

# Community Violence, Family Conflict, and Preschoolers' Socioemotional Functioning

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This study examined the relations among family conflict, community violence, and young children's socioemotional functioning and explored how children's social cognition and mothers' psychological functioning may mediate the outcomes associated with this exposure. Mothers of 431 Head Start preschoolers completed questionnaires about their family demography, exposure to community violence, family conflict, and children's distress symptoms. Children were administered a social cognition assessment, and teachers rated their behavior. Results showed that mothers' reports of children's co-witnessing of community violence were positively associated with police department crime rates, children's distress symptoms, and teachers' ratings of aggression. A path analysis revealed that children's social awareness and mothers' depressive symptoms partially mediated the effects of community violence and family conflict on outcomes for children.

Although national crime rates have declined in recent years (Blumstein & Wallman, 2000), violence in American inner-city neighborhoods and violence directed toward children have not similarly decreased (National Center for Child Abuse and Neglect, 1996; Wang & Daro, 1998). Therefore, many children continue to observe or experience violence in their homes and neighborhoods. The problems posed by both forms of violence not only threaten children's safety and psychological well-being but also may violate children's perceptions of the safety of their immediate environment and may make parents less available for physical and emotional caretaking (Margolin, 1998).

Current studies have shown that many school-age children and adolescents who live in inner-city neighborhoods have had direct encounters with serious acts of community violence. Consequences of these adverse experiences for children ages 6 to 15 are apparent in reports of moderate, but consistent, associations between violence exposure and symptoms of posttraumatic stress disorder (PTSD), anxiety and depression, conduct disorders, peer-related aggression, and maladaptive cognitive and socioemotional

functioning (Attar, Guerra, & Tolan, 1994; Gorman-Smith & Tolan, 1998; Kliewer, Lepore, Oskin, & Johnson, 1998; Linares et al., 2001). Similarly, research has shown that even very young children are exposed to considerable neighborhood violence (Shahinfar, Fox, & Leavitt, 2000; Taylor, Zuckerman, Harik, & Groves, 1994). In a study of 64 inner-city 4-year-olds, Farver, Natera, and Frosch (1999) found that the families had been personally victimized by forced entry into their homes; threatened with physical harm; heard gunshots; witnessed drug transactions, street gang activity, and police arrests; and saw people with guns in their neighborhoods. The distress symptoms associated with this violence exposure were negatively correlated with measures of preschoolers' cognitive performance and socioemotional functioning with peers.

A similar pattern exists for children who are exposed to family conflict. The U.S. Department of Justice (1998) estimated that between 1992 and 1996, 8 out of 1,000 women experienced violent victimization, with about half living in households with children under age 12. The prevalence rates for children who witness aggression between parents are equally high. In 1992, the rates were estimated at 10 million per year (Straus, 1992). Not surprisingly, children's exposure to family conflict has been associated with a number of psychological difficulties, including aggressive behavior (Graham-Berman & Levendosky, 1998; Holden & Ritchie, 1991), externalizing (Jaffe, Wolfe, Wilson, & Zak, 1986) and internalizing problems (Margolin, 1998; O'Keefe, 1996), conduct disorders, and PTSD (Jouriles, Murphy, & O'Leary, 1989; McCloskey, Figueredo, & Koss, 1995).

Although research has demonstrated that violence exposure is predictive of children's heightened risk for psychological problems, factors that may potentially mediate these negative outcomes have not been fully identified. Few studies have examined the mechanisms through which mothers' and children's exposure to both domestic and community violence might be associated with

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children's developmental outcomes. Therefore, the purpose of the present study was to further investigate the consequences of two forms of violence exposure for young children's behavioral adjustment and to examine the potential influence of children's social cognition and mothers' psychological functioning on the relation between children's exposure to family conflict and community violence and their socioemotional functioning. To the best of our knowledge, current work has not examined domestic and community violence exposure with preschool-age children.

Some investigators have theorized that social cognition is a mediator of individual risk for psychopathology in general (Beardslee, Schultz, & Selman, 1987; Downey & Walker, 1989; Garnezy, 1991) and may be a key component in understanding the mechanisms through which violence exposure specifically influences children's development and behavior problems (Dodge, Pettit, & Bates, 1994). Support for this notion dates back to early studies that demonstrated a link between social cognition and child adjustment (Pelligrini, 1985; Shure & Spivack, 1982). In particular, deficits in children's social cognition were associated with problems in managing conflict, anger, and frustration; communicating effectively; and negotiating and empathizing with peers (for reviews, see Rubin & Krasnor 1986, 1992; Shantz, 1983). In addition, these children were often aggressive and rejected by peers, two of the most salient behavioral precursors of child psychopathology (Dodge & Pettit, 2003).

Studies on young children's social cognition suggest that it is the combination of their emerging theory of mind and a growing social awareness of themselves and others that provides the basis for understanding the thoughts, emotions, and actions of others (Astington, 1993; Lewis & Carpendale, 2002). As these attributes develop and become manifested in the ability to recognize, label, and infer others' intentions (Dunn, 1996), preschoolers use this information about peers' psychological attributes to predict how they will behave (Berndt & Heller, 1985), to perspective-take and empathize with others (Eisenberg & Fabes, 1998), and to control the expression of negative emotions (Coe & Kupersmidt, 1983). Young children who have well-developed social-cognitive skills are socially competent and socially aware. That is, they can initiate and sustain positive relations with peers and adults, and they can attain personal goals during social interaction.

Theories of children's social-cognitive development assume a socialization component (e.g., Dodge, 1986). For example, there is evidence that children who behave aggressively with peers often have been victims of some form of violence themselves (for reviews, see Conaway & Hansen, 1989; Margolin, 1998). Consistent with social learning theory (Eron, 1997), it is likely that by observing powerful role models solving problems with physical force, children develop the belief that aggression is associated with positive outcomes (Perry, Perry, & Rasmussen, 1986), that it is an acceptable and effective problem-solving strategy (Gorman-Smith & Tolan, 1998), and that it is a normative behavior pattern in close relationships. Children who have been exposed to marital violence generally display more aggression toward peers than other children, particularly in response to peer distress (George & Main, 1979; Howes & Espinosa, 1985) and when confronted with highly frustrating problem-solving situations (Herrenkohl & Herrenkohl, 1981). Cicchetti and Toth (1995) have speculated that violence-exposed children become overly concerned with security issues, and coupled with a tendency for hypervigilance, they are more

likely to process social information with a bias toward hostile intent.

In summary, the existing research literature suggests a common pattern. Children who are exposed to family and community violence generally lag behind their peers in developing social cognition skills, they tend to behave aggressively with peers, and they are less socially skilled and socially aware.

Two studies carried out with school-age children support the investigation of social cognition as a mediator of the behavior problems associated with violence exposure. Schwartz and Proctor (2000) examined the behavioral adjustment of inner-city school children who had been witnesses or victims of community violence. Their results showed that children's social information-processing capabilities (measured by hypothetical scenarios with peers) mediated the link between violence exposure and levels of behavioral adjustment and socioemotional functioning. Similarly, in an investigation of maltreated children with psychologically troubled parents, Downey and Walker (1989) reported that children who displayed social-cognitive skills were better adjusted regardless of risk status.

Another mechanism that may influence the link between children's violence exposure and their behavioral adjustment is mothers' psychological functioning. Young children, in particular, must rely on parent figures to make the world predictable and safe and to interpret and guide their responses to threatening or ambiguous situations. These functions may be compromised in families in which members experience conflict in the home and violence in the neighborhood (Margolin & Gordis, 2000). Preschoolers are also more likely than older children to witness violent events while in the company of their mothers. Therefore, they look to their mothers about how to respond. If mothers are distressed, it is likely their children will also be distressed.

Mothers' feelings of helplessness, fear, or stress associated with their experiences may also become manifested in depression, which may lead to less optimal parenting. A salient indicator of mothers' psychological resources is their level of depression (Shaw, Gillon, Ingoldsby, & Nogin, 2003). Common features of adult depression—high irritability, criticalness, and low positive affect—are thought to diminish caregiving quality. Young children who have depressed mothers are more likely to have conduct disorders and to be undercontrolled and poorly regulated in social exchanges with peers (Downey & Coyne, 1990; Zahn-Waxler, Iannotti, Cummings, & Denham, 1990). Not surprisingly, elevated levels of maternal distress and depression have been associated with exposure to family conflict and neighborhood violence (Breslau, Glenn, Davis, Andreski, & Peterson, 1991; Margolin & Gordis, 2000).

Mothers play an important role in helping their children cope with negative experiences. Extensive research has shown that stressful life events are linked to child behavior problems through diminished maternal psychological functioning (Campbell, Marsh, Pierce, Ewing, & Szumowski, 1991; Conger, Patterson, & Ge, 1995). For the most part, literature on exposure to family conflict suggests that the lack of an available, close, supportive, and positive relationship, particularly with the mother (Neighbors, Forehand, & McVicar, 1993), was associated with high distress symptoms in children (Katz & Gottman, 1997; Margolin, 1998). Similarly, Margolin and John (1997) reported that although family

conflict had direct effects on children's adjustment, the effects were to some extent mediated through positive parenting behavior.

To date, research on children's violence exposure and psychological adjustment has been primarily descriptive, and with few exceptions, little attention has been devoted to understanding the mechanisms that mediate the negative effects associated with these adverse experiences. Most existing studies have used cross-sectional designs, and few have used transactional models. In addition, a basic methodological problem is that community violence, social class, and ethnicity are confounded, therefore no comparisons can be made using control groups.

Using a multi-informant methodology, we pursued two objectives in the current study: (a) to further document young children's exposure to community and family violence and the possible consequences for their socioemotional functioning and (b) to examine how mothers' depressive symptoms and children's social cognition might mediate the relation among family conflict, mothers' and children's community violence exposure, and three possible outcomes known to be associated with children's adverse experiences (i.e., aggression, social competence, and distress). To achieve these objectives, we asked mothers to complete questionnaires about their families' violence exposure, presence of conflict in the home, and their children's distress symptoms. Children were given a social awareness assessment, and teachers rated their behavior.

## Method

### *Participants*

Families were recruited at an inner-city Head Start program that serves a geographic area identified by the relevant police reporting districts to have high crime and violence rates in the city where the study was conducted. Four hundred and eighty-eight families were informed about the project during parent meetings at the preschool and were approached directly by research staff. Teachers and parents were told that we wanted to learn about families' experiences of living in inner-city neighborhoods. Because violence is a salient issue for many inner-city residents, parents were highly cooperative and none refused to participate. Over the school year, 51 children were lost to attrition (families moved or children dropped from the program).

Because our interest was to examine the direct effects of community violence on young children and their families, we used information obtained from the preschool records to screen out families from our database who were at risk for stressors associated with foster care placement ( $n = 3$ ), serious medical or developmental disability ( $n = 2$ ), and chronic residential instability ( $n = 1$ ). The remaining 431 (215 girls, 216 boys) children ranged in age from 43 to 59 months ( $M = 49.91$ ,  $SD = 5.29$ ) and were from either Latino (85%) or African American (15%) families. According to an analysis of the census track data obtained from the Head Start program and other sources (Dear, 1996), the families constituting our final sample were representative of the wider geographic area from which the Head Start enrollment was obtained and of the families attending the program. The wider inner-city community has one of the highest population densities in Los Angeles County with a high concentration of African American and Latino families, many of whom are immigrants from Mexico and Central America.

The families were of low socioeconomic status. In all but 12 families, a father figure was present (the child's biological parent, a stepfather, or mothers' live-in partner). Family size ranged from one to seven children ( $M = 2.58$ ,  $SD = 1.18$ ). Mothers were 18 to 55 years old ( $M = 31.07$  years,  $SD = 6.74$ ). Their education ranged from 1 = *less than seventh grade* to

7 = *a college degree* ( $M = 3.12$ ,  $SD = 1.60$ ), with more than half reporting less than a high school education. Fathers or father figures were 22 to 49 years old ( $M = 34.81$  years,  $SD = 4.50$ ) and had education levels similar to those of the mothers. Seventy-two percent of the mothers were unemployed, 17% were employed part time, and 11% were employed full time in unskilled positions. Ninety percent of the fathers or father figures were employed as unskilled (food service, machine operators, laborers, etc.) or as semiskilled (truck drivers, construction, service providers, etc.) workers.

### *Measures and Procedure*

The data were collected from September through May by a trained research team made up of graduate and undergraduate psychology students. Prior to the data collection, team members spent time in the preschool setting establishing rapport and trust with the Head Start staff, families, and children.

Beginning in November, mothers completed several questionnaires. Parents' reading levels were determined when informed consent was obtained. Note was made of the parents who required assistance, and when the questionnaires were distributed later, those parents were given help in completing them. To reduce experimenter effects (Sattler, 1979), we explicitly told mothers not to exaggerate or conceal instances of violence to which their family, and particularly their children, had been exposed. They were also told that the success of our efforts to understand their experiences rested on honest and complete answers. Families were assured that all information would remain confidential. Mothers were given a telephone number for a family counseling center on the university campus if they wished to talk further with a professional clinical psychologist about their experiences or concerns. Families were recontacted periodically to ensure that no one experienced distress as a result of their participation in the study. The children's assessments were administered about midway through the school year (January/February) in a quiet, familiar area in the preschool. Where appropriate, the Spanish language version of the measure was used.

### *Neighborhood Crime Rates*

To obtain a relatively objective measure of community violence levels, and to control for potentially biased parent reports of violence exposure, we obtained official crime statistics from four Los Angeles Police Department (LAPD) divisions. We keyed each family's street address to the individual LAPD reporting districts within each division. A composite variable, *neighborhood violent crime rate*, was computed for each family address by summing only the violent crime incidents (murders, aggravated assault, adult felony, rape, etc.) reported over the prior year (i.e., August–September) for that particular reporting district. The neighborhoods represented 24 reporting districts.

### *Maternal Questionnaires*

*Community violence exposure.* One parent (usually the mother) completed the Exposure to Community Violence Questionnaire (ECVQ; Schwartz & Farver, 1998), a self-report assessment of violence exposure developed for this study. The 35 items were identified by reviewing existing measures, particularly Richters and Saltzman's (1990) Survey of Community Violence. During the pilot phases of our work, the wording of the items and the structure of the questionnaire were simplified to facilitate comprehension by adults with limited education. The resulting questionnaire does not represent a conceptual or empirical advance over existing measures but was optimized for use with this specific sample. Mothers were asked to report about violent incidents that occurred over the past year and were instructed specifically to exclude incidents that involved family conflict or violence. They were also reminded to report only real-life events

from their neighborhoods and communities and not incidents from movies, television, or the radio.

The ECVQ contains three subscales. The first subscale includes 11 items assessing exposure to violence by direct victimization/experience (parent experienced;  $\alpha = .80$ ). The second subscale includes 12 items assessing exposure to violence by witnessing (parent witnessed;  $\alpha = .81$ ). The third subscale includes 12 items assessing exposure to violence as reported by someone else (parent heard;  $\alpha = .87$ ). For the three subscales, mothers were asked to rank the frequency with which they had experienced each item on a 4-point rating scale (0 = *never*, 1 = *once*, 2 = *a few times*, 3 = *lots of times*). The correlations among these three subscales ranged from .49 to .80.

In measuring children's exposure to violence in the community, we faced several challenges. In the piloting phases of the project, we attempted to interview the children directly about their experiences with community violence using an age-appropriate format. Because of the concern about the possible retraumatizing effect our questions might have on the children, we developed a different method. For each item mothers rated for themselves, we also asked them to indicate if their child had been with them at the time they had heard about, saw, or experienced the event, and to rate how often this had occurred using the 4-point scale above. Although we initially also asked mothers to report on their children's exposure to violent events in their absence, this proved to be fruitless. Our best and, we believe, most accurate measure, given the age of the children, yielded three child subscales: co-experienced ( $\alpha = .83$ ), co-witnessed ( $\alpha = .78$ ), and co-heard about violence in the community ( $\alpha = .85$ ). The correlations among these three subscales ranged from .51 to .82.

Mothers' responses for the number of times they were victimized/had personally experienced and had witnessed violence for themselves were standardized and averaged to form the variable *mothers' community violence exposure*. Mothers' reports for the number of times their children directly co-experienced and co-witnessed violent events were standardized and averaged to form the variable *children's community violence exposure*. Although hearing about violence could potentially increase fear, behavior, and family processes, we dropped this variable from the analyses because of a concern with reliability and possibility of overreporting events that were not directly experienced by the families.

*Family conflict.* To measure family conflict in the home, we asked mothers to complete the Conflict Tactics Scales (Straus, 1979). Mothers rated 18 items reflecting different means by which interpersonal conflict can be resolved (e.g., "discussed issue calmly," "insulted the partner," "cried," "threatened to hit," "pushed, grabbed, shoved, or beat up the partner"), on a 4-point scale (0 = *never happened*, 3 = *happened many times*), for their own behavior and that of their partner over the past year. The items were summed to form a *family conflict score* ( $\alpha = .80$ ).

*Children's distress symptoms.* To measure children's distress symptoms, we asked mothers to complete the Children's Distress Symptom Checklist (CDSC; Farver, 1998). The 36 items were adopted from the research literature on PTSD (Pynoos, 1993), the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1994), studies of children's violence exposure (Kliewer et al., 1998; Martinez & Richters, 1993; Richters & Martinez, 1993a, 1993b), and Richters's (1990) Survey of Children's Distress Symptoms. The CDSC contains items indicative of distress in children (e.g., "experiences difficulty paying attention"; "worries about safety"; "is hypervigilant"; "startles to loud noises"; "has bad dreams and recurring upsetting thoughts"; "is easily frightened, nervous, afraid, angered, or upset"; and "engages in play with scary themes"), rated on a 5-point scale for how often (0 = *never*, 1 = *seldom*, 2 = *once in a while*, 3 = *a lot of the time*, and 4 = *most of the time*) these behaviors were observed in the child over the past year. Mothers' responses were summed to form an index of *child distress symptoms* ( $\alpha = .90$ ).

*Mothers' psychological functioning.* Mothers completed the 21-item Beck Depression Inventory (Beck, Brown, & Steer, 1996;  $\alpha = .84$ ). To

provide a more comprehensive measure, we altered the directions so mothers reported about depressive symptoms over the last year rather than in the past week. The mean score was used as an index of *mothers' depressive symptoms*.

### Teacher Ratings

*Ratings of children's psychological functioning.* The classroom teacher most familiar with the target child completed the 109-item Behavior Assessment System for Children (BASC; Reynolds & Kamphaus, 1992) rated on a 4-point scale (1 = *never*, 4 = *always*). Subscales relevant to the present study assessed *aggression* (e.g., "disrupts play of others"; "is critical of others"; "hits, threatens, or teases others"; "talks back to teachers";  $\alpha = .89$ ) and *anxiety* (e.g., "worries"; "nervous"; "fearful"; "seeks adult attention"; "gets upset when things are lost";  $\alpha = .90$ ).

*Ratings of children's social behavior with peers.* The classroom teacher most familiar with the target child completed the Social Behavior Rating Scale (SBRS; Schwartz, 2000). The SBRS, which assesses normative social adjustment, contains 43 items that are rated on a 5-point scale (1 = *never true for this child*, 5 = *almost always true for this child*). Subscales that are relevant to the present study assessed *aggression* (e.g., "uses force to obtain other children's possessions"; "gossips or says unpleasant things about peers"; "starts arguments"; "threatens or bullies other children";  $\alpha = .81$ ), *prosocial behavior* (e.g., "helpful to peers"; "friendly toward other children"; "good at getting other children to play"; "shares";  $\alpha = .83$ ), and *social acceptance* (e.g., "well-liked by peers"; "disliked by peers" [reverse coded]).

### Child Assessments

Children's social awareness was measured using the 38-item Self/Social Awareness subtest of the Bracken Basic Concept Scale—Revised (BBCS-R; Bracken, 1998). This subtest measures emotional concepts and the feeling states of others, such as angry, excited, and tired, and uses terms that describe kinship, gender, relative age, and socially appropriate behavior. The BBCS-R has a picture stimulus format in which children are asked to choose which of four pictures represents the word (i.e., the concept or behavior) spoken by the examiner. This measure was selected for the present study because it can be used with minimally verbal, reticent, or shy children; the items depict males, females, and racially and ethnically diverse groups; and there is a Spanish language version. The raw scores were used in all analyses.

## Results

### Preliminary Analyses

The ranges, means, and standard deviations for the variables of interest are provided in Table 1. Standardized scores were created for all of the variables and bivariate correlations were computed. These results appear in Table 2.

To reduce the number of variables, we created three composite child outcome variables from the teachers' and mothers' ratings. Children's *social competence* represents an average of the standardized SBRS rating scores for children's social acceptance and prosocial behavior ( $r = .56$ ), *aggression* represents an average of the standardized scores of the SBRS and the BASC aggression subscales ( $r = .46$ ), and *distress* represents an average of the standardized scores from mothers' ratings of children's distress symptoms and teachers' ratings of children's anxiety on the BASC scale ( $r = .21$ ).

Table 1  
Means and Standard Deviations for the Variables ( $N = 431$ )

Variable	Range	<i>M</i>	<i>SD</i>
Children's age in months at outset of study	43–59	49.91	5.29
Neighborhood violent crime rates	145–2,137	821.74	634.68
Mothers' level of education	1–7	3.12	1.62
Mothers' community violence exposure (no. of seen/experienced incidents)	0–52	10.69	12.41
Children's cowitnessed community violence exposure	0–52	10.09	10.63
Children's distress symptom ratings	2–87	34.50	16.14
Family conflict scores (Conflict Tactics Scale)	0–34	9.92	6.69
Mothers' depressive symptoms scores (Beck Depression Inventory)	0–56	6.45	7.31
Children's SBRS social acceptance ratings	1.00–5.00	4.24	0.69
Children's SBRS prosocial behavior ratings	1.00–5.00	3.59	0.75
Children's SBRS aggression ratings	1.00–5.00	1.29	0.88
Children's BASC aggression ratings	1.00–4.00	1.44	0.46
Children's BASC anxiety ratings	1.00–4.00	1.36	0.32
Children's BBCS–R self/social awareness scores	1–38	7.02	9.16

*Note.* SBRS = Social Behavior Rating Scale; BASC = Behavior Assessment System for Children; BBCS–R = Bracken Basic Concept Scale—Revised.

### Community Violence Exposure and Family Conflict

Seventy-one percent of the mothers reported they had *witnessed* gang activity, drug transactions, or individuals in their neighborhood being physically harmed or assaulted; threatened with a weapon, robbed, and pursued; or arrested by the police. Sixty-five percent reported they had been personally physically threatened or assaulted, robbed on the street, and had their homes broken into, and nearly the entire sample reported hearing gun shots and police helicopters in their neighborhood on a weekly basis.

Mothers' community violence exposure was positively correlated with children's community violence exposure. Family conflict ratings were positively correlated with mothers' and children's community violence exposure and with mothers' depressive symptoms (see Table 2).

### Violence Exposure and Children's Psychological Functioning

As shown in Table 2, the LAPD crime rates were positively associated with children's community violence exposure and SBRS aggression ratings, and negatively associated with their social awareness assessment scores and SBRS prosocial behavior ratings. Children's community violence exposure was positively associated with the SBRS and BASC aggression ratings and their distress symptoms, and negatively associated with their social awareness assessment scores and SBRS ratings of social acceptance. Children's social awareness assessment scores were negatively associated with teachers' SBRS and BASC aggression and anxiety ratings and with mothers' ratings of children's distress symptoms, and positively associated with the SBRS social acceptance and prosocial behavior ratings. Mothers' community violence exposure was positively associated with ratings of family conflict, children's distress, and mothers' depressive symptoms.

### Relations Among Community Violence Exposure, Family Conflict, Mothers' Depressive Symptoms, Children's Social Awareness, and Children's Outcomes

To examine how mothers' depressive symptoms and children's social awareness might mediate the relation among family conflict, mothers' and children's community violence exposure, and three possible outcomes known to be associated with children's adverse experiences (i.e., aggression, social competence, and distress), we specified and tested a path model (see Figure 1). Path analyses, instead of latent variable analyses, were adopted because several key variables (i.e., children's social awareness and mothers' depressive symptoms) were measured by a single informant and could not be examined as latent variables. Following Kline (1998), the model fit and path coefficients were examined using maximum-likelihood estimation. Because children's age, gender, and LAPD crime rates were correlated with some of the variables of interest, they were treated as control variables in the path models discussed below.

As shown in Figure 1, there were three exogenous variables (mothers' community violence exposure, family conflict score, and children's community violence exposure) and five endogenous variables (mothers' depressive symptoms, children's social awareness, aggression, social competence, and distress ratings). We examined the mediating roles of mothers' depressive symptoms and children's social awareness using criteria specified by Baron and Kenny (1986). Specifically, we required the mediator to be significantly associated with the predictor and the outcome, the predictor to be significantly associated with the outcome, and the presence of the mediator would significantly reduce the strength of the association between the predictor and the outcome.

First, we tested the relations among mothers' community violence exposure, family conflict, children's community violence exposure, and children's outcome variables without considering mothers' depressive symptoms and children's social awareness

Table 2  
Correlations Among the Variables (*N* = 431)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	—													
2. Gender	.02	—												
3. LAPD crime rates	.10*	-.02	—											
4. Mothers' CV exposure	-.12*	.05	-.03	—										
5. Children's CV exposure	-.05	.05	.17**	.29**	—									
6. Family conflict	-.02	.06	-.09	.16**	.26**	—								
7. Children's social awareness	.03	-.07	-.14**	.02	-.21**	.07	—							
8. Mothers' depressive symptoms	-.01	.02	.03	.18**	.10*	.29**	.00	—						
9. Children's aggression (SBRs)	.06	.05	.14**	.01	.20**	-.01	-.57**	.04	—					
10. Children's aggression (BASC)	.03	.10*	.04	.07	.11*	.05	-.11*	.07	.46**	—				
11. Children's social acceptance (SBRs)	.02	-.05	-.08	.03	-.14**	-.03	.17**	-.04	-.51**	-.32**	—			
12. Children's prosocial behavior (SBRs)	.14**	-.12*	-.13**	.05	-.06	-.01	.20**	.01	-.32**	-.22**	.56**	—		
13. Children's distress	-.16**	-.04	.07	.34**	.28**	.21**	-.13*	.29**	.18**	.11*	-.20**	-.10*	—	
14. Children's anxiety (BASC)	.06	.07	-.01	.03	.04	-.01	-.11*	.03	.21**	.44**	-.28**	-.21**	.21**	—

Note. Variables 4–6, 8, and 13 = mothers' reports; Variables 9–12 and 14 = teachers' ratings; Variable 7 = child assessments; CV = community violence; SBRs = Social Behavior Rating Scale; BASC = Behavior Assessment System for Children.  
\* *p* < .05. \*\* *p* < .01.

(see Figure 2). The chi-square test of this model (i.e., Model 1 in Table 3) was not significant,  $\chi^2(25, N = 431) = 3.65, p > .05$ . Other goodness-of-fit indices showed adequate fit: standardized root-mean-square residual (SRMR) = .010; root-mean-square error of approximation (RMSEA) = .002; goodness-of-fit index (GFI) = 1.00; adjusted goodness-of-fit index (AGFI) = 1.00; normed fit index (NFI) = .99; nonnormed fit index (NNFI) = .99; and comparative fit index (CFI) = 1.00. In the following analyses, the chi-square statistic and four model fit indices—SRMR, RMSEA, GFI, and CFI—were reported for three reasons: (a) All four indices have been widely used in the literature; (b) compared with the NFI and the NNFI, the CFI and the GFI are less likely to be affected by the large sample size of this study (Kline, 1998); and (c) these four indices represent a spectrum of model fit measures that not only describe the overall proportion of explained variance by the model (e.g., GFI) but also estimate the discrepancy between the observed and predicted covariance (e.g., SRMR). Typically, a good model fit will have a GFI and a CFI greater than .90 and will have an SRMR and an RMSEA less than .08 (Kline, 1998).

We then entered mothers' depressive symptoms and children's social awareness as mediators into the model. Only the significant paths were kept in the model (see Figure 1). This model (i.e., Model 2 in Table 3) yielded an acceptable fit:  $\chi^2(15, N = 431) = 15.69, p > .05, GFI = .99, CFI = .99, RMSEA = .037, SRMR = .021$ . To test whether there was a significant drop in total effect from predictors to outcome variables when including the mediators, we adopted Holmbeck's (1997) and Sobel's (1988) procedure. Specifically, Holmbeck (1997) suggested that a test of whether the drop in a total effect is significant is mathematically equivalent to a statistical test of the significance of the indirect effect from predictors to outcome variables. According to Sobel's (1988) procedure, the *t* tests for the five mediation paths (i.e., mothers' community violence exposure → mothers' depressive symptoms → children's distress; family conflict → mothers' depressive symptoms → children's distress; children's community violence exposure → social awareness → aggression; children's community violence exposure → social awareness → social competence; and children's community violence exposure → social awareness → distress) were all significant (*ts* ranged from 2.74 to 6.98, *p* < .05). In addition, the absolute value of the direct effects from family conflict to children's distress and from children's community violence exposure to aggression reduced to 0.00, whereas other direct effects decreased but remained significant.

These results indicated that the relation between family conflict and children's distress, and between children's community violence exposure and children's aggression, may be fully mediated by mothers' depressive symptoms and children's social awareness, respectively. Specifically, family conflict was positively associated with mothers' depressive symptoms ( $\beta = .26, p < .01$ ), which was in turn positively associated with children's distress ( $\beta = .17, p < .01$ ). Children's violence exposure was negatively associated with their social awareness ( $\beta = -.14, p < .01$ ), which was also negatively associated with their aggression ( $\beta = -.10, p < .05$ ). The relation between mothers' community violence exposure and children's distress, and between children's community violence exposure and children's distress/social competence, may be partially mediated by mothers' depressive symptoms and children's social awareness, respectively. For example, mothers' community

Controlled Variables

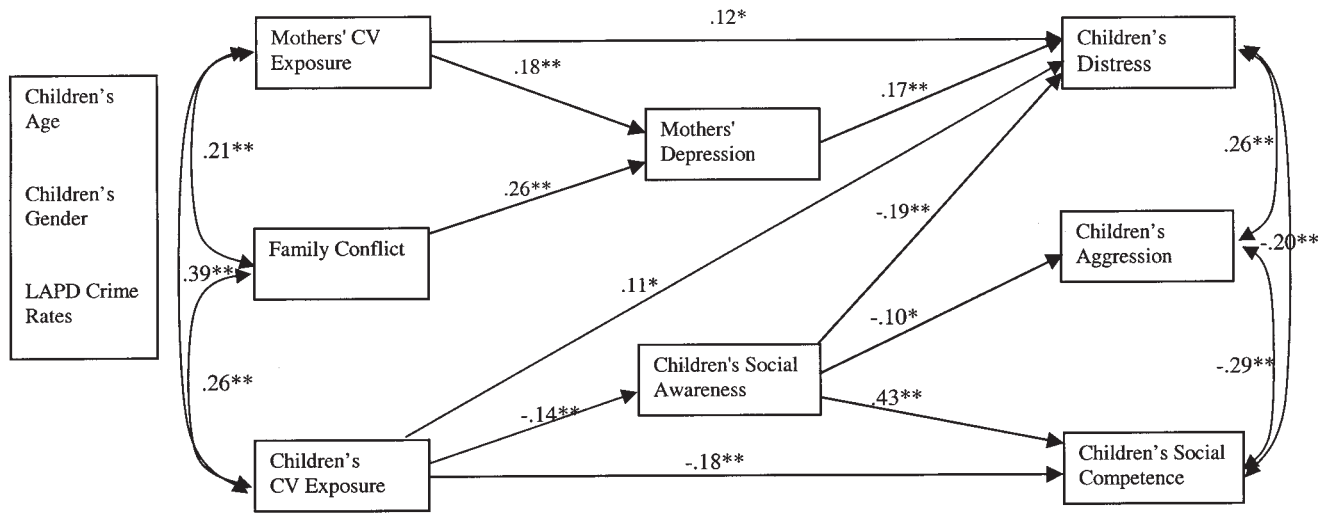


Figure 1. Relations between mothers' and children's community violence (CV) exposure, family conflict, and children's outcomes, as mediated through mothers' depressive symptoms and children's social awareness ( $N = 431$ ). LAPD = Los Angeles Police Department. \* $p < .05$ . \*\* $p < .01$ .

violence was positively associated with their depressive symptoms ( $\beta = .18, p < .01$ ) and children's distress ( $\beta = .12, p < .05$ ). Children's community violence exposure was positively associated with their distress ( $\beta = .11, p < .05$ ) and negatively associated with their social competence ( $\beta = -.18, p < .01$ ).

In the last step, we tested two competing models: Model 2 (see Figure 2) and the full mediation model without any direct effects from predictors to outcome variables (see Model 3 in Table 3).

Although both models yielded a reasonable fit, Model 2 fit the data better than did the full mediation model (i.e., Model 3):  $\Delta\chi^2(3) = 20.57, p < .01$ .

Among all the control variables, the LAPD crime rates significantly and negatively predicted children's social awareness and social competence ( $\beta = -.10, p < .05$ ;  $\beta = -.08, p < .05$ ) and significantly and positively predicted children's aggression ( $\beta = .09, p < .05$ ).

Controlled Variables

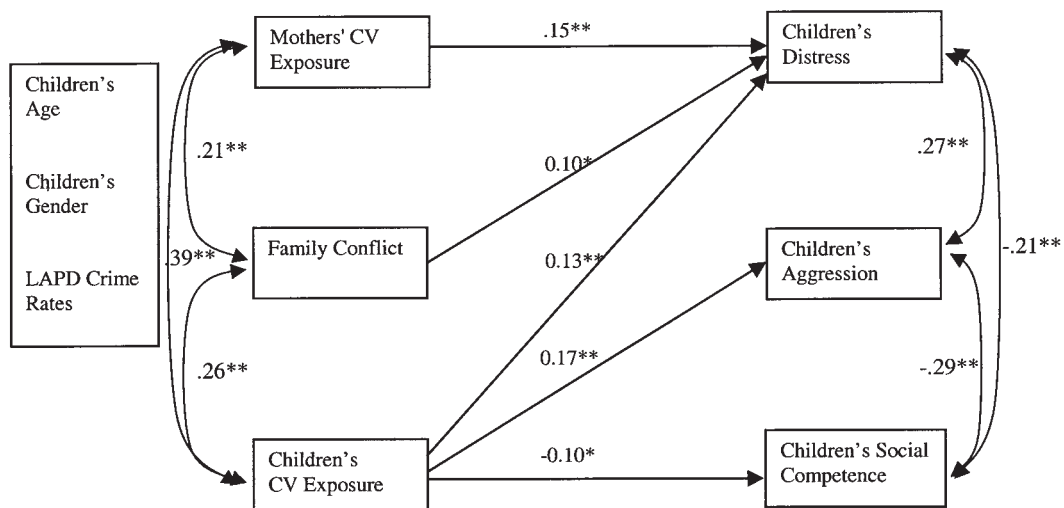


Figure 2. Relations between mothers' and children's community violence (CV) exposure, family conflict, and children's outcomes ( $N = 431$ ). LAPD = Los Angeles Police Department. \* $p < .05$ . \*\* $p < .01$ .

Table 3  
*Relations Between Mothers' and Children's Community Violence Exposure, Family Conflict, Mothers' Depressive Symptoms, Children's Social Awareness and Children's Outcomes (N = 431)*

Model	$\chi^2$	df	$\Delta\chi^{2a}$	CFI	GFI	RMSEA	SRMR
Model 1 <sup>b</sup>	3.65	25	—	1.00	1.00	0.002	0.010
Model 2 <sup>c</sup>	15.69	15	20.57**	0.99	0.99	0.037	0.021
Model 3 <sup>d</sup>	36.16**	18	—	0.95	0.98	0.065	0.037

Note. CFI = comparative fit index; GFI = goodness-of-fit index; RMSEA = root-mean-square error of approximation; SRMR = standard root-mean-square residual.

<sup>a</sup>  $\Delta\chi^2$  was computed based on the chi-square difference between Model 2 and Model 3. <sup>b</sup> Model including only the direct effects from mothers' and children's community violence exposure, and family conflict to children's outcomes. <sup>c</sup> Model including all the significant direct effects and indirect effects as mediating through mothers' depressive symptoms and children's social awareness. <sup>d</sup> Model including indirect effects only.

\*\*  $p < .01$ .

## Discussion

Although violent crime rates have declined in the general population, violence exposure in inner-city neighborhoods and conflict within families remain serious problems. Over the last decade, research has begun to investigate the relative influence of community violence exposure on school-age children and adolescents. However, it is only recently that researchers have turned their attention to very young children and their experiences. Early childhood is a particularly important period because it is a time when children begin to acquire basic cognitive and social skills, to construct fundamental patterns of interacting in the world, and to develop self-regulation and self-control. Young children are particularly vulnerable to violence exposure because they cannot protect themselves from the potentially damaging effects. They are also less able to verbalize their feelings and experiences than older children, and their distress may go unnoticed by adults who believe that young children are unaware of what goes on around them, or that they will quickly forget their experiences. Given the central importance of normative development during the preschool years, a better understanding of children's early experiences with community violence and family conflict is clearly needed.

Our results showed that according to mothers' reports, many families and their children have had serious encounters with violent events in their neighborhoods. Well over half of the sample reported witnessing gang activity and drug transactions, police pursuits and arrests, and individuals with weapons, as well as being personally victimized (i.e., physically threatened or assaulted, robbed on the street, or had their homes broken into). Nearly the entire sample reported hearing gun shots fired in their neighborhoods on at least a weekly basis. Although these prevalence rates and children's distress symptom scores may seem high, they are consistent with data reported in studies conducted in other U.S. inner-city communities (Freeman, Mokros, & Pozanski, 1993; Richters & Martinez, 1993a; Schwab-Stone et al., 1995; Taylor et al., 1994).

Children's community violence exposure was positively associated with mothers' ratings of their distress symptoms and teachers' ratings of their aggressive behavior. In addition, the moderate correlations found between mothers' ratings of children's distress symptoms and teachers' ratings of their aggression, anxiety, social

acceptance, and prosocial behavior suggest links between children's behavior difficulties in the home and the preschool setting.

It was not surprising to find that community violence exposure was associated with negative outcomes for children. As past research has documented, school-age children and adolescents who experience violence in their communities are at risk for a variety of distress-related symptoms, behavior problems, and poor school functioning (Attar et al., 1994; Cooley-Quille, Turner, & Beidel, 1995; Schwartz & Proctor, 2000; Taylor et al., 1994). Our findings parallel the patterns characteristic of older children.

The findings for family conflict were not as strong as those for community violence exposure. Although mothers' reports of family conflict were correlated with their ratings of children's distress symptoms, they were not correlated with teachers' ratings of children's behavior. Also, because mothers' reports of community violence exposure and family conflict were moderately associated, it is difficult to determine whether these experiences co-occur in families or if this was due to a reporting bias on the part of the mothers. Mothers' depressive symptoms were, however, more highly correlated with family conflict than with reports of their community violence exposure (e.g.,  $r = .29$ ,  $p < .01$  vs.  $r = .18$ ,  $p < .05$ ; Fisher's  $Z' = 4.72$ ,  $p < .01$ ).

Mothers' depressive symptoms and ratings of their children's distress were moderately correlated. These results can be interpreted in different ways. The first possibility is that the mother acts as a filter for her child's experiences, and by social referencing, the child responds similarly. Second, it is possible that mothers with depressive symptoms tend to view their children as being more distressed than they are. Third, it may be a situation in which anxious, distressed, or aggressive hard-to-manage children induce depressive symptoms in their mothers. Fourth, mothers may have become depressed because of their perceived inability to keep their children safe and free from distress. Although there were moderate correlations among the teachers' ratings of children's behavior and mothers' ratings of children's distress, the direction of effects cannot be determined. To establish a causal direction from mothers' depressive symptoms to children's behavior problems would require a longitudinal design.

The results of the path analyses showed that children's social awareness partially mediated the distress associated with their

community violence exposure. In addition, the path analysis provided support for the notion that mothers' depressive symptoms, associated with their own community and family violence exposure, also mediate children's distress. Our finding that children's social awareness scores were positively associated with their social competence with peers and negatively correlated with aggressive behavior and distress suggests that their developing social-cognitive skills may be related to healthy psychological functioning. However, more work is needed to further test the mechanisms of this relationship.

Young children's violence exposure is difficult to study and measure. In a review of the literature, Margolin and Gordis (2000) pointed out that there are vastly discrepant statistics estimating the rates of children's violence exposure that are a result of the different definitions of exposure and varied methods of data collection and measurement. Children who are exposed to family violence have no formal designation as crime victims. Thus, measuring children's experiences is dependent on highly biased parent reports, and it is difficult to estimate the extent to which family violence occurs in the presence of children in their homes. Moreover, family violence is likely to be kept private, whereas community violence exposure is widely discussed, which results in ripple effects and a tendency for overreporting the occurrence. Inasmuch as we attempted to build rapport with the families, mothers may have found it emotionally difficult to report on aversive experiences in their homes and neighborhoods. Thus, our data could represent an over- or underreporting of families' and children's experiences.

We attempted to overcome some of the problems of existing studies on children's violence exposure by using a multi-informant methodology. Many studies have been limited by the fact that information about violence exposure and children's distress symptoms is generally obtained from the same informant, usually the mother. Typically, mothers' self-report data are difficult to verify and are subject to recall bias. Mothers' responses can easily be affected by their own concerns for personal safety, such that they have difficulty protecting their children and being sensitive to their distress and developmental needs. Also, mothers may not be fully aware of their children's experiences or level of awareness, they may inaccurately perceive their children's distress, or, for a variety of reasons, they may not be able to precisely report the level of their own or their children's exposure or distress.

To begin to address these problems, we obtained crime reports from the relevant LAPD reporting districts to cross-validate mothers' reports of community violence exposure and we asked teachers to rate children's behavior. The crime rates were positively correlated with mothers' reports of children's community violence. As a "proxy" measure of neighborhood quality and its effect on children, the crime rates negatively predicted children's social awareness and social competence and positively predicted their aggressive behavior. However, it is also interesting to note that mothers' reports of their own community violence exposure were not correlated with the LAPD crime statistics. Possible explanations for this finding are similar to those discussed above. When mothers are asked to recall stressful events, it is possible that the events that involved their children's safety were more salient, and thus more memorable, than were events that occurred to themselves.

Despite these efforts, there are several limitations that should be considered when interpreting our results. The cross-sectional design of this investigation precludes causal inferences, and the direction of effects may be interpreted different ways. This is an important issue given that there may be other factors contributing to these results that were not included in the analysis. Unfortunately, as mentioned above, community violence exposure and poverty are confounded variables. Therefore, obtaining a comparable sample of "non-community-violence exposed" families as a control group is difficult. This limitation does not negate our findings that community-violence-exposed children may be at risk for possible difficulties because our families varied in their reports of exposure to community violence. At the same time, the results based on this sample could also be attributed to other risk factors, such as inner-city lifestyles and poverty. Further research conducted with longitudinal designs and measures of these other risk factors is clearly warranted.

Second, it is possible that the methods parents use to protect their children from violence may be in effect contributing to their children's reduced social functioning with peers and diminished social-cognitive skills. Families often cope with neighborhood violence by keeping their children indoors as much as possible. Although these strategies may work in the short run, the necessity of keeping children at home may produce a conflict between their needs for autonomy and social experiences with peers and parents' worries about safety.

Third, children's distress symptoms and measures of their socioemotional functioning should not be overinterpreted as indexes of maladjustment. As Richters and Martinez (1993b) suggested, whereas such symptoms may translate into long-term negative consequences for some children, these symptoms can also serve adaptive functions in dangerous situations. Therefore, research is needed to examine more comprehensive and alternative models of risk factors over longer periods of time.

For a variety of reasons, we cannot remove violence from inner-city neighborhoods. However, we can help to change the maladaptive behavior patterns that are associated with children's violence exposure by enhancing their social cognition skills and by strengthening family functioning. The evidence suggests that children's social cognition and mothers' psychological functioning partially mediate the negative outcomes associated with adverse events. Therefore, there is a need to better understand these processes and to provide opportunities for children to learn these skills.

## References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Astington, J. W. (1993). *The child's discovery of mind*. Cambridge, MA: Harvard University Press.
- Attar, B. K., Guerra, N. G., & Tolan, P. H. (1994). Neighborhood disadvantage, stressful life events, and adjustment in urban elementary school children. *Journal of Clinical and Child Psychology, 23*, 391-400.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Beardslee, W. R., Schultz, L. H., & Selman, R. L. (1987). Level of social cognitive development, adaptive functioning, and *DSM-III* diagnoses in

- adolescent offspring of parents with affective disorders: Implications for the development of the capacity for mutuality. *Developmental Psychology*, 23, 807–815.
- Beck, A. T., Brown, G., & Steer, R. A. (1996). *Beck Depression Inventory II manual*. San Antonio, TX: The Psychological Corporation.
- Berndt, T., & Heller, K. A. (1985). Measuring children's personality attributions. In S. R. Yussen (Ed.), *The growth of reflection in children* (pp. 37–60). San Diego, CA: Academic Press.
- Blumstein, A., & Wallman, J. (2000). *The crime drop in America*. New York: Cambridge University Press.
- Bracken, B. (1998). *Bracken Basic Concept Scale—Revised (BBCS–R)*. San Antonio, TX: Psychological Corporation.
- Breslau, N., Glenn, C., Davis, G., Andreski, P., & Peterson, E. (1991). Traumatic events and post traumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry*, 48, 216–222.
- Campbell, S. B., Marsh, C. L., Pierce, E. W., Ewing, L. J., & Szumowski, E. K. (1991). Hard to manage preschool boys: Family context and the stability of externalizing behavior. *Journal of Abnormal Child Psychology*, 19, 301–318.
- Cicchetti, D., & Toth, S. (1995). A developmental perspective on child abuse and neglect. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 541–565.
- Coie, J., & Kupersmidt, J. (1983). A behavioral analysis of emerging social status in boys' play groups. *Child Development*, 54, 1400–1417.
- Conger, P., Patterson, G., & Ge, X. (1995). It takes two to replicate: A mediational model for the impact of parents' stress on adolescent adjustment. *Child Development*, 66, 80–97.
- Cooley-Quille, M. R., Turner, S. M., & Beidel, D. C. (1995). Emotional impact of children's exposure to community violence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 1362–1368.
- Conaway, L. P., & Hansen, D. L. (1989). Social behavior of physically abused and neglected children: A critical review. *Clinical Psychology Review*, 9, 627–652.
- Dear, M. (1996). *Atlas of Southern California*. Los Angeles: University of Southern California, Southern California Studies Center.
- Dodge, K. A. (1986). A social information processing model of social competence in children. In M. Perlmutter (Ed.), *Minnesota symposium in child psychology* (Vol. 18, pp. 77–125). Hillsdale, NJ: Erlbaum.
- Dodge, K. A., & Pettit, G. S. (2003). A biopsychosocial model of the development of chronic conduct problems in adolescence. *Developmental Psychology*, 39, 349–371.
- Dodge, K. A., Pettit, G. S., & Bates, J. E. (1994). Socialization mediators of the relation between socioeconomic status and child conduct problems. *Child Development*, 65, 649–665.
- Downey, G., & Coyne, J. C. (1990). Children of depressed parents: An integrative review. *Psychological Bulletin*, 108, 50–76.
- Downey, G., & Walker, E. (1989). Social cognition and adjustment in children at risk for psychopathology. *Developmental Psychology*, 25, 835–845.
- Dunn, J. (1996). Children's relationships: Bridging the divide between cognitive and social development. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 37, 507–518.
- Eisenberg, N., & Fabes, R. (1998). Prosocial development. In N. Eisenberg (Ed.), *Handbook of child psychology* (5th ed., Vol. 3, pp. 701–778). New York: Wiley.
- Eron, L. D. (1997). The development of antisocial behavior from a learning perspective. In D. M. Stoff, J. Breiling, & D. Maser (Eds.), *Handbook of antisocial behavior* (pp. 140–147). New York: Wiley.
- Farver, J. M. (1998). [Children's Distress Symptom Checklist]. Unpublished measure.
- Farver, J. M., Natera, L. X., & Frosch, D. L. (1999). Effects of community violence on inner-city preschoolers and their families. *Journal of Applied Developmental Psychology*, 20, 143–158.
- Freeman, L., Mokros, H., & Pozanski, E. (1993). Violent events reported by normal urban school-aged children: Characteristics and depression correlates. *Journal of the American Academy of Child and Adolescent Psychiatry*, 32, 419–423.
- Garnezy, N. (1991). Resiliency and vulnerability to adverse developmental outcomes associated with poverty. *American Behavioral Scientist*, 34, 416–430.
- George, C., & Main, M. (1979). Social interactions of young abused children. *Child Development*, 50, 306–318.
- Gorman-Smith, D., & Tolan, P. (1998). The role of exposure to community violence and developmental problems in inner-city youth. *Development and Psychopathology*, 10, 101–116.
- Graham-Berman, S., & Levendosky, A. (1998). The social functioning of preschool-age children whose mothers are emotionally and physically abused. *Journal of Emotional Abuse*, 1, 59–84.
- Herrenkohl, R. C., & Herrenkohl, E. C. (1981). Some antecedents and developmental consequences of child maltreatment. In R. Rizley & D. Cicchetti (Eds.), *Developmental perspectives on child maltreatment* (pp. 57–76). San Francisco: Jossey-Bass.
- Holden, G. S., & Ritchie, K. L. (1991). Linking extreme marital discord, child rearing, and child behavior problems: Evidence from battered women. *Child Development*, 62, 311–327.
- Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literature. *Journal of Consulting and Clinical Psychology*, 65, 599–610.
- Howes, C., & Espinosa, M. P. (1985). The consequences of child abuse for the formation of relationships with peers. *Child Abuse and Neglect*, 6, 321–327.
- Jaffe, P., Wolfe, D., Wilson, S., & Zak, L. (1986). Similarities in behavioral and social adjustment among child victims and witnesses to family violence. *American Journal of Orthopsychiatry*, 56, 142–146.
- Jouriles, E. N., Murphy, C., & O'Leary, K. (1989). Interpersonal aggression, marital discord, and child problems. *Journal of Consulting and Clinical Psychology*, 57, 453–455.
- Katz, L. F., & Gottman, J. M. (1997). Buffering children from marital conflict and dissolution. *Journal of Clinical Child Psychology*, 26, 157–171.
- Kliwer, W., Lepore, S. J., Oskin, D., & Johnson, P. D. (1998). The role of social and cognitive processes in children's adjustment to community violence. *Journal of Consulting and Clinical Psychology*, 66, 199–209.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford Press.
- Lewis, C., & Carpendale, J. (2002). Social cognition. In P. K. Smith & C. Hart (Eds.), *Childhood social development* (pp. 375–393). Oxford, England: Blackwell.
- Linares, L. O., Heeren, T., Bronfman, E., Zuckerman, B., Augustyn, M., & Tronick, E. (2001). A mediation model for the impact of exposure to community violence on early child behavior problems. *Child Development*, 72, 639–652.
- Margolin, G. (1998). Effects of domestic violence on children. In P. K. Trickett & C. Schellenbach (Eds.), *Violence against children in the family and the community* (pp. 57–102). Washington, DC: American Psychological Association.
- Margolin, G., & Gordis, E. (2000). The effects of family and community violence on children. *Annual Review*, 51, 445–479.
- Margolin, G., & John, R. (1997). Children's exposure to marital aggression: Direct and mediated effects. In G. K. Kantor (Ed.), *Out of darkness: Contemporary perspectives on family violence* (pp. 90–104). Thousand Oaks, CA: Sage.
- Martinez, P., & Richters, J. E. (1993). The NIMH community violence project: II. Children's distress symptoms associated with violence exposure. *Psychiatry*, 56, 22–35.
- McCloskey, L., Figueredo, A. J., & Koss, M. (1995). The effects of family

- violence on children's mental health. *Child Development*, 66, 1239–1261.
- National Center for Child Abuse and Neglect. (1996). *Child maltreatment 1996: Reports from the states to the National Child Abuse and Neglect Data System*. Washington, DC: U.S. Government Printing Office.
- Neighbors, B., Forehand, R., & McVicar, D. (1993). Resilient adolescents and interparental conflict. *American Journal of Orthopsychiatry*, 63, 462–471.
- O'Keefe, M. (1996). The differential effects of family violence on adolescent adjustment. *Child and Adolescent Social Work*, 13, 51–68.
- Pelligrini, D. S. (1985). Social cognition and competence in middle childhood. *Child Development*, 56, 253–264.
- Perry, D. G., Perry, L. C., & Rasmussen, P. (1986). Cognitive social learning mediators of aggression. *Child Development*, 57, 700–711.
- Pynoos, R. S. (1993). Traumatic stress and developmental psychopathology in children and adolescents. In J. M. Oldman, M. B. Riba, & A. Tasman (Eds.), *Review of psychiatry* (pp. 205–238). Washington, DC: American Psychiatric Press.
- Reynolds, C. R., & Kamphaus, R. W. (1992). *Behavior Assessment System for Children (BASC)*. Circle Pines, MN: American Guidance Service.
- Richters, J. E. (1990). [Survey of Children's Distress Symptoms—Parent report]. Unpublished measure, Child and Adolescent Disorders Research, National Institute of Mental Health.
- Richters, J. E., & Martinez, P. (1993a). The NIMH community violence project: I. Children as victims and witnesses to violence. *Psychiatry*, 56, 7–21.
- Richters, J. E., & Martinez, P. (1993b). Violent communities, family choices, and children's chances: An algorithm for improving the odds. *Development and Psychopathology*, 5, 609–627.
- Richters, J. E., & Saltzman, W. (1990). [Survey of Exposure to Community Violence—Parent report version]. Unpublished measure, Child and Adolescent Disorders Research, National Institute of Mental Health.
- Rubin, K. H., & Krasnor, R. (1986). Social-cognitive and social behavioral perspectives on problem-solving. In M. Perlmutter (Ed.), *The Minnesota Symposia on Child Psychology: Vol. 18. Cognitive perspectives on children's social and behavioral development* (pp. 1–68). Hillsdale, NJ: Erlbaum.
- Rubin, K. H., & Krasnor, R. (1992). Interpersonal problem solving and social competence in children. In V. Van Hasselt & M. Hersen (Eds.), *Handbook of social development: A lifespan perspective* (pp. 283–323). New York: Plenum Press.
- Sattler, J. M. (1979). Racial "experimenter effects" in experimentation, testing, interviewing, and psychotherapy. *Psychological Bulletin*, 73, 137–160.
- Schwab-Stone, M. E., Ayers, T. S., Kaspro, W., Voyce, C., Barone, C., Shriver, T., & Weissberg, R. P. (1995). No safe haven: A study of violence exposure in an urban community. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 1343–1352.
- Schwartz, D. (2000). Subtypes of aggressors and victims in children's peer groups. *Journal of Abnormal Child Psychology*, 28, 181–192.
- Schwartz, D., & Farver, J. M. (1998). *Exposure to Community Violence Questionnaire (ECVQ)*. Unpublished measure.
- Schwartz, D., & Proctor, L. J. (2000). Community violence and children's social adjustment in the school peer group: The mediating roles of emotion regulation and social cognition. *Journal of Consulting and Clinical Psychology*, 68, 670–683.
- Shahinfar, A., Fox, N. A., & Leavitt, L. A. (2000). Preschool children's exposure to violence: Relation of behavior problems to parent and child reports. *American Journal of Orthopsychiatry*, 70, 115–125.
- Shantz, C. (1983). Social cognition. In J. H. Flavell & E. Markman (Eds.), *Handbook of child psychology: Vol. 3. Cognitive development* (pp. 495–555). New York: Wiley.
- Shaw, D. S., Gillon, M., Ingoldsby, E. M., & Nogin, D. S. (2003). Trajectories leading to school-age conduct problems. *Developmental Psychology*, 39, 189–200.
- Shure, M., & Spivack, G. (1982). Interpersonal problem solving in young children: A cognitive approach to prevention. *American Journal of Community Psychology*, 10, 341–356.
- Sobel, M. E. (1988). Direct and indirect effect in linear structural equation models. In J. S. Long (Ed.), *Common problems/proper solutions: Avoiding error in quantitative research* (pp. 46–64). Beverly Hills, CA: Sage.
- Straus, M. (1979). Measuring intra family conflict and violence: The Conflict Tactics Scales (CT). *Journal of Marriage and the Family*, 41, 75–88.
- Straus, M. (1992). Children as witnesses to marital violence: A risk factor of lifelong problems among a nationally representative sample of American men and women. In D. F. Schwarz (Ed.), *Children and violence: Report of the 23rd Ross Roundtable on critical approaches to common pediatric problems* (pp. 98–109). Columbus, OH: Ross Lab.
- Taylor, L., Zuckerman, B., Harik, V., & Groves, B. (1994). Witnessing violence by young children and their mothers. *Developmental and Behavioral Pediatrics*, 15, 120–123.
- U. S. Department of Justice. (1998). *National Crime Victimization Survey. Criminal Victimization 1997: Changes 1996–97 with trends 1993–97*. Washington, DC: Bureau of Justice Statistics.
- Wang, C. T., & Daro, D. (1998). *Current trends in child abuse reporting and fatalities: The results of the 1997 annual 50 state survey*. Chicago: National Committee for the Prevention of Child Abuse.
- Zahn-Waxler, C., Iannotti, R. J., Cummings, E. M., & Denham, S. (1990). Antecedents of problem behaviors in children of depressed mothers. *Development and Psychopathology*, 2, 271–292.

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