



2016

Examining the Effects of Coping Strategies Specific to Community Violence Exposure Among African American Adolescents

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LOYOLA UNIVERSITY CHICAGO

EXAMINING THE EFFECTS OF COPING STRATEGIES SPECIFIC TO
COMMUNITY VIOLENCE EXPOSURE AMONG AFRICAN AMERICAN
ADOLESCENTS

A THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS
PROGRAM IN CLINICAL PSYCHOLOGY

BY
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CHICAGO, ILLINOIS
MAY 2016

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CHAPTER ONE

INTRODUCTION

Although the overall trajectory for community violence has been declining in the United States since the 1990s, violence is still the leading cause of mortality for African American youth between 10 and 24 years old (Thomas, Woodburn, Thompson, & Leff, 2011). In addition to community violence, African American youth living in under-resourced, urban neighborhoods often encounter economic disadvantage, social disorder, and potentially dangerous situations in their communities (Salzinger, Feldman, Stockhammer, & Hood, 2002). As these negative and pathogenic influences increase, youth could exceed their “stress-management breaking points” (Garbarino et al., 1992). Specifically, youth may begin to respond inappropriately by engaging in aggressive or violent behaviors as a way to remain safe in these environments. Indeed, research consistently demonstrates that exposure to community violence (ECV) predicts higher levels of aggressive beliefs and aggressive behavior in youth (Fowler, Braciszewski, Jacques-Tiura, & Baltes, 2009). The literature has shown that the normalization of aggressive behaviors can cause community violence to remain persistent and could lead to other negative psychosocial outcomes (Salzinger et al., 2002; Scarpa, 2003).

However, some researchers have suggested that increased risk factors for community violence exposure are not necessarily related to community violence exposure or aggressive outcomes (Papachristos, 2009). In fact, studies have demonstrated

that there is a great deal of variability in both ECV and aggressive behaviors in African American youth from under-resourced, urban communities (Copeland-Linder, Lambert, & Ialongo, 2010; Gaylord-Harden, Zakaryan, Bernard, & Pekoc, 2015). There is a need to determine what factors could be playing a role in this variability in order to help African American adolescents respond adaptively to violence exposure in their communities and reduce their levels of exposure. It has been suggested that youth who cope with community violence from a position of strength can develop resilience to better accept future developmental occurrences, which will allow them to deal with challenges more effectively in the long term (Garbarino, 2001). Thus, it is crucial to identify positive youth assets that are particularly protective for adolescents exposed to high levels of violence and could assist in reducing the risk of aggressive and delinquent behavior in the face of violence exposure.

In particular, it has been important to determine how youth are coping with these types of stressors in their lives. While studies have examined general forms of coping as a possible protective factor in the relationship between exposure and externalizing behaviors, results from the coping literature have been mixed (Rosario, Salzinger, Feldman, Ng-Mak, 2003; Scarpa & Haden, 2006). For example, certain coping strategies, such as avoidant coping, have been shown to be a protective factor against violence exposure in some studies (e.g., Edlynn, Gaylord-Harden, Richards & Miller, 2008), but a vulnerability factor for violence exposure in other findings (e.g., Dempsey, 2002). The inconsistency in findings makes intervention efforts difficult. To understand the effect of

community violence on the lives of at-risk youth, it may be necessary to examine coping strategies that are specific to African American adolescents exposed to community violence. Recent qualitative research has identified four types of coping strategies that are specific to community violence exposure (Voisin, Bird, Hardestry, & Shiu, 2011); however, quantitative research is needed to understand the adaptiveness of these strategies for African American adolescents exposed to community violence. Examining more specific forms of coping may better inform prevention and intervention efforts to aid youth and adolescents in dealing with this chronic and uncontrollable stressor in their lives. Moreover, such contextually-relevant forms of coping may be able to explain the variability in violence exposure and externalizing behavioral outcomes.

Given the inconsistent findings within the coping literature for African American youth exposed to community violence, the overall purpose of the current study was to examine coping strategies specific to the context of community violence. Specifically, the current study sought to examine how four domains of coping specific to community violence are associated with the frequency of ECV, and whether they moderate the relationship between ECV and externalizing behaviors. The current study extends beyond existing empirical research by analyzing the applicability of domains of coping that are more directly related to violence exposure and by investigating whether greater usage of these specific techniques will be associated with less exposure, less aggression, and less delinquency. Additionally, the current study distinguishes between the impact of ECV on two related, but distinct, types of externalizing behaviors – aggression and delinquency.

The following sections of the current manuscript will review the literature on the following topics: 1) conceptualization and prevalence of community violence among youth, 2) ECV among ethnic minority youth in urban communities, 3) ECV and externalizing behaviors, 4) variability in ECV, 5) variability in aggression as an outcome of ECV, 6) coping strategies used with stressors and ECV, and 7) coping specific to ECV.

CHAPTER TWO

LITERATURE REVIEW

Conceptualization and Prevalence of Community Violence among Youth

Community violence has been defined as frequent and continuous exposure to the use of guns, knives, drugs, and random violence (Osofsky, 1995). Research on community violence has identified two main subtypes of exposure: victimization and witnessing. Victimization refers to someone being the object of intentional acts initiated by another person to cause harm, such as being chased, threatened, beaten up, robbed, shot, stabbed, or other forms of assault. (Fowler, Braciszewski, Jacques-Tiura, & Baltes, 2009). Witnessing refers to eye-witnessing or hearing about an event that involves the loss of property, threat of physical injury, actual injury, or death to someone else (Fowler et al., 2009).

In a study conducted to obtain one-year and lifetime prevalence estimates of childhood victimization, results from a nationally representative sample of 4,549 youth aged 0 to 17 years in the contiguous United States found that almost half of the participants (46.3%) had experienced victimization through physical assault in the previous year (Finklehor, Turner, Ormrod, & Hamby, 2009). Moreover, 19.2% witnessed assault in the community, 0.5% witnessed a murder, 5.3% were exposed to shooting, and 9.7% had been indirectly exposed to community violence in the previous year.

Exposure to Community Violence among Ethnic Minority Youth in Urban Communities

While research findings, such as those above, suggest that violence exposure affects youth from all backgrounds (e.g., Finkelhor et al., 2009), research consistently demonstrates that a subset of adolescents, particularly ethnic minority adolescents in high poverty and high crime neighborhoods, are more likely to be exposed to community violence. Furthermore, previous studies have found that males report higher rates of exposure to violence and direct victimization than females (Jenkins & Bell, 1994; Richters & Martinez, 1993; McGee, 2003). Due to the extent of community violence in many economically-disadvantaged, urban neighborhoods, these areas have been referred to as “urban war zones” in the United States (Garbarino, Dubrow, Kostelny, & Pardo, 1992). Further, the U.S. Surgeon General (2001) has recognized community violence as a “public health epidemic” for youth in low income, urban neighborhoods. Indeed, an overwhelming majority of research shows that exposure to community violence (ECV) is disproportionately prevalent among African American and Latino youth compared to White youth, even while controlling for income level (Buka, Stichick, Birdthistle, & Earls, 2001; Stein, Jaycox, Kataoka, Rhodes, & Vestal, 2003). Moreover, study findings reveal that as household income increases, the prevalence of witnessing violence and being physically assaulted decreases for White but not for African American or Hispanic youth (Crouch et al., 2000). In the Project on Human Development in Chicago Neighborhoods, African Americans had significantly higher scores on measures of ECV

compared to Whites in both parent report and youth report data (Kuo, Mohlerm, Raudenbush, & Earls, 2000).

In general, previous studies have found that between 50% and 96% of urban youth have reported witnessing community violence in their lifetimes (Fowler et al., 2009; Sheidow, Gorman-Smith, Tolan, & Henry, 2001). Within a study of Latino and African American boys in fifth and seventh grade, a total of 80% of African American and Latino boys reported some exposure during their lifetime and 65% reported exposure during the past year (Gorman-Smith & Tolan, 1998). These prevalence statistics have often varied by the specific type of community violence youth have encountered. In a study of 97 African American and Hispanic boys aged 6 to 10 years old in New York City, 35% reported witnessing a stabbing, 33% had seen someone get shot, 23% had seen a dead body in their neighborhood, and 25% had seen someone get killed (Miller et al., 1999). In a survey of African American, inner-city elementary school-aged children in the second, fourth, sixth, and eighth grades in Chicago, 26.3% of participants reported that they had seen someone shot and 30.0% reported that they had witnessed a stabbing (Bell & Jenkins, 1993). The same researchers also surveyed a sample of African American high school and middle school students attending violence prevention workshops in Chicago. Among these students, 35% witnessed a stabbing, 39% witnessed a shooting, and 24% witnessed someone getting killed, and 47% had been personally victimized. Among those who were personally victimized, 11% reported being shot at, 3% had been shot, and 4% had been stabbed.

Along with these reported frequencies, the degree of exposure has also varied. A total of 50% of participants within one study reported exposure to more than one event, and 30% reported exposure to three or more events in the past year (Gorman-Smith & Tolan, 1998). Within another sample, 45% of participants had seen more than one violent incident (Bell & Jenkins, 1993). Furthermore, the investigators found that students' experiences with violence were cumulative. In other words, those who witnessed a killing also witnessed less severe cases of violence, such as robberies, shootings, and stabbings. Moreover, those who had perpetrated a violent act were more likely to have witnessed and been a victim of violence (Bell & Jenkins, 1993). The authors noted that it was rare to find instances in which participants reported witnessing someone get killed without having seen less severe forms of violence, and it was also rare for participants to report perpetration without witnessing violence or being previously victimized (Bell & Jenkins, 1993).

Overall, it appears that the frequency of exposure to different types of violence in the community is somewhat variable, but a higher degree of witnessing may occur among these youth as opposed to direct victimization. Regardless, these prevalence estimates are concerning, given that ECV has a significant influence on daily life and negatively impinges upon optimal development for African Americans in urban communities (Kuther & Wallace, 2003). Yet, more research is needed to understand what factors may be protective against the negative effects of ECV or what factors may help youth positively manage these stressors in their lives. The identification of protective factors is

an important area of focus. According to the Centers for Disease Control and Prevention (CDC), trend analyses between 1999 and 2007 revealed that age-adjusted homicide rates decreased for Hispanics and Asian/Pacific Islanders, but increased for African Americans over the 9-year period. Moreover, age-adjusted homicide rates were consistently highest among African Americans, which ranged from 20.6 to 22.4 deaths per 100,000 persons. During each year in that period, the homicide rate was approximately 2 to 3 times higher in African Americans than among American Indian/Alaska Native peoples and at least 5 times higher than Asian/Pacific Islanders and Whites (Logan, Smith, & Stevens, 2011). Given these alarming statistics for African American adolescents, understanding how community violence exposure impacts emotional and behavioral development over time, as well as identifying contextually relevant and modifiable protective factors, for these youth is critical for effective violence prevention and intervention efforts.

Exposure to Community Violence and Externalizing Behaviors

Researchers have consistently found that community violence often results in aggressive and deviant behavior among children, adolescents, and young adults in both cross-sectional and longitudinal studies (Fowler et al., 2009). For example, in one study of subjects aged 12 to 15 years old in Chicago, it was found that exposure to firearm violence doubled the probability of an adolescent perpetrating serious violence in the subsequent two years (Bingenheimer, Brennan, & Earls, 2005). In another study of 187 youth, participants who reported higher levels of ECV were significantly more likely to report delinquent behaviors, such as possessing a weapon and engaging in personal

assault (Patchin et al, 2006). Within a representative sample of young adults, recent ECV along with a history of receiving traumatic news, direct victimizations, recent life events, and associations with criminal peers increased the risk for young adult criminal offending (Eitle & Turner, 2002). Yet, while exposure to violence has been associated with delinquency for adolescent males, females exposed to violence may be more likely to exhibit internalizing symptoms (McGee et al., 2001; McGee, 2003).

The relationship between community violence and externalizing behaviors exists even when controlling for prior antisocial behavior and prior aggression (Lynch, 2003) or prior levels of delinquency (Pearce, Jones, Schwab-Stone, & Ruchkin, 2003). For example, violence exposure contributed to more of the variance in current aggression than the variance accounted for by previous aggression or previous depression and anxiety among inner city fifth and seventh grade students (Gorman-Smith & Tolan, 1998). It has been hypothesized that community violence exposure may lead to aggressive behaviors through the normalization of violence, poor coping skills, decreased self-efficacy, and hopelessness (Dempsey, 2002; McMahon, Felix, Halpert, & Petropoulos, 2009). Violence exposure may result in cognitive schemas that depict the world as a hostile place, and as such, exposed youth may endorse normative beliefs that aggression is more acceptable (Guerra, Huesmann, & Spindler, 2003). Moreover, physiologically-based theories suggest that youth exposed to community violence may experience less arousal during violent acts, which can then facilitate aggressive behaviors (Fowler et al., 2009). Youth exposed to high levels of violence may believe that engaging

in delinquent behaviors will protect them or their families (Vigil, 2003). Studies have also shown that youth with high levels of ECV but living in families that function well actually perpetrate less violence than similarly exposed youth from less well-functioning families (Gorman-Smith, Henry, & Tolan, 2004). Parental monitoring and discipline have been found as mediators of the effects of ECV on violent behaviors (Spano, Vazsonyi, Bolland, 2009). Yet, it should be noted that there is a possibility of a self-perpetuating cycle driving the relationship between ECV and externalizing behavior problems (Lynch, 2003). In other words, more externalizing behaviors could lead one to be exposed to more community violence, which could, in turn, lead to more externalizing behaviors; therefore, it would be difficult to find a single causal or directional relationship.

Interestingly, many studies within the current literature have not necessarily examined the same types of behavioral outcomes. Although externalizing behaviors, aggression, and delinquency are sometimes used interchangeably in the literature, these terms do not represent the same types of behaviors or clinical entities (Achenbach, Howell, McConaughy, & Stanger, 1995). Externalizing behaviors are broadly defined as behavioral problems that may include aggressive behavior, delinquency, and/or other measures of acting out (Fowler et al., 2009). More specifically, aggressive behaviors may include bullying, fighting, temper tantrums, and cruelty, whereas delinquent behaviors may include lying, stealing, truancy, and vandalism (Barnow, Lucht, & Freyberger, 2005; Fergusson, Horwood, & Lynsky, 1994).

Some researchers have pointed out that one difficulty with many previous studies is the fact that aggressive behaviors are often embedded within more general measures of delinquency (Farrell et al., 2005). Although aggressive and delinquent behaviors may be related, different risk factors have also been associated with the two. A measurement study found that aggression and delinquency were highly intercorrelated at both the person and neighborhood levels. However, only delinquency showed a significant positive age trend, there were significantly higher levels of delinquency for boys than girls, and Black primary caregivers reported higher levels of delinquency but not aggression (Cheong & Raudenbush, 2000). As another example, in one study of 168 adolescents in Germany, gender and age were only significantly correlated with delinquency, but not aggression (Barnow, Lucht, & Freyberger, 2005). Additionally, peer rejection was more strongly related to aggressive behaviors and only moderately linked to delinquency; whereas, deviance in the peer-group was found to be more closely related to delinquency and only moderately with aggression. Despite these differences, it is unclear whether ECV would play the same role in the development of aggression and delinquency. To obtain a better representation of the relationship between ECV and different externalizing behavior problems, it is important to distinguish between aggressive and delinquent behaviors when examining the effects of ECV on externalizing outcomes.

Variability in Exposure to Community Violence

While it appears that a majority of African American adolescents in urban communities have witnessed or been a victim of community violence, there are still individuals within those same samples who have *not* experienced the same degree of exposure as other youth in the samples. In other words, while the presence of certain variables may increase one's risk for exposure to violence, the presence of these risk variables does not *guarantee* that one will be exposed to high levels of community violence. Recent sociological research demonstrates that an individual does not become a victim or perpetrator "simply by living in or next to a high-risk area" (Papachristos, 2009). From the literature, different studies have yielded a fairly wide range of prevalence in terms of ECV. There is a possibility that these varying prevalence estimates for ECV may be due to differences in sample characteristics, data collection instruments, and reporting methods (Buka et al., 2001). Yet, there is also a possibility that within samples, some youth are more protected from exposure to violence than others (Richters & Martinez, 1993). Thus, in addition to identifying factors that reduce externalizing outcomes of ECV, more research is essential to also determine what factors may predict differences in rates of ECV among African American adolescents.

Generally, the literature has demonstrated that males, African Americans, and older youth are at an increased risk for ECV (Thomas et al., 2012). In addition, research has shown that poor family functioning and aspects of certain urban communities, such as economic disadvantage, social disorder, lack of social control, and frequency of

potentially dangerous situations, are risk factors for exposure to violence in one's neighborhood or community (Salzinger et al., 2002; Sheidow et al., 2001). Yet, despite this knowledge, many of these risk factors are not necessarily viable targets for intervention efforts. Thus, some studies have analyzed factors that could be taught or enhanced through prevention and intervention programs. For example, negative feeling states and variability in emotional experience or emotional dysregulation tends to be consistently related to ECV (Sweeney, Goldner, & Richards, 2011). In addition, while unmonitored time, unstructured time, and time with peers was positively associated with both victimization and witnessing violence, time with family and time in structured activities was associated with less ECV (Richards et al., 2004). In particular, companionship with older peers and locations outdoors in public were associated with more ECV, while being at school and home were associated with less ECV (Goldner, Peters, Richards, & Pearce, 2011). Moreover, the amount of time boys spent with girls as well as the amount of time both boys and girls spent outside in private areas (e.g. porch) were actually associated with less ECV (Goldner et al., 2011).

Furthermore, although few studies have specifically examined the subsets of the youth population who have been exposed to low levels of community violence, there are youth in each of these studies that have not been exposed to community violence or have experienced low levels of exposure during the past year or even in their lifetime. In the study of a nationally representative sample of U.S. children aged 2 to 17 years old, 15.1% of non-Hispanic Black participants were characterized as nonvictims (Turner, Finkelhor,

& Ormrod, 2010). As another example, in the study of African American and Hispanic boys aged 6 to 10 years old in New York City, 46.8% never saw someone chased by a gang, 65.1% never saw someone get stabbed, 15.6% never heard guns being shot, 12.8% never saw someone get arrested, 75.2% never saw someone get killed, 35.8% never saw a drug deal, 20.2% never saw someone getting beaten up, 67.0% never saw someone get shot, and 77.1% never saw a dead body outside (Miller et al., 1999). Thus, it is still unclear why some individuals get exposed to community violence, while others do not, even among those who reside and interact in the same community or neighborhood. Therefore, while it is important to examine psychosocial outcomes due to ECV, it would be quite beneficial to identify additional malleable factors that may predict ECV and protect against exposure.

Variability in Aggression as an Outcome of Exposure to Community Violence

Similarly, although much of the prior literature demonstrates a strong association between violence exposure and aggression, not all African American males exposed to community violence actually show elevated rates of aggressive behavior (Copeland-Linder, Lambert, & Ialongo, 2010). For example, in a person-centered study of fifth grade students, a profile analysis yielded three classes of individuals: the vulnerable group, the moderate risk and medium protection group, and the moderate risk and high protection group (Copeland-Linder, Lambert, & Ialongo, 2010). The vulnerable group was comprised of 5% of the participants, but 65% of these participants had witnessed community violence and 15% were a victim of violence. This group also had the lowest

levels of protective factors (i.e., self-worth and parental involvement). The moderate risk and medium protection group was composed of 18% of the students, and it was characterized by higher levels of some protective factors (self-worth and parental involvement in education), but lower levels of other protective factors (parental monitoring). Within this group, 37% had witnessed community violence, and 7% had experienced victimization. The moderate risk and high protection group contained 77% of the sample, and this group had the highest levels of all protective factors. Within this group, only 34% reported witnessing violence and 5% reported that they were a victim of violence. Additionally, although the investigators hypothesized that students who experience less community violence and higher levels of protective factors would be less aggressive than students who experience more community violence and have lower levels of protective factors, there were no significant differences in aggression behaviors one year later across classes for both genders.

Another recent study utilized cluster analysis to classify African American male adolescents into groups according to their patterns of community victimization and aggressive behaviors (Gaylord-Harden, Zakaryan, Bernard, & Pekoc, 2015). The non-aggressive non-victims cluster characterized 62% of the participants, and they demonstrated low levels of both community victimization and aggressive behaviors. These individuals showed below average scores on all items related to victimization and aggression. The aggressive non-victims cluster characterized 30% of the participants, and they demonstrated low levels of community victimization, but moderately high levels of

aggressive behavior. While these individuals showed below average to average scores on victimization items, their scores on aggressive behaviors ranged from .74 to 1.03 standard deviations above the sample mean. Finally, the aggressive victims cluster characterized only 8% of the participants, and they demonstrated high levels of exposure to community victimization and moderately high levels of aggressive behavior. The three clusters did not differ on participant grade level or age.

Despite this research on the variability within aggressive behaviors, very little research has been conducted on whether there is also variability within delinquent behaviors. Nonetheless, both of these studies utilized person-centered analyses, and there appears to be variability in the amount of community violence exposure and aggressive behaviors experienced by African American youth. The group that experiences the most ECV does not necessarily exhibit the most aggression; thus, the relationship between ECV and aggression may be more conditional than previously thought. Interestingly, the group that included the largest percentage of individuals from the two samples actually experienced the lowest levels of ECV. However, it is unclear why these different types of groups exist and whether these types of groups also apply for delinquent behaviors. Some of the different characteristics of each of these groups could be important intervention targets for at-risk youth. In light of these findings, it is critical for research to focus efforts on understanding what factors may minimize the risk of both violence exposure and subsequent aggressive behaviors.

In particular, there may be certain moderating variables in the relationship between community violence exposure and externalizing behaviors that could be protective for some youth. There is a need to explore whether contextually relevant variables may help to explain the variability in both ECV and externalizing behaviors in response to ECV. The identification of protective variables are important to research because they can inform future prevention and intervention programs targeting community violence exposure in African American male adolescents. One such variable is coping, which captures how youth manage the stressors associated with community violence.

Coping Strategies Used with Stressors and Exposure to Community Violence

Because some youth are surrounded by community violence in their daily environment, research demonstrates that they often develop various methods of coping strategies to respond to violence-related stressors (Aisenberg & Herrenkohl, 2008). Past research shows that perceptive processes and various coping mechanisms play a substantial role in how youth experience, respond to, and report violent or stressful events in their lives (Guterman, Cameron, & Staller, 2000). Thus, children and adolescents' coping strategies could be an important target for intervention, but research on coping with community violence has not revealed consistent results – likely because different types of coping have led to varied outcome. Moreover, some studies have shown gender differences in types of coping when faced with neighborhood danger (Rasmussen, Aber, & Bhana, 2004).

Within the general coping literature, avoidant coping is often considered a maladaptive coping strategy because an individual is not actively confronting his/her stressors (Herman-Stabl, Stemmler, & Petersen, 1995). Indeed, some studies have found that avoidant coping is a vulnerability factor. Specifically, disengagement coping styles (i.e., defined as using primarily avoidant strategies) actually strengthened the association between victimization and aggression, such that young adults with high levels of lifetime victimization were more likely to exhibit aggressive behaviors (Scarpa & Haden, 2006). In another study with sixth-grade inner city youth, it was found that girls who used more avoidant coping when witnessing high levels of community violence reported more delinquent behaviors than girls who used less avoidant coping. Infrequent use of avoidant coping was also associated with increased levels of delinquency when girls witnessed limited amounts of community violence (Rosario et al., 2003).

However, researchers have also found that parents and teachers often urge youth to avoid danger by avoiding specific places that were prone to violence and off-limits (Howard, Kaljee, & Jackson, 2002). In some studies, using avoidant coping in the face of community violence (such as bypassing certain locations) was found to buffer the relationship between victimization and delinquency among sixth-grade boys, such that boys who engaged in high levels of avoidant behavior reported fewer delinquent behaviors (Rosario et al., 2003). In a study of African-American inner-city middle school students, low use of behavioral avoidance under conditions of high ECV was associated with increased behavioral arousal (Dempsey, Overstreet, & Moely, 2000). In other words,

behavioral avoidance may be a protective factor when one is faced with community violence exposure, such that it actually serves as a buffer against increased behavioral arousal. Additionally, in another study of 240 African American sixth grade students, avoidant coping demonstrated a protective stabilizing effect for the impact of witnessing community violence on anxiety levels over time. Specifically, when youth used greater levels of avoidant coping at the first time point, anxiety scores remained stable when they were in seventh grade, but when youth used lower levels of avoidant coping at the first time point, anxiety scores increased significantly in seventh grade. Additional analyses also revealed that greater use of avoidant coping at the first time point was related to less anxiety for boys in seventh grade, but not for girls (Edlynn et al., 2008).

Prior research has shown that active or problem-focused coping can have a beneficial impact on coping with stressful events, but a number of studies demonstrate that active coping may not be helpful for violence exposure. For example, one study with 515 volunteer psychology students aged 18 to 22 years old (of which only 25% reported no experiences with community violence victimization) did not find a significant relationship between problem-focused coping styles and aggressive behavior (Scarpa & Haden, 2006). Similarly, another study found that approach coping (characterized by problem-solving and social support) actually showed no significant effects in regards to behavioral or cognitive arousal (Dempsey, Overstreet, & Moely, 2000). In addition, approach coping was not found to be associated with either parental report or youth report of community violence exposure and anxiety symptoms in a sample of 240 African

American sixth grade students (Edlynn et al., 2008). More specifically, another study found that confrontational coping increased the risk for delinquent behavior for both boys and girls who were victimized by community violence, but only increased this risk for boys who witnessed violence (Rosario et al., 2003). Yet, self-defense coping generally plays a protective role in reducing the risk for delinquency (Rosario et al., 2003). Interestingly, coping itself may also be affected by environmental stressors, and it has been found that life events served as the strongest predictor of active ways of coping (Myers & Thompson, 2000). Still, it is unclear how these forms of coping are associated with ECV and whether they can actually predict later ECV.

Given the mixed findings within the coping literature, the protective functions of these more general types of coping (such as active or avoidant coping) may be affected by contextual factors, such as the uncontrollable nature of community violence (Edlynn et al., 2008). Thus, there is a need to examine the types of coping strategies that have developed specifically in response to ECV in the daily lives of youth. Given the prevalence of community violence in many of the youths' neighborhoods, it is important to determine whether these context-specific coping methods are actually effective and helpful in preventing violence exposure and any aggressive behaviors that will perpetuate the cycle of violence.

Coping Strategies Specific to Exposure to Community Violence

Studies conducted within the existing literature are highly informative about general coping styles of youth, but they do not address how African American

adolescents cope specifically with community violence (Voisin et al., 2011). Using a grounded theory approach, Voisin and colleagues' (2011) conducted a qualitative study to gather recent information on the nature and types of community violence experienced by African American adolescents living within a high-violence neighborhood in Chicago, to explore how the youth coped with such ECV and to explore whether these approaches varied by gender.

A sample of 32 Chicago high school students were recruited to participate in this study. Participants provided open ended responses to questions regarding how they cope with community violence, and these responses were coded for frequency of themes. The five most commonly reported forms of community violence exposure included physical attacks, fighting, incidents involving police officers, and gun violence and murders. Coping strategies mentioned by participants were grouped into four domains by Voisin and colleagues. First, "Getting Through" included acceptance to community conditions or trying to engage in positive behaviors to get out of the community. This was found to be the most common strategy used to cope with community violence. As an example, participants stated that they "accepted that the community is plagued with crime" or they tried to "do well in school in hopes of being able to leave the community." Second, "Getting Along" included self-defense techniques. This coping strategy was also widely used by participants. With this strategy, participants tried to associate with the "right persons," who may involve prominent community members or gang members who could offer protection. Third, "Getting Away" included avoidance coping strategies. This

strategy was more commonly employed by girls than boys, and it involved avoiding situations where violence might occur. Finally, “Getting Back” included confrontational coping strategies that involved learning to fight or defend oneself. This strategy was only discussed by boys, and it was the least used coping strategy. Although strategies seemed to fall into four domains, findings revealed that many participants utilized multiple forms of coping.

In contrast to the research on general coping strategies in youth, little is known about these contextually relevant strategies that youth may use specifically to cope with community violence. Based on the findings from Voisin and colleagues’ (2011) qualitative study, Gaylord-Harden and Voisin (2012) developed the Coping with Community Violence Scale (CWCV) to assess the four domains described by Voisin and colleagues: Getting Through, Getting Along, Getting Away, and Getting Back. To our knowledge, two conference presentations have utilized this measure with a sample of male adolescents from an all-male public high school. Within this sample, the observed data showed acceptable to good fit for the four factors (So & Gaylord-Harden, 2014). Victimization was found to have a positive correlation with getting through, while witnessing community violence was found to have a positive correlation with getting through, getting along, and getting back. In addition, getting along showed positive associations with PTSD, depression, and aggression, while getting away showed positive associations with aggression (Gaylord-Harden, Scott, & Voisin, 2013). However, additional quantitative research is warranted to verify the proposed four-factor structure

of the Coping with Community Violence Scale within a larger sample, as well as examine how these four factors of coping may help to understand the variability in exposure to community violence and the variability in aggressive outcomes of community violence. There may be distinctive characteristics of these types of coping that could account for such variability.

Namely, ECV is a chronic and uncontrollable stressor that can distort how youth view and interact with the world during their developmental years, as well as affect how they view pathways to their future (Garbarino, 2001; Hill & Madhere, 1996). Adolescents who grow up in violent environments may experience more hopelessness, and as a result, they may be less concerned with the long-term consequences of risky or aggressive behavior (Stoddard, Zimmerman, & Bauermeister, 2011). On the contrary, in a longitudinal study of African American adolescents, higher levels of future orientation were associated with greater decreases in violent behaviors over time, whereas lower levels of future orientation placed youth at greater risk of continued or increased levels of violent behavior throughout adolescence (Stoddard, Zimmerman, & Bauermeister, 2011). Thus, a coping strategy such as Getting Through, which emphasizes the future and is described as actively engaging in positive behaviors to eventually leave the community, could potentially decrease the likelihood that youth will respond to violence exposure with aggressive behaviors. Similarly, by using Getting Away to actively avoid unsafe locations or using Getting Along to associate with the “right persons” who could offer protection, adolescents may actually reduce the risk of experiencing ECV and protect

against negative outcomes. These types of future oriented coping strategies could be considered “motivational capital” (i.e., cognitive resources, such as goals) for youth, thus they may provide an incentive for prosocial behavior, as opposed to risky or externalizing behaviors (Clinkinbeard & Zohra, 2011). In contrast, using confrontational strategies, like *Getting Back*, may increase ECV and delinquent outcomes (Rosario et al., 2003). All in all, because youth may develop unique coping strategies in response to a particular stressor (Garbarino et al., 1991), this is an important area of research and contextually relevant coping strategies can be targeted for prevention or intervention. In particular, adaptive coping skills can be further taught and strengthened to reduce future ECV and to avoid the development of aggressive behaviors and additional violence exposure.

Current Study

To ensure that the subscales on the CWCV are consistent with the proposed model of coping with community violence, the first aim of the current study was to examine whether a four-factor structure of coping with community violence represented the items on the CWCV. As a means of confirming the utility of the CWCV, the current study extended beyond prior literature by quantitatively examining the structure of an instrument specifically created to assess coping strategies related to community violence exposure. More importantly, although a great deal of variable-based research has been conducted on ECV and externalizing outcomes, recent person-based research suggests that the association between ECV and externalizing outcomes may be quite variable (Copeland-Linder, Lambert, & Ialongo, 2010; Gaylord-Harden et al., 2015). Thus, the

current study added to existing literature by examining whether these four factors of coping may help to understand the variability in both ECV and externalizing outcomes of community violence.

Subsequently, the second aim of the current study was to examine how these four domains of coping, specific to community violence, were associated with the frequency of ECV. Although adolescents may be utilizing these types of coping strategies, it is necessary to ascertain whether or not particular strategies are associated with less exposure to violence. While many prior studies have focused on the prevalence of ECV, coping as a moderator for ECV, and other psychosocial or academic outcomes, few have examined coping as a predictor and ECV as the outcome. By analyzing ECV as an outcome variable, the current study sought to build upon current knowledge by investigating whether there are malleable coping factors that could be strengthened to help adolescents manage and minimize the risk of ECV.

Finally, the third aim was to determine whether these domains of coping specific to community violence moderated the relationship between ECV and the two types of externalizing behaviors. While studies have examined coping as a possible protective factor in the relationship between exposure and externalizing behaviors, results from the coping literature have been inconsistent. Given the uncontrollable and chronic nature of ECV, there is a possibility that the limitations to our current knowledge may be related to specific contextual factors (Edlynn et al., 2008). Further, because the literature has generally demonstrated a strong, positive association between ECV and externalizing

behaviors (Fowler et al., 2009), it is likely that coping strategies may stabilize, rather than reverse, the association between ECV and outcomes. The current study broadened the existing empirical research by analyzing domains of coping that are more directly related to violence exposure and by investigating whether greater usage of these specific techniques may be associated with less aggression and less delinquency. Additionally, in contrast to much of the existing literature, the current study distinguished between the two related, but distinct, types of externalizing behaviors – aggression and delinquency.

Research Questions and Hypotheses

The current study sought to answer the following research questions and test the following hypotheses:

Hypothesis 1: Hypothesis 1 addressed the question of whether the proposed four-factor structure characterized coping with community violence in the current sample.

- Hypothesis 1 predicted that a four-factor structure of coping with community violence would be supported within the current sample of African American youth.

Hypotheses 2 and 3: Hypotheses 2 and 3 addressed the question of how the four domains of coping with community violence were associated with the frequency of community violence exposure.

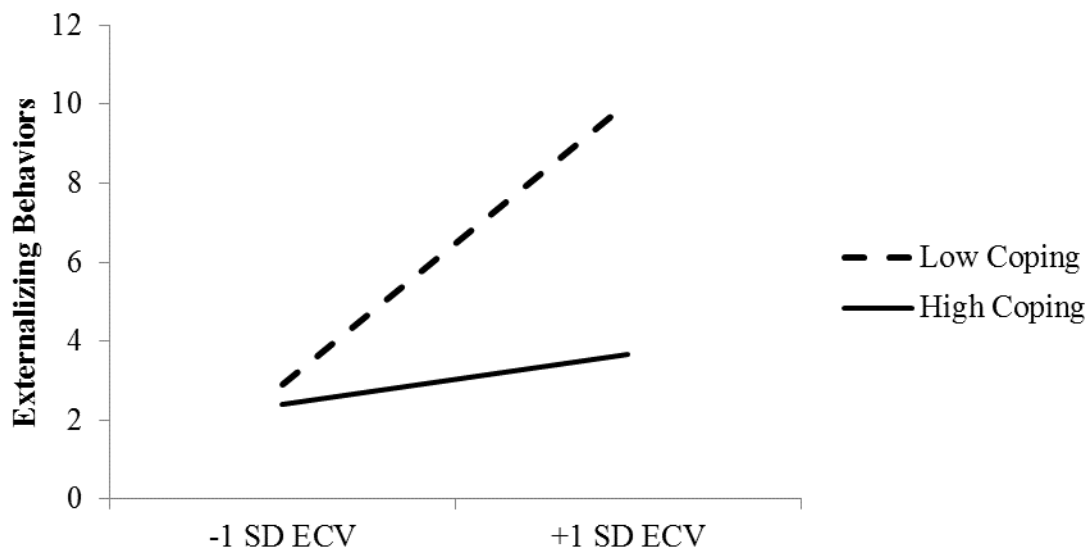
- Hypothesis 2 predicted that higher scores on the getting through, getting along, and getting away coping subscales would be associated with lower levels of violence exposure.

- Hypothesis 3 predicted that higher scores on getting back coping would be associated with greater levels of violence exposure.

Hypotheses 4 and 5: Hypotheses 4 and 5 addressed the question of whether the four subscales of coping with community violence were moderators of community violence exposure and externalizing behaviors (which was separated into aggressive and delinquent behaviors).

- Hypothesis 4 predicted that high levels of ECV would predict lower levels of externalizing behaviors at high levels of getting through, getting along, and getting away coping (Figure 1). In other words, there was a hypothesized protective-stabilizing effect (Luthar, Cicchetti, & Becker, 2000).

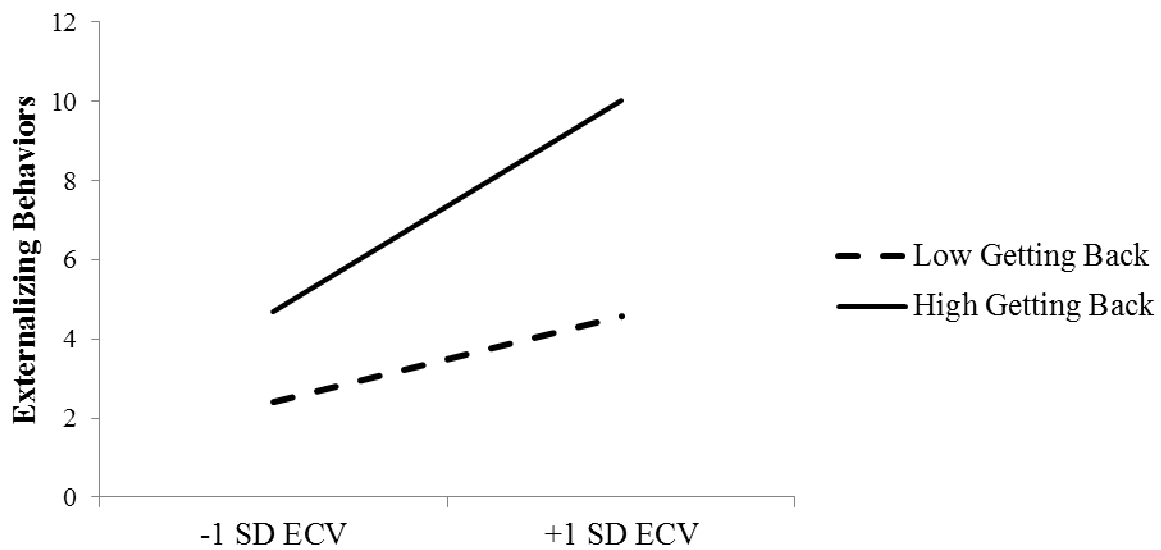
Figure 1. Hypothesized Model Depicting the Relationship between ECV and Externalizing Behaviors at High and Low Levels of Coping for Hypothesis 4



- Hypothesis 5 predicted that high levels of ECV would predict higher levels of externalizing behaviors at high levels of getting back coping (Figure 2). In other

words, there would be a vulnerable-reactive effect (Luthar, Cicchetti, & Becker, 2000).

Figure 2. Hypothesized Model Depicting the Relationship between ECV and Externalizing Behaviors at High and Low Levels of Getting Back for Hypothesis 5



CHAPTER THREE

METHODS

Participants

Data from the current study was derived from an archival dataset obtained from the Resilience Project, which collected data in a large Midwestern city between December 2013 and June 2014. The overall project examined the indirect relationship between community violence exposure and HIV risk via psychological distress, school achievement, and negative peer group associations in African American adolescents. The Resilience Project was funded by the Center for Health Administration Studies and the STI/HIV Intervention Network.

There were a total of 638 participants who participated in the overall study, and 594 of these participants had complete data on the variables of interest in the current study. Among the 594 participants who were included in the current study, 46.0% were male and 53.8% were female, and the mean age was 15.85 years old ($SD = 1.42$). Participants were high school students, and 32.9% were freshmen, 27.7% were sophomores, 18.3% were juniors, and 21.1% are seniors. Participants who were included in the current study are not significantly different from excluded participants on gender, age, or grade.

Procedure

A total of nine recruitment sites were targeted (3 high schools, 1 youth church group, 2 community youth programs, and 4 public venues frequented by youth such as parks, fast food outlets and movie theaters). The majority of participants were recruited in school and community programs (88%), and the rest in churches (9%) and public venues (4%). Participants were recruited from low-income African American communities, where the average yearly median incomes ranged from \$24,049 to \$35,946, with the city average being \$43,628. Communities were predominantly classified as racially and socioeconomically homogenous. The percentage of single-mother households in these areas ranged from 28.9% to 32.3%, with the city average being 13.9%. A total of 88% of participants who were recruited to complete the study participated.

The study was approved by a university institutional review board. Permission was obtained from principals and leaders of church groups and youth programs to recruit for the study. Flyers describing the study were posted at each of the locations, and the study was introduced to all potential participants by research assistants. Youth recruited from schools, community programs, and churches were provided with a detailed letter describing the study along with parental consent forms. Youth who returned signed consent forms were assented and enrolled in the study. Youth recruited in public venues were only asked to participate if a parent was present to offer consent. Active parental consent and youth assent were obtained for all participants in the study.

Trained research assistants supervised all participants taking the self-administered survey to minimize interruptions and to maintain an environment of confidentiality. Those recruited from schools, community programs, and churches were administered the survey in those respective locations. The few individuals who were recruited in public venues (e.g., parks and fast food venues) were administered the questionnaires in quiet spaces at or near those venues. In such instances, questionnaires were only administered to youth if a parent was present to offer consent and the questionnaire could be immediately administered.

Measures

Demographics. Information was collected on a variety of demographic variables, including: age, gender, race, and grade level.

Exposure to community violence. Lifetime exposure to community violence was assessed by utilizing a subset of items derived from the Exposure to Violence Probe used in prior studies (Stein, Walker, Hazen, & Forde, 1997; Voisin, 2002). In particular, 7 items measured the frequency of witnessing or personally experiencing violent acts over the lifetime: Close relative or friend died violently; Close relative or friend seriously injured; Close relative or friend robbed or attacked; Seen someone being beaten; Victim of violence; Seen dead body; and Witnessed gun related incident. Items were rated on a seven-point scale (“0 times” to “more than 6 times”), and a composite score for exposure to community violence was calculated by summing up the 7 items. Consistent with other studies (Voisin, Neilands, & Hunnicutt, 2011), $\alpha = .73$, the composite score included

both witnessing and victimization. Cronbach's alpha for the current sample was acceptable ($\alpha = .87$).

Aggressive behaviors. Aggressive behaviors were assessed with the Illinois Bully Scale (Espelage & Holt, 2001), which contained 18 items that inquired about the frequency of engaging in or being a victim of peer and relational aggressive behaviors in the last 30 days (e.g. I upset other students for the fun of it.) on a five-point scale (never, 1 or 2 times, 3 or 4 times, 5 or 6 times, and 7 or more times). A composite aggressive behaviors score was calculated by summing the responses for the 14 items that inquired about the frequency of engaging in aggressive behaviors. The Illinois Bully Scale has been found to have good validity and reliability among diverse middle school and high school students in a large Midwestern city (Holt & Espelage, 2007). Cronbach's alpha for the current sample was acceptable ($\alpha = .90$). Due to positive skewness of the composite scores, logarithmic transformations were used in analyses.

Delinquent behaviors. Delinquent behaviors were measured with a revised version of an instrument assessing delinquency in a prior study ($\alpha = .79$, Chen, Voisin, & Jacobson, 2013). For the current study, 10 items inquired about the frequency of illegal, norm-violating, and aggressive behaviors in the last 12 months (e.g. Used a knife or gun or some other thing (such as a bat, pipe, razor, taser, mace) to get something from a person.). Responses were rated on a six-point scale (0 times, 1-2 times, 3-5 times, 6-8 times, 9-11 times, and 12 or more times.), and a composite delinquent behaviors score was calculated by summing the responses for all 10 items. This measure has been found

to be positively associated with ECV and negatively associated with future expectations, family warmth, school attachment, and neighborhood cohesion among a racially, ethnically, and socioeconomically diverse sample of sixth to eighth grade students (Chen, Voisin, & Jacobson, 2013). Cronbach's alpha for the current dataset was acceptable ($\alpha = .90$). Due to positive skewness of the composite scores, logarithmic transformations were used in analyses.

Coping specific to community violence. The Coping with Community Violence Scale (CWCV; See Table 1; Gaylord-Harden & Voisin, 2012) was developed as a result of the findings in Voisin et al.'s (2011) qualitative study, which explored specific approaches to coping with ECV. From the interviews, all the coping strategies were categorized and four domains emerged. The CWCV contained 29 items that were combined to form four subscales based on those four domains: Getting Through (e.g. I try to work hard in school, so that I can get out of my community.), Getting Along (e.g. I try to get to know as many people as possible in my community.), Getting Away (e.g. I try to avoid places where violence may happen.), and Getting Back (e.g. I fight back if someone attacks me.). Each item inquired how often participants behaved or felt a certain way about problems related to violence in their community on a four-point scale (0 = "never", 1 = "sometimes", 2 = "often", 3 = "very often"). Each subscale score was determined by calculating the mean of the items that comprise of each factor. Victimization has been found to have a positive correlation with getting through, while witnessing community violence has been found to have a positive correlation with getting

through, getting along, and getting back. In addition, getting along has shown positive associations with PTSD, depression, and aggression, while getting away has shown positive associations with aggression (Gaylord-Harden, Scott, & Voisin, 2013). The final internal consistency estimates for the four subscales of the CWCV are reported with the confirmatory factor analysis results presented in the next section.

Table 1. Original Items Included on the Coping with Community Violence Scale

Item #	Coping with Community Violence Scale Item
1	I try to attend school regularly, so that I can graduate and get out of my community
2	I try to associate with people in my community who could protect me (members of gangs or block clubs, drug dealers or heavy hitters who people respect and will not mess with)
3	I try to avoid places where violence may happen
4	I try to associate with people who are not involved in violence
5	I fight back if someone attacks me
6	I try to work hard in an activity that may help me to get out of my community
7	I just accept that there is crime and violence in my community
8	I try to work hard in school, so that I can get out of my community
9	I have carried a weapon to defend myself
10	I try to associate with people who have status or are respected in my community (mentors, teachers, pastors, non-gang involved community leaders)
11	I stay at home as much as possible because of the violence in my community
12	I try not to fight back if someone attacks me (reverse coded)
13	I work to save money so that I can get out of my community
14	I try not to think about the violence in my community
15	I defend myself if someone attacks or threatens me
16	I try to get along with as many people as possible in my community
17	I try to run away if someone tries to attack me (reverse coded)
18	I try to make sure that a lot of people know me in my community
19	I express my feelings about the violence in a poem, song, or rap
20	I avoid going to school because of the violence in my community
21	I try to get to know as many people as possible in my community
22	I express my feelings about the violence in a journal or notebook
23	I try to avoid situations where violence may happen

- 24** I change my route to school because of the violence in my community
 - 25** I try to avoid crowds or gatherings in my community
 - 26** I try to associate with extended family members who could protect (uncles, cousins, etc)
 - 27** I express my feelings about the violence when I have writing assignments at school
 - 28** I threaten people who try to attack or hurt me
 - 29** I decide to stay away from people in my neighborhood and be by myself
-

CHAPTER FOUR

RESULTS

Hypothesis 1

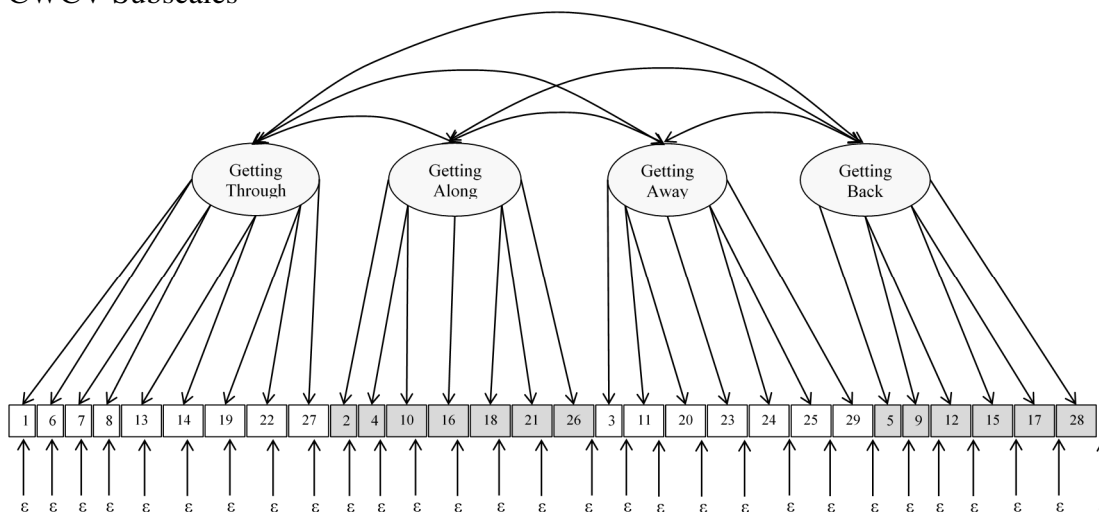
To address hypothesis 1, that a four-factor structure of coping with community violence would be supported within the current sample of African American youth, the current study utilized Mplus Version 6.12 (Muthén & Muthén, 2010) to conduct a confirmatory factor analysis (CFA) of the four factors of the CWCV. Following established psychometric procedures (Brockway, Carlson, Jones, & Bryant, 2002), the dataset was split into two random gender-stratified subsamples of equal size with equivalent proportions of males and females with SPSS Version 22 (IBM Corp., 2013). One random half was used as the validation sample to test the four-factor structure of the CWCV, while the second random half was used to cross-validate the final model.

Using a maximum likelihood approach, the χ^2 index was initially consulted to determine whether residual differences between the observed sample and the hypothesized models converge to zero as the sample size approaches infinity (Cudeck & Brown, 1983; Marsh, Balla, & McDonald, 1988). Within the literature, models are generally rejected if the χ^2 index is large relative to the degrees of freedom, but accepted if the χ^2 is small or nonsignificant. However, the χ^2 test assumes multivariate normality and is greatly influenced by sample size (Hooper, Coughlan, & Mullen, 2008; Marsh, Balla, & McDonald, 1988). Thus, given the limitations to the χ^2 test, several other fit

statistics were also consulted when evaluating fit for both models. The standardized root mean squared residual (SRMR) represents the square root of the difference between the residuals of the observed covariance matrix and the hypothesized covariance matrix (Hooper, Coughlan, & Mullen, 2008). The Comparative Fit Index (CFI) takes sample size into account, and it compares the observed covariance matrix with the null model, in which all of the latent variables are uncorrelated (Hooper, Coughlan, & Mullen, 2008). The root mean squared error of approximation (RMSEA) is not influenced by sample size and determines how well the model would fit the population covariance matrix by using optimally chosen parameter estimates (Hooper, Coughlan, & Mullen, 2008). Specifically, a combination of at least two of the following cut-off scores will be used for the current study: $SRMR < 0.08$, $CFI > 0.95$, or $RMSEA < 0.06$ (Hu & Bentler, 1999).

A first order CFA was conducted on the first random half of the sample to determine the fit of the four hypothesized domains on the CWCV and the observed data. The getting through factor included 9 items, the getting along factor was composed of 7 items, the getting away factor included 7 items, and the getting back factor was composed of 6 items. The four coping factors were allowed to correlate with one another. To test the model, each item was allowed to load on only one factor and one item loading in each factor was fixed to 1.0. The remaining factor loadings, residual variances, and correlations among latent factors were freely estimated. The proposed model is presented in Figure 3.

Figure 3. Proposed Model with the Hypothesized Factors and Item Loadings for the CWCV Subscales



Initial results indicated that the 29 items on the CWCV did not fit within a four factor structure, $\chi^2(371) = 1413.35, p < .001$; RMSEA = 0.097; CFI = 0.59; SRMR = 0.11. Based on the nonsignificant standardized loading estimates, items 9, 12, and 17 were dropped from the CFA analyses. Fit was slightly improved, but good fit was not obtained, $\chi^2(293) = 1182.24, p < .001$; RMSEA = 0.10; CFI = 0.63; SRMR = 0.10. Based on the modification indices provided by Mplus Version 6.12 (Muthén & Muthén, 2010), a three-factor structure of the CWCV was tested by dropping the items associated with the getting back factor. Results from this modified CFA analysis indicated that a three-factor structure of the CWCV did not improve fit, $\chi^2(227) = 1000.46, p < .001$; RMSEA = 0.11; CFI = 0.62; SRMR = 0.10. Given the poor fit indices, a one factor model with all 29 items on the CWCV was also conducted, but fit was poor, $\chi^2(377) = 1560.62, p < .001$; RMSEA = 0.10; CFI = 0.53; SRMR = 0.11.

Fit indices may be affected by the number of indicators per factor ratio, so good fit may be more difficult to achieve with the CWCV (Ding, Velicer, & Harlow, 1995). As such, no further models were tested. Instead, consistent with the development of other coping measures (e.g., Ayers et al., 1996), individual CFAs were conducted for each subscale on the CWCV within the first random half of the overall sample. For getting through coping, the initial CFA revealed that the 9 theorized items did not fit onto the getting through factor, $\chi^2 (27) = 218.78, p < .001$; RMSEA = 0.16; CFI = 0.69; SRMR = 0.11. Items 19, 22, and 27 were dropped from the modified CFA analysis because of their low standardized loading estimates. After these items were dropped, good fit was obtained for the getting through factor, $\chi^2 (9) = 34.55, p < .001$; RMSEA = 0.098; CFI = 0.94; SRMR = 0.050.

For getting along coping, several fit indices from the initial CFA indicated that the 7 theorized items did not fit well onto the getting along factor, $\chi^2 (14) = 51.73, p < .001$; RMSEA = 0.095; CFI = 0.92; SRMR = 0.052. Item 4 was dropped from the modified CFA analysis because of its low standardized loading estimate. After this item was dropped, fit greatly improved for the getting along factor, $\chi^2 (9) = 20.12, p = .02$; RMSEA = 0.064; CFI = 0.97; SRMR = 0.029.

For getting away coping, the initial CFA revealed that the 7 theorized items did not fit onto the getting away factor, $\chi^2 (14) = 139.71, p < .001$; RMSEA = 0.17; CFI = 0.64 SRMR = 0.093. Items 20, 24, and 11 were dropped from the modified CFA analysis because of their low standardized loading estimates. Although fit improved, fit statistics

did not indicate a good fit, $\chi^2 (2) = 25.64, p < .001$; RMSEA = 0.20; CFI = 0.86; SRMR = 0.060. When further examining the different items on the CWCV, item 17 could also fit onto the getting away factor. As such, item 17 was added while items 20, 24, and 11 were dropped in another modified CFA analysis. Based on these modifications, fit statistics were still not adequate for the getting away factor, $\chi^2 (5) = 27.27, p < .001$; RMSEA = 0.12; CFI = 0.89; SRMR = 0.050. Based on the next lowest standardized loading estimate, item 29 was also dropped from the previous analysis. After this modification, good fit was obtained for the getting away factor, $\chi^2 (2) = 5.35, p = .07$; RMSEA = 0.075; CFI = 0.98; SRMR = 0.027.

For getting back coping, the initial CFA revealed that the 6 theorized items did not fit onto the getting back factor, $\chi^2 (9) = 75.95, p < .001$; RMSEA = 0.16; CFI = 0.65; SRMR = 0.098. For the modified CFA analysis, items 9 and 17 were dropped because of their negative standardized loading estimates. Based on these dropped items, good fit was obtained for the getting back factor, $\chi^2 (2) = 8.70, p = .01$; RMSEA = 0.11; CFI = 0.95; SRMR = 0.040 (See Table 2 for a list of the final models).

Table 2. Alpha Reliabilities and Fit Indices of the Single-factor Models for the CWCV within the First Stratified Random Subsample

Coping subscale (# of items)	α	n for α	χ^2 (df), p level	RMSEA (90% C.I.)	CFI	SRMR
Getting through (6)	.74	294	34.55 (9), p < .001	0.098 (0.065, 0.13)	0.94	0.050
Getting along (6)	.77	290	20.12 (9), $p =$ 0.02	0.064 (0.026, 0.10)	0.97	0.029
Getting away (4)	.64	293	5.35 (2), $p = 0.07$	0.075 (0.000, 0.16)	0.98	0.027
Getting back (4)	.42	296	8.70 (2), $p = 0.01$	0.106 (0.041, 0.18)	0.95	0.040

Note. RMSEA = Root Mean Squared Error of Approximation, CFI = Comparative Fit Index, SRMR = Standardized Root Mean Square Residual.

Based on the items retained in each of the four factors in the CFAs from the first random half of the sample, the second random half of the sample was used as a confirmatory sample for each of the subscales on the CWCV. Confirming cross-sample generalizability, the four individual CFAs also revealed good fit to the data for each of the subscales (Table 3). The subsequent analyses for the remaining hypotheses were conducted with these modified subscales Table 4). The final model is presented in Figure 4.

Table 3. Alpha Reliabilities and Fit Indices of the Single-factor Models for the CWCV Confirmed within the Second Stratified Random Subsample

Coping subscale (# of items)	α	n for α	χ^2 (df), p level	RMSEA (90% C.I.)	CFI	SRMR
Getting through (6)	.77	296	32.53 (9), p < .001	0.094 (0.060, 0.13)	0.95	0.047
Getting along (6)	.78	291	44.96 (9), p < .001	0.116 (0.084, 0.15)	0.92	0.046
Getting away (4)	.63	292	4.96 (2), $p = 0.08$	0.071 (0.000, 0.15)	0.98	0.024
Getting back (4)	.45	295	2.25 (2), $p = 0.32$	0.021 (0.000, 0.12)	0.99	0.022

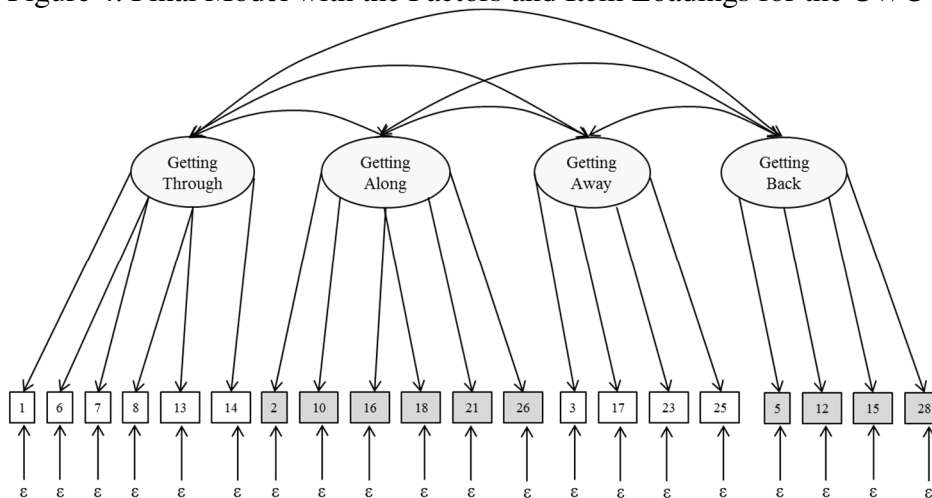
Note. RMSEA = Root Mean Squared Error of Approximation, CFI = Comparative Fit Index, SRMR = Standardized Root Mean Square Residual.

Table 4. Items on Each of the Modified Subscales on the Coping with Community Violence Scale

Item #	Coping with Community Violence Scale Subscale/Item
<u>Getting Through</u>	
1	I try to attend school regularly, so that I can graduate and get out of my community
6	I try to work hard in an activity that may help me to get out of my community
7	I just accept that there is crime and violence in my community
8	I try to work hard in school, so that I can get out of my community
13	I work to save money so that I can get out of my community
14	I try not to think about the violence in my community
19	<i>dropped: I express my feelings about the violence in a poem, song, or rap</i>
22	<i>dropped: I express my feelings about the violence in a journal or notebook</i>
27	<i>dropped: I express my feelings about the violence when I have writing assignments at school</i>

-
- Getting Along**
- 2 I try to associate with people in my community who could protect me (members of gangs or block clubs, drug dealers or heavy hitters who people respect and will not mess with)
- 4 *dropped: I try to associate with people who are not involved in violence*
- 10 I try to associate with people who have status or are respected in my community (mentors, teachers, pastors, non-gang involved community leaders)
- 16 I try to get along with as many people as possible in my community
- 18 I try to make sure that a lot of people know me in my community
- 21 I try to get to know as many people as possible in my community
- 26 I try to associate with extended family members who could protect (uncles, cousins, etc)
- Getting Away**
- 3 I try to avoid places where violence may happen
- 11 *dropped: I stay at home as much as possible because of the violence in my community*
- 17 *added: I try to run away if someone tries to attack me*
- 20 *dropped: I avoid going to school because of the violence in my community*
- 23 I try to avoid situations where violence may happen
- 24 *dropped: I change my route to school because of the violence in my community*
- 25 I try to avoid crowds or gatherings in my community
- 29 I decide to stay away from people in my neighborhood and be by myself
- Getting back**
- 5 I fight back if someone attacks me
- 9 *dropped: I have carried a weapon to defend myself*
- 12 I try not to fight back if someone attacks me
- 15 I defend myself if someone attacks or threatens me
- 17 *dropped: I try to run away if someone tries to attack me*
- 28 I threaten people who try to attack or hurt me
-

Figure 4. Final Model with the Factors and Item Loadings for the CWCV Subscales



Preliminary Analyses for Hypotheses 2 to 5

A CFA was conducted with the items related to aggressive behaviors on the Illinois Bully Scale and the delinquent behaviors measure to ensure that aggression and delinquency were indeed separate constructs. Both a single latent factor model and a two latent factor model were tested with a nested model comparison (*i.e.* chi-square difference test). Goodness-of-fit estimates for the single latent factor model and the two latent factor model were $\chi^2(252) = 3753.71$ and $\chi^2(251) = 1889.56$, respectively, resulting in a significant chi-square difference test, $\Delta\chi^2(1) = 1864.15, p < .001$. This suggested that the data fit a two factor model better than a single latent factor model, which indicated that these two factors were distinct concepts (Bryant & Cvengros, 2004). Therefore, aggressive and delinquent behaviors were tested as separate outcome measures in the remaining analyses.

Descriptive Analyses with Study Variables

Means, standard deviations, and correlations for all study variables are presented in Table 5. Compared to females, t-tests revealed that males were exposed to significantly greater levels of community violence, $t(533.67) = 3.75, p < .001$, males engaged in significantly more delinquent behaviors, $t(435.75) = 4.51, p < .001$, and females used significantly more getting away coping, $t(590) = -2.36, p = .018$. T-tests indicated that males and females did not significantly differ on aggressive behaviors or the other coping subscales. Given these significant gender differences and similar findings in prior

research, gender was added as an additional interaction term in the analyses for

Hypotheses 2 through 5.

Table 5. Means, Standard Deviations, and Pearson's Correlations among the Main Study Variables for the Overall Sample

	Mean	S.D.	1	2	3	4	5	6
1. ECV	9.93	9.09						
2. Aggressive Behaviors	0.69	0.48	0.36***					
3. Delinquent Behaviors	0.30	0.41	0.40***	0.47***				
4. Getting Through	2.69	0.69	0.09*	0.04	-0.08			
5. Getting Along	2.36	0.73	0.13**	0.10*	0.01	0.50***		
6. Getting Away	2.43	0.73	-0.07	-0.12**	-0.19***	0.49***	0.38***	

Note. Log transformed terms are presented for aggressive and delinquent behaviors; ECV = exposure to community violence; *** $p < .001$, ** $p < .01$, * $p < .05$

Hypotheses 2 and 3

To address hypothesis 2, that higher scores on the getting through, getting along, and getting away coping subscales would be associated with lower levels of violence exposure, one simultaneous linear regression was conducted with ECV was the outcome variable. Grade level and recruitment site were entered into Step 1 of the model to account for their effects. Next, gender and the three coping subscales were entered simultaneously into Step 2 of the model. Interaction terms were created for each of the coping subscales and gender by multiplying each of the centered variables by gender (e.g. getting through x ECV). These three two-way interaction terms were entered into Step 3 of the model. Results indicated that gender did not interact with the coping subscales in the prediction of ECV. However, males reported significantly more ECV than females reported. Getting away coping was also significantly negatively associated with ECV, $\beta =$

- 0.24 (Table 6). As noted above, because of the low Cronbach's alpha for the getting back coping subscale, hypothesis 3 was excluded from the analyses.

Table 6. Simultaneous Linear Regression with Gender and the 3 Coping Subscales Predicting ECV while Controlling for Grade Level and Recruitment Site

Predictors	b	SE	β	<i>t</i>	<i>p</i>
Intercept	-0.72	1.13		-0.64	
Recruitment site	0.06	0.16	0.02	0.37	
Grade level	0.81	0.34	0.10	2.43	*
Gender	-2.43	0.74	-0.14	-3.29	**
Getting through	1.87	1.02	0.14	1.83	
Getting along	1.18	0.88	0.09	1.35	
Getting away	-3.08	0.88	-0.24	-3.50	**
Getting through * Gender	-1.28	1.34	-0.07	-0.95	
Getting along * Gender	1.01	1.19	0.06	0.85	
Getting away * Gender	2.02	1.19	0.12	1.70	

Note. ECV = Exposure to community violence; ** $p < .01$, * $p < .05$.

Hypotheses 4 and 5

To address hypothesis 4, that high levels of ECV would predict greater levels of externalizing behaviors at low levels of getting through, getting along, and getting away coping, moderation analyses were conducted with hierarchical linear regression. Two models were tested—one for aggressive behavior as the outcome and one for delinquent behavior as the outcome. For all of the analyses, grade level and recruitment site were entered into Step 1 of the models to account for their effects. ECV, gender, and the three coping subscales were simultaneously entered into Step 2 of the models. Two-way interaction terms were created for each of the coping subscales, gender, and violence exposure by multiplying each of the centered variables with each other (e.g. getting through x ECV). These ten two-way interaction terms were simultaneously added into

Step 3 of the models. Finally, three-way interaction terms were created by multiplying each of the centered variables for the three coping subscales with ECV and gender (e.g. getting through x ECV x gender). The three three-way interaction terms were entered into Step 4 of the models.

As shown in Table 7, there was a significant three-way interaction between ECV, gender, and getting away coping in the prediction of aggressive behaviors. Follow-up analyses revealed that the getting away and ECV interaction was only significant for females, $\beta = -0.29, p < .001$, but not for males, $\beta = 0.05, p = .39$. Simple slope analyses revealed that higher levels of ECV were significantly associated with higher levels of aggressive behaviors at low levels of getting away coping, $\beta = 0.65, p < .001$ (Figure 5). However, at high levels of getting away, the relationship between ECV and aggressive behaviors was not significant, $\beta = 0.07, p = .91$ (Figure 5). Results also revealed a significant ECV and getting through coping interaction in the prediction of aggressive behaviors (Table 7). Simple slope analyses revealed that the slopes for both high getting through coping and low getting through coping were significant. However, ECV was associated with even *more* aggressive behaviors when participants had levels of low getting through coping, $\beta = 0.52, p < .001$, compared to high levels of getting through coping, $\beta = 0.25, p < .001$ (Figure 6).

Table 7. Final Model Examining the 3 Types of Coping and Gender as Moderators in the Relationship between Exposure to Community Violence (ECV) and Aggressive Behaviors while Controlling for Recruitment Site and Grade Level

	b	SE	β	<i>t</i>	<i>p</i>
Intercept	0.79	0.06		14.07	***
Recruitment site	0.002	0.01	0.01	0.26	
Grade level	-0.04	0.02	-0.08	-2.16	*
ECV	0.02	0.003	0.34	6.15	***
Gender	0.01	0.04	0.01	0.34	
Getting through	-0.004	0.05	-0.01	-0.08	
Getting along	0.06	0.05	0.09	1.24	
Getting away	-0.04	0.05	-0.05	-0.78	
ECV * Gender	0.002	0.004	0.02	0.44	
ECV * Getting through	-0.01	0.01	-0.16	-2.40	*
ECV * Getting along	0.01	0.004	0.10	1.76	
ECV * Getting away	0.01	0.004	0.10	1.66	
Getting through * Gender	0.06	0.07	0.06	0.83	
Getting along * Gender	-0.03	0.06	-0.03	-0.48	
Getting away * Gender	-0.18	0.06	-0.20	-2.99	**
Getting through * Getting along	-0.03	0.05	-0.04	-0.67	
Getting through * Getting away	-0.07	0.05	-0.08	-1.47	
Getting along * Getting away	0.02	0.04	0.03	0.54	
Getting through * ECV * Gender	0.01	0.01	0.05	0.74	
Getting along * ECV * Gender	-0.01	0.01	-0.07	-1.13	
Getting away * ECV * Gender	-0.02	0.01	-0.22	-3.55	***

Note. Predictor variables are centered; ECV = Exposure to community violence; *** $p < .001$, ** $p < .01$, * $p < .05$.

Figure 5. Simple Slope Analyses Depicting the Relationship between Exposure to Community Violence (ECV) and Aggressive Behaviors at High and Low Levels of Getting Away Coping among Females

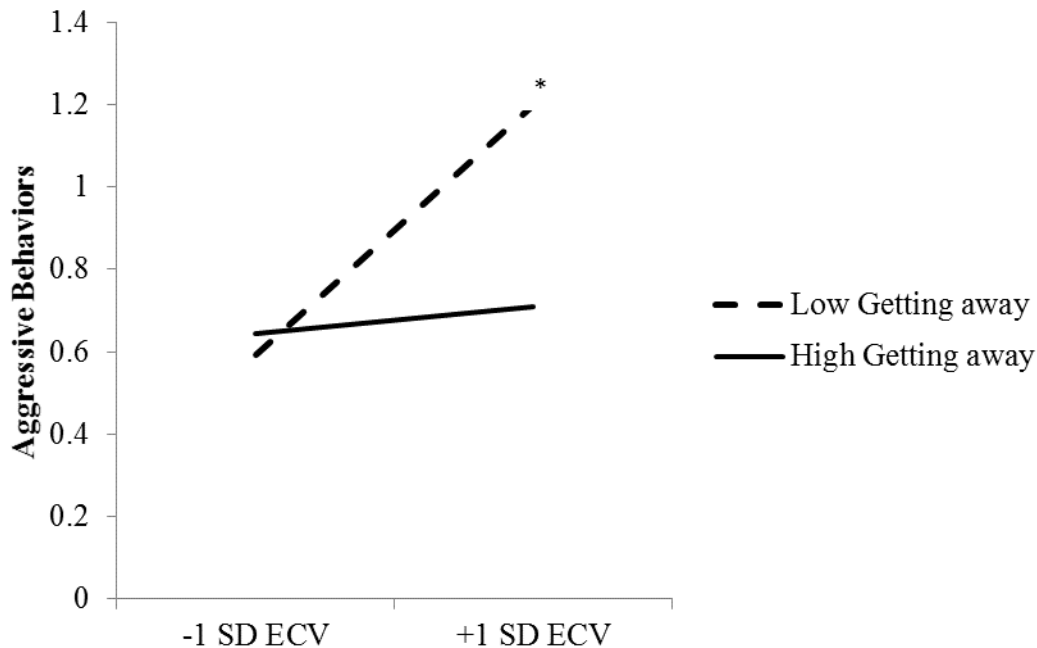
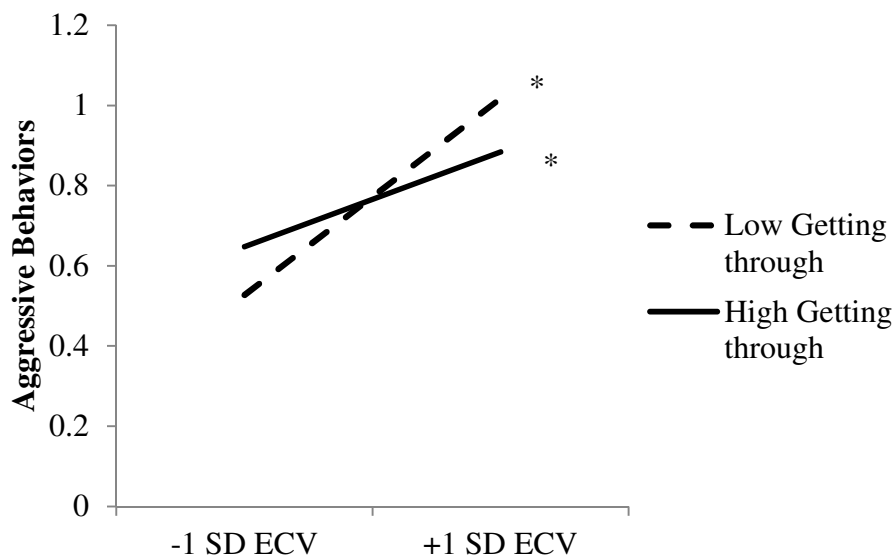


Figure 6. Simple Slope Analyses Depicting the Relationship between Exposure to Community Violence (ECV) and Aggressive Behaviors at High and Low Levels of Getting Through Coping



As shown in Table 8, there was a significant three-way interaction between ECV, gender, and getting away coping in the prediction of delinquent behaviors. Follow-up analyses revealed that the getting away and ECV interaction was significant for both females, $\beta = -0.17$, $p = .002$, as well as for males, $\beta = 0.12$, $p = .04$, but the direction of the effect differed. For females, simple slope analyses indicated that ECV was significantly associated with *more* delinquent behaviors at *low* levels of getting away coping, $\beta = 0.49$, $p < .001$, but not at high levels of getting away coping, $\beta = 0.15$, $p = .06$ (Figure 7). For males, in contrast to females, ECV was associated with even *more* delinquent behaviors at *high* levels of getting away coping, $\beta = 0.55$, $p < .001$, compared to low levels of getting away coping, $\beta = 0.32$, $p < .001$ (Figure 7).

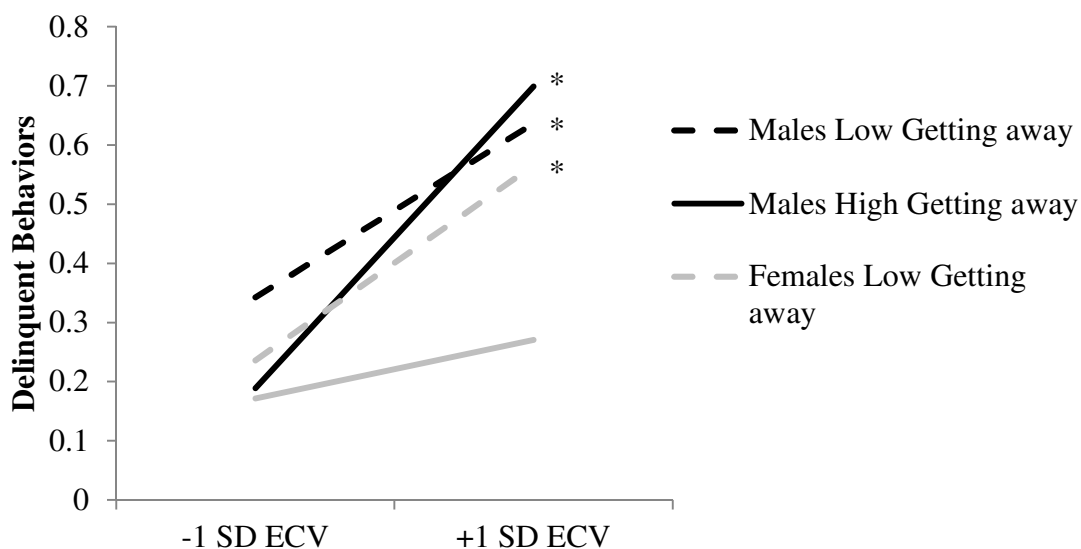
Table 8. Final Model Examining the 3 Types of Coping and Gender as Moderators in the Relationship between Exposure to Community Violence (ECV) and Delinquent Behaviors while Controlling for Recruitment Site and Grade Level

	b	SE	β	<i>t</i>	<i>p</i>
Intercept	0.44	0.05		9.30	***
Recruitment site	-0.01	0.01	-0.04	-0.94	
Grade level	-0.02	0.01	-0.07	-1.74	
ECV	-0.10	0.03	-0.12	-3.19	**
Gender	0.02	0.002	0.49	8.94	***
Getting through	-0.07	0.04	-0.12	-1.60	
Getting along	0.02	0.04	0.04	0.63	
Getting away	-0.04	0.04	-0.07	-1.09	
ECV * Gender	-0.01	0.004	-0.13	-2.39	*
ECV * Getting through	-0.01	0.004	-0.21	-3.18	**
ECV * Getting along	0.003	0.003	0.05	0.91	
ECV * Getting away	0.01	0.004	0.18	3.06	**
Getting through * Gender	0.08	0.06	0.10	1.41	
Getting along * Gender	-0.02	0.05	-0.03	-0.45	
Getting away * Gender	-0.10	0.05	-0.13	-1.91	
Getting through * Getting along	0.01	0.04	0.01	0.27	

Getting through * Getting away	-0.04	0.04	-0.05	-1.03	
Getting along * Getting away	0.02	0.04	0.03	0.55	
Getting through * ECV * Gender	0.01	0.01	0.10	1.42	
Getting along * ECV * Gender	-0.002	0.01	-0.02	-0.30	
Getting away * ECV * Gender	-0.02	0.01	-0.20	-3.34	***

Note. Predictor variables are centered; ECV = Exposure to community violence; *** $p < .001$, ** $p < .01$, * $p < .05$.

Figure 7. Simple Slope Analyses Depicting the Relationship between Exposure to Community Violence (ECV) and Delinquent Behaviors at High and Low Levels of Getting Away Coping for Both Males and Females



Similar to the outcome for aggressive behaviors, results also revealed a significant interaction between ECV and getting through coping in the prediction of delinquent behaviors (Table 8). Simple slope analyses revealed that higher levels of ECV were significantly associated with more delinquent behaviors at both high and low levels of getting through coping. However, ECV was associated with even *more* delinquent behaviors when participants had levels of low getting through coping, $\beta = 0.53$, $p < .001$, compared to high levels of getting through coping, $\beta = 0.31$, $p < .001$ (Figure 8). Finally,

there was a significant interaction between ECV and gender in the prediction of delinquent behaviors (Table 8). Again, simple slope analyses revealed that ECV and delinquent behaviors were positively associated for both genders. However, males, $\beta = 0.45$, $p < .001$, engaged in even more delinquent behaviors than females, $\beta = 0.30$, $p < .001$, at high levels of ECV (Figure 9).

Figure 8. Simple Slope Analyses Depicting the Relationship between Exposure to Community Violence (ECV) and Delinquent Behaviors at High and Low Levels of Getting Through Coping

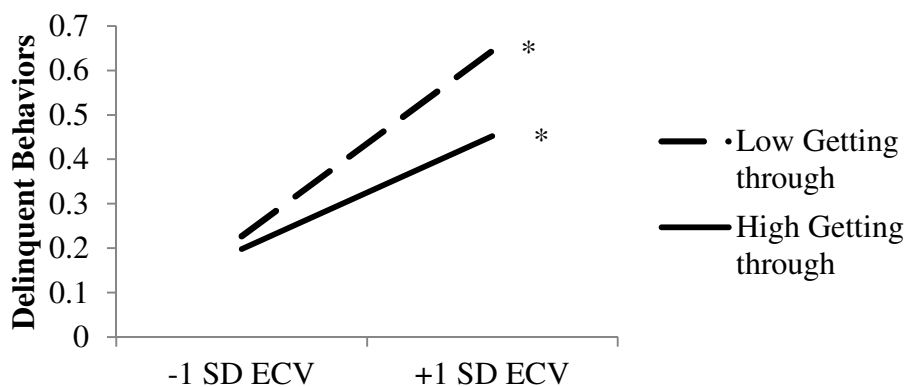
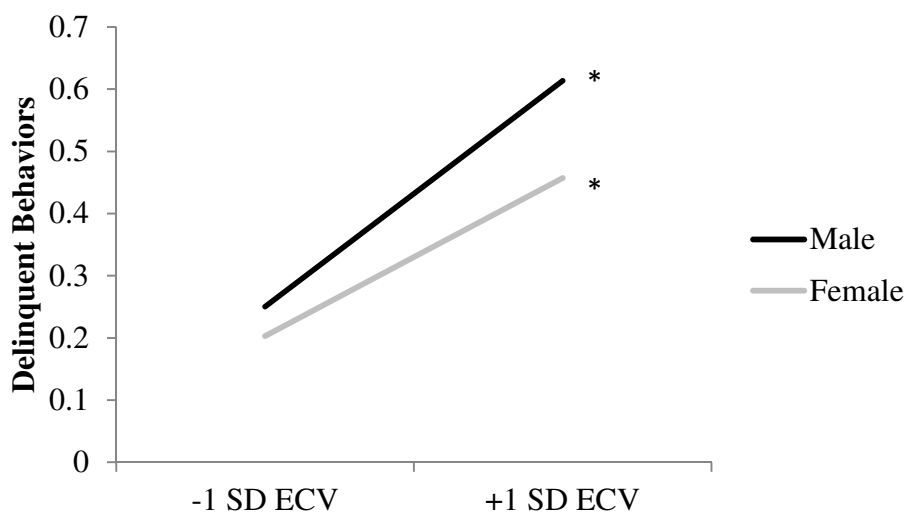


Figure 9. Simple Slope Analyses Depicting the Relationship between Exposure to Community Violence (ECV) and Delinquent Behaviors at High and Low Levels of Getting Through Coping



Because of the low Cronbach's alpha for the getting back coping subscale, hypothesis 5 was not examined.

CHAPTER FIVE

DISCUSSION

Given the inconsistent findings within the coping literature for African American youth exposed to community violence, the overall purpose of the current study was to examine coping strategies specific to the context of community violence. Specifically, the current study sought to examine 1) the fit of a four factor model of coping with ECV in the current data, 2) whether the four domains of coping specific to community violence were associated with the frequency of ECV, and 3) whether the four domains of coping moderated the relationship between ECV and externalizing behaviors.

Hypothesis 1

In contrast to Hypothesis 1, the four-factor model of the CWCV based on 29 items did *not* fit the current data. Subsequent modifications did not yield good fit indices for the four-factor model or a three-factor model. As supplemental analyses, and to ensure whether the data actually represented separate factors, a one-factor model of the CWCV was also tested. Again, the fit indices were poor, so the data likely did not represent a single factor of coping. While beyond the scope of this study to revise the CWCV, it may be necessary to reevaluate the items on the measure. Given that the creation of the CWCV was based on information obtained from a qualitative study, it could be useful to obtain further feedback from youth residing in low income, urban

communities about their thoughts regarding the items on the CWCV. Responses from youth of varying ages could be compared to see whether there may be age differences in their opinions about the CWCV. Additional experts could be consulted about the content validity of the measure. It is possible that some items do not necessarily characterize how youth may cope with community violence exposure or different items may need to be added to strengthen each subscale.

Based on the modifications suggested by Mplus Version 6.12 (Muthén & Muthén, 2010), it appeared that several items could potentially load onto more than one factor. For example, “I try to associate with people who are not involved in violence” and “I try to make sure that a lot of people know me in my community” were part of the getting along factor, which includes items that assess participants’ attempts to associate with individuals who could offer protection from ECV. However, the modification tests suggest that these two items could load onto the getting through factor as well. Getting through coping is defined as an acceptance of community conditions and engagement in positive behaviors to get out of the community. Based on the wording of the two items listed above, both of those items could also be considered positive and active behaviors that may allow one to get out of the community. In other words, youth may not be associating with people who are not involved in violence in order to reduce their own exposure to violence. Rather, they may be associating with these individuals because they perceive relationships with these individuals as positive and helpful for getting out of the community. Thus, although getting through coping and getting along coping were

intended to represent conceptually-distinct forms of coping, some of the items from the two subscales may be tapping into a common strategy that is not reflected in the proposed four-factor model of coping with community violence. As such, it may be helpful to modify the wording for items on the getting through subscale or create more distinct item sets for each subscale to avoid potential overlap.

From a methodological standpoint, there are additional strategies that may be used in future factor analytic procedures with the coping measure. For example, item parceling involves summing or averaging two or more items, and then using the sum or average as the basic unit of analysis in the CFA. Other coping development studies have used item parceling methods to test first-order coping models with youth (Ayers et al., 1996). Item parceling may be another option to increase reliability and create more normally distributed data (Bandalos & Finney, 2001). Item parceling may also be able to reduce the impact of idiosyncratic features of the items on the CWCV as a means of simplifying the interpretation of model parameters (Bandalos & Finney, 2001). Finally, it may be beneficial to use parallel analysis to determine whether there may be other sets of factors represented by the data. In the current study, an a priori theory of coping with community violence was used to examine the items on the CWCV, but it may be possible that the items compose different sets of factors. Parallel analysis is a Monte Carlo simulation technique that allows researchers to statistically determine the number of factors to retain in principal component and exploratory factor analysis (Ledesma &

Valero-Mora, 2007). This may allow for a more systematic method of examining the factors on the CWCV.

Despite unacceptable fit statistics for the four-factor structure, when examining the individual subscales separately, the items on each of the four subscales demonstrated good fit after some modifications. In addition, the remaining items on each subscale were consistent with theories of coping. For example, when comparing the items that were dropped to the items that were retained from the getting through subscale, it appeared there were two conceptually dissimilar sets of items. The first set (e.g. “I express my feelings about the violence in a poem, song, or rap” or “I express my feelings about the violence in a journal or notebook”) seemed to reflect an expression of feelings, while the set second (e.g. “I try to work hard in school, so that I can get out of my community” or “I try to work hard in an activity that may help me to get out of my community”) addressed behavioral goals. Expression of feelings may reflect a more passive method of coping by managing one’s emotional reaction to stress, while behavioral goals may reflect a more active technique of preventing the stress from ECV. Again, as mentioned above, it is possible that more factors may actually be represented by the items on the CWCV or it may be necessary to revise the types of items that are included on the measure. Nonetheless, the CWCV appears to be a good starting point when examining coping strategies specific to ECV, but there may be more that needs to be explored about coping strategies that are specific to community violence.

Interestingly, although results demonstrated acceptable fit statistics on the CFA, the Cronbach's alpha for getting back coping was very low and had to be dropped from the analyses. The low alpha may be due to the types of items that were included on the getting back subscale. In the current subscale, most of the items described *reactive* types of confrontational strategies (*e.g.* I fight back if someone attacks me). It is possible that some youth may be using more *preemptive* forms of getting back or confrontation that were not probed with the current items on the CWCV (*e.g.* I learned how to fight to protect myself). Examples may include carrying a weapon to threaten others, joining a gang, or engaging in normatively "wrong" behaviors to gain respect from others (Rosario et al., 2003). As such, future directions may include expanding the types and number of items included on the getting back subscale to reflect more preemptive forms of "getting back." Additional qualitative discussions with youth may be warranted to determine differences in the use of reactive and preemptive forms of confrontational coping strategies.

Hypotheses 2 and 3

To reiterate, Hypothesis 2 examined whether higher scores on the getting through, getting along, and getting away coping subscales were associated with lower levels of violence exposure, while Hypothesis 3 examined whether higher scores on getting back coping were associated with greater levels of violence exposure. Due to the low Cronbach's alpha, Hypothesis 3 was unable to be tested, but Hypothesis 2 was partially supported.

Similar to previous research (Thomas et al., 2012), gender was significantly associated with ECV, with males showing higher levels of ECV compared to females. Despite this difference, gender did not interact with any of the coping subscales in the prediction of ECV. As such, when considering its association with levels of ECV, coping in response to ECV may not necessarily function differently among males and females. Nevertheless, getting away coping may be particularly useful for youth of both genders to avoid ECV. Based on the results, it appears that if adolescents specifically try to avoid violence, it may actually help them avoid further exposure.

Interestingly, getting through coping and getting along coping were not significantly associated with ECV. Given that participants were recruited from low-income African American communities in Chicago, it is possible that exposure is more prevalent, so these types of coping may not necessarily help adolescents avoid exposure to violence. Additionally, based on the types of items included on the getting along subscale (e.g. “I try to associate with people in my community who could protect me (members of gangs or block clubs, drug dealers or heavy hitters who people respect and will not mess with)” or “I try to associate with people who have status or are respected in my community (mentors, teachers, pastors, non-gang involved community leaders)”’, some participants may be associating with individuals who may be gang-affiliated, while others may be associating with those who are not involved in violence. Accordingly, simply examining the getting along subscale as a whole may not be able to differentiate among these nuances. These items were originally included in the CWCV to assess forms

of social support coping specific to ECV. Specifically, these items reflected some youth's desire to become widely known in the community and associate with the "right persons" in the neighborhood. Sometimes, but not always, this involved associating with gang members who could offer protection (Voisin et al., 2011). Thus, these items may actually be assessing something beyond one's coping strategies and may be more closely related to one's association with delinquent peers. Future analyses should try to differentiate whether participants are associating with one group of people over another, and whether this affects their levels of ECV. Additionally, this study should be replicated in other community areas to see if similar results emerge.

Hypotheses 4 and 5

Hypothesis 4 examined whether getting through, getting along, and getting away coping showed a protective-stabilizing effect (Luthar, Cicchetti, & Becker, 2000) on the relationship between ECV and externalizing behaviors, and results showed partial support for the hypothesis.

Specifically, there appeared to be a protective-reactive effect of getting through coping on the relationship between ECV and both aggressive and delinquent behaviors (Luthar, Cicchetti, & Becker, 2000). In other words, getting through coping was generally advantageous, but less so at high levels of ECV. In line with Hypothesis 4, at low levels of getting through coping, more ECV was associated with even more aggressive or delinquent behaviors. However, in contrast to Hypothesis 4, high levels of getting through coping did *not* yield stable levels of aggressive or delinquent behaviors

across low and high levels of ECV. In fact, at high levels of getting through coping, more ECV was still associated with more aggressive and delinquent behaviors. Getting through coping was effective in the sense that youth engaged in fewer aggressive and delinquent behaviors at high levels of getting through coping compared to low levels of getting through coping. As mentioned above, the getting through coping subscale included attempts to engage in activities that would allow one to get out of the community. Accordingly, if adolescents are actively considering the future to get out of the community, results indicated that they may actually end up engaging in fewer aggressive behaviors than their peers who may not be thinking about their future. As found in previous research, youth who are raised in high risk environments, but who sustain hope and positive expectations for the future, are less likely to experience psychosocial problems than those who do not engage in future planning (McCabe & Barnett, 2000; Wyman, Cowen, Work, & Kerley, 1993). It is possible that future orientation may be a key factor when youth are using getting through coping to handle ECV. Yet, getting through coping was *not* effective in the sense that it did not *stabilize* the amount of aggressive or delinquent behaviors despite increasing risk. There is a possibility that getting through coping may proactively help minimize ECV. Proactive coping occurs before the need to actually cope with a stressor, so it is generally concerned with *preparing* for stressors that may be chronic (Kliewer et al., 2006). As such, getting through coping may not be as beneficial when one is already experiencing high levels of ECV. Additionally, getting through coping may be considered a more passive form of

coping. Since youth are setting behavioral goals to get out of the community, it does not allow youth to engage with the risk of ECV itself. Specifically, they may not be actively trying to deal with the repercussions of ECV. Thus, this may explain why getting through coping demonstrated a protective-reactive effect at high levels of ECV, rather than a protective-stabilizing or a protective-enhancing effect.

In contrast to Hypothesis 4, there was a vulnerable-reactive effect of getting away coping on the relationship between ECV and delinquent behaviors for males (Luthar, Cicchetti, & Becker, 2000). At *high* levels of getting away, *more* ECV was associated with *more* aggressive and delinquent behaviors than at low levels of getting away. Notably, Hypothesis 2 revealed that higher levels of getting away coping were associated with less ECV. When considering this finding in conjunction with the findings from Hypothesis 4, it appears that although some males may be actively trying to avoid places where violence might happen, this does not necessarily protect them from developing delinquent behaviors. It is possible that effective coping may be undermined at high levels of ECV for males because they may get too overwhelmed by this uncontrollable form of stress (Scarpa, Haden, & Hurley, 2006). As such, getting away coping is more effective at low levels of ECV for males. For youth who engage in high levels of getting away coping at high levels of ECV, it may increase the likelihood that these individuals are perceived as timid or fearful by their peers (Anderson, 1999). As a result, they may develop delinquent behaviors as a means of appearing tough to protect themselves or their family members from eventually becoming a victim. Namely, Anderson (1999)

discussed a concept called the “code of the streets,” which is an informal system that governs the use of violence, especially among African American male youth. Because the code of the street emphasizes that an individual should maintain the respect of others by having a violent and tough identity, one must be willing to exact retribution in the event of disrespect or he or she may risk being physically assaulted themselves (Stewart, Schreck, & Simons, 2006). In addition, the vulnerable reactive effect could also suggest a reciprocal association between ECV and delinquency, such that youth who engage in high levels of delinquent behaviors may eventually end up being exposed to more violence, despite trying to avoid exposure. Of note, other research studies have found a protective effect of avoidant coping on anxiety (Edlynn et al., 2008). When considered in conjunction with the findings from the current study, it appears that the protective effects of avoidant-type coping is specific to certain outcomes for males. Future studies should examine these ideas within a longitudinal study as a means of determining how these concepts relate to one another over time.

Interestingly, there was a completely different effect of getting away coping for females in comparison to males. In line with Hypothesis 4, there appeared to be a protective-stabilizing effect of getting away coping on the relationship between ECV and aggressive or delinquent behaviors (Luthar, Cicchetti, & Becker, 2000). Specifically, at high levels of getting away coping, levels of aggressive or delinquent behaviors were stable despite increasing risk of ECV. On the other hand, at low levels of getting away coping, higher levels of ECV were significantly associated with higher levels of both

aggressive and delinquent behaviors. In other words, increasing levels of ECV may not overwhelm females in the same way that it may overwhelm males, so females may still demonstrate effective methods of coping. Additionally, female youth may demonstrate other forms of distress, such as depressive symptomology (Fitzpatrick, 1993).

Taken all together, past literature has found avoidant coping to be a protective factor in some studies, but a vulnerability factor in other studies (e.g. Rosario et al., 2003; Dempsey, 2002). Results from the current study suggest that part of this difference may be due to gender. Consistent with prior studies, males were exposed to higher levels of community violence than females in the current study (e.g., Salzinger et al., 2002). Consequently, it could be more difficult for males to avoid violence and it could be even more challenging to avoid violence without appearing inadequate in front of peers (Anderson, 1999). On the other hand, some females may experience more physical vulnerability than males because of their stature, so avoidant-type coping may protect females from severe forms of violence (Voisin et al., 2011). Overall, gender norms may make it more acceptable for females to avoid violence, which may bring about an increased utility of getting away coping for females. Further research should examine the specific mechanisms through which these coping strategies work for both males and females.

Results suggested that getting along coping was not found to moderate the relationship between ECV and externalizing behaviors for either males or females. Once again, items on the getting along subscale do not differentiate between participants who

may be associating with those who are gang-affiliated or those who are not involved in violence. As such, this could have been a potential confound that could have affected the results.

Implications for Future Research

First and foremost, results suggest that coping strategies specific to community violence may be a complex, but important area of research. Because of the chronic and uncontrollable nature of community violence, this context appears to be critical in how youth may cope with this stressor. Although prior research has displayed a strong positive association between ECV and delinquent behaviors, the present study indicated that violence-specific coping strategies may be protective in the face of increased ECV. While studies with more general forms of coping have yielded inconsistent results, future studies should determine whether these violence-specific coping strategies may generate more uniform outcomes across studies. Future research should further tease apart nuances in how youth cope and examine whether these coping strategies may impact other developmental outcomes as well (e.g. depressive symptoms, anxiety symptoms, trauma symptoms, etc.). The current study should be replicated with longitudinal data to examine the change in violence exposure and behaviors over time as well as explore whether these coping strategies may vary by age. Based on the suggestions noted above, the items on the CWCV could be modified and further tested to improve the factor structure of the measure. As such, additional qualitative research may be warranted. In line with previous literature, the effects of coping and ECV differed slightly by aggressive versus

delinquent behaviors. Hence, future studies should further examine the predictors and consequences of aggressive and delinquent behaviors. Future studies may also benefit from using different previously-established instruments that were created to solely measure aggressive or delinquent behaviors. The exact function of these coping strategies may also depend on one's gender, so an examination into the mechanisms through which these types of coping strategies function would allow researchers to gain insight into how and why certain strategies may work. Moreover, further research should be conducted to investigate how other protective factors may interact with these ECV-specific coping strategies in the prediction of both ECV and externalizing behaviors.

Implications for Clinical Work

Due to the high level of stressors present in the lives of low-income urban African American youth affected by community violence, the current study is particularly relevant for violence prevention and intervention efforts that target those neighborhoods and communities. Results from the current study indicated that despite the use of ECV-specific strategies, not all of these strategies necessarily help to protect against ECV or the development of externalizing behaviors. Notably, coping effects differed by gender. Thus, context is important when considering prevention and intervention efforts among African American adolescents. Simply teaching all youth one type of coping skill does not necessarily help everyone in the same way. It may also be crucial for interventionists to further examine the motivational forces that are influencing the types of strategies youth use to cope with ECV. For example, getting away coping may have more utility for

females at high levels of ECV than for males at high levels of ECV. It may be necessary to develop gender-specific programs to teach youth how to improve their methods of coping; but first, it is necessary to understand the reasoning behind these differences. Gender norms may need to be evaluated and discussed within these types of programs. Additionally, there may be certain cognitive schemas that influence whether intervention or prevention programs are able to influence the daily lives of youth who witness or are victims of violence in their community. As an example, some youth may actively be avoiding violence as a means of facilitating a desired future state. In line with the literature regarding possible selves (*i.e.* representations of the self in the future), the way that some youth may be thinking about themselves in the future could guide and regulate current behavior through the avoidance of certain situations (Oyserman, Bybee, Terry & Hart-Johnson, 2004). On the other hand, other youth may have developed cognitive schemas that depict that world as a hostile place, which causes them to believe that aggression is more acceptable (Guerra, Huesmann, & Spindler, 2003). While motivating thoughts about the future should be reinforced in intervention or prevention programs, normative thoughts about aggression should be restructured in such settings. All in all, individuals working with low-income urban African American youth affected by community violence must be sure to take their unique contexts into account in order to decrease the negative impacts of ECV.

Limitations and Strengths

Despite the significant findings, the current study is not without limitations. Most notably, all measures in the current study were self-report measures, and thus shared method variance cannot be completely ruled out. Although lifetime exposure to community violence was assessed with a subset of items derived from the Exposure to Violence Probe used in prior studies (Stein et al., 1997; Voisin, 2002), there were not enough items to distinguish between witnessing violence and victimization. By using a single index of ECV, the unique impact of different types of ECV cannot be distinguished (Kliewer, Lepore, Oskin, & Johnson, 1998). Although prior studies have not concretely established whether there are reliable and valid differences between witnessing violence and victimization, factor analytic studies have shown the existence of unique categories of ECV (Overstreet, 2000). While beyond the scope of the proposed aims of the current study, more research needs to be conducted to determine whether these distinctive categories of ECV lead to different developmental outcomes. Additionally, we were unable to control for exposure to family or domestic violence. Thus, it is possible that some of the items in the current study may have also tapped into exposure to family or domestic violence and not solely ECV. It would be essential for further studies to directly assess the effects of this type of violence as well.

Furthermore, the data are cross-sectional, so causation cannot be inferred. As a result, it is unclear how each of these relationships changes or affects each other over time within the current dataset. Longitudinal studies have found ECV to be related to

increases in subsequent aggressive behavior (e.g., Guerra, Huesmann, & Spindler, 2003), even after controlling for previous aggression (Gorman-Smith & Tolan, 1998). However, the long-term implications of coping strategies specific to ECV on future levels of ECV and externalizing behaviors are unknown. In addition, the current study focuses on a specific population of African American youth from low-income urban communities, so these results may not be applicable for other ethnic groups or African American youth from more affluent or rural communities.

In light of these limitations, the current study has several strengths. To our knowledge, the current study is one of the first quantitative examinations of how youth specifically cope with ECV. As previously mentioned, another study examining the CWCV within a sample of male adolescents from an all-male public high school showed findings similar to the present study. In particular, the observed data showed acceptable to good fit statistics for each of the four factors (So & Gaylord-Harden, 2014). However, that sample consisted of only males from a single high school, while the current study recruited from nine different sites. The CFA procedures also benefited from a sample of youth that included both males and females. Further, this study was able to assess the utility of a coping with community violence measure by both examining its factor structure and its predictive validity. Given the sample size, gender was able to be added to the analyses as an additional moderator. Furthermore, the current study contributed to the literature regarding protective factors for this population. Prior studies have not examined coping strategies directly related to violence exposure and have not

investigated whether greater usage of these specific techniques will be associated with less exposure, less aggression, and less delinquency.

Moreover, rather than using an externalizing composite, the current study examined aggression and delinquency separately, given that some research has supported the distinction of these two outcomes (Cheong & Raudenbush, 2000; Barnow, Lucht, & Freyberger, 2005). Although the strength of the association between ECV and delinquent behaviors was similar to the association between ECV and aggressive behaviors in the current study, outcomes slightly differed between the two. One possible caveat to note is the fact that a few items on the measure assessing delinquent behaviors (“hurt someone badly enough for them to need a doctor”) could also be considered an aggressive behavior. However, results from the CFA supported the use of aggressive and delinquent behaviors as two separate factors in the current study. Further, the two measures did probe different types of behaviors. While the Illinois Bully Scale included behaviors that were related to peer and student interactions (e.g. “fought students I could easily beat” and “harassing other students”), the measure assessing delinquent behaviors included more serious crimes (“taken something not belonging to you worth over \$50” and “set fire to someone else’s property on purpose”). Thus, the findings suggest that the interaction between ECV and coping varies depending on the severity of the externalizing behaviors in question. Namely, more severe behaviors may be more influenced by gender and coping, while the aggressive behaviors assessed with the Illinois Bully Scale may reflect behaviors that are associated with more normative beliefs about aggression

(Guerra, Huesmann, & Spindler, 2003). Hence, as opposed to delinquent behaviors, males' use of coping may not demonstrate the same effect on these types of normative, aggressive beliefs and behaviors.

Conclusions

As previously mentioned, items on the CWCV were derived from a qualitative study examining the types of strategies youth noted that they used in response to ECV. Although a four-factor structure did not fit the items on the CWCV, each subscale demonstrated a good fit with the data. As such, additional research is warranted on these coping strategies to examine their utility for a range of developmental outcomes. The current study demonstrated that the use of ECV-specific strategies does not *necessarily* help protect African American youth against ECV or the development of aggressive and delinquent behaviors. However, certain types of coping (e.g. getting away coping) may interact with both ECV and gender to predict externalizing outcomes. Thus, individuals working with low-income urban African American youth affected by community violence must be sure to take their unique contexts into account in order to truly assist their needs.

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VITA

Suzanna So is a doctoral student at Loyola University Chicago studying clinical psychology with a specialization in children and families. She received her B.A. in Psychology with Honors from the University of Chicago in 2012. During her undergraduate years, Ms. So was a member of several research labs and contributed to a number of presentations that were presented in national conferences. Her senior honors thesis examined the relationship between binge eating disorder and suicidality (*e.g.* non-suicidal self-injury and suicide attempt) within a clinical sample seeking treatment. Currently, she is a member of Dr. Noni Gaylord-Harden's Parents and Children Coping Together (PACCT) Research Lab. She is interested in how community violence and other contextual factors affect the mental health needs of low-income, urban minority youth. While she is a part of several research projects, she is mainly involved with 1) a study examining desensitization to community violence in African American and Latino male adolescents, 2) a longitudinal study seeking to identify the individual, school, peer, family, and community factors that predict academic functioning and social-emotional behavior in male students of color, and 3) a study with an archival dataset examining the indirect relationship between community violence exposure and HIV risk via psychological distress, school achievement, and negative peer group associations in African American youth. Her master's thesis examined the effects of coping strategies

specific to community violence exposure on the development of aggressive and delinquent behaviors among African American adolescents. Ms. So's work on these research projects has resulted in a number of conference presentations and several publications that are currently in press or in preparation.

