

COMMUNITY VIOLENCE EXPOSURE AND ADJUSTMENT IN URBAN
CHILDREN:
POSITIVE SCHOOL EXPERIENCES AND PEER ACCEPTANCE AS PROTECTIVE
FACTORS

By

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ABSTRACT OF THE THESIS

Community Violence Exposure and Adjustment in Urban Children: Positive School Experiences and Peer Acceptance as Protective Factors

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The identification of protective factors that might modify the negative effects of community violence (CV) is key for prevention efforts and the promotion of resilience among at-risk children and adolescents. The present study examined the relation between direct exposure to CV and children's social skills, externalizing and internalizing behavior problems, and academic competence in a sample of 125 African-American and Latino fifth-grade children across a nine month period. Of particular interest was the potential moderating or protective effect of positive school experiences and perceived peer acceptance in these relations. Results revealed that most children were victims of CV, with victimization status remaining relatively stable across the two time points. CV exposure was significantly associated with increased internalizing problems and decreased academic competence initially and with decreased social skills and increased externalizing problems across time. With the exception of social skills, these effects were the same for boys and girls and African-American and Latino children. Overall, analyses found no buffers of the effects of CV exposure on social skills, internalizing problems,

and academic competence, but provided some evidence that being helped by other students and having a high total number of positive school experiences may help protect children from the adverse effect of CV on externalizing problems. Implications of the impact of CV exposure, as well as the moderating effects found are discussed.

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While there has been a steady decline in violent crime in the U.S. over the past decade, many children continue to experience community violence (CV) at alarmingly high rates (Gershoff & Aber, 2006; Overstreet, 2000; Ozer, Richards, & Kliwer, 2004; Stein, Jaycox, Katoka, Rhodes & Vestal, 2003; Schwartz & Gorman, 2003). This is particularly true for ethnic minority children living in urban areas. Results from multiple studies indicate that by the end of elementary school, most inner-city children have been exposed to shootings, stabbings, and other extreme acts of violence in their communities (Bailey, Hannigan, Delaney-Black, Covington, & Sokol, 2006; Kelly, Schwartz, Gorman, & Nakamoto, 2008; Margolin & Gordis, 2000; Schwartz & Gorman, 2003). Indeed, homicide is the second leading cause of death among children and youth between the ages of 10 and 24 (Centers for Disease Control and Prevention, 2009). This issue has prompted the U.S. Surgeon General's Office to declare violence as the greatest threat to the lives of children and adolescents living in the U.S. (Ozer et al., 2004).

CV Defined

In general, CV refers to deliberate acts intended to cause physical harm against an individual or individuals in the community (Cooley-Quille, Turner, & Beidel, 1995; Stein et al., 2003). These acts include being chased, threatened, beat up, robbed, mugged, raped, shot, stabbed, or killed. Domestic, school, and media violence are typically not included in definitions of CV. Researchers often distinguish between direct and indirect CV exposure. Direct exposure, or victimization, refers to violence targeted at the individual. Indirect exposure refers to violence aimed at others that an individual either hears about or witnesses (Fowler et al., 2009; Overstreet, 2000; Stein et al., 2003).

CV exposure rates in childhood and adolescence vary depending on whether the violence is direct or indirect, with prevalence rates being higher for indirect violence (Overstreet, 2000; Stein et al., 2003). Rates also vary by the population being studied. While CV affects all racial and ethnic groups, ethnic minority youth are disproportionately affected. This may be a function of socioeconomic status, as ethnic minority children and families are overrepresented in impoverished urban areas with high levels of crime and violence (Cooley-Quille, Boyd, Frantz, & Walsh, 2001; Mathews et al., 2009; Stein et al., 2003). Findings from multiple studies indicate that over 80% of children living in urban areas have witnessed CV, with as many as 70% reporting direct victimization (Cooley-Strickland et al., 2009). With the exception of sexual assault and rape, males generally report more CV exposure than females. Additionally, higher rates of CV exposure have been commonly found in older children and adolescents than in younger children (Cooley et al., 2009; Stein et al., 2003).

Researchers typically view direct and indirect exposure as distinct constructs that are differentially associated with risk (Kelly et al., 2008; Overstreet, 2000). Both forms of CV exposure can have a detrimental impact on children's adjustment and development. However, research suggests that the effect of CV exposure on negative outcomes may increase with greater physical proximity to the violent event (Fowler et al., 2009; Lynch, 2003). Moreover, studies comparing indirect and direct exposure reveal that direct victimization is associated with more severe outcomes (Cooley-Quille et al., 2001; Fitzpatrick, 1993; Kelly et al., 2008; O'Donnell, Schwab-Stone, & Mueeed, 2002).

CV Correlates

Since the late 1980s, researchers have produced a vast body of work examining the consequences of CV on children's development and adjustment. Reviews of the literature indicate that, in addition to the threat of physical injury and death, exposure to CV contributes to a variety of negative psychological, behavioral, and academic consequences (Fowler et al., 2009; Kelly et al., 2003; Lynch, 2003; Margolin & Gordis, 2000; Mathews et al., 2009; Mazza & Overstreet, 2000; Overstreet, 2000).

Externalizing Problems. Studies consistently demonstrate a relationship between exposure to CV and increased risk for externalizing behavior problems among children and adolescents (Fowler et al., 2009; Lynch, 2003; Overstreet, 2000). Direct and indirect CV exposure has been shown to correlate positively with self- and multi-informant (e.g., parent, teacher, peer) indices of aggression and antisocial behavior, including fighting, gang involvement, delinquency, and the use of weapons (Attar, Guerra, & Tolan, 1994; Cooley-Quille et al., 2001; Farrell & Bruce, 1997; Gorman-Smith & Tolan, 1998; Kelley et al., 2003; Hill & Madhere, 1997; Osofsky, Wewers, Hann, & Fick, 1993; Richters & Martinez, 1993a). For example, in a study of 10- to 19-year olds on Chicago's South Side, Uehara, Chalmers, Jenkins, and Shakoor (1996) found that 23% of youth who reported perpetrating violence were themselves witnesses and victims of violence. Of these, about 16% reported having pulled a knife on someone, whereas roughly 9% reported having actually stabbed or cut someone. Moreover, research indicates that the relation between externalizing problems and CV exposure is evident even after controlling for prior aggression and antisocial behavior and appears to be enduring (Lynch, 2003; Overstreet, 2000).

PTSD. Much of the clinical and empirical literature examining the relationship between CV exposure and children's mental health outcomes has focused on PTSD (Mazza & Overstreet, 2000). Findings from multiple studies indicate that many children and adolescents exposed to CV demonstrate symptoms associated with PTSD, including re-experiencing the traumatic event, avoidance of stimuli associated with the trauma and numbing of general responsiveness, and persistent symptoms of increased arousal (e.g., Ceballo, Dahl, Aretakis, & Ramirez, 2001; Cooley-Quille et al., 2001; Matthews et al., 2009; Mazza & Reynolds, 1999; Ozer & Weinstein, 2004). In addition to experiencing PTSD symptoms, research demonstrates that many children and adolescents exposed to CV meet diagnostic criteria for PTSD. For instance, Fitzpatrick and Boldizar (1993) found that 27% of their sample of 7- to 18-year-olds met all three PTSD diagnostic criteria, while only 11% met none of the diagnostic criteria. Similarly, Overstreet, Dempsey, Graham, and Moely (1999) found that about a third of children in their sample of 10- to 15-year-olds displayed a symptom pattern consistent with DSM-IV criteria for PTSD. While all types of exposure appear to have some effect, direct victimization may be especially relevant in the development of PTSD symptomatology. Even after controlling for demographic variables and prior symptoms, victimization by CV has been shown to predict levels of traumatic stress (Lynch, 2003).

Anxiety. Although PTSD is the most commonly researched anxiety disorder in CV studies, some research indicates that exposure to CV is related to anxiety in general. Research has demonstrated an association between CV exposure and state anxiety (e.g., Hill & Madhere, 1997), trait anxiety (e.g., Cooley-Quille et al., 2001; Hammack, Richards, Luo, Edlynn, & Roy, 2004), somatization (e.g., O'Donnell et al., 2002;

Schwab-Stone et al., 1999), and overall anxious symptoms as assessed by measures such as the Child Behavior Checklist and the Revised Children's Manifest Anxiety Scale (e.g., Ceballo et al., 2001; Gorman-Smith & Tolan, 1998; Kennedy et al., 2009; Kliewer et al., 1998; Kliewer et al., 2004) in children and adolescents.

Depression. In general, research demonstrates an association between depressive symptoms and CV exposure among children and adolescents (e.g., Gorman-Smith & Tolan, 1998; Hammack et al., 2004; Kliewer et al., 1998; Ozer & Weinstein, 2004; Schwab-Stone et al., 1999; Schwartz & Gorman, 2003). However, some studies have failed to find such a relationship (e.g., Farrell & Bruce, 1997; Cooley-Quille et al., 2001). Farrell and Bruce (1997) is the most commonly cited example. In their study, Farrell and Bruce (1997) did not find an association between witnessing CV and measures of emotional distress (i.e., symptoms of anxiety and depression) in an urban sample of 436 African-American sixth-grade students. The authors and others since then have suggested that children chronically exposed to CV may become desensitized and suppress feelings of sadness. That is, children may initially develop depressive and anxious symptoms in reaction to novel violence, but their symptoms might decrease over time (Farrell & Bruce, 1997; Fowler et al., 2009). It appears that depression may be linked more strongly to certain types of violence exposure (Lynch, 2003). For instance, Fitzpatrick (1993) found that depression was linked to victimization, but was not related to witnessing CV. Similarly, O'Donnell et al. (2002) found that children who had been directly victimized were more likely to report symptoms of depression, compared with children who had only witnessed acts of CV.

Other research suggests that the relation between CV exposure and depression may be indirect rather than direct (Mazza & Overstreet, 2000). For instance, Mazza & Reynolds (1999) examined the relationship between CV, depression, suicidal ideation, and PTSD symptoms in an urban sample of 94 sixth- through eighth-grade students. While CV was significantly related to depression, suicidal ideation, and PTSD, further analyses revealed that PTSD symptoms mediated the relationship between CV, depression, and suicidal ideation. Their findings suggest that CV exposure may have a detrimental effect on youth in the form of PTSD symptomatology, which may lead to other mental health problems.

Academics Outcomes. While academic performance as it relates to CV exposure has not received as much attention as adverse mental health outcomes, some research indicates that chronic exposure to CV is associated with decreased academic performance, as measured by grades, standardized test scores, and attendance (e.g., Bowen & Bowen, 1999; Matthews et al., 2009; Schwartz & Gorman, 2003). It is possible that the decrease in academic performance among children and adolescents exposed to CV may result from lower concentration levels due to distracting and intrusive thoughts concerning violent events that may accumulate over time and with repeated exposure (Cooley-Strickland et al., 2009; Lynch, 2003). As noted above, many children exposed to CV suffer from internalizing and externalizing symptoms. Research indicates that the presence of mental health problems is related to school functioning in the form of poor academic performance and inconsistent school attendance (Mathews et al., 2009).

Recently, researchers have begun to investigate whether the relation between exposure to CV and academic achievement is mediated by internalizing and externalizing

symptoms. For example, in an ethnically diverse, urban sample of 237 third- through fifth-grade students, Schwartz and Gorman (2003) found that depressive symptoms and disruptive behavior problems each partially mediated the relationship between direct exposure to CV and academic achievement (i.e. standardized test scores, and grade point average). That is, the effect of CV on academic achievement became non-significant after taking into account symptoms of depression and disruptive behavior problems. Additionally, Mathews et al. (2009) found that PTSD symptoms mediated the relationship between CV and school functioning (i.e., standardized test scores and attendance) among 47 African-American fifth- and sixth-grade students. More specifically, the association between exposure to CV and lower academic achievement was reduced to non-significance when PTSD symptoms were considered.

Peer Relations. A number of studies have demonstrated evidence of problematic peer relations among children exposed to high levels of CV (Lynch, 2003). Exposure to CV is associated with higher levels of peer-nominated aggression and bullying (Attar, Guerra, & Tolan, 1994; Schwartz & Proctor, 2000). Additionally, children exposed to CV are more likely to be rejected and victimized by their peers (Kelly et al., 2008; Schwartz & Proctor, 2000). Children who experience peer rejection are at heightened risk for a number of problems later in life, including emotional difficulties and antisocial behaviors (Bierman, 2004). Peer rejected children are also more likely to affiliate with deviant peers, which not only increases the likelihood of engaging in violence and aggression, but also exposure to CV (Bierman, 2004; Halliday-Boykins & Graham, 2001).

In sum, children and adolescents exposed to CV are at heightened risk for a number of negative outcomes, including PTSD, depression, decreased academic

performance, and impaired peer relations. Moreover, exposure to CV may alter the timing of typical developmental trajectories, making it difficult for children to normally adjust (Margolin & Gordis, 2000; Sieger, Rojas-Vilches, McKinney, & Renk, 2004). More specifically, CV exposure may initially result in an increase in externalizing and internalizing problems, which can disrupt children's progression through age-appropriate developmental tasks. For example, exposure to CV may lead to regressive symptoms, such as increased bedwetting or separation anxiety (Margolin & Gordis, 2000). However, the extant research provides little insight into the long-term, enduring impact of CV. Most of the research examining the negative outcomes associated with CV exposure has been cross-sectional in nature, making it difficult to make causal inferences and determine long-term outcomes. It is unclear whether CV has an effect on the developmental paths of children or results in later adult psychopathology (Aisenberg & Herrenkohl, 2008; Stein et al., 2003).

CV Moderators

Much is known about the about the direct effects of CV exposure among children and adolescents. Recently, researchers have turned their attention to factors moderating the relation between CV exposure and negative outcomes. Various studies have examined whether there are gender differences in children's emotional and behavioral reactions to CV exposure. In some studies, girls report more internalizing symptoms than boys, including anxiety, depression, and general emotional distress (e.g., Farrell & Bruce, 1997; Fitzpatrick, 1993; Cooley-Quille et al., 2001). However, other studies find little or no gender differences. For instance, in an urban sample of 165 6- to 10-year-old children, Martinez and Richters (1993) found that young girls reported more anxiety and

depressive symptoms associated with CV exposure than boys, but there were no differences for older children. Similarly, Schwab-Stone et al., (1999) found no gender differences in internalizing or externalizing symptoms in an ethnically diverse, urban sample of 2,600 six-, eighth-, and tenth-grade students. Further work exploring gender's moderating role is needed (Salzinger, Feldman, Stockhammer, & Hood, 2002).

Additionally, not much is known about the role ethnicity might play in how children respond to community violence (Lynch, 2003). The few studies that have examined ethnicity report no differences. For example, Schwab-Stone et al., (1999) found that ethnicity did not moderate the effect of CV exposure on internalizing and externalizing symptoms. Of the 2,600 adolescents in their sample, 51% were African-America, 23% were Latino, 14% were Caucasian, and 12% identified as other. Much of the CV research to date has focused primarily on African-American children and families (Aisenberg & Herrenkohl, 2008). More research examining the effect of CV among children and families belonging to other ethnic groups, such as Latinos and Asian-Americans is warranted.

Research on the effects of children's exposure to CV has primarily focused on risk, not protective factors (Aisenberg & Herrenkohl, 2008; Cooley-Strickland et al., 2009). Not much is known about factors that might serve as a buffer against the adverse effects of CV. While exposure to CV puts children at heightened risk for adjustment difficulties, many of those exposed do not have diagnosable problems. Moreover, it can be said that many children exposed to CV are resilient (Aisenberg & Herrenkohl, 2008; Lynch, 2003).

Resilience is typically defined as “a pattern of positive adaptation in the context of past or present adversity” (Wright & Masten, 2005, p. 18). Resilience is a dynamic process and involves interactive relationships between risk, vulnerability, and protective factors related to the child, family, and various environmental characteristics (Arrington & Wilson, 2000; Pianta & Walsh, 1998). Vulnerability factors are those that exacerbate the negative effects of risk conditions. That is, they increase the probability of a specific negative or undesirable outcome in the presence of risk (Arrington & Wilson, 2000; Wright & Masten, 2005). Among youth living in impoverished urban neighborhoods, for example, male gender can be a vulnerability factor, as boys are typically more reactive than girls to negative community influences (Luthar, 2006). Protective factors, on the other hand, are those that modify the effects of risk in a positive direction by decreasing the likelihood of a negative outcome. That is, they appear to moderate the impact of adversity. For example, at-risk youth who have a positive relationship with at least one adult fare better than those who do not (Luthar, 2006; Masten & Motti-Stefandi, 2008; Wright & Masten, 2005).

The identification of vulnerability and protective factors that might modify the negative effects of CV is key for prevention efforts and the promotion of resilience among at-risk children and adolescents. That is, if we can understand why some children have good outcomes following exposure to CV, then we may have important clues about how to transfer those gains to wider numbers of children who might otherwise succumb to the frequently damaging effects of CV. The search for protective factors becomes especially important, as the removal of CV and its associated risk factors from the lives of these children is not always possible.

Most of the research examining resilient functioning among children exposed to CV has focused on identifying aspects of the family environment that might moderate the negative effects of CV. The protective factors that have been identified thus far include demographic characteristics of the family environment, family relationships and support, and parenting style (Mazza & Overstreet, 2000). School and peer support have also been identified as key protective factors (Lynch, 2003). However, few studies have focused on protective factors within the school and peer contexts.

School Related Protective Factors. In the U.S., children and adolescents spend a significant amount of time in school, with many spending up to 50 percent of their waking hours within the school setting (Condly, 2006; Masten & Motti-Stefandi, 2006; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003; Ozer & Weinstein, 2004). Therefore, schools provide an important context for promoting resilient outcomes among at-risk youth. As Norman Garmezy (1991) notes, “Schools serve as a critical support system for children seeking to escape the disabling consequences of poor environments” (p. 426). In addition to providing a space for children to learn and practice new skills that can build self-efficacy, schools contain many possibilities for positive relationships with adult role models and mentors (Masten & Motti-Stefandi, 2006; Olsson et al., 2003). Having supportive relationships with adults is critical to resilience and teachers, like good parents, function directly as protective factors in the lives of at-risk children (Luthar, 2006; Masten & Motti-Stefandi, 2006).

Most of the CV research examining protective factors within schools has focused on social support from teachers. For example, Hill and Madhere (1996) examined whether perceived support from family, teachers, and peers moderated the effect of CV

on teacher rated social competence in school, parent rated confrontational behavior problems, and participant self-reports of anxiety symptoms. Their sample consisted of 150, fourth- through sixth-grade, African-American students from six inner city elementary schools. Results revealed that support from teachers only had a moderating effect on social competence, with higher levels of perceived teacher support resulting in higher ratings social competence. Given their findings, Hill and Madhere (1996) suggest that social support has specific, rather than global effects.

Similarly, Ozer and Weinstein (2004) investigated the role of perceived social support from parents, siblings, and teachers as moderators of the relation between exposure to CV, participant self-reports of depression and PTSD symptoms, and teacher rated adaptive functioning in the classroom. Their sample consisted of an ethnically diverse group of 349 seventh-grade students from a major metropolitan school district in California. Results indicated that teacher support only moderated the relation between exposure to CV and teacher-rated adaptive functioning. Students who experienced their teachers as less helpful showed worse adaptive functioning as exposure to CV increased. Both studies indicate that perceived social support from teachers may only serve a protective function for school related outcomes.

In addition to teacher support, positive school experiences, in general, have been implicated in numerous studies of resilience. Positive school experiences can be academic or nonacademic, such as involvement in sports, drama, arts, and crafts (Rutter, 1987). Positive school experiences are associated with fewer behavioral and emotional difficulties (Ozer & Weinstein, 2004). For example, Rutter and Quinton (1984) found that positive school experiences were associated with better marital and work outcomes

in a group of institutionally reared women, but not in a comparison group (as cited in Rutter, 1987). Rutter (1987) suggested that the experiences of pleasure, success, and accomplishment at school had helped to increase the institutionally reared women's sense of self worth and confidence in their ability to control what happened to them. That is, positive school experiences likely resulted in an increase in the self-esteem and self-efficacy, which are important protective mechanisms in the process of resilience (Rutter, 1987, 1993).

Positive school experiences are not only confined to participation in activities or academic achievement. They can also involve positive interactions with other members of the school community (Gilligan, 2000). The quality of interactions among and between adults and students in a school community has often been referred to as school climate (Mattison, 2007; Way & Robinson, 2003). When members in the school community interact in a caring and responsive manner, the school climate becomes positive. Student perceptions of a positive school climate have been associated with higher academic achievement and positive mental health outcomes (Cohen, 2006; Gilligan, 2000; Way & Robinson, 2003). However, no studies of CV have examined school climate or positive school experiences as moderators.

Peer Related Protective Factors. Aside from adults at school, positive relationships with peers can also be an important protective factor for at-risk children and adolescents (Luthar, 2006; Olsson et al., 2003). Research indicates that the association between violence exposure and negative outcomes is attenuated for children who are able to establish friendships with peers (Luthar, 2006; Schwartz, Gorman, Toblin & Abou-ezzeddine, 2003). The few studies examining the protective function of peer relations has

focused on social support from peers. As with social support from teachers, peer support is related to specific domains of positive adaptation or competence rather than general well-being.

For example, Hill and Madhere (1996) found that perceived support from peers was only related to enhanced social competence. On the other hand, O'Donnell et al. (2002) found that peer support was related to multiple outcome domains. They examined whether parent, peer, and school support moderated the relation between CV exposure, covert mental health (i.e., depression, anxiety, and somatization), and overt social competence (i.e., substance abuse, delinquency and school misconduct, interpersonal relations, future expectations and self-reliance) in an ethnically diverse sample of 1885 sixth-, eighth-, and tenth-grade students from an urban public school system. Participants were divided into non-exposure, witnessing, and victimization groups. Among the victimized group, support from peers positively predicted future expectations, self-reliance, and interpersonal relations. However, in all three groups high levels of peer support predicted higher levels of substance abuse and school misconduct, particularly among the victimized group. Additionally, when compared to support from parents and school, peer support appeared to have the weakest positive impact on all resilience outcomes among the three groups, and the highest negative impact. O'Donnell et al. (2002) suggest that as a result of their at-risk status, many of the CV exposed children in the study likely had poor quality peer relationships and affiliated with deviant peers, which is predicative of substance abuse and juvenile delinquency.

Maladaptive peer relations may make violence-exposed children more vulnerable to the negative effects of CV. For instance, Schwartz et al. (2003) examined whether

inimical peer relationships and peer rejection moderated the association between CV exposure, peer rated social behavior and adjustment (i.e., aggression and bullying), participant reports of depressive symptoms, and grade point average in an ethnically diverse sample of 239 third- through fifth-grade students from an urban school district in Southern California. Inimical peer relationships and peer rejection were determined using a peer nomination inventory. Children who simultaneously nominated each other as “liked least” were considered to be involved in an inimical relationship, or a mutual antipathy. Overall, mutual antipathies in the peer group moderated the relation between CV and children’s functioning difficulties. More specifically, the association between exposure to CV and children’s social adjustment was only significant at high levels of mutual antipathies. A gender difference also emerged. For boys, mutual antipathies moderated the association between CV and internalizing problems, such as depression and withdrawal. For girls, mutual antipathies had a stronger influence on the relation between CV and academic outcomes. Peer rejection did not emerge as a significant moderator.

As noted above, children exposed to CV are at greater risk for peer rejection and conflict with peers may exacerbate the impact of CV. However, it is not clear if acceptance from peers serves as a buffer against the adverse effects of CV. Peer acceptance refers to the degree to which children are liked or disliked by the children in their peer group (Gifford-Smith & Brownell, 2003) and is generally associated with positive adjustment and academic achievement (Ladd, Kochenderfer, & Coleman, 1997; Parker & Asher, 1993; Wentzel & Caldwell, 1998). Some research indicates that peer acceptance can moderate the association between violence exposure (such as domestic

violence) and negative outcomes. For example, Criss, Pettit, Bates, Dodge, and Lapp (2002), found that peer acceptance attenuated the relation between teacher rated externalizing behavior problems, violent marital conflict, and harsh discipline practices in a sample 517 second-grade children.

Much of the research examining outcomes of peer acceptance has utilized sociometric measures as predictors of adjustment. Yet, past studies have demonstrated strong correlations between children's own views of their social competence and their sociometric standing (Harter, 1982). Children's perceptions of their own social success may be a crucial predictor of long-term functioning. Children with a positive internal sense of their social acceptance may demonstrate positive adjustment over time, even if they are not broadly popular (McElhaney et al., 2008). No CV study to date has examined whether perceived acceptance from peers moderates the relation between CV and negative outcomes.

Current Study

This study will examine the relation between direct exposure to CV and children's social skills, externalizing and internalizing behavior problems, and academic competence with an urban sample of fifth-grade children across two time points. Of particular interest was the potential moderating or protective effect of positive school experiences and perceived peer acceptance in these relations. Four general hypotheses are advanced. First, it is hypothesized that direct exposure to CV will be positively associated with externalizing and internalizing problems and negatively associated with social skills and academic competence, both initially and over time. Second, given some previous

research findings, it is predicted that girls will report more internalizing problems in response to CV, whereas, boys will report more externalizing problems. Third, it is hypothesized that positive school experiences and perceived peer acceptance will serve as buffers of the effects of direct exposure to CV by decreasing the likelihood of adverse child outcomes, both initially and across time. Finally, it is predicted that direct CV exposure will remain stable, with children who initially experience high levels of victimization continuing to be highly victimized across time. Given the little research that has focused on the role ethnicity might play in how children respond to CV, analyses will also examine ethnic differences in the relations between direct CV exposure and children's social skills, externalizing and internalizing problems, and academic competence.

Method

Participants

The data used for this study comes from the electronic database of a larger longitudinal study conducted from 1998 to 2004, which was designed to evaluate the outcomes of a multi-year, social-emotional learning (SEL) curriculum in public schools across a small city in Central New Jersey. This city is made up of roughly 48,000 inhabitants, who are predominantly African-American. However, the past few years has witnessed a rapid increase in the city's Latino population. At the time of the larger study, the city's public school district was considered an Abbott district by the NJ Department of Education. To receive an Abbott designation, a school district must be characterized by both low student achievement and concentrated poverty and the presence of risk

factors such as community violence and low rates of high school graduation. According to official police crime statistics, in 2000 there were 3 murders, 21 rapes, 317 assaults, and 335 armed robberies in the city. The incidence of other less violent crimes, such as burglary, larceny, and motor vehicle theft was 2,098, combining to a total of 2,774 reported crimes for a population of about 47,829. The numbers and percentages of violent crimes in this area continued to increase in 2001, with 9 murders being reported for the year.

The present study sample includes fifth-grade children who completed surveys during the 2000 to 2001 school year. To be included in the analyses, children needed to have completed the Victimization Scale (VS; Nadel, Spellman, Alvarez-Camino, Lausell-Bryant, & Landsberg, 1996) during the fall of 2000 and spring of 2001, which was only completed by fifth-grade students. A total of 131 children from 8 classes and 4 schools met criteria for the study (Mean Age at Pre =10.65, SD = .57; Mean Age at Post = 11.22, SD = .58). Of these, 51.9% (n=68) were female and 77.1% (n=101) were African-American, 20.6% (n=27) were Hispanic, 1.5% (n=2) were Caucasian, and 0.8% (n=1) were Asian. Approximately, 71.8% qualified for free or subsidized lunch, an index of financial need.

Measures

Victimization in the Community. The experience of direct victimization in the community was examined using a subset of items from the Victimization Scale (VS; Nadel et al., 1996). The VS is part of the Centers for Disease Control and Prevention's (CDC) *Measuring Violence-Related Attitudes, Beliefs, and Behaviors Among Youths: A*

Compendium of Assessment Tools (Dahlberg, Toal, & Behrens, 1998), which includes a variety of CDC approved violence-related youth measures. Participants were asked to indicate how often they experienced each of the following since the start of the school year in their neighborhood: “Hit or pushed,” “Threatened with a knife or sharp weapon,” “Verbally called names or having things said to you that make you feel bad about yourself or nervous,” and “Robbed.” Participants responded to each item using a four point scale ranging from “never” to “often.” Cronbach’s alpha for this scale was .63 at pre and .73 at post.

Positive School Experiences. Four items were used to examine positive school experiences. These items were developed by the primary investigators of the larger longitudinal study and were designed to reflect the various types of positive school experiences commonly cited in the research literature. Additionally, these items were added to the VS to balance the questions regarding risk with protective factors. Participants were asked to indicate how often they experienced each of the following since the start of the school year: “Helped by a student,” “Praised or been given a put-up by a student,” “Part of a team or group that worked well together,” and “Praised by a teacher.” Participants responded to each item using a four point scale ranging from “never” to “often.” Cronbach’s alpha for this scale was .38 at pre and .56 at post. As a result of the low internal consistency of these items, they were analyzed in the following two ways. First, a positive school experience index was created for each participant. At both time points, each participant was assigned a score for the presence or absence of each of four positive school experience items. Items receiving participant ratings of three (“a few times”) and four (“often”) were assigned a score of one (“present”). Items

receiving participant ratings of one (“never”) and two (“once”) were assigned a score of zero (“absent”). These zero and one scores were then be summed to obtain an index of the total number of positive school experiences encountered by each participant. Second, each of the four items were analyzed individually.

Peer Acceptance. The popularity subscale of the Piers Harris Children’s Self-Concept Scale (PH; Piers & Harris, 1984) was used to assess peer acceptance. The PH is an 80-item, self-report measure of perceived physical attributes and internal quality. It consists of six subscales: positive behavior, intellectual and school status, physical appearance, low anxiety, popularity, and happiness. For the present study, participants responded to a modified 44-item version, adjusted to cover the same factors, but eliminating cross-loaded items (Dilworth, Mokruue, & Elias, 2002; Elias, Beier, & Gara, 1989). The following five items from the popularity subscale were used to examine participants’ perceptions of peer acceptance: “My classmates make fun of me,” “It is hard for me to make friends,” “I am among the last to be chosen for games,” “I have many friends,” and “People pick on me.” Participants responded “yes” if the item was true for them and “no” if it was not true for them. One negatively worded item (i.e., “It is hard for me to make friends”) was reverse coded for reliability analysis. Cronbach’s alpha for this scale was .80 at pre and .75 at post.

Child outcomes. The teacher version of the Social Skills Rating System (SSRS-T; Gersham & Elliott, 1990) was used to examine participant’s social skills, externalizing and internalizing behavior, and academic competence. The SSRS-T is a 56-item measure designed to assess student social behaviors that can affect teacher-student relations, peer acceptance, and academic performance. The measure consists of three scales: social

skills, problem behaviors, and academic competence. In the current study, a modified 30-item version of the SSRS-T was used that includes only the primary items loading most highly on each of the three scales. The modified SSRS has been used in previous research and the revised scales have been found to have high levels of internal consistency. For example, Cedeno, Elias, Chu, and Kelly (2010) found that Cronbach's alphas for the revised Social Skills, Problem Behaviors, and Academic Competence scales were .94, .88, and .95 respectively.

Social skills. The SSRS-T social skills scale consists of three subscales: cooperation, assertion, and self-control. The cooperation subscale contains four items and includes behaviors such as helping others, sharing materials, and complying with rules and directions (e.g., "Attends to your instructions"). The assertion subscale consists of four items and includes initiating behaviors, such as asking others for information, introducing oneself, and responding to the actions of others (e.g., "Invites others to join activities"). The self-control subscale contains five items and includes behaviors that emerge in conflict situations, such as responding appropriately to teasing, and in non-conflict situations that require taking turns and compromising (e.g., "Responds appropriately when pushed or hit by other children"). Teachers were instructed to rate how often each participant engaged in each behavior using a 3-point scale ranging from "never" to "very often." Cronbach's alphas for the cooperation, assertion and self-control subscales were .94, .82, and .87 respectively at pre and .94, .91, and .88 respectively at post. Cronbach's alpha for the overall social skills scale was .94 at pre and .96 at post.

Problem behaviors. The SSRS-T problem behaviors scale consists of three subscales: externalizing problems, internalizing problems, and hyperactivity. The

externalizing problems subscale contains four items and includes behaviors involving verbal or physical aggression toward others, poor control of temper, and arguing (e.g., “Fights with others”). The internalizing problems subscale consists of four items and includes behaviors indicating anxiety, sadness, loneliness, and poor self-esteem (e.g., “Shows anxiety about being with a group of children”). The hyperactivity subscale contains four items and includes behaviors involving excessive movement, fidgeting, and impulsive reactions (e.g., “Is easily distracted”). Teachers were instructed to rate how often each participant engaged in each behavior using a 3-point scale ranging from “never” to “very often.” Cronbach’s alphas for the externalizing, internalizing and hyperactivity subscales were .91, .90, and .90 respectively at pre and .91, .86, and .91 respectively at post. Cronbach’s alpha for the problem behaviors scale was .93 at pre and .95 at post.

Academic competence. The SSRS academic competence scale consists of five items concerning student academic functions (e.g., “Compared to other children in my classroom, the overall academic performance of this child is”). Teachers rated items for each participant on a 5-point scale that corresponds to percentage clusters (1 = lowest 10%, 2 = next lowest 20% to 5 = highest 10%). Cronbach’s alpha for the academic competence scale was .93 at pre and .92 at post.

Procedure

The teacher and student surveys were administered in November 2000 and June 2001 as a part of the pre- and post-test assessment battery for a longitudinal SEL development and problem behavior prevention research project. Prior to the onset of data

collection, a letter from the Superintendent informed parents of the project's content, objectives, and level of student involvement. Shortly thereafter, parents were sent consent forms and provided with an "opt-out" option, where they could call or return a signed consent form if they did not want their child to participate in the evaluation component of the study.

Trained, undergraduate research assistants administered study surveys to the students in each class. Research assistants read instructions aloud to the students prior to starting the questionnaires. Survey items were also read aloud, while providing ample time between items for the children to enter responses. Project research assistants provided teachers with the SSRS-T and a demographic form to complete for each student in their classes. Teachers were compensated at their union-approved hourly rate.

Results

Results are presented in five sections. First, power and missing data analyses are reported. Second, descriptive analyses are presented. Third, cross-sectional analyses from Fall 2000 (Time 1), testing the hypotheses that CV exposure would be related to decreased social skills and academic competence and increased externalizing and internalizing problems are presented. Additionally, analyses testing whether the effects of CV exposure would be moderated by positive school experiences and peer acceptance are reported. Fourth, longitudinal analyses are presented examining the hypotheses that CV exposure at Time 1 would be associated with decreased social skills and academic competence and increased externalizing and internalizing problems in Spring 2001 (Time 2), and that peer acceptance and positive school experiences would buffer the effects of

CV exposure over time. Finally, analyses examining the stability of CV victimization status in this sample are reported.

Power analysis

Based on the recommendations of Cohen (1992), a series of power analyses were conducted to determine the minimum sample size required to adequately test the various study hypotheses. To achieve power of at least .80 at the .05 significance level with a medium effect size, a sample of 64 in each comparison group was recommended to assess mean differences between independent samples and a sample of 85 is suggested for correlation. Using the same parameters, a sample size of 84 is recommended for multiple regression using four predictors, the maximum number of predictors used in regression analyses in the present study. Therefore, the current study sample is adequate to maintain an acceptable level of power for most of the study analyses.

Missing data

Data from 125 fifth grade students were used in the analyses. Students with less than two thirds of the total number of items completed for a given subscale for two or more study variables were omitted from analyses ($N = 2$). Three students were omitted because they were not African-American or Latino. Visual inspection of the data revealed little or no differences between the omitted cases and the retained sample on study variables. Of the teacher SSRS ratings obtained for the 125 students, 27 students were missing teacher ratings at pre and 14 were missing teacher ratings at post. The vast majority of these students came from one of two classrooms where the teacher either failed to submit the SSRS or did not complete it appropriately. Therefore, the missing teacher data is not distributed randomly throughout the sample. A series of t-tests and

chi-square analyses on the study variables were conducted to examine the existence of group differences between students with SSRS ratings and those missing SSRS ratings. Students with SSRS ratings were more likely to experience CV at Time 1, $t(121) = -2.56$, $p < .05$, and Time 2, $t(122) = -3.15$, $p < .05$, and had lower levels of perceived popularity, $t(122) = 2.38$, $p < .05$. No other significant differences emerged. The mean age of participants was 10.63 (SD = 0.57) at Time 1 and 11.20 (SD = 0.58) at Time 2. Fifty-one percent of students were female, 79% were African-American and 21% were Latino. Approximately, 75% of participants qualified for reduced or free lunch benefits.

Descriptive information on study variables

Sum scale score means and standard deviations for all predictor and moderator variables at baseline for the entire sample and for each gender and ethnic group are presented in Table 1. The mean overall score on the VS, 6.87 (SD = 2.84) out of a possible 16, indicated a low to moderate amount of exposure to violence in the community. However, approximately 70% of children in the sample reported at least one instance of victimization during a three month period. Of these, 20.5% were often hit or pushed, 8.2% were often threatened with a knife or sharp weapon, 8.9% were often robbed, and 8.9% were often verbally harassed or threatened. The average score on the PH Popularity subscale, 21.52 (SD = 3.45) out of a possible 24, indicated a fairly high amount of perceived peer acceptance. Participants also experienced moderate to high levels of positive school experiences, including being helped by a student (M = 2.97, SD = 0.81), being praised or been given a put-up by a student (M = 2.48, SD = 1.12), being part of a team or group that worked well together (M = 3.27, SD = 1.00), and being praised by a teacher (M = 2.73, SD = 1.21). Scores on the four positive school experience

items ranged from one to four. An index consisting of the number of positive school experiences encountered at least a few times was created for each participant. The mean number of total positive experiences was 2.72 (SD = 1.07) out of a possible four.

Table 2 presents sum scale score means and standard deviations for all outcome variables at both time points for the entire sample and for each gender and ethnic group. At Time 1, participants were rated average by teachers in social skills (M = 38.27, SD = 14.93), externalizing behaviors (M = 3.91, SD = 4.19), internalizing behaviors (M = 2.87, SD = 3.41), and academic competence (M = 29.01, SD = 9.59) relative to the normed sample (Gresham & Elliott, 1990). Similarly, participants were rated as average on social skills (M = 41.00, SD = 16.12), externalizing problems (M = 4.31, SD = 3.99), internalizing problems (M = 3.62, SD = 3.31), and academic competence (M = 31.23, SD = 9.79) at Time 2.

Group differences on study variables

In order to assess mean differences between groups, t-tests were conducted by gender and ethnicity for CV, peer acceptance, the four positive school experience items, the positive school experiences index (PSEI), social skills, externalizing and internalizing problems, and academic competence. For each set of comparisons, alpha was set at .025 (.05/2) to maintain experimentwise error rates. Table 3 presents the results of the gender analyses. Results indicated that girls experienced a greater number of positive school experiences, as measured by the PSEI (M = 3.00, SD = 0.93) than boys (M = 2.43, SD, 1.13), $t(123) = 3.12, p < .025$. Findings also revealed that teachers rated boys as exhibiting more internalizing behaviors (M = 4.43, SD = 3.91) than girls (M = 1.47, SD = 2.09), $t(64) = -4.49, p < .025$ and rated girls as higher in social skills (M = 42.83, SD =

13.52), $t(93) = 3.30$, $p < .025$ and academic competence ($M = 32.29$, $SD = 9.56$), $t(93) = 3.76$, $p < .025$ than boys ($M = 33.21$, $SD = 14.92$; $M = 25.36$, $SD = 8.28$ respectively) at Time 1. At Time 2, teachers rated girls as higher on social skills ($M = 45.10$, $SD = 14.31$), $t(109) = 2.96$, $p < .025$, and academic competence ($M = 35.15$, $SD = 7.80$), $t(107) = 4.81$, $p < .0005$, than boys ($M = 36.34$, $SD = 16.90$; $M = 26.93$, $SD = 10.01$ respectively). On the other hand, boys were rated higher on externalizing ($M = 5.25$, $SD = 4.23$), $t(109) = -2.37$, $p < .025$, and internalizing problems ($M = 4.73$, $SD = 3.68$), $t(109) = -3.48$, $p < .025$, than girls ($M = 3.48$, $SD = 3.62$; $M = 2.64$, $SD = 2.60$ respectively). The results for the ethnic group analyses are presented in Table 4. Results revealed that at Time 1 African-American students ($M = 22.04$, $SD = 3.17$) reported higher levels of perceived peer acceptance than Latino students ($M = 19.57$, $SD = 3.82$), $t(122) = 3.39$, $p < .025$, not surprising given the schools' demographics. At Time 2, teachers rated Latino children higher on social skills ($M = 49.57$, $SD = 14.86$), $t(109) = -3.05$, $p < .025$, than African-American children ($M = 38.63$, $SD = 15.72$) and African-American children as higher on externalizing problems ($M = 5.00$, $SD = 4.03$), $t(54.72) = 4.56$, $p < .0005$, than Latino children ($M = 1.81$, $SD = 2.69$). Alternative t-values (equal variances not assumed) and corrected degrees of freedom were reported above whenever Levene's Test for Equality of Variances was significant.

Correlations

Table 5 presents the zero-order correlations among predictor, moderator, and outcome variables. As described earlier, it was predicted that CV exposure, as measured by the VS, would be negatively associated with social skills and academic competence and positively associated with externalizing and internalizing problems. The overall

pattern of correlations was consistent with some of these hypotheses. VS scores were negatively correlated with academic competence ($r = -.29, p < .01$) and positively associated with internalizing problems ($r = .26, p < .05$). VS scores were not associated with social skills ($r = -.20, p > .05$) and externalizing problems ($r = .03, p > .05$).

Cross-sectional regression analyses

A series of hierarchical regression analyses were conducted to examine whether the effects of CV exposure on child outcomes were moderated by gender, ethnicity, the four positive school experience items, the PSEI, and peer acceptance at Time 1. For all analyses, the continuous-level predictor and moderator variables were centered, and interaction terms were computed from the centered variables, as recommended by Aiken and West (1991). Gender and ethnicity were dummy-coded, with males and Latinos as the comparison groups.

In order to control and balance the Type I and Type II error rates, researchers have recommended applying alpha-correction procedures to families of hypotheses (e.g., Burns, Kubilus, Bruehl, Harden & Lofland, 2003; Dar, Serlin, & Omer, 1994). The following seven families of moderator hypotheses were defined: 1) demographic variables (i.e., gender, ethnicity); 2) peer acceptance; 3) being helped by a student; 4) being praised or given a put up by a student; 5) being part of a team or group that worked well together; 6) being praised by a teacher; and 7) the PSEI. Bonferroni corrections were applied for the number of families tested for each child outcome variable. Alpha was set at .007 (.05/7) for each of the seven hierarchical regressions run for each outcome variable.

Gender and ethnicity as moderators. For each outcome variable, CV exposure, gender, and ethnicity were entered at Step 1 and the interactions between CV exposure and gender and CV exposure and ethnicity were entered at Step 2. Results are presented in Table 6. CV exposure, gender, and ethnicity explained a significant proportion of the variance in social skills, $R^2 = .16$, $F(3, 90) = 5.48$, $p < .007$. The addition of the two-way interactions significantly increased in the explanatory power of the model, $\Delta R^2 = .10$, $F(2, 88) = 6.07$, $p < .007$. The CV exposure X gender and CV exposure X ethnicity interactions were plotted using the procedures recommended by Aiken and West (1991). Boys who reported higher levels of CV exposure had lower social skills scores, whereas there was little difference in girls' social skills scores at high and low levels of CV exposure (Figure 1). The CV exposure X ethnicity interaction indicated that under conditions of high CV exposure, Latino children had higher social skills scores. African-American children, however, had lower social skills scores at high levels of CV exposure (Figure 2).

CV exposure, gender, and ethnicity also explained a significant proportion of the variance in internalizing problems, $R^2 = .24$, $F(3, 88) = 9.35$, $p < .0005$, and academic competence, $R^2 = .21$, $F(3, 90) = 7.86$, $p < .0005$. Yet, for both internalizing problems and academic competence the two-way interactions were not significant. In the final model, only gender ($B = -.47$, $t = 4.40$, $p < .0005$) was a statistically significant predictor of internalizing problems. CV exposure ($B = .28$, $t = 2.68$, $p < .05$) emerged as a marginally significant predictor. For academic competence, both CV exposure ($B = -.57$, $t = 2.90$, $p < .007$) and gender ($B = .68$, $t = 3.39$, $p < .007$) were statistically significant predictors in the final model.

Peer Acceptance as a moderator. For each outcome variable, CV exposure and peer acceptance were entered at Step 1 and the interaction between these variables was entered at Step 2. Results are presented in Table 7. CV exposure and peer acceptance explained a marginal proportion of the variance in internalizing problems, $R^2 = .09$, $F(2, 88) = 4.20$, $p > .05$, and academic competence, $R^2 = .09$, $F(2, 90) = 4.20$, $p > .05$. The addition of the two-way interaction did not result in a significant increase in the explanatory power of the models for any of the outcome variables. In final model, only CV exposure emerged as a marginally significant predictor of academic competence ($B = -.44$, $t = -2.50$, $p < .05$)

Helped by a student as a moderator. For each outcome variable, CV exposure and being helped by a student were entered at Step 1 and the interaction between these variables was entered at Step 2. Results are presented in Table 8. CV exposure and being helped by a student explained a marginal proportion of the variance in internalizing problems, $R^2 = .07$, $F(2, 89) = 3.24$, $p < .05$, and academic competence, $R^2 = .09$, $F(2, 91) = 4.26$, $p < .05$. The addition of the two-way interaction did not result in a significant increase in the explanatory power of the models for social skills, internalizing problems, and academic competence. However, it was marginally significant for externalizing problems, $\Delta R^2 = .07$, $F(1, 87) = 6.65$, $p < .05$. The interaction plot (Figure 3) indicated that at high levels of CV exposure, students who received greater amounts of help from other students had fewer externalizing problems. In the final models for internalizing problems and academic competence, only CV exposure emerged as a significant predictor ($B = .23$, $t = 2.82$, $p < .007$; $B = -.45$, $t = -2.93$, $p < .007$ respectively).

Praised or been given a put-up by a student as a moderator. For each outcome variable, CV exposure and being praised or been given a put-up by a student was entered at Step 1 and the interaction between these variables was entered at Step 2. Results are presented in Table 9. CV exposure and being praised or been given a put-up by a student explained a marginal proportion of the variance in internalizing problems, $R^2 = .07$, $F(2, 87) = 3.17$, $p < .05$, and a significant proportion of the variance in academic competence, $R^2 = .14$, $F(2, 89) = 6.98$, $p < .007$. However, the two-way interaction was not significant for either outcome. In the final model for internalizing problems, CV exposure emerged as a marginally significant predictor ($B = .21$, $t = 2.49$, $p < .05$). For academic competence, CV exposure ($B = -.40$, $t = 2.69$, $p < .007$) emerged as a statistically significant predictor and being praised or been given a put-up by a student was marginally significant ($B = .21$, $t = 2.26$, $p < .05$).

Part of a team or group that worked well together as a moderator. For each outcome variable, CV exposure and being part of a team or group that worked well together was entered at Step 1 and the interaction between these variables was entered at Step 2. Results are presented in Table 10. CV exposure and being part of team or group that worked well together explained a significant proportion of the variance in internalizing problems, $R^2 = .11$, $F(2, 89) = 5.57$, $p < .007$ and academic competence, $R^2 = .12$, $F(2, 91) = 6.15$, $p < .007$. However, the two-way interaction was not significant for either outcome. Only CV exposure emerged as a marginally significant predictor in the final models for internalizing problems and academic competence ($B = .17$, $t = 2.01$, $p < .05$; $B = -.34$, $t = 2.26$, $p < .05$ respectively).

Praised by teacher as a moderator. For each outcome variable, CV exposure and being praised by a teacher was entered at Step 1 and the interaction between these variables was entered at Step 2. Results are presented in Table 11. CV exposure and being praised by a teacher explained a marginally significant proportion of the variance in internalizing problems, $R^2 = .09$, $F(2, 89) = 4.53$, $p < .05$ and a significant proportion of the variance in academic competence, $R^2 = .12$, $F(2, 91) = 6.02$, $p < .007$. However, the two-way interaction was not significant for either outcome. In the final models for internalizing problems and academic competence, only CV exposure emerged as a marginally significant predictor ($B = .19$, $t = 2.30$, $p < .05$; $B = -.39$, $t = 2.64$, $p < .05$, respectively).

Positive school experiences index (PSEI) as a moderator. For each outcome variable, CV exposure was entered at Step 1, followed by the PSEI at Step 2, and the interaction between these variables was entered at Step 3. Results are presented in Table 12. CV exposure explained a marginally significant proportion of the variance in internalizing problems, $R^2 = .07$, $F(1, 90) = 6.52$, $p < .05$, and academic competence, $R^2 = .07$, $F(1, 90) = 6.52$, $p < .05$. The addition of the PSEI explained a significant proportion of the variance in academic competence, $\Delta R^2 = .07$, $F(1, 91) = 7.72$, $p < .007$. The two-way interaction was only marginally significant for externalizing problems, $\Delta R^2 = .05$, $F(1, 87) = 4.62$, $p < .05$. The interaction plot (Figure 4) indicated that at high levels of CV exposure, students who experienced a greater number of positive school experiences had fewer externalizing problems, whereas those who experienced a fewer number of positive school experiences had more externalizing problems. In the final models, CV exposure emerged as a marginally significant predictor of internalizing problems and

academic competence ($B = .19, t = 2.26, p < .05$; $B = -.35, t = -2.38, p < .05$, respectively), whereas the PSEI was only a marginally predictor of academic competence ($B = .26, t = 2.67, p < .05$).

Longitudinal regression analyses.

Cross-Lagged Panel Analyses. Cross-lagged panel analysis (CLPA) was used to examine whether CV exposure is associated with decreased social skills and academic competence and increased externalizing and internalizing problems across time. At a minimum, CLPA requires two variables, X and Y, measured at two time points. As Figure 1 demonstrates, four variables (X_1, Y_1, X_2 , and Y_2) are generated from two variables and two time points. Six correlations can be computed for these four variables: two autocorrelations (lines *a* and *b* in Figure 5), two synchronous correlations (each variable with the other at the same point in time, lines *c* and *d*), and two cross-lagged correlations (each variable with the other at a different point in time, lines *e* and *f*) (Kenny, 1975; Taris, 2000). One of the main ideas behind CLPA is that comparison of the cross-lagged correlations is indicative of the directional influence between the variables of interest. For instance, if X caused Y, then the correlation between X_1 and Y_2 should be significantly stronger than the correlation between Y_1 and X_2 . If the cross-lagged correlations are about equal, then the relation between X and Y was spurious (Kenny, 1975; Taris, 2000).

Comparing the cross-lagged correlations alone, however, can yield very misleading results, as this approach does not allow the researcher to control for extraneous variance. As Taris (2000) notes, “The basic fault in comparing cross-lagged correlations lies in the fact that these do not exclusively reflect the lagged causal effects

of one variable on another. The association between two such variables can also be due to the fact that they are both correlated to a third variable; controlling this third variable may reveal that no association between the first two variables remains” (p. 68). For example, after controlling for Y_1 , the association between X_1 and Y_2 may disappear. The current recommended approach for estimating cross-lagged effects is the use of hierarchical regression. Here, two regression equations are computed. First, Y_2 is regressed onto X_1 , after controlling for the effects of Y_1 and X_2 . Second, X_2 is regressed onto Y_1 , after controlling for the effects of Y_2 and X_1 (Burns et al., 2003; Finkel, 1995; Taris, 2000). The standardized regression estimates of the effect of X_1 on Y_2 and of Y_1 on X_2 can then be compared. If either of these is significantly larger than the other, then the directional influence of X versus Y can be concluded (Taris, 2000). This procedure was applied in the current study.

For each outcome variable, two hierarchical regressions were computed. To illustrate with Time 2 social skills as the dependent variable, Time 1 social skills scores and Time 2 CV exposure were entered simultaneously, followed by Time 1 CV exposure in the second step. To test the converse lagged association, with Time 2 CV exposure as the dependent variable, Time 2 social skills scores and Time 1 CV exposure were entered simultaneously, followed by Time 1 social skills scores. In order to maintain the experimentwise error rate, alpha was set at .025 (.05/2), as two regressions were computed for each outcome variable.

Social skills. Figure 6 demonstrates the autocorrelations, synchronous correlations, and cross-lagged correlations between CV exposure and social skills across the two time points. After controlling for Time 1 social skills scores and Time 2 CV

exposure, Time 1 CV exposure emerged as a significant predictor in the model explaining Time 2 social skills ($B = -.17, t = -2.59, p < .025$). Time 1 social skills scores did not emerge as a significant predictor in the model explaining Time 2 CV exposure ($B = -.16, t = -0.80, p > .025$). Results suggest that the directional influence of CV exposure on social skills is significant and greater than the influence of social skills on CV exposure. Results are presented in Table 13.

Externalizing Problems. Figure 7 demonstrates the autocorrelations, synchronous correlations, and cross-lagged correlations between CV exposure and externalizing problems across the two time points. After controlling for Time 1 externalizing problems scores and Time 2 CV exposure, Time 1 CV exposure emerged as a significant predictor in the model explaining Time 2 externalizing problems ($B = .22, t = 2.89, p < .025$). Time 1 externalizing problems scores did not emerge as a significant predictor in the model explaining Time 2 CV exposure ($B = .13, t = 0.83, p > .025$). Results suggest that the directional influence of CV exposure on externalizing problems is significant and greater than the influence of externalizing problems on CV exposure. This finding is noteworthy given that the synchronous correlation for Time 1 CV exposure and Time 1 externalizing problems was not significant ($r = .03, p > .05$). Results are presented in Table 14.

Internalizing Problems. Figure 8 demonstrates the autocorrelations, synchronous correlations, and cross-lagged correlations between CV exposure and internalizing problems across the two time points. After controlling for Time 1 internalizing problems scores and Time 2 CV exposure, Time 1 CV exposure emerged as a marginally significant predictor in the model explaining Time 2 internalizing problems ($B = .15, t = 2.22, p < .05$). Time 1 internalizing problems scores did not emerge as a significant

predictor in the model explaining Time 2 CV exposure ($B = .08, t = 0.47, p > .025$).

Results suggest that the directional influence of CV exposure on internalizing problems is marginally significant and greater than the influence of internalizing problems on CV exposure. Results are presented in Table 15.

Academic Competence. Figure 9 demonstrates the autocorrelations, synchronous correlations, and cross-lagged correlations between CV exposure and academic competence across the two time points. Time 1 CV exposure did not emerge as a significant predictor in the model explaining Time 2 academic competence ($B = -.20, t = -1.89, p > .025$). Similarly, Time 1 academic competence did not emerge as a significant predictor in the converse model ($B = -.06, t = -0.44, p > .025$). This result is noteworthy given that the synchronous correlation between Time 1 CV exposure and Time 1 academic competence was significant ($r = -.29, p > .05$). In the final model for Time 2 academic competence, only Time 1 academic competence emerged as a significant predictor ($B = .78, t = 11.62, p < .0005$). Results are presented in Table 16.

Moderator analyses. As in the cross-sectional analyses, two-way interaction terms were used to examine whether the effects of CV exposure on child outcomes were moderated by gender, ethnicity, the four positive school experience items, the PSEI, and peer acceptance at Time 2. A series of hierarchical regressions paralleling the cross-sectional regressions were conducted on the longitudinal data. The longitudinal analyses differed in that the outcome variables were Time 2 social skills, externalizing and internalizing problems, and academic competence, controlling for the Time 1 level of each respective outcome in the first block of each regression equation.

Peer acceptance (Table 18), being helped by a student (Table 19), being praised or given a put-up by a student (Table 20), being praised by a teacher (Table 22), and the PSEI (Table 23) at Time 1 had no main effects on either social skills, externalizing or internalizing problems, or academic competence at Time 2. Being part of a team or group that worked well together (Table 21) emerged as a significant predictor of internalizing problems ($B = .13, p < .007$) at Time 2. Gender was a marginally significant predictor of academic competence ($B = .32, p < .05$) and ethnicity emerged as marginally significant predictor of externalizing problems ($B = -.31, p < .05$) at Time 2 (Table 17). None of the blocks of two-way interactions explained any additional variance in social skills, externalizing and internalizing problems, and academic competence.

The Stability of Victim and Non-victim Classifications. To examine whether victimization status changed or remained the same over time, a chi-square test for independence was conducted. Children with a mean scale score above two on the VS were descriptively classified as victims, whereas children scoring two or below were descriptively classified as non-victims. Using this procedure, 34.4% of children were classified as victims at Time 1 and 40.8% were classified as victims at Time 2. Results indicated a significant association between victim status at Time 1 and victim status at Time 2, $\chi^2(1, 116) = 7.17, p < .01$, phi coefficient = .27. Approximately, 67% of children who were non-victims at Time 1 remained non-victims. Similarly, 61% of children who were victims at Time 1 remained victims. Most notably, 33% of children went from being non-victims to victims and 39% went from being victims to non-victims. Results are presented in Table 24.

From the information obtained from the chi-square analyses, four new victimization categories were created reflecting children's victimization status across the two time points: 1) non-victim to non-victim, 2) victim to victim, 3) non-victim to victim, and 4) victim to non-victim. To examine whether there was an association between gender and victimization status across time, another chi-square test for independence was conducted. Results revealed no association between gender and victim status, $\chi^2(3, 116) = 0.37, p > .05$, Cramer's $V = .06$. A similar analysis was conducted for ethnicity, yielding null results $\chi^2(3, 116) = 1.20, p > .05$, Cramer's $V = .10$.

Discussion

Building on prior research, this study examined the short-term longitudinal effects of CV exposure on children's social, psychological, and school adjustment. Four main sets of hypotheses were tested: 1) that CV exposure would have effects on social skills, externalizing and internalizing problems, and academic competence; 2) that these effects would vary by gender; 3) that peer acceptance and positive school experiences would buffer children from the effects of CV exposure; and 4) that victimization would remain stable over time. Analyses also examined ethnic group differences in children's responses to CV. Some of the hypotheses received partial support. CV exposure was significantly associated with increased internalizing problems and decreased academic competence initially and decreased social skills and increased externalizing problems across time. With the exception of social skills, these effects were the same for boys and girls and African-American and Latino children. Overall, the analyses found no buffers of the effects of CV exposure on social skills, internalizing problems, and academic competence, but provided some evidence that being helped by other students and having a high total number of positive school experiences, may help protect children from the

adverse effect of CV on externalizing problems. Additionally, results revealed that victimization status was relatively stable across time.

Main effects of CV exposure

Consistent with previous research, the majority of children in the present study were directly exposed to CV (e.g., Kliewer et al., 1999; Overstreet & Braun, 2000). Seventy percent of children reported at least one instance of victimization during a three month period, corresponding to the first three months of the school year. Of these, about 20% reported being hit or pushed often in their neighborhood.

At Time 1, CV exposure was significantly associated with increased internalizing problems and decreased academic competence, which is consistent with previous research (e.g., Kliewer et al., 1998; Mathews et al., 2009; Schwartz & Gorman, 2003). Cross-lagged panel analyses demonstrated that across a span of seven months, initial CV exposure was significantly associated with increased externalizing problems and decreased social skills and marginally associated with increased internalizing problems, after controlling for the effects of subsequent CV exposure and initial child outcome scores. These findings are consistent with those of Kliewer et al. (2004), who found that initial exposure to direct CV was associated with externalizing and internalizing problems one year later in a sample of 101 African-American, 9- to 13-year-old children.

No association between Time 1 CV exposure and Time 2 academic competence was found, which is similar to the findings of Henrich et al. (2004), who found that direct CV exposure was not related to decreased academic achievement across a two year time period. It is possible that the impact of CV exposure does not outweigh the impact of

initial academic aptitude. In the present study, Time 1 academic competence was the only significant predictor in the cross-lagged model for Time 2 academic competence. It is also possible that the relationship between CV exposure and academic competence is better accounted for by a third variable, such as externalizing problems.

The emergence of CV exposure as a significant predictor of decreased social skills and increased externalizing problems at Time 2 is noteworthy. Possible explanations for these results are provided by social cognitive theories. As Gershoff and Aber (2006) note, exposure to CV can impact aggressive behavior by “altering cognitive processes, such as making children more likely to perceive threat or experience fear, to access aggressive responses to solve problems, and to view aggression as a desirable and effective means of achieving positive consequences” (p. 618). Consistent with social learning theory (Bandura, 1977), CV exposure may also model violence as an appropriate behavior. Consequently, children may come to believe that aggressive and violent responses are normal and effective, resulting in an increase in child levels of violence and aggression (Farrell & Bruce, 1999; Fowler et al., 2009; Overstreet, 2000). Finally, children repeatedly exposed to CV may also begin to desensitize to witnessing acts of violence (Gershoff & Aber, 2006; Lynch, 2003). Becoming desensitized to violence may also facilitate children’s own aggressive behavior (Fowler et al., 2009).

Effects of gender and ethnicity

Also similar to previous research, victimization did not differ by ethnicity (e.g., Attar et al., 1994, Ceballo et al., 2001; Schwab-Stone et al., 1999,). African-American and Latino children experienced similar amounts of CV exposure. However, it should be

noted that the sample of Latinos in the present study was small ($n = 21$) and it is likely that there was insufficient power to detect mean differences in CV exposure. While not significant, the mean overall score on the VS was higher for boys than for girls, which is in line with previous research demonstrating that boys are more likely to be exposed to direct CV than girls (e.g., Cooley-Quille et al., 2001; Richters & Martinez, 1993b; Schwartz & Proctor, 2000).

Gender and ethnicity emerged as moderators of the relation between CV exposure and social skills at Time 1. Boys reporting higher levels of CV exposure had lower social skills scores. However, this relation was not present for girls. Boys with lower social skills scores may have inadvertently exposed themselves to greater amounts of CV as a result of lacking the social skills to avoid potentially violent situations. Overall, girls had significantly higher social skills scores than boys. Therefore, even lower skilled girls were more skillful than average skilled boys. Taken together, these results suggest that at the lowest level of social skills one risk is greater CV exposure. Previous research indicates that children with poor social skills are more likely to be peer rejected and to affiliate with deviant peers who also have poor social skills (Bierman, 2005). Affiliation with deviant or less skillful peers has been found to put children at increased risk for CV exposure (Halliday-Boykins & Graham, 2001).

At high levels of victimization, Latino children had higher social skills scores, whereas African-American children had lower social skills scores. These findings suggest that high direct CV exposure had less deleterious effects on social skills for Latino than African-American children. One possible explanation for these findings may be related to differences in cultural protective processes present in the lives of the Latino and African-

American children. One value considered distinctly Latino and hypothesized to serve a protective function in Latino communities is *familismo* (Clauss-Ehlers & Lopez Levi, 2002; also called familialism and familism), which emphasizes the importance of the family unit and stresses the obligations and support that family members owe to both nuclear and extended kin. Key components of *familismo* include a sense of obligation to provide economic and emotional support for family members, reliance on family members for support, and the perception of family members as behavioral and attitudinal referents (German, Gonzalez, & Dumka, 2008; Marin & Marin, 1991; Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987). There is some research evidence supporting the protective role of *familismo* in the lives of Latino youth. For example, German et al. (2009) examined whether the familism values of Latino adolescents and their parents protected Latino youth from the negative effects of deviant peer affiliations. Their sample consisted of 598 Mexican American seventh-grade students. Results revealed that adolescent, maternal, and paternal familism values attenuated the relation between deviant peer affiliation and teacher reports of youth externalizing behavior problems.

Protective factors

One of the key questions of this study was whether or not peer acceptance and positive school experiences would buffer the effects of CV exposure on child outcomes. Being helped by a student and the PSEI emerged as marginally significant moderators of the effect of CV exposure on externalizing problems at Time 1. More specifically, children who received greater amounts of help from peers had fewer externalizing problems at high levels of CV exposure. These results are in line with the findings of Hill

and Madhere (1996) who found that peer support was related to enhanced social competence in the classroom. In terms of the PSEI findings, children who encountered more positive school experiences had fewer externalizing problems at high levels of CV exposure. While no existing CV study to this point has looked at number of protective factors as a buffer against the adverse effects of victimization, the findings of the present study, although preliminary, are consistent with the idea that the greater the number of protective factors existing in key systems in at-risk children's lives, such as school, the more likely they are to obtain resilient outcomes (Haggerty, Sherrod, Garmezy, & Rutter, 1994).

Most notably, these effects were only present for externalizing problems, the only child outcome not associated with the CV exposure at Time 1. The finding that CV exposure is associated with increased externalizing problems in children is among the most robust in CV research (Lynch, 2003). Therefore, it is possible that this effect was not evident in the present study as a result of the presence of these protective factors in the participant's lives. That is, the experience of being helped by a student and having more positive school experiences overall may have promoted competence in behavioral outcomes. Being helped by a student and the PSEI may have had protective-enhancing effects. When a protective-enhancing factor is present, adjustment difficulties decline with increasing risk when the level of the protective factor is high. When the level of the protective is low, on the other hand, adjustment difficulties increase with increasing risk (Kliewer et al., 2004; Luthar, Cicchetti, & Becker, 2000). The effects of being helped by a student and the PSEI fall into this pattern.

One might wonder why this effect was only evident with regard to externalizing problems. However, resilience is not a unidimensional construct and it is possible for a child to demonstrate resilience in one domain and not another. For instance, Luthar (1991) found that among a sample of adolescents who experienced significant adversity, those who overtly reflected successful adaptation (e.g., academic achievement) struggled with covert psychological difficulties, such as depression. Therefore, resilience should be viewed as successful coping in specific domains (Luthar, 1991; O'Donnell et al., 2002). Resilience is also not permanent. Developmental progression and changing life circumstances can greatly alter resilience. Thus, it is possible for a child to successfully cope with significant environmental stressors at one point in his or her life, but react negatively to other stressors at a later point in time (Luthar, 2006). This may explain why the interaction effects were only evident cross-sectionally.

Stability of victimization status

Exploratory analyses examining the stability of victim versus non-victim status across the two time points revealed that victimization status was relatively stable. That is, most children who were highly victimized at Time 1 were highly victimized at Time 2. No gender or ethnic differences in victimization status were found. These findings mirror those of Lynch and Cicchetti (1998) who found that direct CV exposure was positively correlated with reports of victimization one year later, as well as externalizing and internalizing problems in a sample of 7- to 12-year-old children. Chronic victimization is troubling, as it can result in a number of concurrent and subsequent adjustment difficulties (Hanish & Guerra, 2000). Adjustment difficulties, in turn, may put children at increased risk for violence exposure. For example, Lynch and Cicchetti (1998) also found

that children's externalizing behaviors significantly predicted increased victimization by CV one year later, indicating a transactional relationship between initial acting out behaviors and later experiences with violence in the community.

Limitations and strengths

Strengths of the present study include the use of multiple informants and longitudinal data. However, the study was limited by the few forms of CV sampled. Typically, studies of CV examine a wide variety of violent events, ranging from being slapped, punched or hit to being shot with or gun or sexually assaulted. Given the age of the children in the sample, the school administration did not allow the inclusion of items regarding being attacked with sharp weapons, being shot at, or being sexually harassed or assaulted. The primary investigators were also only allowed to have fifth grade children complete the VS, which restricted the age range of sample and prevented age comparisons. Additionally, due to low inter-item correlations, the positive school experience items were analyzed separately, which had an impact on the number of analyses run and the statistical power of some of the study hypotheses.

Overall, the small sample made it difficult to detect interaction effects, and tests of three-way interactions could not be made due to power concerns. As many authors have noted, it is difficult to detect interaction effects in field studies, particularly due to measurement error (Kliewer et al., 1998). While the measures used in the present study had acceptable reliability, when reliabilities drop from 1.00 to .70 and below, the sample size required to produce power of .80 at alpha level of .05 triples (Aiken & West, 1991). The study sample was also predominantly African-American, which made it difficult to

examine ethnic group differences. Additional research should include larger and more ethnically diverse samples. Despite the study limitations, a number of interesting main and interaction effects were found.

Future research directions and implications for intervention.

Various implications for research and intervention emerged from this study. Exposure to CV remains a significant issue for ethnic minority children, including those living in areas beyond the large urban city centers of the U.S. The current study sample was drawn from a small city in central NJ. However, child victimization rates were comparable to those found in studies examining CV exposure in Chicago (Hammack et al., 2004), New York (Mazza & Reynolds, 1999), Los Angeles (Schwartz & Gorman, 2003), and Washington D.C. (Richters & Martinez, 1993). While the current study extended CV research by examining direct exposure rates in a small city sample, more research is needed examining CV in non-urban areas, such as suburban and rural localities.

One of the foci of the study was the longitudinal association between CV exposure and child outcomes across a nine month period. The cross-lagged panel analyses made it possible to determine the directional influence of CV exposure on child outcomes, providing some evidence that CV exposure plays a causal role in adverse child outcomes. However, in order to get a better sense of the impact of CV exposure on child and adolescent development, future research should be conducted over longer time periods. Ideally, this would involve prospective research following children from early childhood into late adolescence and possibly young adulthood. A few gender differences

in outcomes in response to CV exposure also emerged. Therefore, the impact of CV exposure on the development of both genders should continue to be considered.

Similarly, research should continue to explore ethnic differences in the effects of CV exposure. Very little CV research has included sizeable numbers of Asian and White participants. Additionally, future research should also examine possible cultural factors that may buffer the effects of CV exposure.

As the findings of this study suggest, the neighborhood context has important effects on children's development and mental health. Most importantly, the current results provide a snapshot of how different levels of children's ecologies influence each other, and in turn influence children's development. Exposure to violence in the community can impact children's social and psychological adjustment and academic achievement. However, protective factors within the school can offset some the adverse effects of CV and promote resilient outcomes. Future research should continue to explore protective factors within the school, such as school climate, teacher support, and positive school experiences.

For the most part, the CV children and adolescents experience is beyond their control. Therefore, it is up to parents, community leaders, and policy makers to assume responsibility for lessening the violence that children see, hear about, and experience (Kliewer et al., 1998). Even while steps are taken to reduce violence, existing areas of violence can be mapped and children helped to avoid high-risk locations. In addition to reducing children's exposure to violence in the community, efforts should be undertaken to increase protective factors in key domains of children's lives. While marginally significant, being helped by other students and the overall number of positive school

experiences had a protective-enhancing effect, suggesting that preventive efforts that focus on increasing protective factors within schools in high-violence neighborhoods might be valuable while efforts are undertaken to reduce CV. However, these results were only evident cross-sectionally, highlighting the importance of continuity in intervention and research that monitors the effective dosage of protective factors needed over time.

As previously noted, being helped by other students in general and having various positive school experiences in particular are related to an enhanced sense of school community or positive school climate (Gilligan, 2000). Interventions designed to enhance overall school climate provide a promising avenue for addressing the effects of CV, as some research indicates that school environments mediate the effects of neighborhoods on adolescents (Gershoff & Aber, 2006) and a positive school climate is associated with improved mental health and academic outcomes (Cohen, 2006). Approaches to improving school climate include the Seattle Social Development Project (Hawkins et al. 2001), Caring School Community (Child Development Project; Battistich, Schaps, & Wilson, 2004), and Social Decision Making and Social Problem Solving (SDM-SPS; Elias & Srebnik, 1993). Finally, given the high rates of CV exposure children and adolescents experience and the stability of victimization status, school psychologists and community practitioners should routinely inquire about CV exposure in order to determine whether interventions specific to CV are necessary.

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Table 1.
Means and standard deviations for predictor and moderator variables.

	Overall	Female	Male	African Americans	Latino
CV Exposure					
Mean	6.87	6.63	7.12	6.92	6.68
SD	2.84	2.70	2.99	3.03	1.95
N	123	63	60	98	25
Peer Acceptance					
Mean	21.52	21.64	21.40	22.04	19.57
SD	3.45	3.35	3.57	3.17	3.82
N	124	64	60	98	26
Positive School Experiences					
<i>Helped by a student</i>					
Mean	2.97	3.08	2.85	2.95	3.04
SD	0.81	0.70	0.91	0.85	0.66
N	125	64	61	99	26
<i>Praised/been given a put-up by a student</i>					
Mean	2.48	2.64	2.31	2.49	2.42
SD	1.12	1.05	1.18	1.15	1.03
N	123	64	59	97	26
<i>Part of a team/group that worked well together</i>					
Mean	3.27	3.34	3.18	3.32	3.08
SD	1.0	0.86	1.13	0.96	1.13
N	124	64	60	98	26
<i>Praised by a teacher</i>					
Mean	2.73	2.94	2.51	2.82	2.38
SD	1.21	1.14	1.25	1.16	1.33
N	125	64	61	99	26
Positive School Experiences Index					
Mean	2.72	3.00	2.43	2.77	2.54
SD	1.07	0.93	1.13	1.02	1.24
N	125	64	61	99	26

Table 2.
Means and standard deviations for outcome variables.

	Overall	Female	Male	African Americans	Latino
<i>Time 1</i>					
Social Skills					
Mean	38.27	42.83	33.21	36.74	43.67
SD	14.93	13.52	14.92	14.80	14.44
N	95	50	45	74	21
Externalizing					
Mean	3.91	3.37	4.57	4.39	2.29
SD	4.19	4.01	4.34	4.28	3.51
N	92	49	43	71	21
Internalizing Behaviors					
Mean	2.87	1.47	4.43	2.77	3.21
SD	3.41	2.09	3.91	3.24	4.00
N	93	49	44	72	21
Academic Competence					
Mean	29.01	32.29	25.36	28.26	31.63
SD	9.59	9.56	8.28	9.79	8.55
N	95	50	45	74	21
<i>Time 2</i>					
Social Skills					
Mean	41.00	45.10	36.34	38.63	49.57
SD	16.12	14.31	16.90	15.72	14.86
N	111	59	52	87	24
Externalizing Problems					
Mean	4.31	3.48	5.25	5.00	1.81
SD	3.99	3.62	4.23	4.03	2.69
N	111	59	52	87	24
Internalizing Problems					
Mean	3.62	2.64	4.73	3.78	3.06
SD	3.31	2.60	3.68	3.24	3.55
N	111	59	52	87	24
Academic Competence					
Mean	31.23	35.15	26.93	31.11	31.65
SD	9.79	7.80	10.01	9.30	11.56
N	109	57	52	85	24

Table 3.
Group differences by gender.

Variable	Group	N	Mean	SD	<i>t</i>
Victimization	Female	63	6.63	2.70	-0.94
	Male	60	7.12	2.99	
Peer Acceptance	Female	64	21.64	3.35	0.38
	Male	60	21.40	3.57	
Positive School Experiences <i>Helped by a student</i>	Female	64	3.08	0.70	1.55
	Male	61	2.85	0.91	
<i>Praised/been given a put-up by a student</i>	Female	64	2.64	1.05	1.67
	Male	59	2.31	1.18	
<i>Part of a team/group that worked well together</i>	Female	64	3.34	0.86	0.89
	Male	60	3.18	1.13	
<i>Praised by a teacher</i>	Female	64	2.94	1.14	2.01†
	Male	61	2.51	2.23	
Positive School Experience Index	Female	64	3.00	0.93	3.12*
	Male	61	2.43	1.13	
<i>Time 1</i> Social Skills	Female	50	42.83	13.52	3.30*
	Male	45	33.21	14.92	
Externalizing	Female	49	3.34	4.01	-1.41
	Male	43	4.57	4.34	
Internalizing	Female	49	1.46	2.09	-4.49**
	Male	44	4.43	3.91	
Academic Competence	Female	50	32.29	9.56	3.76**
	Male	45	25.36	8.28	
<i>Time 2</i> Social Skills	Female	59	45.01	14.31	2.96*
	Male	52	36.34	16.90	
Externalizing	Female	59	3.48	3.62	-2.37*
	Male	52	5.25	4.23	
Internalizing	Female	59	2.64	2.60	-3.48*
	Male	52	4.73	3.68	
Academic Competence	Female	57	35.15	7.80	4.80**
	Male	52	26.93	10.01	

Note: Critical levels are set at .025 to control error rates.

† $p < .05$ (marginally significant). * $p < .025$, ** $p < .0005$.

Table 4.
Group differences by ethnicity.

Variable	Group	N	Mean	SD	<i>t</i>
Victimization	African-American	98	6.92	3.03	0.48
	Latino	25	6.68	1.95	
Peer Acceptance	African-American	98	22.04	3.17	3.39*
	Latino	26	19.57	3.82	
Positive School Experiences <i>Helped by a student</i>	African-American	99	2.95	0.85	-0.50
	Latino	26	3.04	0.66	
<i>Praised/been given a put-up by a student</i>	African-American	97	2.49	1.15	0.29
	Latino	26	2.42	1.03	
<i>Part of a team/group that worked well together</i>	African-American	98	3.32	0.96	1.09
	Latino	26	3.08	1.13	
<i>Praised by a teacher</i>	African-American	99	2.82	1.16	1.64
	Latino	26	2.38	1.33	
Positive School Experience Index	African-American	99	2.77	1.02	0.98
	Latino	26	2.54	1.24	
<i>Time 1</i> Social Skills	African-American	74	36.74	14.80	-1.90
	Latino	21	43.67	14.40	
Externalizing	African-American	71	4.39	4.28	2.06†
	Latino	21	2.29	3.51	
Internalizing	African-American	72	2.77	3.24	-0.52
	Latino	21	3.21	4.00	
Academic Competence	African-American	74	28.26	9.79	1.43
	Latino	21	31.63	8.55	
<i>Time 2</i> Social Skills	African-American	87	38.63	15.72	-3.05*
	Latino	24	49.57	14.86	
Externalizing	African-American	87	5.00	4.03	4.56**
	Latino	24	1.81	2.69	
Internalizing	African-American	87	3.78	3.24	0.94
	Latino	24	3.06	3.55	
Academic Competence	African-American	85	31.11	9.30	-0.24
	Latino	24	31.65	11.56	

Note: Critical levels are set at .025 to control error rates.

† $p < .05$ (marginally significant). * $p < .025$, ** $p < .0005$.

Table 5.
Intercorrelations among predictor, moderator, and outcome variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	--											
2. Ethnicity	-.03	--										
3. CV Exposure	.10	-.04	--									
4. Peer Acceptance	-.03	-.25**	-.43**	--								
5. Helped by student	-.14	.05	.08	.08	--							
6. Praised/given put-up	-.15	-.03	-.09	.13	-.03	--						
7. Part of team/group	-.08	-.10	-.22**	.38**	.16	.05	--					
8. Praised by teacher	-.18*	-.15	-.14	.20*	.02	.40**	.13	--				
9. Social Skills	-.30**	.20	-.20	.13	-.03	.14	.09	.13	--			
10. Externalizing Prob.	.148	-.21*	.03	-.02	.02	-.09	.05	-.06	-.64**	--		
11. Internalizing Prob.	.44**	.06	.26*	-.24*	.01	-.04	-.26*	-.19	-.59**	.46**	--	
12. Academic Comp.	-.36**	.14	-.29**	.13	-.04	.25*	.24*	.22*	.68**	-.33**	-.41**	--

Note: * $p < .05$, ** $p < .01$.

Table 6.
Hierarchical regression results for the effects of CV exposure, gender, and ethnicity on child outcomes.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Social Skills							
Step 1	.16	.16*	5.48	3, 90			
CV Exposure					-.30	.09	-.44*
Gender					.25	.09	.26*
Ethnicity					.22	.11	.19†
Step 2	.26	.10*	6.07	2, 88			
CV x Gender					.30	.13	.30†
CV x Ethnicity					.51	.22	.23†
Outcome: Externalizing Problems							
Step 1	.07	.07	2.04	3, 87			
CV Exposure					.18	.14	.18
Gender					-.20	.14	-.14
Ethnicity					-.33	.18	-.19
Step 2	.10	.04	1.84	2, 85			
CV x Gender					-.39	.20	-.27
CV x Ethnicity					.13	.35	.04
Outcome: Internalizing Problems							
Step 1	.24	.24**	9.35	3, 88			
CV Exposure					.28	.10	.35†
Gender					-.47	.11	-.41**
Ethnicity					.11	.13	.08
Step 2	.26	.02	1.07	2, 86			
CV x Gender					-.22	.15	-.19
CV x Ethnicity					-.02	.26	-.01
Outcome: Academic Competence							
Step 1	.21	.21**	7.86	3, 90			
CV Exposure					-.57	.20	-.38*
Gender					.68	.20	.32*
Ethnicity					.32	.25	.12
Step 2	.23	.02	1.02	2, 88			
CV x Gender					.35	.28	.16
CV x Ethnicity					.30	.49	.06

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 7.

Hierarchical regression results for the effects of CV exposure and peer acceptance.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Social Skills							
Step 1	.04	.04	2.03	2, 90			
CV Exposure					-.11	.08	-.17
Peer Acceptance					.07	.20	.04
Step 2	.04	.00	0.11	1, 89			
CV x Peer Acceptance					.07	.21	.04
Outcome: Externalizing Problems							
Step 1	.00	.00	0.05	2, 87			
CV Exposure					.04	.12	.04
Peer Acceptance					-.03	.31	-.01
Step 2	.00	.00	0.04	1, 86			
CV x Peer Acceptance					.07	.32	.03
Outcome: Internalizing Problems							
Step 1	.09	.09†	4.20	2, 88			
CV Exposure					.17	.10	.21
Peer Acceptance					-.34	.24	-.17
Step 2	.09	.00	0.17	1, 87			
CV x Peer Acceptance					.10	.25	.05
Outcome: Academic Competence							
Step 1	.09	.09†	4.20	2, 90			
CV Exposure					-.44	.18	-.30†
Peer Acceptance					.03	.44	.01
Step 2	.09	.00	0.02	1, 89			
CV x Peer Acceptance					-.07	.46	-.02

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 8.
Hierarchical regression results for the effects of CV exposure and helped by a student on child outcomes.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Social Skills							
Step 1	.04	.04	1.94	2, 91			
CV Exposure					-.16	.07	-.23†
Helped by a student					-.03	.06	-.05
Step 2	.08	.04	3.64	1, 90			
CV x Helped by a student					.14	.07	.20
Outcome: Externalizing Problems							
Step 1	.00	.00	0.06	2, 88			
CV Exposure					.07	.10	.08
Helped by a student					.06	.10	.06
Step 2	.07	.07†	6.65	1, 87			
CV x Helped by a student					-.27	.11	-.28†
Outcome: Internalizing Problems							
Step 1	.07	.07†	3.24	2, 89			
CV Exposure					.23	.08	.29*
Helped by a student					.01	.07	.02
Step 2	.10	.03	2.97	1, 88			
CV x Helped by a student					-.15	.09	-.18
Outcome: Academic Competence							
Step 1	.09	.09†	4.26	2, 91			
CV Exposure					-.45	.15	-.30*
Helped by a student					-.03	.13	-.03
Step 2	.09	.00	0.28	1, 90			
CV x Helped by a student					.08	.16	.06

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 9.
Hierarchical regression results for the effects of CV exposure and praised or been given put-up by a student on child outcomes.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Social Skills							
Step 1	.06	.06	2.67	2, 89			
CV Exposure					-.13	.07	-.19
Praised/given put-up					.05	.05	.13
Step 2	.06	.00	0.04	1, 88			
CV x Praised/given put-up					.01	.06	.02
Outcome: Externalizing Problems							
Step 1	.01	.01	0.38	2, 86			
CV Exposure					.02	.11	.02
Praised/given put-up					-.05	.07	-.09
Step 2	.02	.02	1.32	1, 85			
CV x Praised/given put-up					-.11	.09	-.12
Outcome: Internalizing Problems							
Step 1	.07	.07†	3.17	2, 87			
CV Exposure					.21	.08	.26†
Praised/given put-up					-.01	.05	-.02
Step 2	.07	.00	0.07	1, 86			
CV x Praised/given put-up					.02	.07	.03
Outcome: Academic Competence							
Step 1	.14	.14*	6.98	2, 89			
CV Exposure					-.40	.15	-.27*
Praised/given put-up					.21	.09	.22†
Step 2	.14	.01	0.64	1, 88			
CV x Praised/given put-up					.10	.13	.08

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 10.

Hierarchical regression results for the effects of CV exposure and part of team or group that worked well together on child outcomes.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Social Skills							
Step 1	.04	.04	2.03	2, 91			
CV Exposure					-.11	.07	-.17
Part of team/group					-.01	.05	-.01
Step 2	.07	.03	2.43	1, 90			
CV x Part of team/group					.10	.06	.17
Outcome: Externalizing Problems							
Step 1	.01	.01	0.22	2, 88			
CV Exposure					.04	.11	.04
Part of team					.05	.08	.08
Step 2	.01	.00	0.10	1, 87			
CV x Part of team/group					-.03	.09	-.04
Outcome: Internalizing Problems							
Step 1	.11	.11*	5.57	2, 89			
CV Exposure					.17	.08	.21†
Part of team/group					-.12	.06	-.21
Step 2	.11	.00	0.04	1, 88			
CV x Part of team/group					-.01	.07	-.02
Outcome: Academic Competence							
Step 1	.12	.12*	6.15	2, 91			
CV Exposure					-.34	.15	-.23†
Part of team/group					.14	.11	.14
Step 2	.14	.02	2.46	1, 90			
CV x Part of team/group					.20	.13	.17

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 11.
Hierarchical regression results for the effects of CV exposure and praised by teacher on child outcomes.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Social Skills							
Step 1	.05	.05	2.49	2, 91			
CV Exposure					-.12	.07	-.18
Praised by teacher					.04	.04	.10
Step 2	.05	.00	0.13	1, 90			
CV x Praised by teacher					.02	.05	.04
Outcome: Externalizing Problems							
Step 1	.01	.01	0.22	2, 88			
CV Exposure					.02	.11	.02
Praised by teacher					-.03	.06	-.05
Step 2	.02	.01	1.28	1, 87			
CV x Praised by teacher					-.09	.08	-.12
Outcome: Internalizing Problems							
Step 1	.09	.09†	4.53	2, 89			
CV Exposure					.19	.08	.24†
Praised by teacher					-.08	.05	-.16
Step 2	.09	.00	0.01	1, 88			
CV x Praised by teacher					-.01	.06	-.01
Outcome: Academic Competence							
Step 1	.12	.12*	6.02	2, 91			
CV Exposure					-.39	.15	-.26†
Praised by teacher					.16	.09	.18
Step 2	.12	.00	0.09	1, 90			
CV x Praised by teacher					.03	.11	.03

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 12.

Hierarchical regression results for the effects of CV exposure and positive school experiences index (PSEI) on child outcomes.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Social Skills							
Step 1	.04	.04	3.91	1, 92			
CV Exposure					-.11	.07	-.17
Step 2	.05	.01	0.92	1, 91			
PSEI					.04	.05	.09
Step 3	.07	.02	1.78	1, 90			
CV x PSEI					.09	.07	.14
Outcome: Externalizing Problems							
Step 1	.00	.00	0.09	1, 89			
CV Exposure					.00	.10	.00
Step 2	.00	.00	0.05	1, 88			
PSEI					.03	.07	.04
Step 3	.05	.05†	4.62	1, 87			
CV x PSEI					-.21	.10	-.23†
Outcome: Internalizing Problems							
Step 1	.07	.07†	6.52	1, 90			
CV Exposure					.19	.08	.24†
Step 2	.09	.02	2.19	1, 89			
PSEI					-.08	.05	-.15
Step 3	.09	.00	0.03	1, 88			
CV x PSEI					-.01	.08	-.02
Outcome: Academic Competence							
Step 1	.09	.09*	8.58	1, 92			
CV Exposure					-.35	.15	-.23†
Step 2	.16	.07*	7.72	1, 91			
PSEI					.26	.10	.26†
Step 3	.17	.02	1.72	1, 90			
CV x PSEI					.18	.13	.13

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 13.
Cross-lagged regressions for social skills.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Time 2 Social Skills							
Step 1	.37	.37**	25.26	2, 86			
Time 2 CV Exposure					-.03	.06	-.04
Time 1 Social Skills					.60	.09	.54**
Step 2	.42	.05*	6.67	1, 85			
Time 1 CV Exposure					-.17	.07	-.23*
Outcome: Time 2 CV Exposure							
Step 1	.15	.15*	7.63	2, 86			
Time 1 CV Exposure					.36	.12	.33*
Time 2 Social Skills					-.09	.19	-.06
Step 2	.16	.01	0.64	1, 85			
Time 1 Social Skills					-.16	.20	-.10

Note: Critical levels are set at .025 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .025$, ** $p < .0005$.

Table 14.
Cross-lagged regressions for externalizing problems.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Time 2 Externalizing							
Step 1	.47	.47**	37.42	2, 83			
Time 2 CV Exposure					.01	.07	.01
Time 1 Externalizing					.65	.07	.67**
Step 2	.52	.05*	8.37	1, 82			
Time 1 CV Exposure					.22	.08	.24*
Outcome: Time 2 CV Exposure							
Step 1	.15	.15**	7.19	2, 83			
Time 1 CV Exposure					.40	.12	.36*
Time 2 Externalizing					.02	.17	.02
Step 2	.16	.01	0.69	1, 82			
Time 1 Externalizing					.13	.16	.12

Note: Critical levels are set at .025 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .025$, ** $p < .0005$.

Table 15.
Cross-lagged regressions for internalizing problems.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Time 2 Internalizing							
Step 1	.43	.43**	32.23	2, 84			
Time 2 CV Exposure					.08	.06	.12
Time 1 Internalizing					.54	.08	.56**
Step 2	.47	.03†	4.96	1, 83			
Time 1 CV Exposure					.15	.07	.20†
Outcome: Time 2 CV Exposure							
Step 1	.18	.18**	9.09	2, 84			
Time 1 CV Exposure					.32	.12	.29*
Time 2 Internalizing					.25	.19	.18
Step 2	.18	.00	0.22	1, 83			
Time 1 Internalizing					.08	.18	.06

Note: Critical levels are set at .025 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .025$, ** $p < .0005$.

Table 16.
Cross-lagged regressions for academic competence.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: Time 2 Academics							
Step 1	.65	.65*	81.37	2, 86			
Time 2 CV Exposure					-.03	.09	-.02
Time 1 Academics					.78	.07	.76**
Step 2	.67	.01	3.59	1, 85			
Time 1 CV Exposure					-.20	.11	-.13
Outcome: Time 2 CV Exposure							
Step 1	.15	.15**	7.52	2, 86			
Time 1 CV Exposure					.36	.12	.33*
Time 2 Academics					-.04	.13	-.05
Step 2	.15	.00	0.19	1, 85			
Time 1 Academics					-.06	.13	-.08

Note: Critical levels are set at .025 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .025$, ** $p < .0005$.

Table 17.

Hierarchical regression results for the effects of CV exposure, gender, and ethnicity on child outcomes at time 2.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: T2 Social Skills							
Step 1	.36	.36**	50.83	1, 92			
T1 Social Skills					.56	.10	.50**
Step 2	.45	.09*	5.02	3, 89			
T1 CV Exposure					-.16	.09	-.22
Gender					.11	.09	.10
Ethnicity					.20	.11	.16
Step 3	.46	.01	0.49	2, 87			
T1 CV x Gender					.01	.12	.01
T1 CV x Ethnicity					-.21	.21	-.09
Outcome: T2 Externalizing Problems							
Step 1	.47	.47**	77.29	1, 89			
T1 Externalizing Problems					.61	.07	.63**
Step 2	.57	.10**	6.59	3, 86			
T1 CV Exposure					.17	.10	.18
Gender					-.13	.10	-.09
Ethnicity					-.31	.12	-.19†
Step 3	.57	.00	0.35	2, 84			
T1 CV x Gender					.11	.14	.08
T1 CV x Ethnicity					-.07	.24	-.02
Outcome: T2 Internalizing Problems							
Step 1	.40	.40**	60.97	1, 90			
T1 Internalizing Problems					.55	.09	.57**
Step 2	.47	.07†	3.56	3, 87			
T1 CV Exposure					.16	.09	.21†
Gender					-.05	.10	-.05
Ethnicity					-.14	.11	-.10
Step 3	.48	.01	1.17	2, 85			
T1 CV x Gender					-.03	.12	-.02
T1 CV x Ethnicity					.32	.21	.13
Outcome: T2 Academic Competence							
Step 1	.65	.65**	167.56	1, 90			
T1 Academic Competence					.73	.067	.71**
Step 2	.70	.05*	4.37	3, 87			
T1 CV Exposure					-.30	.129	-.20†
Gender					.32	.135	.15†
Ethnicity					-.21	.157	-.08
Step 3	.71	.02	2.60	2, 85			
T1 CV x Gender					.05	.18	.02
T1 CV x Ethnicity					.69	.31	.14

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient. † $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 18.
Hierarchical regression results for the effects of CV exposure and peer acceptance on time 2 child outcomes.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: T2 Social Skills							
Step 1	.36	.36**	50.27	1, 91			
T1 Social Skills					.60	.09	.55**
Step 2	.42	.06†	4.54	2, 89			
CV Exposure					-.19	.07	-.25†
Peer Acceptance					-.08	.18	-.05
Step 3	.42	.00	0.16	1, 88			
CV x Peer Acceptance					.07	.18	.04
Outcome: T2 Externalizing Problems							
Step 1	.47	.47**	76.43	1, 88			
T1 Externalizing Problems					.65	.07	.67**
Step 2	.52	.06*	5.24	2, 86			
CV Exposure					.23	.08	.25*
Peer Acceptance					.03	.20	.01
Step 3	.52	.00	0.00	1, 85			
CV x Peer Acceptance					.01	.21	.00
Outcome: T2 Internalizing Problems							
Step 1	.40	.40**	60.29	1, 89			
T1 Internalizing Problems					.56	.08	.58**
Step 2	.46	.05†	4.08	2, 87			
CV Exposure					.16	.07	.21†
Peer Acceptance					.01	.18	.01
Step 3	.46	.00	0.47	1, 86			
CV x Peer Acceptance					-.13	.19	-.06
Outcome: T2 Academic Competence							
Step 1	.65	.65**	167.5	1, 90			
T1 Academic Competence			6		.78	.07	.77**
Step 2	.67	.02†	3.20	2, 88			
CV Exposure					-.15	.11	-.10
Peer Acceptance					.32	.27	.08
Step 3	.67	.00	0.03	1, 87			
CV x Peer Acceptance					.05	.28	.01

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 19.

Hierarchical regression results for the effects of CV exposure and helped by a student on child outcomes at time 2.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: T2 Social Skills							
Step 1	.36	.36**	50.83	1, 92			
T1 Social Skills					.60	.09	.54**
Step 2	.43	.07*	5.50	2, 90			
CV Exposure					-.18	.06	-.24*
Helped by a student					-.07	.05	-.11
Step 3	.43	.00	0.00	1, 89			
CV x Helped by a student					.00	.06	.00
Outcome: T2 Externalizing Problems							
Step 1	.47	.47**	77.29	1, 89			
T1 Externalizing Problems					.66	.07	.69**
Step 2	.53	.06*	5.53	2, 87			
CV Exposure					.22	.07	.24*
Helped by a student					-.05	.06	-.06
Step 3	.53	.00	0.52	1, 86			
CV x Helped by a student					.05	.08	.06
Outcome: T2 Internalizing Problems							
Step 1	.40	.40**	60.97	1, 90			
T1 Internalizing Problems					.54	.08	.56**
Step 2	.46	.05†	4.12	2, 88			
CV Exposure					.19	.06	.25*
Helped by a student					.01	.06	.01
Step 3	.46	.01	1.08	1, 87			
CV x Helped by a student					-.07	.07	-.09
Outcome: T2 Academic Competence							
Step 1	.65	.65**	167.5	1, 90			
T1 Academic Competence					.79	.07	.77**
Step 2	.67	.02	2.30	2, 88			
CV Exposure					-.19	.10	-.13†
Helped by a student					.02	.08	.01
Step 3	.67	.00	0.88	1, 87			
CV x Helped by a student					-.09	.10	-.06

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 20.

Hierarchical regression results for the effects of CV exposure and praised/given put-up by a student on child outcomes at time 2.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: T2 Social Skills							
Step 1	.36	.36**	49.72	1, 90			
T1 Social Skills					.60	.09	.55**
Step 2	.42	.06†	4.41	2, 88			
CV Exposure					-.18	.06	-.24*
Praised/given put-up					.00	.04	.00
Step 3	.42	.01	0.90	1, 87			
CV x Praised/given put-up					.05	.05	.08
Outcome: T2 Externalizing Problems							
Step 1	.47	.47**	75.56	1, 87			
T1 Externalizing Problems					.65	.07	.67**
Step 2	.52	.06*	5.33	2, 85			
CV Exposure					.22	.07	.24*
Praised/given put-up					-.03	.05	-.04
Step 3	.53	.00	0.10	1, 84			
CV x Praised/given put-up					.02	.06	.02
Outcome: T2 Internalizing Problems							
Step 1	.40	.40**	59.61	1, 88			
T1 Internalizing Problems					.56	.08	.58**
Step 2	.46	.06†	4.66	2, 86			
CV Exposure					.17	.06	.22†
Praised/given put-up					-.04	.04	-.09
Step 3	.47	.00	0.47	1, 85			
CV x Praised/given put-up					-.04	.05	-.05
Outcome: T2 Academic Competence							
Step 1	.65	.65**	167.5	1, 90			
T1 Academic Competence			6		.81	.07	.79**
Step 2	.68	.03†	3.33	2, 88			
CV Exposure					-.21	.10	-.14†
Praised/given put-up					-.09	.06	-.09
Step 3	.68	.00	0.00	1, 87			
CV x Praised/given put-up					-.00	.08	-.00

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 21.

Hierarchical regression results for the effects of CV exposure and part of group or team that worked well together on child outcomes at time 2.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: T2 Social Skills							
Step 1	.36	.36**	50.83	1, 92			
T1 Social Skills					.61	.09	.56**
Step 2	.43	.08*	6.12	2, 90			
CV Exposure					-.21	.06	-.28*
Part group/team					-.07	.05	-.13
Step 3	.43	.00	0.05	1, 89			
CV x Part group/team					-.01	.05	-.02
Outcome: T2 Externalizing Problems							
Step 1	.47	.47**	77.29	1, 89			
T1 Externalizing Problems					.64	.07	.67**
Step 2	.53	.07*	6.11	2, 87			
CV Exposure					.25	.07	.27*
Part group/team					.05	.05	.08
Step 3	.53	.00	0.21	1, 86			
CV x Part group/team					.03	.06	.04
Outcome: T2 Internalizing Problems							
Step 1	.40	.40**	60.97	1, 90			
T1 Internalizing Problems					.61	.08	.63**
Step 2	.50	.10**	8.93	2, 88			
CV Exposure					.21	.06	.27*
Part group/team					.13	.05	.24*
Step 3	.51	.00	0.08	1, 87			
CV x Part group/team					-.01	.05	-.02
Outcome: T2 Academic Competence							
Step 1	.65	.65**	167.5	1, 90			
T1 Academic Competence					.78	.07	.76**
Step 2	.67	.02	2.38	2, 88			
CV Exposure					-.21	.10	-.14†
Part group/team					.03	.07	.03
Step 3	.67	.00	0.08	1, 87			
CV x Part group/team					-.02	.09	-.02

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 22.

Hierarchical regression results for the effects of CV exposure and praised by a teacher on child outcomes at time 2.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: T2 Social Skills							
Step 1	.36	.36**	50.83	1, 92			
T1 Social Skills					.59	.09	.54**
Step 2	.42	.06†	4.91	2, 90			
CV Exposure					-.17	.06	-.23*
Praised by a teacher					.03	.04	.06
Step 3	.43	.01	1.39	1, 89			
CV x Praised by a teacher					.05	.05	.10
Outcome: T2 Externalizing Problems							
Step 1	.47	.47**	77.29	1, 89			
T1 Externalizing Problems					.64	.07	.67**
Step 2	.52	.06*	5.30	2, 87			
CV Exposure					.22	.07	.24*
Praised by teacher					-.01	.04	-.01
Step 3	.53	.00	0.71	1, 86			
CV x Praised by a teacher					-.05	.05	-.06
Outcome: T2 Internalizing Problems							
Step 1	.64	.40**	60.97	1, 90			
T1 Internalizing Problems					.58	.08	.59**
Step 2	.68	.06†	5.10	2, 88			
CV Exposure					.18	.06	.24*
Praised by a teacher					.05	.04	.11
Step 3	.69	.01	1.54	1, 87			
CV x Praised by a teacher					-.06	.05	-.10
Outcome: T2 Academic Competence							
Step 1	.65	.65**	167.5	1, 90			
T1 Academic Competence			6		.80	.07	.80**
Step 2	.67	.02	2.98	2, 88			
CV Exposure					-.22	.10	-.15†
Praised by a teacher					-.06	.06	-.07
Step 3	.67	.00	0.12	1, 87			
CV x Praised by a teacher					-.03	.07	-.02

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 23.

Hierarchical regression results for the effects of CV exposure and positive school experience index (PSEI) on child outcomes at time 2.

Variables	R^2	ΔR^2	F	df	B	$SE B$	β
Outcome: T2 Social Skills							
Step 1	.36	.36*	50.83	1, 92			
T1 Social Skills					.60	.09	.54**
Step 2	.42	.06*	9.13	1, 91			
CV Exposure					-.18	.06	-.25*
Step 3	.42	.00	0.38	1, 90			
PSEI					-.03	.04	-.05
Step 4	.42	.00	0.57	1, 89			
CV x PSEI					.04	.06	.06
Outcome: T2 Externalizing Problems							
Step 1	.47	.47**	77.29	1, 89			
T1 Externalizing Problems					.65	.07	.68**
Step 2	.52	.06*	10.70	1, 88			
CV Exposure					.23	.07	.24*
Step 3	.52	.00	0.06	1, 87			
PSEI					-.03	.05	-.02
Step 4	.52	.00	0.06	1, 86			
CV x PSEI					.02	.07	.02
Outcome: T2 Internalizing Problems							
Step 1	.40	.40**	60.97	1, 90			
T1 Internalizing Problems					.57	.08	.59**
Step 2	.46	.05*	8.33	1, 89			
CV Exposure					.18	.06	.23*
Step 3	.46	.01	1.41	1, 88			
PSEI					.05	.04	.11
Step 4	.48	.01	2.20	1, 87			
CV x PSEI					-.08	.06	-.12
Outcome: T2 Academic Competence							
Step 1	.65	.65**	167.56	1, 90			
T1 Academic Competence					.80	.07	.78**
Step 2	.67	.02†	4.65	1, 89			
CV Exposure					-.22	.10	-.14†
Step 3	.67	.00	0.16	1, 88			
PSEI					-.03	.07	-.02
Step 4	.67	.00	0.38	1, 87			
CV x PSEI					-.06	.09	-.04

Note: Critical levels are set at .007 to control error rates. CV = Community Violence. B = Unstandardized partial regression coefficient. $SE B$ = Standard error of unstandardized partial regression coefficient. β = Standardized partial regression coefficient.

† $p < .05$ (marginally significant). * $p < .007$, ** $p < .0005$.

Table 24.

Cross-tabulation of children who were non-victims/victims at Time 1 and their victimization status at Time 2

Time 1 Victimization Status	Time 2 Victimization Status		Total
	Non-victim	Victim	
Non-victim	50	25	75
Victim	16	25	41
Total	66	50	116

$$\chi^2 (1, 116) = 7.17, p < .01$$

Figure 1.

Plot of community violence exposure X gender predicting social skills.

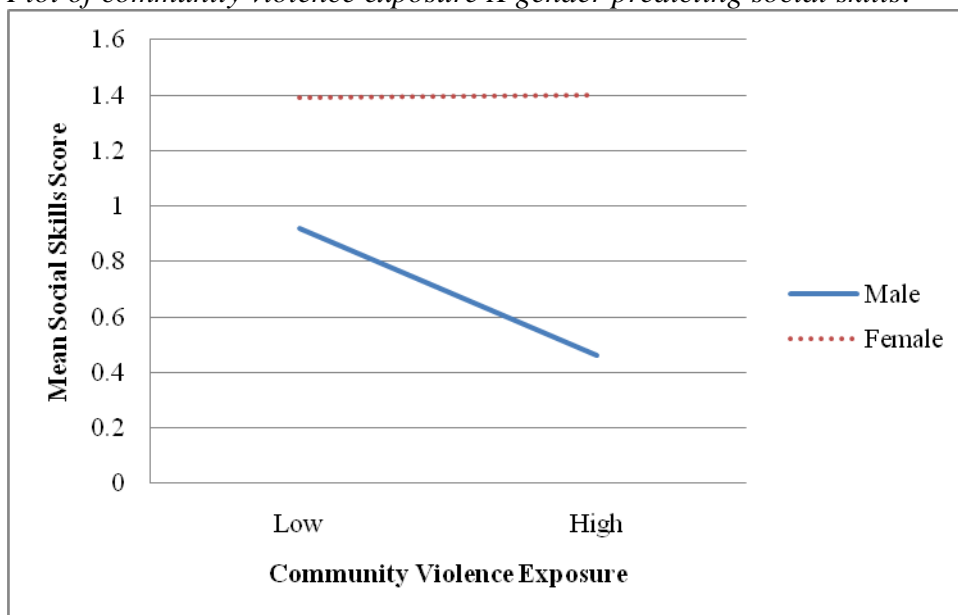


Figure 2.

Plot of community violence exposure X ethnicity predicting social skills.

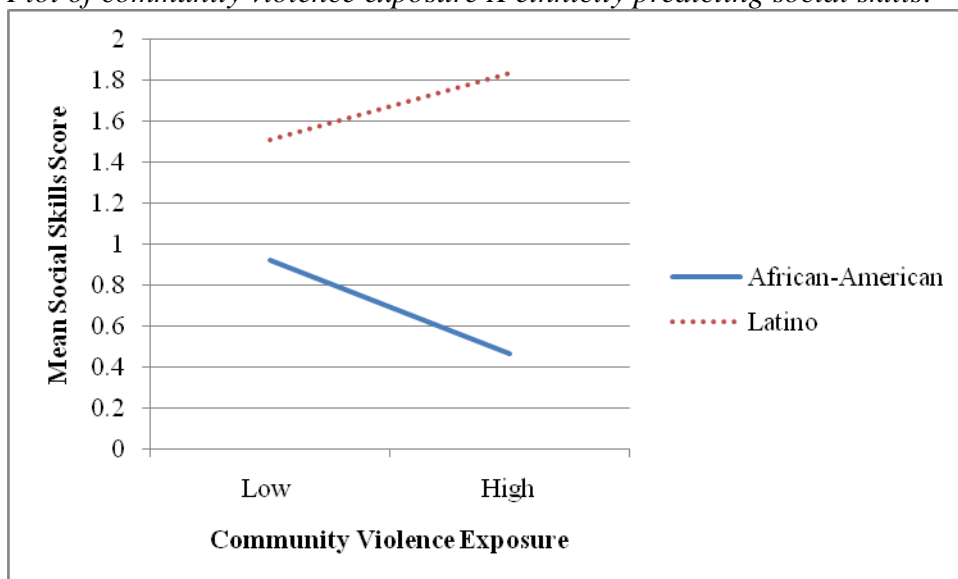


Figure 3.
Plot of community violence exposure X helped by a student predicting externalizing problems.

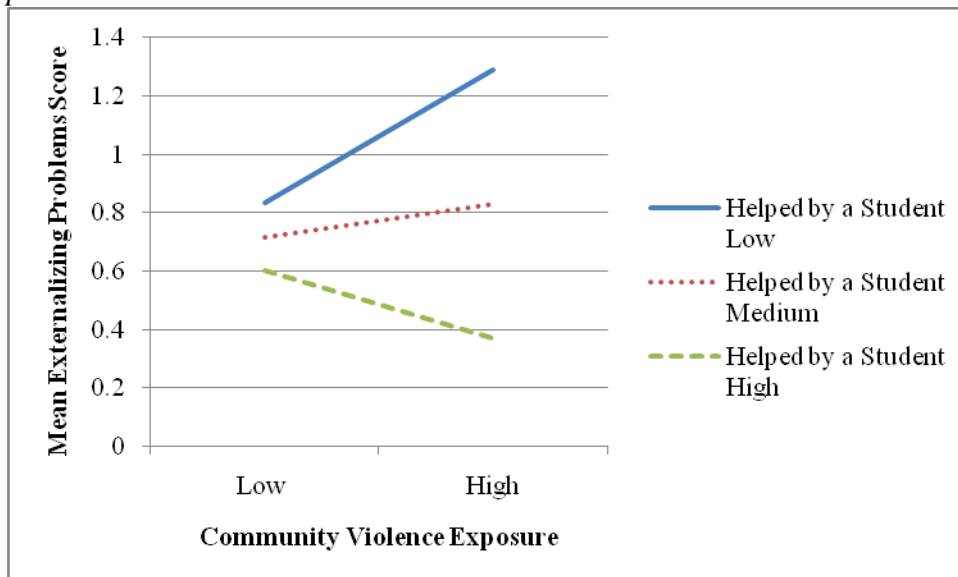


Figure 4.
Plot of community violence exposure X positive school experience index (PSEI) predicting externalizing problems.

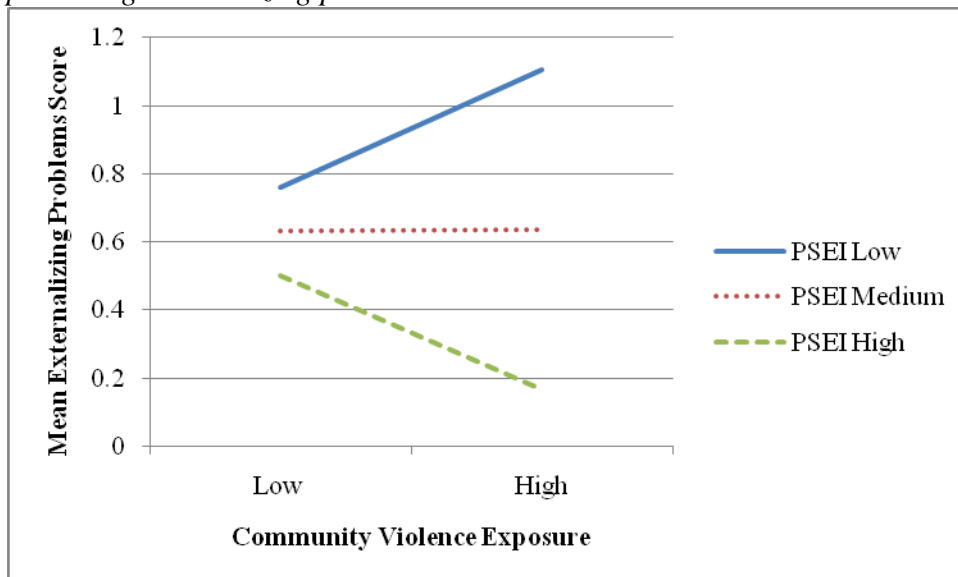


Figure 5.

The two-wave, two-variable cross-lagged panel model.

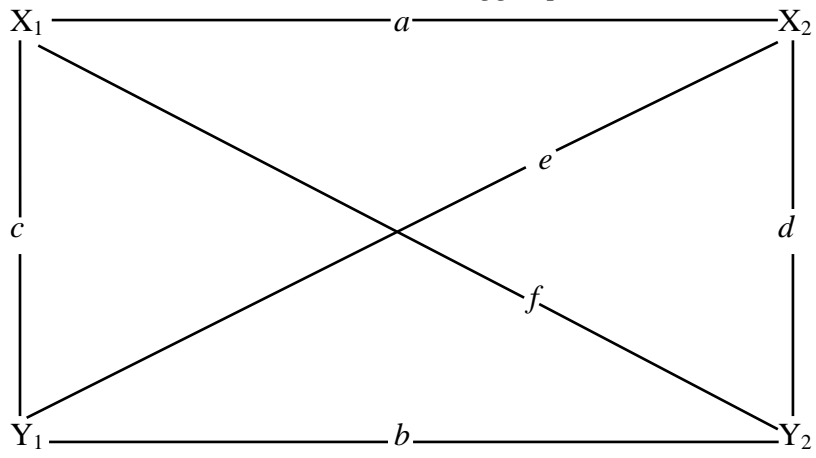
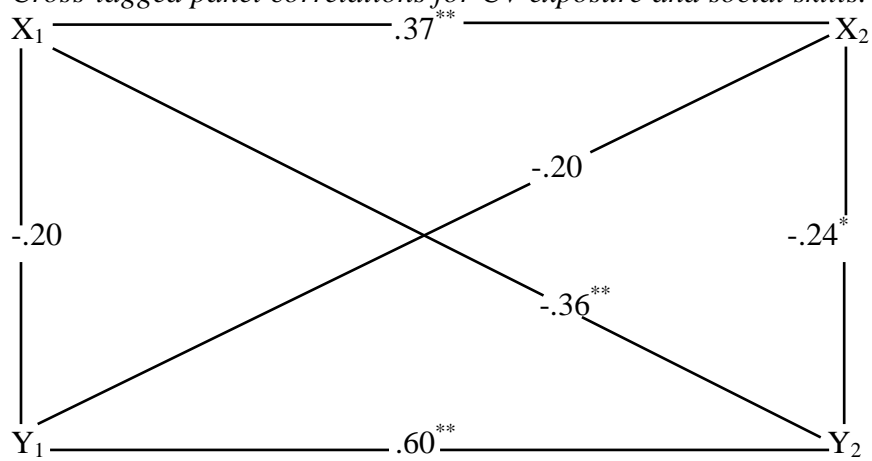


Figure 6.

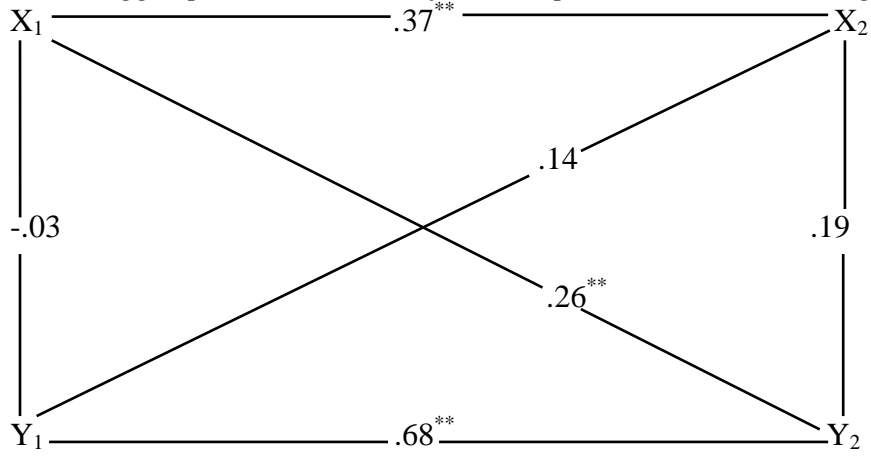
Cross-lagged panel correlations for CV exposure and social skills.



Note: * $p < .05$, ** $p < .01$

Figure 7.

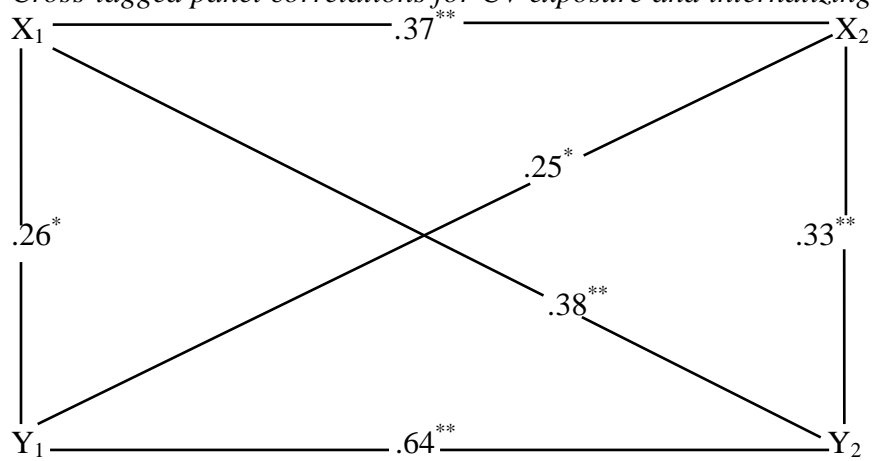
Cross-lagged panel correlations for CV exposure and externalizing problems.



Note: * $p < .05$, ** $p < .01$

Figure 8.

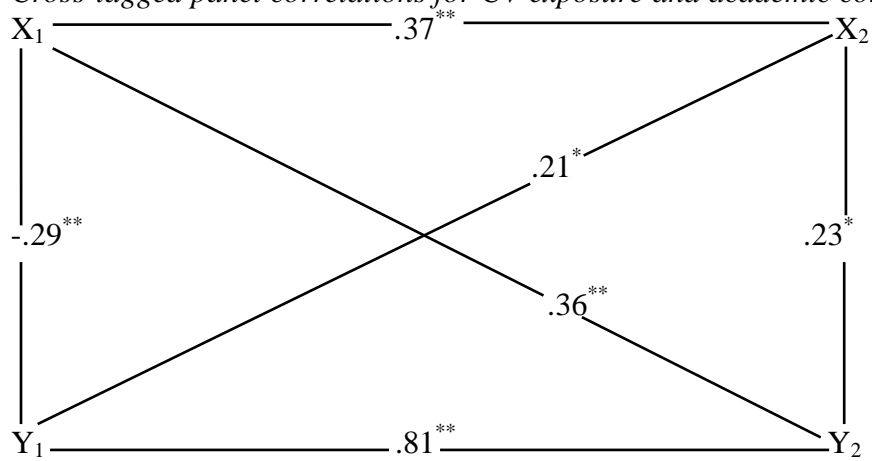
Cross-lagged panel correlations for CV exposure and internalizing problems.



Note: * $p < .05$, ** $p < .01$

Figure 9.

Cross-lagged panel correlations for CV exposure and academic competence.



Note: * $p < .05$, ** $p < .01$