

Children and Adolescents Exposed to Community Violence: A Mental Health Perspective for School Psychologists

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Abstract: Exposure to community violence has become a primary concern for parents, school personnel, students, and the public, in general. With a majority of children and adolescents being exposed to community violence, the need to understand the relationship between violence exposure and youth mental health as well as the protective and vulnerability factors involved is of great importance. This article provides school psychologists with important information regarding child and adolescent mental health problems that have been shown to be related to community violence exposure. In addition, this article provides an examination of the protective and vulnerability factors that may buffer or exacerbate the detrimental effects of exposure to community violence. Implications for school psychologists who are working with youth exposed to community violence or at-risk populations are discussed.

The problem of exposure to community violence has become a primary concern for parents, students, teachers, school administrators and the public, in general. Recent literature has described violence and exposure to violence as being of "epidemic" proportion, the breadth of which spans rural, urban, and suburban communities (Bell & Jenkins, 1993; Fingerhut, Ingram, & Feldman, 1992; Furlong & Morrison, 1994; Garbarino, 1995; Osofsky, 1995; Rosenberg, O'Carroll, & Powell, 1992). The problem of violence exposure not only occurs in residential settings, but in schools as well (i.e., the school shootings in Littleton, CO; Springfield, OR; Jonesboro, AK; and Paducah, KY). Homicide is the second leading cause of death in young adults, aged 15 through 24, in the United States at a rate of 20.3:100,000 (Anderson, Kochanek, & Murphy, 1997). For inner-city youth the problem is worse. Fingerhut and colleagues (1992) reported that for urban African-American males aged 15 through 19, gun-related homicide was the leading cause of death at an alarming rate of 143.9:100,000. In a study of 750

inner-city high school students, Sheley and Wright (1995) reported that 65% of the students could get a gun with "little or no trouble at all;" 66% knew of someone who carried a weapon to school; and 80% reported that other students have carried a weapon to school. Guns and homicide are not the only forms of community violence to which children and adolescents are exposed. A 1990 California survey of fifth to twelfth graders revealed that in the month prior to the survey, one-third of students had personal property stolen, had been grabbed or shoved, or had seen a weapon at school (Goldstein & Conoley, 1997).

Research results have consistently reported that the vast majority of junior and senior high school students have either witnessed or been victims of violence, ranging from 75% to 93% (Fitzpatrick & Boldizar, 1993; Gladstein, Rusonis, & Heald, 1992; Mazza & Reynolds, 1999; Richters & Martinez, 1993; Shakoor & Chalmers, 1991). In a study examining community violence exposure in 94 inner-city adolescents who attended school in a low-income neighborhood in Brooklyn, New York, Mazza

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and Reynolds (1999) reported that 93% of their sample had been exposed to at least one community violent event. Unfortunately, similar research with elementary school children shows disturbingly high rates as well (Osofsky, Wewers, Hann, & Fick, 1993; Richters & Martinez, 1993). Richters and Martinez, who conducted a study of 165 elementary students in Washington DC, reported that 61% of first and second graders and 72% of fifth and sixth graders had been exposed to violence. With a majority of both elementary and secondary students being exposed to community violence, the need for school psychologists to understand the mental health problems associated with community violence exposure and strategies to implement in working with at-risk youth has become increasingly important.

Purpose

The purpose of this article is to review the recent research and literature examining exposure to chronic community violence and its relationship to mental health, along with the implications it has for the field of school psychology. Given the increasing role of school psychologists to assess children's and adolescents' mental health needs, and the fact that a high percentage of youth are exposed to community violence, providing an increased understanding of the detrimental impact of community violence exposure to different areas of mental health is needed. In addition, this article will discuss important protective and vulnerability factors that need to be examined in working with at-risk youth and for developing prevention and intervention programs. Lastly, this article will provide information regarding the role of school psychologists working with exposed youth as they attempt to reduce the detrimental effect of exposure to community violence.

Chronic Community Violence

Researchers have used the term "exposure to violence" to represent several different types or forms of violence such as TV or media violence (American Psychological Association, 1985; Friedrich-Cofer & Huston, 1986; Widom, 1989), domestic violence (Jouriles, Barling, & O'Leary, 1987; Stagg, Wills, & Howell, 1989; Wolfe, Jaffe, Wilson, & Zak, 1985), and community violence (Fitzpatrick & Boldizar, 1993; Gladstein et al.,

1992; Mazza & Reynolds, 1999; Overstreet, Dempsey, Graham, & Moely, 1999; Richters & Martinez, 1993). Given that the focus of this article is on community violence, the following review is limited to those studies that have focused upon chronic community violence such as drive-by shootings, seeing someone shot, or seeing someone attacked. This approach does not minimize the potential effects of the other forms of violence and violence exposure, but rather emphasizes the problem of chronic community violence in relation to child and adolescent mental health. For the purpose of this article, exposure to chronic community violence is defined as "the frequent and continual exposure to the use of guns, knives, and drugs, and random violence" (Osofsky, 1995, p. 782).

Witnesses and Victims of Community Violence

Research investigating the relationship of exposure to community violence and mental health has often subdivided exposure to violence into two types: violence experienced through witnessing events and violence experienced through victimization (Fitzpatrick, 1993; Fitzpatrick & Boldizar, 1993; Gladstein et al., 1992; Richters & Martinez, 1993). However, existing research has generally failed to show consistent differences in the outcomes associated with witnessing community violence and victimization (Kliewer, Lepore, Oskin, & Johnson, 1998; Widom, 1989). For example, Kliewer et al. (1998) found that exposure to community violence through witnessing or victimization accounted for very similar proportions of the explained variance in internalizing symptoms (12% and 13%, respectively). In addition, Martinez and Richters (1993) also documented identical patterns of effects of witnessing and victimization on child rated distress and depression.

The lack of consistent differences between witnesses and victims of community violence regarding mental health problems may be explained in several ways. First, the exposure to a specific violent event may impact two individuals differently, making it difficult to generalize the effect of one type of event to youth in general. Second, dividing exposure to community violence into witnessing and victimization categories may be too arbitrary to represent meaningful differences in how the

events are experienced. For example, the experience of witnessing one violent event may differ significantly from witnessing a second event. Third, most measures of exposure to community violence do not assess the child's proximity to the event or the relationship of the child to the victim, two factors that may influence the impact of the violent experience (Pynoos et al., 1987). Clearly, more work is needed to determine whether different outcomes are associated with different types of exposure to community violence. For the purposes of this article, exposure to community violence will include both witnessing and victimization.

Mental Health Concerns

The relationship between exposure to community violence and various mental health outcomes has been well documented in children and adolescents indicating that the impact of community violence exposure is not specific to one mental health domain (Bell & Jenkins, 1991; Berton & Stabb, 1996; Fitzpatrick, 1993; Freeman, Mokros, & Poznanski, 1993; Osofsky, 1995; Pynoos et al., 1987; Terr, 1988, 1991). Research results show that violence exposure has direct and indirect relationships to numerous mental health problems such as posttraumatic stress disorder, depression, suicidal behavior, anxiety, aggressive/antisocial behaviors, and academic difficulties (DuRant, Cadenhead, Pendergast, Slavens, & Linder, 1994; Fletcher, 1996; Freeman et al., 1993; Mazza & Reynolds, 1999; Pynoos et al., 1987; Singer, Anglin, Song, & Lunghofer, 1995). In addition, many of these problems may co-occur demonstrating that understanding the different types of symptomatology associated with exposure to chronic community violence is necessary to assist school psychologists in meeting the needs of children and adolescents who experience community violence.

Posttraumatic Stress Disorder

Empirical and clinical literature that has focused upon the relationship between chronic community violence and youth mental health has predominately focused upon posttraumatic stress disorder (PTSD) (Bell & Jenkins, 1991; Mazza & Reynolds, 1999; Overstreet et al., 1999; Pynoos et al., 1987; Saigh, Green, & Korol, 1996). Compared to adults, it appears that youth are more

likely to be diagnosed with PTSD (Fletcher, 1996). In a meta-analysis of studies in which children and adolescents experienced a traumatic event, Fletcher (1996) reported the following average incidence rates of PTSD: preschool children (39%), elementary school children (33%), and adolescents (27%) compared to 24% for adults.

PTSD has only recently been extended downward to include children and adolescents (Fletcher 1996; Saigh, 1998) with criteria first being applied to children and adolescents in the *Diagnostic and Statistical Manual for Mental Disorders* (3rd ed. rev.) (Amaya-Jackson & March, 1995; American Psychiatric Association, 1987). Currently, the specific diagnostic criteria for PTSD, according to the *Diagnostic and Statistical Manual for Mental Disorders* (4th ed.) (DSM-IV; American Psychiatric Association, 1994), includes six components: (a) experiencing, witnessing, or confrontation of a traumatic event that was life threatening or may have resulted in serious injury to self or others, which leads to intense fear, helplessness, or horror; (b) persistent reexperiencing of the event, which may include recurrent and intrusive thoughts, nightmares, flashbacks, hallucinations, and reenactment; (c) persistent avoidance of situations or conversations that are related to the traumatic event, which may include detachment, loss of interest in activities, avoidance of certain places, and numbing of responsiveness; (d) persistent state of increased arousal, including sleep difficulties, hypervigilance, irritability, and difficulty concentrating; (e) a duration of more than one month; and (f) clinically significant distress in areas of social, occupational, or other important areas of functioning (i.e., school).

Although the features of PTSD for children and adolescents are similar to those of adults (Amaya-Jackson & March, 1995; March & Amaya-Jackson, 1993; Pynoos, 1994), there are a few important exceptions that should be highlighted (Pynoos, 1994; Pynoos & Nader, 1988). The first difference is that children rarely report flashbacks; rather, they experience intrusive thoughts and images related to the event (Pynoos & Nader, 1988). Second, children do not often report "numbing" as an avoidant technique. Third, preschoolers under the age of five express their memories through behaviors and play rather than words (Terr, 1988). Thus, the developmental level of the child is an important factor in the expression of PTSD symptoms and needs to be

considered when working with young children exposed to violent events (McNally, 1996; Pynoos et al., 1987; Pynoos & Nader, 1988; Terr, 1988).

The general findings from these studies show that children and adolescents exposed to community violence frequently demonstrate symptomatology associated with or meet the diagnostic criteria for PTSD (Fitzpatrick & Boldizar, 1993; Overstreet et al., 1999; Pynoos et al., 1987). Specific to community violence exposure, Fitzpatrick and Boldizar conducted a study of 221 African-American youth, aged 7 to 14, living in eight central-city housing communities. In examining three major criteria for PTSD (recurrence/re-experiencing, avoidance/numbing, and physiological arousal), they reported that 27.1% of their sample were experiencing all three criteria; an additional 34.2% met two criteria; and 27.1% were experiencing symptoms related to one criterion. Thus, only 11.6% of the sample in the Fitzpatrick and Boldizar study were not showing symptoms related to PTSD.

In a similar study, Overstreet and colleagues (1999) examined the emotional and behavioral functioning of 75 African-American youth, aged 10 to 15, residing in or near public housing communities in New Orleans. In using self-report instruments, they reported that 83% of their sample knew someone who had died because of violence, 43% reported having seen a dead body, 85% had witnessed drug dealing, and 10% had been threatened with murder. Children reported an average of 6.2 PTSD symptoms, and 33% ($n = 25$) displayed a symptom pattern consistent with DSM-IV criteria for PTSD. Exposure to violence significantly predicted PTSD symptoms, even after controlling for age, gender, and nonviolence related stress.

Children and adolescents who are experiencing PTSD or PTSD symptomatology are also at-risk for other concurrent psychopathologies (Amaya-Jackson & March, 1995; Fletcher, 1996; Pynoos, 1994). Fletcher reported high rates of generalized anxiety, depression, and dissociative responses in children and adolescents diagnosed with PTSD. In addition, elementary school children showed high rates of comorbidity with adjustment disorder, separation anxiety, and low self-esteem. Even preschoolers with PTSD showed high rates of comorbidity that included generalized anxiety disorder, separation anxiety, depression, and

regressive behaviors (Fletcher, 1996).

The accompanying problems for children and adolescents with PTSD or PTSD symptomatology are not limited to psychopathology; developmental and school difficulties also have been reported (Fitzpatrick & Boldizar, 1993; Osofsky, 1995; Pynoos, 1994). Pynoos (1994) reported that youth who are exposed to violent events have trouble sleeping, have increased anxiety, have difficulties concentrating, and are less likely to engage in social situations. These problems, in turn, may precipitate developmental and academic difficulties in children and adolescents (Fitzpatrick & Boldizar, 1993; Osofsky, 1995; Schubiner, Scott, & Tzelepis, 1993). Research examining the relationship of community violence exposure to academic difficulties will be discussed later in this article.

Recent research has begun to examine whether symptoms associated with PTSD act as a mediating variable for other mental health outcomes related to exposure to community violence (Kliwer et al., 1998; Mazza & Reynolds, 1999). A mediator variable specifies the mechanism by which a given independent variable (i.e., exposure to community violence) is related to the mediating variable (PTSD symptoms) which then, in turn, is related to other outcomes (i.e., mental health problems) (Holmbeck, 1997).

Mazza and Reynolds (1999) conducted a study examining the relationship of chronic community violence to depression, suicidal ideation, and PTSD symptomatology. In using self-report measures, they reported that community violence exposure was significantly related to depression, $r(92) = .36, p < .001$, suicidal ideation, $r(92) = .39, p < .001$, and PTSD symptomatology, $r(92) = .54, p < .001$. In further examination using the procedures outlined by Baron and Kenny (1986), they found that PTSD symptomatology mediated the relationship between exposure to community violence and depression and suicidal ideation. Thus, Mazza and Reynolds were able to show that exposure to community violence may first have a detrimental effect on youth in the form of PTSD symptomatology, which may then lead to other mental health problems, such as depression and suicidal ideation. Similarly, Kliwer et al. (1998) found that intrusive thoughts about violence partially mediated the relationship between community violence exposure and internalizing

symptoms (combined depression and anxiety). These findings are consistent with the literature documenting that children experiencing PTSD symptomatology are at risk for other concurrent mental health problems (Fitzpatrick & Boldizar, 1993; Pynoos, 1994) and suggest that PTSD symptomatology may be an important risk factor linking exposure to community violence to other mental health problems.

Depression

Depression is a second mental health problem that has been frequently identified in children and adolescents who have been exposed to community violence (DuRant et al., 1994; Freeman et al., 1993; Gorman-Smith & Tolan, 1998; Martinez & Richters, 1993; Schubiner et al., 1993). Martinez and Richters (1993), who studied a sample of inner-city elementary school children, reported that those exposed to violence experienced significantly more distress-related psychological symptoms, including depression, than those not exposed. Similarly, Singer and colleagues (1995), in a sample of 3,735 high school students, reported that exposure to community violence explained a significant proportion of the variance in depression scores, even after controlling for important demographic variables such as age and family structure. In a longitudinal study of 245 middle-school African-American and Latino males, Gorman-Smith and Tolan (1998) found that exposure to community violence was significantly related to both concurrent and subsequent (1 year later) depression/anxiety levels.

Recent findings have suggested that exposure to community violence may have an indirect, rather than a direct, effect on depression, and that the relationship between exposure to community violence and depression may be mediated by PTSD symptomatology (Kliwer et al., 1998; Mazza & Reynolds, 1999). In addition, there are other issues that complicate the relationship between community violence and depression. For example, most studies examining violence exposure and depression have been conducted with elementary or middle school children (Fitzpatrick, 1993; Mazza & Reynolds, 1999; Overstreet et al., 1999); yet, the development and prevalence of depression is greater in adolescents than in elementary school-aged children (Poznanski & Mokros, 1994; Reynolds & Johnston, 1994). Further research

into this area with adolescents is warranted, with more attention focused upon the clinical significance of depressive symptoms. Although many researchers have reported a positive relationship between depression and exposure to community violence, only few have reported the percentage of children experiencing clinically significant levels of depressive symptoms (Overstreet et al., 1999). Overstreet and colleagues found that 11% of their sample reported clinically significant levels of depression, which is much lower than the 20% to 60% of samples reporting clinically significant PTSD symptomatology (Fitzpatrick & Boldizar, 1993; Horowitz, Weine, & Jekel, 1995; Overstreet et al., 1999). Estimates of clinical significance are important in helping mental health care providers understand the magnitude of the problem.

Suicidal Behavior

Research investigating the relationship between chronic community violence and suicidal behavior has been minimal and the findings have been mixed (Freeman et al., 1993; Mazza & Reynolds, 1999; Pastore, Fisher, & Friedman, 1996; Rathus, Wetzler, & Asnis, 1995). One study conducted with elementary school children sampled 223 students, aged 6 to 12 inclusive, and examined depression severity using a clinical interview (Freeman et al., 1993). Freeman and colleagues reported that during the clinical interviews, 57 children spontaneously reported experiencing violence in their lives. They found that the proportion of these 57 children reporting suicidal symptoms (19.3%) was similar to the proportion of children who did not report violence in their lives (15.6%). Although no group difference was reported in this study, the results need to be cautiously interpreted. Suicidal behavior, including suicidal ideation, is relatively rare in children under the age of 10 (Reynolds & Mazza, 1994), which may account for the nonsignificant differences.

Similarly, there has been minimal research investigating the relationship between community violence exposure and suicidal behavior in adolescents. PTSD and PTSD symptomatology have been found to have an important role in the relationship between community violence exposure and specific suicidal behaviors (Mazza & Reynolds, 1999; Pastore et al., 1996; Rathus et al., 1995). Rathus et al. (1995) reported that

adolescents who were exposed to violence and suffered from PTSD made more serious suicide attempts than those exposed to community violence without PTSD. Mazza and Reynolds (1999) reported a significant zero-order correlation between exposure to community violence and suicidal ideation of $r(92) = .39, p < .001$; however, this relationship was completely mediated by PTSD symptomatology in subsequent analyses.

Anxiety

The impact of community violence exposure on anxiety has focused primarily upon PTSD; however, there is some evidence to suggest that exposure to violence is related to anxiety in general (Fletcher, 1996; Hill & Madhere, 1996; Singer et al., 1995). Hill and Madhere (1996), conducted a study to examine how social and emotional adjustments are affected by exposure to chronic community violence in 150 African-American children living in a large inner-city setting. In using the State-Trait Anxiety Inventory for Children (Spielberger, 1973), they reported that violence apprehension, retaliation, and exposure were significant predictors of children's state anxiety levels. Fletcher (1996), in his meta-analysis, found that 57% of preschoolers and 52% of elementary students had symptoms associated with generalized anxiety disorder after experiencing a traumatic event. In addition, he reported that 36% of preschoolers and 16% of elementary students suffered from symptoms of separation anxiety after the traumatic event. Among high school adolescents, Singer and colleagues reported that violence exposure was predictive of anxiety subscale scores as well as of subscale scores of depression, PTSD, anger, and dissociation.

Other researchers have failed to find a relationship between exposure to community violence and anxiety (Cooley-Quille, Turner, Beidel, 1995; White, Bruce, Farrell, & Kliever, 1998). Cooley-Quille et al. (1995) found no relationship between exposure to violence and anxiety in a sample of 37 school children. White and her colleagues (1998) examined the relationship between community violence and anxiety within a group of 385 children, aged 11 to 14. Children in their sample reported anxiety levels more than one standard deviation below the published norms for African-American children (Reynolds & Paget, 1983). Results such

as these have led researchers (Cooley-Quille et al., 1995; White et al., 1998) to suggest that children exposed to chronic community violence may become desensitized to the violence they experience and may actually be less prone to certain internalizing disorders such as anxiety.

There are many methodological differences among the studies reviewed that might account for the inconsistent findings related to anxiety, including different assessment approaches, different types of anxiety being measured, different operational definitions of exposure to community violence (e.g., witnessing vs. victimization; lifetime experience vs. recent experience), and wide variation in the age of the samples. In addition, none of the studies reviewed examined anxiety with PTSD symptomatology factored out, making it difficult to determine the unique relationship of community violence exposure to non-PTSD anxiety. Differentiating anxiety from PTSD may be difficult because anxiety symptomatology induced by an extreme stressor is part of the diagnostic criteria for PTSD (American Psychiatric Association, 1994). Therefore, the perceived severity of the stressor appears to determine if the resulting pathology is going to be PTSD or some other anxiety disorder.

External Behavior Concerns

Aggressive and Antisocial Behaviors

Although a major portion of the research studies examining the effects of exposure to community violence have focused upon internalizing behaviors, there are some studies and literature reviews that report that violence exposure also is related to increased aggressive and antisocial behaviors (DuRant et al., 1994; Garbarino, 1995; Osofsky et al., 1993). DuRant and colleagues (1994) examined the relationship of previous exposure to violence with engaging in current violent behavior in a sample of 225 African-American youth, aged 11 to 19, living in or around nine Housing and Urban Development (HUD) complexes. They found that 44.4% of males and 52.4% of females reported that they had attacked someone they lived with out of anger. In addition, they also reported that 64.6% of males and 55.5% of females had been involved in a physical fight within the past 12 months, and that 19.2% of males and 13.5% of females attacked someone with a weapon with the intent of seriously hurting or killing them.

Overall, DuRant et al. found that previous exposure to violence was the strongest predictor of current violent behavior.

Osofsky et al. (1993) conducted a study of 53 African-American mothers of lower socioeconomic status who had children in the 5th grade. In collecting data through interviews and self-report measures, Osofsky et al. reported that 91% of the mothers stated that their child had been exposed to violence. Based on the Child Behavior Checklist (Achenbach & Edelbrock, 1981), 45% of the children were at or above the clinical range for behavior problems. In a meta-analysis study that included antisocial behavior, Fletcher (1996) reported that 30% of preschoolers and 12% of elementary school students exposed to a traumatic event engaged in antisocial behavior. Although these few studies provide preliminary information, further research is needed to examine the effects of exposure to community violence in relation to externalizing behaviors such as conduct disorder and oppositional disorder.

Academic Difficulties

Several researchers have argued that children exposed to chronic community violence are at risk for academic problems (see Garbarino, Dubrow, Kostelny, & Pardo, 1992 for review). For example, Dyson (1989) reported on the academic functioning of six inner-city African-American students who had experienced the murder of a family member. Using a qualitative case-study design, she concluded that this type of exposure to community violence resulted in increased academic difficulties. Pynoos and Nadar (1988) also reported that the majority of children they studied who experienced extreme instances of community violence (e.g., a school sniper attack) reported serious difficulties concentrating in school. Finally, based on a large sample of 2,248 sixth-, eighth-, and tenth-grade students, Schwab-Stone et al. (1995) found that the frequency of witnessing a shooting or stabbing significantly predicted poorer school achievement, defined in terms of grade retention and child-reported grades.

Although these studies suggest that exposure to community violence has a negative impact upon academic performance, two factors limit the generalizability of the findings. First, the specific and severe nature of the violence experienced by children in the previous studies may not be similar

to events that have been more recently defined as community violence. Each of the studies described included children who had witnessed a shooting, stabbing, or had experienced the murder of a family member. Research studies that use a broader definition of community violence such as hearing gunfire, seeing people arrested, and witnessing an assault may report different results regarding academic performance. Second, two of the previous studies (Dyson, 1989; Pynoos & Nadar, 1988) were based upon clinical samples of children experiencing severe stress reactions, which may have resulted in the observed academic difficulties (Masten & Coatsworth, 1998). Based on these studies, it is difficult to determine whether exposure to community violence has a unique impact on academic performance independent of emotional distress.

In a recent study of the relationship between exposure to community violence and academic functioning, Overstreet and Braun (1999) corrected for some of the limitations of previous work by controlling for emotional distress and by using a broad definition of community violence (i.e., knowing of and witnessing instances of community violence as well as victimization). Within a sample of 45 economically disadvantaged African-American middle school students, they reported that exposure to community violence had a weak relationship with academic functioning in general, but that the relationship became stronger under certain circumstances. Exposure to community violence was significantly related to poorer academic functioning for children from families with high achievement expectations and a strong moral-religious emphasis. Interestingly however, children from these types of families actually displayed the highest academic functioning at lower levels of community violence exposure. These results suggest that as exposure to community violence increases, it may act as a potentiating factor for disturbances within the family environment, and such disturbances may alter the role of traditional compensatory factors, which in turn may influence academic functioning (Baldwin, Baldwin, & Cole, 1990; Cicchetti & Lynch, 1993).

Resilience and Exposure to Community Violence

Resilience has been defined as the development of competence in the face of severe

stress or hazardous circumstances (Doll & Lyon, 1998; Pianta & Walsh, 1998). Resilience is a process that involves interactive relationships between stress and protective factors related to child, family, and community characteristics (Doll & Lyon, 1998; Pianta & Walsh, 1998). Protective factors are identified through analyses that test for the interaction between a protective, or moderator, variable (e.g., family support) and a predictor (e.g., exposure to community violence), which, if significant, indicates that the impact of the predictor on the outcome factor (internalizing/externalizing problems) varies according to the level of the moderator (Baron & Kenny, 1986). The identification of such variables can help explain the conditions under which stressors, such as exposure to community violence, are associated with negative outcomes (Holmbeck, 1997).

General protective factors that have been shown to moderate the negative impact of stressors across a variety of at-risk populations include child characteristics (i.e., high self-esteem and school competence), family characteristics (i.e., effective parenting and warm relationships), and school or community characteristics (i.e., high quality schools and connections with prosocial organizations) (see Doll & Lyon, 1998 for review). However, the mere presence of protective factors does not guarantee resilience. Resilience is determined by the balance between protective factors that enhance coping and resistance to stressors and risk factors that heighten vulnerability (Stoiber & Good, 1998). Therefore, children facing multiple levels of risk are the most vulnerable to negative developmental outcomes and require more diverse and intense protective factors than children facing less risk (Doll & Lyon, 1998; Sameroff, Seifer, Barocas, Zax, & Greenspan, 1987).

Exposure to community violence represents a single risk factor often embedded within a constellation of other risk factors such as poverty, minority status, and limited community resources (Garbarino et al., 1992). As such, exposure to community violence may disrupt the overall balance between protective factors and risk factors within the child's environment, tipping the scales toward vulnerability. In addition, exposure to community violence also presents its own unique risks to development. First, exposure to community violence directly threatens child development by challenging children's basic

beliefs that the world is safe, predictable and controllable, and by interfering with their ability to form relationships (Cicchetti & Lynch, 1993; Garbarino et al., 1992). Second, exposure to community violence indirectly threatens child development by potentiating risk factors within the child's environment, such as family and school (Cicchetti & Lynch, 1993; Garbarino et al., 1992; Osofsky et al., 1993). For example, parents may become overwhelmed with their own grief or loss reactions to experienced violence, becoming less available as a support for the child, which can have direct negative effects on the child as well as exacerbate the negative effects of exposure to community violence (Cicchetti & Lynch, 1993; Kliever et al., 1998). Similarly, teachers not trained to address issues of loss and violence may be reluctant to establish dialogues with children regarding these issues, thereby removing one avenue of social support that might moderate the impact of community violence (Garbarino et al., 1992).

Given the unique challenges presented by exposure to community violence, the identification of protective factors that buffer children from these challenges is crucial to understanding resilience in the face of community violence. At the present time, most of the research on protective factors has focused upon identifying aspects of the family environment that moderate the negative effects of exposure to community violence. The protective factors that have been identified thus far include demographic characteristics of the family environment, family relationships and support, and parenting style.

Family Demographic Variables as Moderators of Community Violence

Sociodemographic approaches to studying the family environment have examined variables such as maternal education and mother's presence in the home as potential moderating factors (Fitzpatrick & Boldizar, 1993; Richters & Martinez, 1993). Richters and Martinez (1993) found that exposure to community violence was more strongly related to distress (depression/anxiety) symptoms in children of less educated mothers. Fitzpatrick and Boldizar (1993) found that while mother's presence had a direct impact on depressive symptomatology, it did not emerge as a moderator of exposure to community violence. In contrast to this study, Overstreet et al. (1999) found that mother's presence was a

moderator between exposure to community violence and depression. In their study, children living in mother-absent homes reported increased depressive symptoms as violence exposure increased, whereas children living in mother-present homes did not.

The importance of mother's education and presence in the home is not surprising. Such family environments may provide a dependable, organized refuge that serves to buffer the child from the negative effects of community violence (Gorman-Smith & Tolan, 1998). The findings related to mothers' presence in the home also are consistent with research linking loss of a parent (i.e., separation, divorce or death) with vulnerability to depression (Hammen & Rudolph, 1996). Children who have experienced the loss of a parent, when exposed to additional stressors such as exposure to community violence, may be more susceptible to the negative effects of the violence exposure due to an accumulation of risk (Garbarino et al., 1992). For example, most children in the Overstreet et al. (1999) sample faced at least two risk factors—e.g., poverty and living in a single-headed household—which is typical of most samples examining exposure to community violence. When other risk factors, such as parental separation and exposure to violence are added to preexisting risk factors, one may begin to see negative implications of the accumulated stressors (Sameroff et al., 1987). These stressors may be internalized in the form of negative cognitions, which may predispose the child to depression (Hammen & Rudolph, 1996) or other mental health problems.

Another potential moderating factor for exposure to community violence is family size. Overstreet et al. (1999) found a trend for exposure to community violence to be related to depressive symptoms for children living in smaller families, suggesting that larger family size may be a protective factor. Although smaller family size has typically been associated with better academic and behavioral outcomes in at-risk samples (Werner & Smith, 1982), within the African-American culture, large and extended families provide a primary network of support in times of stress (Boyd-Franklin, 1989; McGoldrick, 1993). Children from smaller families may have fewer opportunities to establish these networks and, therefore, be more susceptible to the negative effects of violence exposure due to decreased availability of family support (Hops, Lewinsohn, Andrews, & Roberts, 1990).

Although sociodemographic variables have been identified as moderators of exposure to community violence when depression and anxiety are considered as outcomes, this has not been the case when PTSD symptoms are considered. The lack of moderation of PTSD symptoms may be related to the concrete approach taken by researchers in examining the family environment (Overstreet et al., 1999). It may be that the quality of the relationships within the family, rather than the sociodemographic characteristics, is the important factor in moderating the effects of exposure to community violence on PTSD symptomatology. Such a finding would be consistent with other research (e.g., Stoiber & Good, 1998) indicating that protective factors vary in their importance for different outcomes.

Family Relationships and Support as Moderators of Community Violence

Qualitative characteristics of the family environment, such as family support, cohesion, and structure, have long been considered to buffer children from the negative effects of a variety of risk factors (Doll & Lyon, 1998). However, only recently have researchers within the area of community violence begun to document this buffering effect with regard to family relationships. For example, Richters and Martinez (1993) found that children's odds of adaptational success and failure, defined in terms of school performance and emotional-behavioral functioning, were related to the stability and safety of their family environments rather than their levels of exposure to community violence. Other studies have examined aspects of family relationships as moderators of the association between exposure to community violence and internalizing and externalizing symptoms (Gorman-Smith & Tolan, 1998; Kliewer et al., 1998).

Kliewer and her colleagues (1998) found that family support served as a protective factor against the development of both PTSD symptoms and depression/anxiety symptoms in the face of community violence. Results indicated that children with high violence exposure and adequate family social support (measured by the child's perceptions of the parent-child relationship) or low family social strain (defined as the child feeling as though they could talk to their primary caregiver about violence) had

significantly lower levels of intrusive thinking and internalizing symptoms relative to other children. Among adolescents, Berman and colleagues found that the relationship between exposure to community violence and PTSD was significantly weaker for those who perceived greater availability of social support from adults and peers (Berman, Kurtines, Silverman, & Serafini, 1996).

Gorman-Smith and Tolan (1998) examined the moderating effect of family relationships on aggressive behavior and depression/anxiety within a group of 245 African-American and Latino boys from economically disadvantaged inner-city neighborhoods. Three aspects of family relationships were examined, including family cohesion (defined as representing emotional closeness, support, and communication), beliefs about family (defined as representing expectations about the importance and purpose of the family), and family structure (defined as representing organization and support within the family). Two aspects of family relationships emerged as moderators of community violence. First, results indicated that exposure to community violence was significantly associated with aggression for boys in families with high levels of structure. Although this finding is somewhat counterintuitive, it may reflect efforts within the family to increase structure and organization as a coping strategy to address increased aggressive behavior in the face of violence exposure. Second, when depression/anxiety was considered, family cohesion emerged as a moderator of the impact of exposure to community violence, such that exposure to community violence was related to increased depression/anxiety symptoms in boys from families with low levels of cohesion. These findings are consistent with previous work on resilience that has shown that family cohesion and support is associated with adaptive functioning in a variety of at-risk populations (see Masten & Coatsworth, 1998 for review). In the case of exposure to community violence, such support affords children the opportunity to process and express their feelings about their violent experiences, which facilitates adaptive coping with trauma (Kliewer et al., 1998).

Parenting Styles as Moderators of Community Violence

Researchers also have hypothesized about

the potential role of parenting style as a moderator of the relationship between exposure to community violence and psychological adjustment (Garbarino & Kostelny, 1997; Groves & Zuckerman, 1997). Families living in dangerous neighborhoods may cope in ways that produce a conflict between children's developmentally appropriate needs for autonomy and parents' worries about safety (Garbarino & Kostelny, 1997). Parents may monitor their children more closely or demand unquestioning obedience in an effort to protect their children from danger in their neighborhood (Garbarino & Kostelny, 1997; Masten & Coatsworth, 1998). Although such parenting practices have traditionally been considered maladaptive, this may not be the case for families living in neighborhoods plagued by community violence. For example, Baldwin et al. (1990) compared the behaviors of parents of competent children living in low-risk, safe neighborhoods to those of parents of competent children living in high-risk, dangerous neighborhoods. Competence was defined as high academic achievement and was represented through a composite variable consisting of school achievement and scores on standardized cognitive and achievement tests. Both groups of parents displayed positive family qualities traditionally identified as protective variables (e.g., warmth). However, parents of children living in high-risk environments were significantly less democratic and placed a higher value on control than parents of children living in low-risk environments. Although not traditional protective variables, these family qualities appeared to reflect the context within which the family was functioning; a higher level of parental monitoring and control was probably required to protect children and foster development in more dangerous environments (Baldwin et al., 1990). These results illustrate that protective factors are those that facilitate development for a particular child in a given context, and thus, may vary across environments.

Summary and Implications for Future Research

The research conducted thus far on moderators of community violence highlights the importance of multiple factors within the family environment in buffering children from the negative outcomes associated with exposure. However, different protective factors seem to

vary in their importance depending upon the outcome being studied. For example, whereas family support emerged as the most consistent protective factor for PTSD, a variety of protective factors were important for depression, including maternal education, maternal presence in the home, and family cohesion. These findings are consistent with those of Stoiber and Good (1998), who found that protective factors exert differential influences on different types of developmental outcomes.

The research on resiliency within the context of community violence is in the beginning stages and efforts must be made to guide this work from focusing upon single-factor explanations of resilience to emphasizing the interactions, transactions, and relationships among protective factors within the child, family, and community using a developmental framework (Cicchetti & Lynch, 1993; Pianta & Walsh, 1998). Researchers must identify potential protective factors within each level of the child's environment. Present research has identified several protective factors within the family system, but more work is needed to identify protective factors within the child, school, and community and to understand the differential influence of such protective factors on the different outcomes associated with community violence. Once such factors have been identified, the interactions and transactions between the various factors should be examined to better understand the processes leading to resilience in emotional, behavioral, social, and academic functioning. Longitudinal designs will be needed to examine such processes, to identify vulnerability and protective factors most relevant to resilience at different points in development, and to define resilience as more than adaptation at a single point in time (Cicchetti & Lynch, 1993; Pianta & Walsh, 1998).

Implications for School Psychologists

The role of school psychologists continues to expand, and work with at-risk youth exposed to violence, whether as assessment or intervention, is no exception. As presented in this article, exposure to chronic community violence has a detrimental effect on several areas, including mental health, academic difficulties, and behavior problems. Unfortunately, a significant number of elementary and secondary students have been exposed to community violence. Thus, our role is to identify youth who are affected by

community violence exposure and to attempt to reduce the detrimental impact it has on these youth.

Warning Signs

School psychologists need to be aware of the different warning signs that youth who are exposed to community violence often exhibit. A list of warning signs compiled by Osofsky and colleagues (1993) are presented in Table 1. For school psychologists working with younger elementary children, gathering information from parents to help identify youth who are exposed to violence has been found to be unreliable (Richters & Martinez, 1993). In a study of first, second, fifth, and sixth graders, Richters and Martinez found that parents significantly underestimated the amount of community violence exposure their children had experienced. Overall, parents were poor reporters of violence exposure for females, but showed moderate agreement with males (Richters & Martinez). Given these findings, and the fact that some violence exposure occurs within the school environment separate from parents, self-report instruments are recommended. This type of assessment is consistent with other mental health measures that examine internalizing disorders and are relatively easy to conduct.

Assessment

School psychologists working with at-risk youth, inner-city populations, or those who show multiple warning signs should include a measure for exposure to community violence as part of their regular mental health assessment. There are several self-report measures that have been developed for use with elementary and secondary students that are relatively short and screen for community violence exposure (Fitzpatrick & Boldizar, 1993; Gladstein et al., 1992; Reynolds & Mazza, 1995; Richters & Martinez, 1990; Richters & Saltzman, 1990). Table 2 provides a list of the developed instruments for examining community violence exposure. Consistent with the findings of Richters and Martinez (1993), most measures are self-report, obtaining information directly from the individual exposed. Once youth have been identified as being exposed to community violence, it is also recommended that assessment in some of the related areas such as depression, PTSD symptomatology, and

Table 1
Warning Signs that Children and Adolescents
Who Have Been Exposed to Community Violence May Exhibit

Warning Signs

- Difficulty concentrating because of lack of sleep or intrusive thoughts
 - Memory impairment due to intrusive thoughts or avoidance
 - Separation anxiety from leaving his/her mother, including sleeping alone
 - Increased aggressive play or display of desperate protective behaviors related to a traumatic event he/she may have been exposed to
 - "Acting tough" to cope with fear
 - Uncaring due to the traumatic event causing intense hurt
 - Diminished interest in activities, exploring, and thinking for fear of reexperiencing the event
-

Note. Warning signs were compiled by Osofsky, Wewers, Hann, & Fick (1993).

suicidal ideation be conducted due to the comorbidity of exposure to community violence with other mental health or behavior problems.

Intervention

Intervention strategies for assisting youth who are exposed to community violence have frequently included environmental modifications and increased awareness through education as two primary components (Dubrow & Garbarino, 1989; Duncan, 1996; Pynoos & Nader, 1988; Wodarski & Hendrick, 1987). Although numerous programs and approaches exist, research examining the effectiveness of these intervention programs has not been conducted. Most intervention programs make the assumption that the violent event is a one-time occurrence (Duncan, 1996). However, this is not the case for youth that experience chronic exposure to community violence. For these youth, other approaches that focus upon developing coping skills, raising self-esteem, and developing protective strategies may be most effective (Cowen, Wyman, Work, & Iker, 1995; Duncan, 1996). Cowen and colleagues (1995) have developed a 12-session curriculum designed for working with high-risk youth that have been exposed to chronic community violence (see Cowen et al., 1995 for details). Preliminary results from a small study of 36 inner-city youth, fourth through sixth graders, showed that teachers reported fewer learning problems and better task orientation after the curriculum compared to pretest levels. In addition, youth at posttest

reported significantly better self-efficacy, realistic control attributions, and reduced anxiety levels compared to pretest scores (Cowen et al., 1995). Caution should be exercised in implementing intervention programs that do not have empirical data to support their efficacy. Further research including efficacy studies of intervention programs with high risk exposed youth are needed.

Summary

The relationship between exposure to community violence and mental health in children and adolescents is complex. Exposure to community violence shows direct and indirect relationships to various mental health problems, such as PTSD, depression, suicidal behavior, anxiety, aggressive/antisocial behaviors, and academic difficulties. Violence exposure also influences parents' strategies in how they deal with their children, providing some additional protective factors while unfortunately also creating some vulnerability factors. Further research investigating the causal effect of community violence exposure to mental health problems and the role of specific moderating factors using longitudinal as well as cross sectional designs is needed.

Equally complex is the role of school psychologists working with children and adolescents who have been exposed to community violence. School psychologists should identify students who have been exposed to chronic community violence through various

Table 2
Instruments for Assessing Exposure to Community in Children and Adolescents

Scale	Format	Source	# Items	Psychometric Evidence/Support
Children's Report of Exposure to Violence ^a	Questionnaire	Self	32	$r_{\alpha} = .78$; $r_{\alpha} (2 \text{ weeks}) = .75$
Exposure to Violence Questionnaire ^b	Questionnaire	Self	11	none reported
Survey of Exposure to Community Violence ^c	Questionnaire	Parent	54	none reported
		Self	54	none reported
Adapted Version of the Survey of Exposure to Community Violence ^d	Questionnaire	Self	21	victim subscale, $r_{\alpha} = .55$ witness subscale $r_{\alpha} = .65$
Things I Have Seen And Heard ^e	Structured Interview	Self	15	$r_{\alpha} = .83$; $r_{\alpha} (1 \text{ week}) = .81$
Exposure to Violence Inventory ^f	Questionnaire	Self	21	$r_{\alpha} = .82$; $r_{\alpha} (2\frac{1}{2} \text{ weeks}) = .85$

^aChildren's Report of Exposure to Violence (Cooley, Turner, & Beidel, 1995).

^bExposure to Violence Questionnaire (Gladstein et al., 1992).

^cSurvey of Exposure to Community Violence (Richters & Saltzman, 1990) parent and self report.

^dAdapted Version of the Survey of Exposure to Community Violence (Fitzpatrick & Boldizar, 1993).

^eThings I Seen and Heard (Richters & Martinez, 1990).

^fExposure to Violence Inventory (Reynolds & Mazza, 1999).

exposure measures and assess for related mental health, behavioral, and academic problems. In addition, examining youths' protective and vulnerability factors will assist school psychologists in developing specific strategies for coping with the negative effects of chronic community violence. Once programs have been developed, data should be collected and analyzed to determine the efficacy of the program. Unfortunately, youth exposed to community violence is a reality. Identifying these at-risk youth and assisting them to develop coping strategies, increase self-esteem, and learn protective behaviors are among the important roles for school psychologists in reducing the detrimental impact of community violence exposure.

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