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The Relations Between Family Environment and Violence Exposure Among Youth: Findings From the National Survey of Adolescents

Rochelle F. Hanson

Shannon Self-Brown

Medical University of South Carolina

Adrienne E. Fricker-Elhai

University of South Dakota School of Medicine

Dean G. Kilpatrick

Benjamin E. Saunders

Heidi S. Resnick

Medical University of South Carolina

A national household probability sample of 4,023 adolescents (ages 12 to 17) completed telephone interviews assessing demographics, adverse family environment, and violence exposure. Logistic regressions examined relations among family environment and each violence exposure type, controlling for demographics and other violence exposures. Relationships between family environment and violence exposure varied, depending on type of violence reported, most notably between intrafamilial versus extrafamilial violence. After controlling for family environment, exposure to one violence type significantly increased the likelihood of other violence exposures. Family substance use and not always living with a natural parent were significantly associated with all three types of violence exposure. Findings indicate that clinical assessments should include a thorough evaluation of family environment and violence exposure and also highlight the need for treatment to focus on the adolescent and broader family unit. Future research is needed to further examine these complex interrelationships and their associations with adolescent outcomes.

Keywords: *violence exposure; family environment; intrafamilial violence; extrafamilial violence; adolescents; national survey*

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Youth violence exposure constitutes a major public health concern in the United States (Koop & Lundberg, 1992; Osofsky, 1999; Prothrow-Stith & Weissman, 1991). Prior research indicates that children and adolescents are exposed to violence at alarmingly high rates both within the confines of their homes and in their communities (Boney-McCoy & Finkelhor, 1995; Brill, Fiorentino, & Grant, 2001; Campbell & Schwartz, 1996; Margolin & Gordis, 2000; Straus & Gelles, 1986). In a nationally representative sample of 2,030 youth, ages 2 to 17, Finkelhor and colleagues found that more than half of respondents reported a history of physical assault; 1 in 8 endorsed some form of child maltreatment; 1 in 12 reported a sexual victimization; and more than 1 in 3 indicated they were a witness to violence or had experienced some other form of indirect victimization (Finkelhor, Ormrod, Turner, & Hamby, 2005).

Retrospective studies with adults also provide important information on the frequency of various forms of youth violence exposure and victimization (Finkelhor, Hotaling, Lewis, & Smith, 1990; Randall & Haskell, 1995; Saunders, Kilpatrick, Hanson, Resnick,

Authors' Note: Address correspondence to Rochelle F. Hanson, Ph.D., National Crime Victims Research and Treatment Center, Medical University of South Carolina, 165 Cannon Street, Charleston, SC 29425; e-mail: hansonrf@musc.edu.

& Walker, 1999). For instance, the National Women's Study, a prospective, nationally representative study of 4,008 adult women, found that 8.5% of the women reported that they had experienced a completed rape prior to age 18 (Saunders et al. 1999), and 2.6% of the women reported experiencing severe physical assaults in childhood (Duncan, Saunders, Kilpatrick, Hanson, & Resnick, 1996).

A growing body of research has demonstrated that the types of violence experienced and witnessed by youth are not unique, singular experiences. Rather, studies indicate that many children have been the victims of and/or witnesses to several types of violence in their lifetime (Finkelhor, Ormrod, et al., 2005; Lynch & Cicchetti, 1998; Osofsky, Wewers, Hann, & Fick, 1993; Richters & Martinez, 1993; Saunders, 2003). Data from the recent Finkelhor, Ormrod, et al. (2005) study indicated that among the 71% of all youth who reported some type of direct or indirect victimization during the course of a year, the average number of separate, distinct victimization incidents was three. In other words, the average child victim surveyed in this study reported three different incidents during a 1-year period. Consistent with these findings, several past studies have indicated that children living in homes where they are exposed to domestic violence are at significant risk for physical assault, sexual assault, and/or neglect (Appel & Holden, 1998; Bowen, 2000; Gabarino, Kostelny, & Dubrow, 1991; Hotaling, Straus, & Lincoln, 1990; Kellogg & Menard, 2003; Osofsky, 1995; Rumm, Cummings, Drauss, Bell, & Rivara, 2000). Significant positive correlations have also been found between children's reports of community violence exposure and the levels of domestic violence they observe in their homes (Osofsky et al., 1993; Richters & Martinez, 1993). Furthermore, Lynch and Cicchetti (1998) found that child maltreatment rates were greater among children who reported higher levels of community violence versus lower levels of community violence, especially in regard to the rates of physical assault.

Role of family environment. Cicchetti and Lynch (1993) conceptualized an ecological-transactional model to serve as a framework for understanding the importance of ecological context when assessing youth's exposure to and reaction to violence. Implicit in this model is the assumption that individuals are differentially affected by violence exposure. There are potentiating (risk) factors and compensatory (protective) factors existing at the individual, family, community, and societal levels of children's ecologies that determine whether children are exposed to violence, as well as the ultimate impact of violence expo-

sure on development. Family-level contextual factors have been indicated as the most influential of the ecological levels in determining whether children are exposed to violence, as well as the outcomes of these violence-exposed youth (Cicchetti & Lynch, 1993). Thus, the model emphasizes the importance of examining family environment factors, given that difficulties within the home could increase the likelihood that youth will be exposed to violence.

Few prior studies have attempted to identify family factors that increase or decrease the risk of youth's exposure to multiple types of violence exposure, including child maltreatment, domestic violence, and community violence. Rather, these associations have been investigated using a more fragmented approach, with the focus limited to specific types of violence exposure. For instance, there is mounting evidence that children and adolescents reared in chemically dependent families are more likely to be exposed to physical assault than children in the general population (Sheridan, 1995). In addition to parental substance use, not always living with both biological parents has been shown to increase risk for child maltreatment, with stepparent households overrepresented in official reports of child maltreatment (Daly & Wilson, 1981). Household income has also been investigated as a predictor of child maltreatment and victimization. Findings have suggested that children living in households with an income below \$15,000 are at greater risk for abuse than those children from homes with higher annual incomes (Cappelleri, Eckenrode, & Powers, 1993). However, in a more recent study that separated intrafamilial and extrafamilial physical and sexual assault, household income was not significantly related to physical or sexual assault within the family but was associated with attempted or completed rape and assault with a weapon outside of the family (Finkelhor, Ormrod, et al., 2005). These findings suggest a need to separate child violence that occurs within the family from that which occurs outside of the family to fully understand how family factors are associated with each of these events.

A few studies have assessed the influence of family factors on children's exposure to witnessing violence. For example, researchers have consistently reported a strong association between domestic violence and the use of substances (Bushman, 1993; Collins & Messerschmidt, 1993; Hotaling & Sugarman, 1986; Kantor, Jasinski, & Aldarondo, 1993), especially in regard to male perpetrators using substances at the time of such events. Household income has also been associated with domestic violence, with women living in households with an annual income below poverty

level at considerably higher risk for domestic violence than women in the general population (Tolman & Raphael, 2000). However, at this time, it is unknown how these family factors influence youth's exposure to domestic violence. In the community violence literature, household income has been the most common family factor assessed as a predictor of youth exposure (Gladstein, Rusonis, & Heald, 1992; Schwab-Stone et al., 1995). These studies have documented higher rates of community violence exposure among low-income youth as compared to children from other socioeconomic levels (Stein, Jaycox, Kataoka, Rhodes, & Vestal, 2003). A study by Weist, Acosta, and Youngstrom (2001) did examine several additional family variables (e.g., having a substance-abusing parent residing in the home, number of previous out-of-home placements, and the total number of people living in the home) as risk factors for adolescent exposure to community violence. Of these family factors, only out-of-home placements predicted adolescents' total community violence exposure.

Research limitations and study purpose. There are several limitations with existing studies that impede our abilities to make conclusions regarding the relations between family environment and violence exposure. These include a reliance on small, nonrepresentative samples; inconsistent definitions of violence exposure and family environment; a failure to differentiate between specific types of violence exposure; and the inclusion of limited variables to assess for adverse family environment. Furthermore, the majority of past research studies examining family environment and youth violence exposure have looked at family factors as moderating or mediating the impact of violence exposure on adjustment, not specifically at the associations among family environment variables and different types of violence exposure. Thus, the purpose of this study was to examine the unique associations among several specific family environment variables and different types of violence exposure (intrafamilial and extrafamilial sexual and physical assault; witnessed violence in the home or community) with an existing database of a nationally representative sample of adolescents (i.e., the National Survey of Adolescents [NSA]; Kilpatrick, Acierno, et al., 2000). Family environment was defined by the following individual variables: family member drug and alcohol problems, living with both natural parents (reverse coded), and household income falling below the poverty line. Based on previous research, three hypotheses were proposed:

1. Family environment variables would be significantly associated with youth violence exposure.

2. Violence exposure would make a significant, independent contribution to the other violence exposure types.
3. Family variables would be differentially associated with violence exposure in the following ways: (a) Family substance use would increase the risk for both intrafamilial and extrafamilial sexual and physical assault, as well as domestic violence; no relation was predicted between parental substance use and community violence exposure; (b) not always living with natural parents would be associated with intrafamilial violence exposure; and (c) because high crime rates are often found in impoverished communities, it was also hypothesized that household poverty would increase the risk of exposure to extrafamilial violence.

METHOD

Participants

Detailed descriptions of the study method and sample have been discussed previously (Kilpatrick, Acierno, et al., 2000; Kilpatrick, Ruggiero, et al., 2003). Thus, this description will be confined to specific measures and procedures that are central to the current study. Sample selection and interviewing were conducted by Schulman, Ronca, and Bucuvalas, a New York-based survey research firm. To construct the initial probability sample, a multistage, stratified, area probability, random digit dialing six-stage sampling procedure was used. A total of 4,023 adolescents, ages 12 to 17, completed the survey, including 862 drawn from an oversampling of households located in areas designated as central cities by the U.S. Bureau of the Census and 3,161 who comprised the national probability sample. The full sample was weighted to conform to the 1995 Census estimates for American adolescents on age, race, and gender.

Prior to initiating contact with the adolescent, a parent or guardian in each household was briefly interviewed. Of 5,367 eligible households (i.e., those with at least one adolescent between the ages of 12 to 17), 4,836 parents completed interviews (90% of eligible households), 4,236 parents gave permission for their adolescent to be interviewed (79% of eligible households and 88% of the completed parent interviews), and 4,023 adolescents consented and completed interviews (75% of eligible households, 83% of households with parent interviews, and 95% of households with parent permission). These participation and completion rates are comparable to other adolescent studies using similar methods (Ageton, 1983; Finkelhor & Dzuiba-Leatherman, 1994; Finkelhor, Ormrod, et al., 2005).

Consistent with previously published articles from this dataset (e.g., Kilpatrick et al., 2003), data for this article were weighted and limited to the subsample of NSA respondents who provided complete information about age, race, or ethnicity. Within this sample, approximately equal numbers of boys ($n = 2,002$) and girls ($n = 1,904$) were interviewed. All ages ranging from 12 to 17 were roughly equally represented; the average age was 14.49 years ($SD = 1.70$). Of the 3,907 respondents, 2,821 were White, non-Hispanic (72%); 590 were African American, non-Hispanic (15%); 46 were Asian (1%); 311 were Hispanic (8%); and 139 were Native American (4%).

Measures

Highly structured telephone interviews with specially trained interviewers were used to gather information about a variety of topics including demographic characteristics, victimization history, and family environment.

Demographic characteristics. Adolescents were asked their current age in years at the time of the interview. Their gender also was recorded (1 = boys, 2 = girls). Race and ethnicity were assessed using standard questions employed by the U.S. Bureau of the Census (1988). Four dummy-coded variables were created for analyses to refer to each of the following participant groups: African American, non-Hispanic ($n = 590$, 15.1%); Native American, non-Hispanic ($n = 139$, 3.6%); Asian American, non-Hispanic ($n = 46$, 1.2%); and Hispanic ($n = 311$, 8.0%). Caucasian, non-Hispanic participants ($n = 2,820$, 72.2%) served as the reference group.

Violence exposure. Adolescents were asked behaviorally specific questions about exposure to violence throughout their lifetime. Questions were asked about witnessing violence in their home or community, physically abusive punishment by a caregiver, physical assault by a noncaregiver, and unwanted sexual contact. Specific steps were taken to increase accuracy and honesty in responding, including highly behavioral specific terminology, as well as introductory statements to orient participants toward the questions being asked (for detailed descriptions, please refer to Kilpatrick, Ruggiero, et al., 2003; survey questions are available from the first author).

Sexual assault was defined as episodes that involved forced vaginal or anal penetration by an object, finger, or penis; episodes of forced oral sex; episodes in which another person touched the respondents' breasts or genitalia against their will; or episodes in which respondents were forced to touch another's genitalia. Follow-up questions were asked to deter-

mine the relationship between the perpetrator and the adolescent. Intrafamilial sexual assault (SA-FAM) was defined as sexual assault by a family member (e.g., parent, stepparent, sibling, grandparent, other relative), and extrafamilial sexual assault (SA-EXT) was defined as sexual assault by a non-family member (e.g., neighbors, friends, other acquaintances, strangers). Physical assault included spankings that resulted in sustained welts or bruises or that required medical care; being attacked or threatened with a weapon; being attacked by another person with an intent to kill or seriously injure; or being beaten so hard that "you were hurt pretty badly." For purposes of this study, physical assault incidents perpetrated by parents, caregivers, or other family members were coded as *physically abusive punishment* (PA-FAM). Extrafamilial physical assault (PA-EXT) included any of the physical assault incidents described above (with the exception of spanking) that were perpetrated by noncaregivers, such as peers, other adults, and strangers. Witnessed violence included direct observation of the following events: seeing someone shot; seeing someone cut or stabbed with a knife; seeing someone threatened with a gun, knife, or other weapon; seeing someone mugged or robbed; or seeing someone raped or sexually assaulted. Additional questions were asked to determine where the violence occurred. Violence witnessed in the home was coded as domestic violence (DV), and violence observed in the community (i.e., school, neighborhood, other location) was defined as community violence (CV).

Family environment variables. Household income was assessed during the parent interview. Data from the 1995 U.S. Bureau of the Census indicated that a household income below \$15,000 represented the poverty line for a family of four. Because the average household size in the NSA was 4.5 ($SD = 1.4$), we conservatively set poverty at a household income equal to or less than \$10,000. During the adolescent interview, questions were asked to assess whether any family member had problems with alcohol or drugs and whether the adolescent had always lived with both natural parents (Kilpatrick, Acierno, et al., 2000). Familial alcohol problems were defined as affirmative answers to questions that assessed alcohol abuse by a family member—for example, "Did anyone either in your family or who lived with you, not counting you, drink alcohol (beer, wine) so much that it became a problem? Did anyone drink so much they got into fights with other people, or started to beat the kids, or couldn't get out of bed the next day, or had difficulty holding a job?" Familial drug use was defined as an affirmative answer to the following question: "Did any-

one in your family or who lived with you, not counting you, use hard drugs, such as heroin, cocaine, speed, or uppers or downers, or have a drug problem?" *Natural parents* was assessed by the question "Have you always lived with your natural mother and father?" and was reverse coded for analyses.

Procedure

All NSA interviews were conducted in 1995, in English or Spanish, depending on participant's preference. Interviews with both parents and adolescents were conducted using Computer Assisted Telephone Interviewing technology (for a review of this technology, please refer to Kilpatrick, Acierno, et al., 2000). The parent interview was conducted first, at which time the parent was asked information about the family and was provided with a brief description of the study and interview topics (e.g., substance use, dangerous or risky situations, including property crime and physical or sexual violence). Parents were also informed that their adolescent could refuse to answer questions and that the interview could be terminated at any time. During this brief parent interview, permission to contact the adolescent was secured.

Two steps were taken to ensure that adolescents had a reasonable degree of privacy while responding to questions so that they could answer as openly and honestly as possible. First, the interviewer directly asked if the adolescent was in a situation where privacy was assured and where he or she could respond in an open fashion. Second, the interview was designed primarily with closed-ended questions (i.e., yes or no) so that if others were listening, they would hear no information that might endanger or have negative consequences for the adolescent. Adolescents received a certificate of participation in the National Survey of Adolescents and a check for \$5. Approval by the University Institutional Review Board was obtained prior to any data collection.

Participant protection. According to federal guidelines for studies funded by the U.S. Department of Justice, investigators are precluded from releasing confidential information without participant consent. As a further protection for participants, a specific protocol was developed to identify those adolescents in potentially dangerous situations. An adolescent who indicated that (a) he or she had been sexually abused in the past year and (b) he or she had been hit or physically assaulted by a family member living in the household in the past year and that either (a) or (b) had not been disclosed to anyone was identified as a "potential child in danger." Each of these adolescents was then interviewed by a clinician on the

project team. Those judged by the clinician to be in current danger were encouraged to make a voluntary report to child protective services. If they were unwilling, the clinician was prepared to make the report. It is important to note that no clinicians had to make a report throughout the duration of the study. All adolescents were also asked if they would like the toll-free number of Child Help, a national telephone counseling program for at-risk youth. Approximately one half of the participants requested this number.

Data Analysis

Prevalence data are presented first, followed by the multivariate analyses to examine the relations among family variables and violence exposure. The primary data-analytic strategy was multivariate logistic regression. The first logistic regression examined the relationship between the family environment variables and any violence exposure (i.e., this included any incidents of sexual assault, physical assault, and/or witnessed violence). Six additional logistic regression models were constructed to examine the relations among the family environment variables and each type of violence exposure (sexual assault, physical assault, and witnessed violence—both intrafamilial and extrafamilial). For these models, demographics were entered on the first step, including the dummy-coded racial or ethnic groups (i.e., African American, Hispanic, Asian, and Native American), with White, non-Hispanic as the reference group, age, and gender, followed by the violence exposure types on Step 2. Family variables, including family alcohol use, family drug use, whether the adolescent always lived with both natural parents (1 = no), and poverty were entered on Step 3.

RESULTS

Prevalence of violence exposure. Nearly half (47.8%) of the adolescents reported exposure to some type of violence in their lifetimes, with a higher prevalence reported for boys compared to girls, 51.3% versus 44.1%, $\chi^2(1, 3906) = 21.03, p < .001$. As seen in Table 1, sexual assault was reported by 8.2% ($n = 321$) of respondents, with 1.9% reporting sexual assault by a family member and 6.4% by someone outside of the family. Physical assault or abuse was reported by 22.5% of youth, with 15.5% reporting extrafamilial physical assault and 10.1% reporting physically abusive punishment by a caregiver. A total of 39.7% of respondents reported that they had witnessed violence, with 1.9% reporting that the violence had occurred in the home and 39.3% endorsing community violence. Girls were more likely than boys to endorse either

TABLE 1: Gender, Race or Ethnicity and Violence Exposure

Characteristic	Any PA (n = 880, 22.5%)		Any CSA (n = 321, 8.2%)		Any WV (n = 1,551, 39.7%)	
	PA-EXT (n = 606; 15.5%)	PA-FAM (n = 393; 10.1%)	SA-FAM (n = 72; 1.9%)	SA-EXT (n = 250; 6.4%)	DV (n = 74; 1.9%)	CV (n = 1,537; 39.3%)
Male (n = 2,002)	20.1%**	9.3%	0.5%	2.8%	1.0%	43.7%**
Female (n = 1,905)	10.7%	10.9%	3.3%**	10.1%**	2.7%**	34.8%
Caucasian (n = 2,820)	13.5%	8.7%	1.7%	5.0%	1.3%	34.0%
African American (n = 590)	21.4%**	16.4%**	1.9%	11.7%**	4.4%**	56.3%**
Hispanic (n = 311)	19.0%	9.0%	2.6%	7.1%	2.6%	50.5%**
Native American (n = 139)	25.9%**	15.1%*	4.3%*	10.8%*	2.9%	54.0%**
Asian (n = 46)	6.5%	6.5%	0%	4.3%	0%	26.1%

NOTE: PA = physical assault; CSA = child sexual assault; WV = witnessed violence; PA-EXT = extrafamilial physical assault; PA-FAM = physical assault by a caregiver; SA-FAM = sexual assault by family member; SA-EXT = extrafamilial sexual assault; DV = witnessed domestic violence; CV = witnessed community violence.

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

type of sexual assault, SA-FAM, $\chi^2(1, 3906) = 41.0, p < .001$, SA-EXT, $\chi^2(1, 3906) = 86.6, p < .001$, and to witness domestic violence $\chi^2(1, 3906) = 15.06, p < .001$, whereas boys were significantly more likely to endorse PA-EXT $\chi^2(1, 3906) = 65.31, p < .001$, and to witness community violence, $\chi^2(1, 3906) = 31.9, p < .001$. There were no gender differences for exposure to PA-FAM.

With the exception of SA-FAM, there were significant racial and ethnic differences for the remaining types of violence exposure: PA-EXT, $\chi^2(4, 3906) = 41.0, p < .001$; PA-FAM, $\chi^2(4, 3905) = 37.6, p < .001$; SA-EXT, $\chi^2(4, 3907) = 41.5, p < .001$; DV, $\chi^2(4, 3906) = 28.3, p < .001$; and CV, $\chi^2(4, 3906) = 136.4, p < .001$. Follow-up analyses revealed that African American and Native American youth reported the highest rates of violence exposure, with Asian and Caucasian youth reporting the lowest rates. With the exception of witnessing domestic violence, respondents who endorsed the remaining types of violence exposure were likely to be older at the time of the interview: SA-FAM, $F(1, 3904) = 11.0, p < .001$; SA-EXT, $F(1, 3904) = 52.0, p < .001$; PA-FAM, $F(1, 3904) = 14.9, p < .001$; PA-EXT, $F(1, 3904) = 35.1, p < .001$; and CV, $F(1, 3905) = 108.2, p < .001$.

Multivariate analyses for violence exposure. Table 2 presents the final logistic regression model for any violence exposure. Tables 3 to 5 present the results of the final logistic models for each separate type of violence exposure, with each table divided by intrafamilial versus extrafamilial violence exposure. For example, Table 3 presents the final models for SA-FAM and SA-EXT, allowing for direct comparisons between intrafamilial versus extrafamilial sexual assault.

Demographic variables were differentially associated with violence exposure. As seen in Table 2, boys

TABLE 2: Final Logistic Regression: Any Violence Exposure

Variable	Any Violence (n = 1,902; 47.8%)		
	β	OR	95% CI
Step 1			
Gender	-0.4	0.6**	0.6 to 0.8
Age	0.2	1.2**	1.2 to 1.3
African American	0.8	2.2**	1.8 to 2.7
Hispanic	0.6	1.8**	1.4 to 2.3
Native American	0.6	1.8**	1.2 to 2.7
Asian	-0.1	0.9	0.5 to 1.7
Step 2			
Family alcohol use	1.2	3.2**	2.5 to 4.0
Family drug use	0.9	2.4**	1.8 to 3.1
Natural parents (1 = no)	0.4	1.5**	1.3 to 1.8
Poverty	0.2	1.3	1.0 to 1.7

NOTE: OR = odds ratio; 95% CI = 95% confidence interval. Race variables were dummy coded with White, non-Hispanic participants serving as the reference group. For analyses, Natural parents was reverse coded, such that 1 = no and 0 = yes.

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

and older adolescents were significantly more likely to report any violence exposure, as were minority adolescents other than Asians, compared to the White youth. Girls and older adolescents were significantly more likely to report either SA-FAM or SA-EXT (Table 3). Girls and African American adolescents were more likely to report DV (Table 5), whereas boys and minority youth were significantly more likely to report physical assaults (Table 4) or CV (Table 5).

As seen in Tables 3 to 5, after controlling for the demographic variables, the violence exposures had significant odds ratios (ORs), indicating that exposure to one type of violence was associated with an increased likelihood of exposure to other types of violence. More specifically, examination of the models for SA-FAM and SA-EXT (Table 3) indicated that PA-FAM and witnessing CV were associated with a three-

TABLE 3: Final Logistic Regression Models for Sexual Assault

Variable	SA-FAM (n = 72) ^a			SA-EXT (n = 250) ^b		
	β	OR	95% CI	β	OR	95% CI
Step 1						
Gender	1.9	6.7**	3.3 to 13.4	1.7	5.4**	3.8 to 7.7
Age	0.2	1.2*	1.0 to 1.4	0.2	1.3**	1.2 to 1.4
African American	-0.8	0.5	0.2 to 1.1	0.4	1.4	1.0 to 2.1
Hispanic	0.1	1.1	0.5 to 2.6	0.1	1.1	0.6 to 1.8
Native American	0.9	2.4	1.0 to 5.9	0.5	1.7	0.9 to 3.2
Asian	-0.5	0.6	0.0 to 13.0	-0.1	0.9	0.2 to 4.6
Step 2						
SA-FAM				-0.7	0.5	0.2 to 1.1
SA-EXT	-0.6	0.5	0.2 to 1.2			
PA-FAM	1.6	4.7**	2.7 to 8.3	1.2	3.4**	2.4 to 4.8
PA-EXT	0.1	1.1	0.6 to 2.0	1.1	3.0**	2.1 to 4.2
DV	0.3	1.4	0.5 to 3.7	0.0	1.0	0.5 to 2.0
CV	1.1	3.1**	1.7 to 5.6	1.0	2.6**	1.9 to 3.7
Step 3						
Family alcohol use	0.3	1.4	0.8 to 2.6	0.6	1.7**	1.2 to 2.4
Family drug use	-0.7	0.5	0.2 to 1.1	-0.3	0.8	0.5 to 1.2
Natural parents	0.6	1.8*	1.1 to 3.1	0.2	1.3	0.9 to 1.7
Poverty	0.4	1.5	0.7 to 3.0	0.2	1.2	0.8 to 1.9

NOTE: OR = odds ratio; CI = 95% confidence interval; SA-FAM = sexual assault by family member; SA-EXT = extrafamilial sexual assault; PA-FAM = physical assault by a caregiver; PA-EXT = extrafamilial physical assault; DV = witnessed domestic violence; CV = witnessed community violence. Race variables were dummy coded with White, non-Hispanic serving as the reference group. For analyses, *Natural parents* was reverse coded, such that 1 = no and 0 = yes.

a. Or 1.9% of respondents.

b. Or 6.4% of respondents.

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

TABLE 4: Final Logistic Regression Models for Physical Assault

Variable	PA-FAM (n = 393) ^a			PA-EXT (n = 606) ^b		
	β	OR	95% CI	b	OR	95% CI
Step 1						
Gender	-0.1	0.9	0.7 to 1.1	-1.0	0.4**	0.3 to 0.5
Age	0.0	1.0	0.9 to 1.1	0.1	1.1	1.0 to 1.1
African American	0.4	1.5**	1.1 to 2.0	0.0	1.1	0.8 to 1.4
Hispanic	-0.2	0.8	0.5 to 1.2	0.1	1.1	0.8 to 1.6
Native American	-0.1	1.0	0.5 to 1.6	0.3	1.3	0.8 to 2.1
Asian	0.1	1.1	0.3 to 3.6	-0.5	0.6	0.2 to 2.0
Step 2						
SA-FAM	1.6	4.8**	2.8 to 8.4	0.0	1.0	0.5 to 1.9
SA-EXT	1.2	3.3**	2.3 to 4.6	1.1	2.9**	2.1 to 4.1
PA-FAM				0.1	1.2	0.9 to 1.5
PA-EXT	0.2	1.2	0.9 to 1.6			
DV	0.7	2.0*	1.2 to 3.5	0.3	1.4	0.8 to 2.4
CV	0.7	2.0**	1.6 to 2.6	1.6	5.0**	4.0 to 6.3
Step 3						
Family alcohol use	0.7	2.0**	1.5 to 2.6	0.4	1.6**	1.2 to 2.0
Family drug use	0.9	2.4**	1.8 to 3.3	0.7	2.0**	1.5 to 2.8
Natural parents	0.3	1.3*	1.0 to 1.7	0.1	1.1	0.9 to 1.4
Poverty	0.3	1.4	1.0 to 2.0	0.3	1.3	0.9 to 1.8

NOTE: OR = odds ratio; 95% CI = 95% confidence interval; SA-FAM = sexual assault by family member; SA-EXT = extrafamilial sexual assault; PA-FAM = physical assault by a caregiver; PA-EXT = extrafamilial physical assault; DV = witnessed domestic violence; CV = witnessed community violence. Race variables were dummy coded with White, non-Hispanic participants serving as the reference group. For analyses, *Natural parents* was reverse coded, such that 1 = no and 0 = yes.

a. Or 10.1% of respondents.

b. Or 15.5% of respondents.

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

TABLE 5: Final Logistic Regression Models for Witnessed Violence

Variable	Domestic Violence (n = 74) ^a			Community Violence (n = 1,537) ^b		
	β	OR	95% CI	β	OR	95% CI
Step 1						
Gender	1.1	2.9**	1.7 to 5.2	-0.4	0.6**	0.6 to 0.8
Age	-0.1	0.9	0.8 to 1.0	0.2	1.2**	1.1 to 1.2
African American	0.8	2.2**	1.2 to 3.9	0.8	2.3**	1.8 to 2.8
Hispanic	0.4	1.5	0.7 to 3.4	0.7	2.0**	1.5 to 2.6
Native American	0.2	1.3	0.4 to 3.8	0.5	1.7*	1.1 to 2.5
Asian	-16.5	0.0	0	0	1.0	0.5 to 2.1
Step 2						
SA-FAM	0.5	1.7	0.6 to 4.5	1.0	2.9**	1.6 to 5.2
SA-EXT	0.2	1.2	0.6 to 2.4	0.9	2.5**	1.7 to 3.5
PA-FAM	0.7	2.0*	1.1 to 3.5	0.6	1.9**	1.4 to 2.4
PA-EXT	0.3	1.4	0.8 to 2.4	1.6	5.0**	4.0 to 6.3
DV				1.7	5.4**	2.6 to 11.0
CV	1.8	5.9**	2.9 to 12.1			
Step 3						
Family alcohol use	0.4	1.5	0.8 to 2.6	0.7	2.1**	1.7 to 2.7
Family drug use	0.8	2.1*	1.2 to 3.8	0.4	1.4*	1.1 to 2.0
Natural parents	0.6	1.8*	1.1 to 3.0	0.2	1.2*	1.0 to 1.5
Poverty	0.2	1.2	0.6 to 2.3	-0.1	0.9	0.7 to 1.2

NOTE: OR = odds ratio; 95% CI = 95% confidence interval; SA-FAM = sexual assault by family member; SA-EXT = extrafamilial sexual assault; PA-FAM = physical assault by a caregiver; PA-EXT = extrafamilial physical assault; DV = witnessed domestic violence; CV = witnessed community violence. Race variables were dummy coded with White, non-Hispanic participants serving as the reference group. For analyses, *Natural parents* was reverse coded, such that 1 = no and 0 = yes.

a. Or 1.9% of respondents.

b. Or 39.3% of respondents.

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

fold to fourfold increase in the risk for sexual assault. PA-FAM had a particularly significant association with SA-FAM (OR = 4.7, $p < .01$). PA-EXT was significantly associated with SA-EXT (OR = 3.0) but not with SA-FAM. A similar pattern of results were obtained for physical assault (Table 4): SA-EXT and CV were associated with a twofold to fivefold increase in likelihood for physical assault. In contrast, SA-FAM and witnessing violence within the home were only significantly associated with intrafamilial physical assault (PA-FAM). Additionally, no significant relationships were obtained between DV and PA-EXT (Table 5) or either type of sexual assault (Table 3).

With respect to the final models for witnessing violence (Table 5), CV exposure had the most significant relationship with DV (OR = 5.9). PA-FAM doubled the risk of witnessing CV or DV. For CV, all of the violence exposure types had significant ORs, ranging from OR = 1.9, $p < .01$ for PA-FAM to OR = 5.4, $p < .01$, for DV. In sum, these findings indicated that intrafamilial physical and sexual assault were highly associated with one another and that there were significant associations among the extrafamilial violence exposure variables. In addition, CV was consistently and strongly associated with all of the other violence exposure types.

Family variables and violence exposure. As seen in Table 2, having a family member with alcohol use or drug use and not always living with both natural parents were associated with an increased risk of violence exposure, even after controlling for the demographic variables.

The final models for SA-FAM and SA-EXT revealed a different pattern of relations (Table 3) for the family variables. More specifically, for SA-EXT, the only significant family variable was family alcohol use (OR = 1.7, $p < .05$), whereas for SA-FAM, not always living with natural parents was the only family variable with a significant OR in the model. Similarly, not always living with natural parents was significantly associated with PA-FAM but not with PA-EXT (Table 4). For both PA-FAM and PA-EXT, family alcohol use and drug use were significant.

Examination of Table 5 indicates that family drug use was significantly associated with increased likelihood of domestic violence (OR = 2.1, $p < .05$), whereas both family alcohol use and drug use (ORs = 2.1, 1.4; $p < .01$, respectively) were associated with increased likelihood of exposure to CV. Not always living with both natural parents was significantly associated with both DV and CV (OR = 1.2).

DISCUSSION

The primary purpose of this study was to investigate the relations among violence exposure type and family environment variables. This study contributed to the current literature as it examined both of these important factors in one study with a large, nationally representative sample of adolescents. With respect to the obtained prevalence rates for violence exposure, our findings are similar to previous studies. Consistent with the National Family Violence Surveys (Straus & Gelles, 1986), approximately 10% of youth in the present study reported severe physical assault by a caregiver. Our rates for physical assault by a nonfamily member were also consistent with those of Boney-McCoy and Finkelhor (1995; 15.5% versus 12.3%, respectively), who similarly conducted a national probability telephone survey. However, our rates for physical assault are significantly lower than those obtained in the recent Finkelhor, Ormrod, et al. (2005) telephone survey (22.5% vs. 48.4%). One possible explanation for the differential findings is that the Finkelhor, Ormrod, et al. study encompassed a larger age range and relied on parent interviews for the younger children; parents likely had better recall for events that occurred during the younger ages, and second, as reported by Finkelhor, Ormrod, et al., physical victimization rates were actually higher for the 6- to 12-year-olds, compared to the adolescents in the sample. In addition, Finkelhor, Ormrod, et al. included a wide array of experiences that were defined as physical assault, including attempted physical assaults, kidnapping, and dating violence. In contrast, our definition was specific to those events in which the participant sustained injuries or perceived that the perpetrator intended to cause harm. Thus, these latter incidents were likely to be more severe and, consequently, less prevalent. In the Finkelhor, Ormrod, et al. study, 13.3% of children were physically abused, a prevalence rate more in line with the 10.1% obtained in the present study for physical assault by a family member. With regard to sexual assault, our rates were virtually identical to those of Finkelhor, Ormrod, et al. (8.2% vs. 8.3%). Our findings also indicated high rates of witnessed violence by youth, particularly violence that occurs in the community (39.7% of respondents). Again, findings for witnessing violence are highly similar to those of Finkelhor, Ormrod, et al. who reported that 34.2% of youth had witnessed some type of violence, compared to the 39.7% in the present study. Taken together, these data support the consistency of our findings with extant literature and also highlight the signifi-

cant number of American youth who are exposed to direct and indirect violence.

With respect to demographic differences in violence exposure prevalence, consistent with Finkelhor, Ormrod, et al. (2005), boys were more likely to report physical victimization and witnessing violence, whereas girls were more likely to report that they had been sexually assaulted. Prevalence findings for race or ethnicity were mixed. African American youth had higher rates of physical assault, DV, and CV, compared to their cohorts, whereas there were no significant differences on sexual assault. With the exception of Asian Americans, minority youth were significantly more likely than Whites to report CV, findings that were again similar to those obtained by Finkelhor, Ormrod, et al.

Violence exposure and family environment factors. Consistent with hypotheses and existing literature (e.g., Brown, Cohen, Johnson, & Salzinger, 1998; Vogeltanz et al., 1999; Sidebotham, Golding, and the ALSPAC Study Team, 2001; Weist et al., 2001), significant relations were obtained among violence exposure and adverse family environment variables. Youth who endorsed any violence exposure were significantly more likely than those who did not to report a family member with an alcohol or drug problem and to report that they had not always lived with both of their natural parents. A surprising finding was that family income level was not significantly related to violence exposure, suggesting that poverty in and of itself does not appear to place children at risk for violence exposure. Instead, factors, such as exposure to other types of violence and family substance use, appear to present the most significant risk for youth violence exposure. It is also possible that it is not poverty that perpetuates violence but the lack of important protective factors that are often missing in these impoverished families. Overall, these findings suggest that significant moderating or mediating factors likely are operating in the relation between poverty and violence that warrant exploration in future research.

Also consistent with hypotheses, in the final logistic regression analyses (Tables 3 to 5), exposure to one type of violence had a stronger association with other violence exposures than the family environment variables. Therefore, even with the addition of the family variables, violence exposure did not weaken appreciably, indicating a strong, independent contribution for these variables.

The findings of this study also indicated a strong relationship between different types of intrafamilial and extrafamilial violence. Consistent with previous studies (Cox, Kotch, & Everson, 2003; Ross, 1996;

Rumm et al., 2000), these findings support the overlap between direct victimization by a family member (i.e., physical or sexual assault) and witnessed violence in the home. In support of this, post hoc analyses indicated that youth in the current study who reported sexual or physical assault by a family member were also more likely to report witnessed violence in the home (8.1% vs. 1.7% for sexual assault and 35.1% vs. 9.6% for physical assault). Furthermore, strong associations emerged between sexual assault and physical assault that occurred outside of the family environment.

In support of the third study hypothesis, results of the logistic regression analyses indicated some variability in the relationships between family environment and violence exposure type, particularly between intrafamilial versus extrafamilial abuse. For instance, family alcohol use and drug use were significantly associated with intrafamilial and extrafamilial physical assault and community violence, whereas only family drug use was related to domestic violence. It is unclear why drug use but not alcohol use was associated with domestic violence. However, the expensive, illicit nature of drug use can cause significant legal and financial ramifications, thereby accounting for the increased interparental conflict. Furthermore, it is important to note that the majority of past research examining the association between domestic violence and substance use has not differentiated between alcohol use and drug use in the family. A closer examination of these factors and their association with DV is clearly warranted. In addition, this study examined the relation between family substance use and the adolescent's report of exposure to DV. In contrast, much of the previous research has focused on parental report of DV. Clearly, these complex relationships need to be explored in further research.

Regarding the relationship between substance use and extrafamilial violence exposure, both alcohol use and drug use may reduce caregiver involvement and supervision, which increase the risk for abuse outside of the home. The obtained associations between substance use and violence exposure are generally consistent with the extant literature (Loeber, Green, Keenan, & Lahey, 1995; Merikangas et al., 1998; Sheridan, 1995). However, it is important to note that the significant association between family substance abuse and community violence differed from the findings of Weist et al. (2001). This discrepancy could be because of sampling and methodological differences, including the fact that the Weist et al. study was limited to a clinical sample of inner-city youth and interviews were done in person, whereas the present

research included a telephone survey of a nationally representative sample of adolescents. As stated by Weist et al., it is possible that the youth in their sample may have underreported because of their reluctance to disclose personal family information.

Finally, not always living with a natural parent was associated with intrafamilial physical and sexual assault and witnessing violence (domestic or community)—findings that are similar to previous research indicating that sexual and physical assault and domestic violence are higher among children residing in homes with step or single parents (Daly & Wilson, 1981; Finkelhor & Baron, 1986; Stets & Straus, 1989). In addition, this is consistent with Weist et al. (2001) who found that youth community violence exposure was significantly associated with previous out-of-home placements. It should be noted that we did not specifically assess whether physical assault, sexual assault, or witnessed violence were the reasons for the adolescent not always living with a natural parent. Although it is possible that the abuse incident(s) resulted in the child's removal from his or her biological parent or parental separation or divorce, the cross-sectional design of the study did not allow for the examination of the relations between the timing of the violence exposure and with whom the child resided.

Clinical implications. Findings in this study yielded clinically useful information. More specifically, assessment should involve a multifocal approach that includes a thorough evaluation of direct and indirect violence exposure events across multiple settings and an examination of family environment. The inclusion of indirect violence exposure appears to be critical in that witnessing violence was an important risk factor for direct victimization. Additionally, given the findings that family environment is significantly associated with violence exposure, a thorough assessment of these variables has important implications for interventions for the individual adolescent and the broader family unit.

Strengths and limitations. Although we were not able to resolve all of the questions associated with the complex relations among violence exposure type and family environment, a significant strength of this study was its ability to examine all of these factors with a large, nationally representative sample of adolescents. Other studies that have incorporated similar variables have most often used treatment samples, and this study was able to replicate many of the findings in a general population sample. Furthermore, the assessment of multiple violence exposure and family environment factors within the same study was an important contribution of this article.

This study did have some limitations that may reduce the generalizability of the findings. One limitation is that only a certain number of family environment variables were assessed. It is likely that many other family variables, such as the parent-child relationship and family cohesion, are associated with violence exposure type and could be more thoroughly assessed using an observational design. An additional limitation is that assessment information was gathered from the adolescents in a self-report, retrospective manner, without inclusion of corroborating information. Therefore, the information could be biased or inaccurate, and it is possible that some adolescents are more willing to disclose violence exposure than others, providing an alternative explanation for the high rates of exposure to multiple types of violent events. However, the fact that many other studies use this type of method suggests that researchers consider this to be a standard, well-accepted way to obtain information (Weathers & Keane, 1999). Furthermore, although every effort was made to ensure the privacy of the respondents when answering the sensitive questions (i.e., asking questions which could be answered with a *yes* or *no* and asking if there was a better time to call), the respondents' environments could not be controlled and thus could have affected the adolescents' responses. Only those households with telephones were sampled, excluding families without telephones and thus potentially decreasing the generalizability of the results; however, data indicate that relatively few households are eliminated by nontelephone coverage (Keeter, Miller, Kohut, Groves, & Presser, 2000), minimizing the concerns associated with this method. It is also important to emphasize that the cross-sectional study design precludes any statements of causality. Violence exposure is as likely to cause a dysfunctional family environment as problematic family factors are to cause an increased likelihood of violence exposure. Although extremely difficult, these questions of bidirectionality only can be answered with prospective study designs.

CONCLUSION

These findings provide additional support for the Cicchetti and Lynch (1993; Lynch & Cicchetti, 1998) ecological-transactional model. Specific factors operating at the family level (i.e., family substance use, not always residing with both biological parents) are significantly associated with the risk for violence exposure that occurs both within and outside of the home. Future research is needed to further examine this model by examining the complex interrelationships among family-level variables, multiple types of violence exposure, and the developmental trajectory for violence-exposed youth.

ence exposure, and the developmental trajectory for violence-exposed youth.

The results of this study also suggest that there are slightly different patterns in the relations among type of violence exposure and family environment, highlighting the importance of differentiating between intrafamilial versus extrafamilial violence exposure. It is imperative that researchers continue to examine multiple types of violence exposure and family environment variables within the same study. On a related note, the design of this study does not allow for any causal statements regarding the relations among family environment and violence exposure. A further examination of these relations with a prospective design is critical to address issues of timing and causality. Additionally, it is important that future research assess the relations of violence exposure and family environment to adolescent outcome. Understanding these relations would provide the most direct link to the development of effective assessment and treatment strategies. In sum, this study suggests that both researchers and clinicians should explore the possible differential sequelae of violence exposure among youth and associated family environment variables to aid in a better understanding of the complex interplay among these variables. Without the assessment of multiple types of violence and family environment variables in a single study, it is extremely difficult to make conclusions about the independent versus combined effects of these different events.

REFERENCES

- Ageton, S. (1983). The dynamics of female delinquency, 1976-1980. *Criminology: An Interdisciplinary Journal*, 21, 555-584.
- Appel, A. E., & Holden, G. W. (1998). The co-occurrence of spouse and physical child abuse: A review and appraisal. *Journal of Family Psychology*, 12, 578-599.
- Boney-McCoy, S., & Finkelhor, D. (1995). Psychosocial sequelae of violent victimization in a national youth sample. *Journal of Consulting and Clinical Psychology*, 63, 726-736.
- Bowen, K. (2000). Child abuse and domestic violence in families of children seen for suspected sexual abuse. *Clinical Pediatrics*, 39, 33-40.
- Brill, C., Fiorentino, N., & Grant, J. (2001). Co-victimization and inner city youth: A review. *International Journal of Emergency Mental Health*, 3, 229-239.
- Brown, J., Cohen, P., Johnson, J. G., & Salzinger, S. (1998). A longitudinal analysis of risk factors for child maltreatment: Findings of a 17-year prospective study of officially recorded and self-reported child abuse and neglect. *Child Abuse & Neglect*, 22, 1065-1078.
- Bushman, B. J. (1993). Human aggression while under the influence of alcohol and other drugs: An integrative research review. *Current Directions in Psychological Science*, 2, 148-152.
- Campbell, C., & Schwartz, D. F. (1996). Prevalence and impact of exposure to interpersonal violence among suburban and urban middle school students. *Pediatrics*, 87, 396-402.
- Cappelleri, J. C., Eckenrode, J., & Powers, J. L. (1993). The epidemiology of child abuse: Findings from the Second National Inci-

- dence and Prevalence Study of Child Abuse and Neglect. *American Journal of Public Health*, 83, 1622-1624.
- Cicchetti, D., & Lynch, M. (1993). Toward an ecological/transactional model of community violence and child maltreatment: Consequences for children's development. *Psychiatry*, 56, 96-118.
- Collins, J. J., & Messerschmidt, P. M. (1993). Epidemiology of alcohol-related violence. *Alcohol Health Research World*, 17, 93-100.
- Cox, C. E., Kotch, J. B., & Everson, M. D. (2003). A longitudinal study of modifying influences in the relationship between domestic violence and child maltreatment. *Journal of Family Violence*, 18, 5-17.
- Daly, M., & Wilson, M. (1981). Child maltreatment from a sociological perspective. *New Directions for Child Development*, 11, 93-112.
- Duncan, R. D., Saunders, B. E., Kilpatrick, D. G., Hanson, R. F., & Resnick, H. S. (1996). Childhood physical assault as a risk factor for PTSD, depression and substance abuse: Findings from a national survey. *American Journal of Orthopsychiatry*, 66, 437-448.
- Finkelhor, D., & Baron, L. (1986). Risk factors for child sexual abuse. *Journal of Interpersonal Violence*, 1, 43-71.
- Finkelhor, D., & Dzuiba-Leatherman, J. (1994). Victimization of children. *American Psychologist*, 49, 173-183.
- Finkelhor, D., Hotaling, G. T., Lewis, I. A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence characteristics and risk factors. *Child Abuse and Neglect*, 14, 19-28.
- Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005). The victimization of children and youth: A comprehensive, national survey. *Child Maltreatment*, 10, 5-25.
- Gabarinio, J., Kostelny, K., & Dubrow, N. (1991). What children can tell us about living in danger. *American Psychologist*, 46, 376-383.
- Gladstein, J., Rusonis, E. S., & Heald, F. P. (1992). A comparison of inner-city and upper middle class youths' exposure to violence. *Journal of Adolescent Health*, 13, 275-280.
- Hotaling, G. T., Straus, M. A., & Lincoln, A. J. (1990). Intrafamily violence and crime and violence outside the family. In M. A. Straus & R. J. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 431-470). New Brunswick, NJ: Transaction.
- Hotaling, G. T., & Sugarman, D. B. (1986). An analysis of risk markers in husband to wife violence: The current state of knowledge. *Violence & Victims*, 1, 101-124.
- Kantor, G. K., Jasinski, J., & Aldarondo, E. (1993). *Incidence of Hispanic drinking and intra-family violence*. San Antonio, TX: Research Society on Alcoholism.
- Keeter, S., Miller, C., Kohut, A., Groves, R. M., & Presser, S. (2000). Consequences of reducing nonresponse in a national telephone survey. *Public Opinion Quarterly*, 64, 125-148.
- Kellogg, N. D., & Menard, S. W. (2003). Violence among family members of children and adolescents evaluated for sexual abuse. *Child Abuse & Neglect*, 27, 1367-1376.
- Kilpatrick, D. G., Acerno, R., Saunders, B. E., Resnick, H. S., Best, C. L., & Schurr, P. P. (2000). Risk factors for adolescent substance abuse and dependence: Data from a national sample. *Journal of Consulting and Clinical Psychology*, 68, 19-30.
- Kilpatrick, D. G., Ruggiero, K. J., Acerno, R. E., Saunders, B. E., Resnick, H. S., & Best, C. L. (2003). Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: Results from the National Survey of Adolescents. *Journal of Consulting and Clinical Psychology*, 71, 692-700.
- Koop, C. E., & Lundberg, G. D. (1992). Violence in America: A public health emergency. *Journal of the American Medical Association*, 267, 3075-3076.
- Loeber, R., Green, S. M., Keenan, K., & Lahey, B. B. (1995). Which boys will fare worse? Early predictors of the onset of conduct disorder in a six-year longitudinal study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 34(4), 499-509.
- Lynch, M., & Cicchetti, D. (1998). An ecological-transactional analysis of children and contexts: The longitudinal interplay among child maltreatment, community violence, and children's symptomatology. *Development and Psychopathology*, 10, 235-257.
- Margolin, G., & Gordis, E. B. (2000). The effects of family and community violence on children. *Annual Review of Psychology*, 51, 445-479.
- Osofsky, J. D. (1995). The effects of exposure to violence on young children. *American Psychologist*, 50, 782-788.
- Osofsky, J. D. (1999). The impact of violence on children. *Domestic Violence and Children*, 9, 33-49.
- Osofsky, J., Wewers, S., Hann, D., & Fick, A. (1993). Chronic community violence: What is happening to our children? *Psychiatry: Interpersonal & Biological Processes*, 56, 35-45.
- Prothrow-Stith, D., & Weissman, M. (1991). *Deadly consequences: How violence is destroying our teenage population and a plan to begin solving the problem*. New York: HarperCollins.
- Randall, M., & Haskell, L. (1995). Sexual violence in the Women's Safety Project: A community-based survey. *Violence Against Women*, 1, 6-31.
- Richters, J. E., & Martinez, P. E. (1993). The NIMH community violence project: I. Children as victims of and witnesses of violence. *Psychiatry*, 56, 7-21.
- Ross, S. M. (1996). Risk of physical abuse to children of spouse abusing parents. *Child Abuse & Neglect*, 20, 589-598.
- Rumm, P. D., Cummings, P., Drauss, M. R., Bell, M. A., & Rivara, F. P. (2000). Identified spouse abuse as a risk factor for child abuse. *Child Abuse & Neglect*, 24, 1375-1381.
- Saunders, B. E. (2003). Understanding children exposed to violence: Toward an integration of overlapping fields. *Journal of Interpersonal Violence*, 18, 356-376.
- Saunders, B. E., Kilpatrick, D. G., Hanson, R. F., Resnick, H. S., & Walker, M. E. (1999). Prevalence, case characteristics, and long-term psychological correlates of child rape among women: A national survey. *Child Maltreatment*, 4, 187-200.
- Schwab-Stone, M., Ayers, T. S., Kaspro, W., Voyce, C., Barone, C., Shriver, T., et al. (1995). No safe haven: A study of violence exposure in an urban community. *Journal of American Academy of Child and Adolescent Psychiatry*, 34, 1343-1352.
- Sheridan, M. J. (1995). A proposed intergenerational model of substance abuse, family functioning, and abuse/neglect. *Child Abuse & Neglect*, 19, 519-530.
- Sidebotham, P., Golding, J., & the ALSPAC Study Team (2001). Child maltreatment in the "Children of the Nineties": A longitudinal study of parental risk factors. *Child Abuse and Neglect*, 25, 1177-1200.
- Stein, B. D., Jaycox, L. H., Kataoka, S., Rhodes, H. J., & Vestal, K. D. (2003). Prevalence of child and adolescent exposure to community violence. *Clinical Child and Family Psychology Review*, 6, 247-264.
- Stets, J., & Straus, M. (1989). The marriage license as a hitting license: A comparison of assaults in dating, cohabiting, and married couples. *Journal of Family Violence*, 4, 161-180.
- Straus, M., & Gelles, R. (1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. *Journal of Marriage and the Family*, 48, 465-479.
- Tolman, R. M., & Raphael, J. (2000). A review of research on welfare and domestic violence. *Journal of Social Issues*, 56, 655-682.
- U.S. Bureau of the Census. (1988). Projections of the population of states by age, sex, and race: 1988 to 2010. *Current Population Reports* (P-25, No. 1017). Washington, DC: U.S. Government Printing Office.
- Vogeltanz, N. D., Wilsnack, S. C., Harris, T. R., Wilsnack, R. W., Wonderlich, S. A., & Kristjanson, A. F. (1999). Prevalence and risk factors for childhood sexual abuse in women: National survey findings. *Child Abuse and Neglect*, 23, 579-592.
- Weathers, F. W., & Keane, T. M. (1999). Psychological assessment of traumatized adults. In P. A. Saigh & J. D. Bremner (Eds.), *Posttraumatic stress disorder: A comprehensive text* (pp. 219-247). Boston: Allyn & Bacon.
- Weist, M. D., Acosta, O., & Youngstrom, E. A. (2001). Predictors of violence exposure among inner-city youth. *Journal of Clinical Child Psychology*, 30, 187-198.

Rochelle F. Hanson, Ph.D., is an associate professor and the director of clinical operations at the National Crime Victim's Research and Treatment Center, Medical University of South Carolina. Her research focuses on the prevalence and effects of trauma exposure. She has served as the coinvestigator on several projects investigating youth violence exposure and serves as the codirector for the SAMHSA-funded National Child Traumatic Stress Network, Intervention Development and Evaluation Center. She is the principal investigator on an NIMH-funded grant examining the best ways to transport evidenced-based treatments into community-based settings. She is an APSAC board member and maintains a clinical practice, providing trauma-focused treatment to children and adults.

Shannon Self-Brown completed her Ph.D. in clinical psychology at Louisiana State University in 2004. She is currently a postdoctoral fellow at the National Crime Victims Research and Treatment Center (NCVC), Medical University of South Carolina. As a fellow at the NCVC, she provides trauma-focused therapy to children and adults who are exposed to or are victims of violence. Her research interests include the effects of community and family violence on the psychological functioning of youth, the effects of forensic medical examinations on sexually abused children, and the importance of family environment in the recovery of children exposed to violence.

Adrienne E. Fricker-Elhai received her B.A. in psychology from the University of Missouri–St. Louis and her M.A. and Ph.D. in clinical psychology from University of Arkansas. She completed her internship at the Medical University of South Carolina and a two-year NIMH fellowship at the National Crime Victims Research and Treatment Center (MUSC). She is currently an assistant professor at the University of South Dakota School of Medicine where she is involved in training of psychiatry residents and provides clinical services for children and families.

Dean G. Kilpatrick, Ph.D., is the director of the National Crime Victims Research and Treatment Center. He has been involved in the crime victims' rights field since 1974. His research interests include measuring the prevalence of rape, other violent crimes, and other types of potentially traumatic events and assessing the mental health impact of such events. His research has been funded by a variety of federal agencies including Centers for Disease Control and Prevention, National Institute of Mental Health, National Institute on Drug Abuse, and National Institute of Justice. He has published extensively and presented at more than 300 scientific and professional meetings.

Benjamin E. Saunders, Ph.D., is a professor and the director of the Family and Child Program at the National Crime Victims Research and Treatment Center, Medical University of South Carolina. He has presented on a wide array of topics related to child traumatic stress and serves on the editorial boards of several professional journals. His research has been federally funded and he has published extensively. He served on the APSAC Board of Directors and was the program chair of the 1995 APSAC colloquium. He currently serves as director for the SAMHSA-funded National Child Traumatic Stress Network, Intervention Development and Evaluation Center.

Heidi S. Resnick, Ph.D., is a professor at the National Crime Victims Research and Treatment Center, Medical University of South Carolina. She also serves as the director of Research Training for the MUSC Internship Program. She conducts research with both adults and adolescents aimed at understanding mental health recovery following rape and at evaluating an early postrape intervention. She has served as the principal and coinvestigator on several federally funded grants. She is a member of the APA's Division of Behavioral Emergencies and Crises (subdivision of Division 12) and ISTSS. She is also an associate editor of Journal of Traumatic Stress.