.

Although some effects of victimization on negative changes in self-esteem were evident, we did not find significant effects of any type of past-year victimization on changes in mastery. It may be that self-esteem is more flexible than mastery and more easily modified in response to the perceived appraisals of others within one's immediate social network. Specifically, adolescents may be relatively quick to change their feelings of self-worth in direct response to sexually stigmatizing or derogating events and experiences. In contrast, mastery may be less reactive to new events and changes in social contexts. Instead, changes in mastery may involve a longer term process that requires a greater accumulation of victimizations, adversities, and other "uncontrollable" experiences. Future research might benefit from incorporating variations in length of exposure and different thresholds of cumulative adversity to address this possibility.

Another objective of the current study was to determine the extent to which changes in self-concept help to explain the effects of victimization on symptoms of depression. Results showed that sexual victimization was related to both decreases in self-esteem and higher levels of depressive symptoms. Moreover, reductions in mastery and self-esteem were related to greater levels of depression. Thus, considering the indirect paths from victimization to depression, we assessed the significance of change in self-esteem as a mediator and found the indirect effect of sexual victimization to be significant. Therefore, one mechanism by which sexual victimization appears to influence depressive symptoms is through a decline in self-esteem.

Perhaps more noteworthy, however, are the strong associations between all forms of past-year victimization and depressive symptoms, when changes in self-concept were controlled. Indeed, taken as a whole, change in selfconcept appears to play a relatively minor role in the association between recent child victimization and depression. Clearly, victimization has substantial direct effects on depressive symptoms and/or there are additional indirect pathways not specified by the model. For example, in addition to negative self-perceptions that can emerge out of victimization exposure, youth may experience a reduction in interpersonal support and the loss of trust, intimacy, and affection that accompanies such declines. These negative changes in the quality of network interaction can, in turn, contribute to symptoms of depression. Future research should attempt to simultaneously assess multiple pathways by which different forms of victimization contribute to depression, to better specify direct and indirect processes.

Additional analyses suggested that indirect effects of victimization on depression symptoms, through changes in self-concept, may be more pronounced for female youth. First, there was a statistical interaction between gender and peer victimization, such that peer victimization resulted in greater declines in self-esteem among girls than boys. This implies that the role of peers for social comparison and self-development may be more salient for adolescent girls. This finding is consistent with theoretical and empirical literature suggesting that, due to gendered socialization processes, girls exhibit greater "interpersonal-dependence" in the development of self-conceptions, which in turn, increases their vulnerability to depression (Turner & Turner, 1999). Research has shown that during adolescence, girls tend to focus more on pleasing and being liked by others, whereas boys focus more on instrumental goals, such as athletic and academic achievements (Bush & Simmons, 1987). As a result, females become more reliant "on the opinions and evaluations of others in making their own judgments on how they are doing, that is, in maintaining self image and self esteem" (Gore & Colten, 1991, p. 150). In other words, girls depend more heavily on "reflected appraisals" (i.e., the evaluations of others in their immediate social network) than do boys in constructing their self-concepts (Turner & Roszell, 1994). Because, in the context of the current study, victimization by peer network members provides crucial (albeit negative) material for adolescent's reflected appraisals, this form of victimization may be more damaging to the self-esteem of girls.

A gender interaction was also found with respect to depressive symptoms: female youth were more negatively affected by reduced self-esteem than male youth. The stronger effect of self-esteem on depression in girls may be a function of gendered responses to stress. Considerable research has shown that females are more likely to exhibit "internalizing" symptoms, such as depression and anxiety, whereas males more likely exhibit "externalizing" problems, such as conduct disorder and substance abuse (Rosenfield, 1999). Thus, the focus on depressive symptoms exclusively as an outcome may have missed much of the effect of reduced self-esteem for boys. Future research should consider both internalizing and externalizing outcomes when considering the potential mediating effects of self-concept.

The current research also points to the potential importance of "unpacking" stress exposure to differentiate between different types of stressful experiences. A large body of research has shown that many different forms of stress can affect mental health. However, the pathways by which this occurs likely differ across different types of stressors. Although our analyses suggest that change in self-esteem may be one pathway by which victimization (sexual victimization in particular) affects depressive symptoms, self-esteem did not operate as significant mediator for nonvictimization adversity. It may be that the particular characteristics associated with victimization exposure, such as violence, stigma, and denigration, have more direct consequences for children's self-processes because children often attribute their victimization to their own characteristics or failings. In contrast, nonvictimization adversity may be stressful but may operate in ways that are less threatening to selfperceptions. Many of these other types of stressors reflect negative events occurring to parents within family contexts. Events such as divorce, unemployment, parental illness, and imprisonment can be distressing for youth largely because they create a broader environment of stress by reducing the quality of social interactions and draining vital resources. Yet, unlike sexual victimization experiences, the child may not attribute these stressful events and conditions to his or her own shortcomings.

Limitations

A number of limitations of the current study should be acknowledged. The self-concept measures used in these analyses exhibited relatively low internal consistency. Mastery in particular was problematic, having a reliability coefficient of only .62. Thus, although we suggested possible substantive reasons for our findings, the lack of significant associations between victimization and mastery may, to some extent, reflect the measure's poor reliability, which typically reduces the magnitude of associations (Zeller & Carmines, 1980). Although we were able to determine that sample attrition between the baseline survey and the two subsequent waves was unrelated to the level of victimization reported at baseline, substantial loss of respondents across the three waves can still introduce unknown bias into the results. Another potential limitation concerns the lack of specificity concerning qualities and characteristics of victimization events. The consideration of perpetrator characteristics, severity of the victimization, or specific victimization types within categories could potentially reveal important differences in effects that were masked by our use of relatively broad victimization categories. We chose to focus on past-year victimizations to better isolate the effects of victimization on changes in self-concept. However, accounting for children's lifetime exposure to victimization may yield additional insights on the cumulative or long-term effects of victimization. Finally, future research may benefit from additional analytic approaches that allow the simultaneous assessment of overlapping and unique effects of mastery and selfesteem, and that consider the potential joint effects of self-concept and victimization on mental health outcomes.

Conclusion

The current research draws attention to the damaging effects of child victimization for self-concept, showing the particular importance of sexual victimization in reducing self-esteem in adolescents. The finding that sexual victimization was the only type of victimization related to declines in self-esteem when other types were controlled, suggests that research focusing on only one form of victimization may sometimes mis-specify associations between victimization and self-concept. Thus, self-esteem may represent a uniquely important pathway from sexual victimization to distress but be less relevant for explaining adolescent distress that arises from other forms of victimization and stress. The study points to the need for greater specification and differentiation of the qualities and characteristics of childhood stressors and the need to assess multiple mechanisms by which different forms of victimization influence the well-being of adolescents.

Note

1. In additional regression analyses, the effects of changes in selfconcept were assessed by including both Wave II and Wave II measures of mastery and self-esteem in the equation. Results were virtually identical to analyses using change scores. Results using change scores are presented for ease of presentation.

Appendix A

Juvenile Victimization Questionnaire

Child Maltreatment Screeners (Nonsexual)

Next we ask about grown-ups who take care of you. This means parents, babysitters, and adults who live with you or others who watch you.

(1) In the last year (since [month] when you were [age/ grade]), did you get scared or feel really bad because grown-ups called you names, said mean things to you, or said they didn't want you?

- Not including spanking on your bottom, in the last year, did a grown-up in your life hit, beat, kick, or physically hurt you in any way?
- When someone is neglected, it means that the grownups in their life didn't take care of them the way they should. They might not get them enough food, take them to the doctor when they are sick, or make sure they have a safe place to stay. In the last year, did you get neglected?
- (4) Sometimes a family fights over where a child should live. In the last year, did a parent take, keep, or hide you to stop you from being with another parent?

Peer and Sibling Victimization Screeners

- (5) Sometimes groups of kids or gangs attack people. In the last year (since [month] when you were [age/ grade]), did a group of kids or a gang hit, jump, or attack you?
- In the last year, did any kid, even a brother or sister, hit you? Somewhere like: at home, at school, out playing, in a store, or anywhere else?
- (7) In the last year, did any kids try to hurt your private parts on purpose by hitting or kicking you there?
- In the last year, did any kids, even a brother or sister, pick on you by chasing or grabbing your hair or clothes or by making you do something you didn't want to do?
- (9) In the last year, did you get scared or feel really bad because kids were calling you names, saying mean things to you, or saying they didn't want you around?
- In the last year, did a boyfriend or girlfriend or anyone you went on a date with slap or hit you? (Only asked to children aged 12 and older).

Sexual Victimization Screeners

- (11) In the last year, did a grown-up you know touch your private parts when you didn't want it or make you touch their private parts? Or did a grown-up you know force you to have sex?
- (12)In the last year, did a grown-up you did not know touch your private parts when you didn't want it, make you touch their private parts, or force you to have sex?
- (13) Now think about kids your age, like from school, a boyfriend or girlfriend, or even a brother or sister. In the last year, did another child or teen make you do sexual things?
- In the last year, did anyone TRY to force you to have sex, that is, sexual intercourse of any kind, even if it didn't happen?
- In the last year, did anyone make you look at their private parts by using force or surprise, or by "flashing" you?

(16) In the last year, did anyone hurt your feelings by saying or writing something sexual about you or your body?

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