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Coping with Exposure to Community Violence: Assessing the Role of Avoidance in Reducing Delinquency and Aggression in Low-Income Urban Adolescents

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LOYOLA UNIVERSITY CHICAGO

COPING WITH EXPOSURE TO COMMUNITY VIOLENCE:
ASSESSING THE ROLE OF AVOIDANCE IN REDUCING DELINQUENCY AND
AGGRESSION IN LOW-INCOME URBAN 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, IL

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ABSTRACT

Exposure to community violence has disabling effects on the mental health of youth in the US, with high rates of exposure for African American adolescents from underserved, urban communities. Past literature suggests that avoidant coping, specifically behavioral avoidance, may be most useful for youth exposed to uncontrollable stress. The current study assessed the utility of coping strategies in reducing aggression and delinquency in 267 sixth through eighth grade African American youth. First, confirmatory factor analyses revealed a three-factor structure of coping: cognitive approach, behavioral approach, and avoidance. Next, moderated moderation findings showed that for boys, avoidance and approach strategies increased risk for delinquency and aggression. For girls, high use of avoidance was protective, while low use of avoidance and approach was harmful. These results suggest that in general, more coping is helpful for girls but unhelpful for boys. This research enhances understanding of how youth adaptively cope with community violence.

CHAPTER ONE

INTRODUCTION

Exposure to violence is recognized as a major public health problem in the United States, especially for the youth in today's society (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002). The second National Survey of Children's Exposure to Violence conducted in 2011 estimates that 57.7 percent of children experienced at least one type of violence in the past year, with 41.2 percent of children having been victims of at least one assault (Finkelhor, Turner, Shattuck, Hamby, & Kracke, 2015). Exposure to community violence (ECV), defined as victimization, witnessing, or hearing about violent acts in one's neighborhood (Cooley-Quille, Turner, & Beidel, 1995), is particularly prevalent in low-income communities and was noted as the leading cause of death for African American youth aged 10 to 24 years (Thomas, Woodburn, Thompson, & Leff, 2011). This construct encompasses direct exposure as well as indirect exposure, such as observing an incident, knowing a victim or perpetrator, or knowing about the prevalence of violence in one's community (Lorion, 1998), and can range from drug deals to shootings (Gorman-Smith, Henry, & Tolan, 2004). Such violence exposure in childhood can have serious deleterious effects on youth's social competence, moral development, and mental and physical health, with the potential for these issues to persist into adulthood (Kuther, 1999; Listenbee et al., 2012; Salzinger, Feldman, Stockhammer & Hood, 2002).

Delinquency and aggression represent common negative psychosocial outcomes for youth living in urban, high violence neighborhoods who may feel the need to turn to crime and

gangs in order to counter feelings of powerlessness and danger (Listenbee et al., 2012; Buka, Stichick, Birdthistle, & Earls, 2001). While a great deal is known about the risk factors related to externalizing behaviors, less is known about how to protect against or reduce their progression. There has been a relatively recent shift in focus from a deficits-based perspective of adolescent development to a resiliency approach in order to identify the protective influences that help adolescents overcome adversity (Masten, 2014). From a positive youth development standpoint, an adolescent is resilient when the dynamic interaction between themselves and their high-stress environment leads to positive adaptation (Lerner, Agans, Arbeit, Chase, Weiner, Schmid, & Warren, 2013). By assessing what makes an adolescent resilient, these factors can be capitalized on when helping disadvantaged youth navigate dangerous environments.

Coping is one of these factors that may affect how stress impacts an adolescent's adjustment and future development (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). By enhancing a child's coping skills, maladaptive patterns of development can potentially be prevented or disrupted. Coping can be understood as cognitive and behavioral efforts that are dependent upon the context of the stressor (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986), thus it is important to fit the coping strategy appropriately to the event that has occurred. For children exposed to chronic, uncontrollable violence, this stress may be best handled by using coping strategies that would be considered maladaptive or ineffective in other contexts such as behavioral avoidance, but these preliminary findings are inconsistent across studies. Understanding how coping influences youth's behavior during early adolescence can help to create prevention and intervention methods that acknowledge and address the nuances of impoverished and highly violent neighborhoods.

The following sections of the current proposal will review the literature on these topics:

1) the effects of ECV on low-income, urban African American youth; 2) the particular effects of ECV on delinquency and aggression; 3) the conceptualization and categorization of coping strategies; 4) the types of coping that may be most beneficial amidst ECV; 5) the role of gender in coping; and 6) the contributions of the current research to the prevention and intervention literature.

Effects of ECV on Low-Income, Urban, African-American Youth

Overall, ECV was labeled as a “public health epidemic” by the CDC in 2001. Minority youth from under-resourced, urban communities are exposed to disproportionately higher levels of community violence (Zimmerman & Messner, 2013; Voisin, 2007). African-American youth in particular have a 112% greater chance of being exposed to violence compared to Whites, highlighting the importance of studying the causes and effects of this discrepancy (Zimmerman & Messner, 2013). It is likely that this disproportion is related to the overrepresentation of African American adolescents in economically disadvantaged neighborhoods (Cooley-Quille, Boyd, Frantz, & Walsh, 2001). Rates of witnessing violence for such youth reach as high as 96% (Gaylord-Harden, Cunningham, & Zelencik, 2011), with rates up to 75% for witnessing four or more violent events (Miller, Wasserman, Neugebauer, Gorman-Smith, & Kamboukos, 1999). While lower than witnessing, violent victimization rates are still fairly high for African American urban youth, reaching up to 37% (Farrell & Bruce, 1997).

ECV has disabling effects on the mental health, behavior, and academic achievement of many youth in America (Cooley-Quille et al., 2001; Thompson & Rippey Massat, 2005; Gorman-Smith, Henry, & Tolan, 2004; Kliewer et al., 2004; Bell & Jenkins, 1993; Ozer &

Weinstein, 2004; Sullivan, Kung, & Farrell, 2004; Fowler, Tompsett, Braciszewski, Jacques-Tiura, & Baltes, 2009). Specific detrimental outcomes include internalizing problems like posttraumatic stress disorder, depression, low self-esteem, and disassociation; psychobiological effects such as elevated heart rate, sleep disturbance, altered cortisol production, and slower pubertal development; and externalizing issues such as substance use, conduct disorder, aggression, and violence (Analytical Sciences, 2002). The lack of security one feels in a violent neighborhood can lead to difficulty forming stable relationships and a failure to engage in developmentally healthy activities (Cummings & Davies, 1996). In a meta-analysis of 114 studies, community violence has been found to have the most negative impact on PTSD and externalizing problems, with victimization being the best predictor of symptomatology (Fowler et al., 2009).

Adolescents are particularly susceptible to the adverse effects of violence exposure (Finkelhor, 2008). Compared to children, adolescents have a stronger link between community violence and externalizing problems (Fowler et al., 2009). This is potentially due to the increased stress associated with the biological and social changes that occur during this stage of development (Mrug, Loosier, & Windle, 2008). When combined with the stress of ECV, the cumulative strain can significantly negatively impact an adolescent's adjustment (Sameroff, 2000). As they learn to take on new social roles and responsibilities, these pressures may make adolescents especially reactive to environmental adversities (Bacchini, Concetta Miranda, & Affuso, 2011). It is also possible that, as a young person's independence grows and parental supervision decreases, they experience more opportunities for violence to negatively influence their lives through increased engagement in unstructured activities (i.e., pick-up basketball,

idling) without the protection or guidance of adults such as family members or organization leaders (Bohnert, Richards, Kolmodin, & Lakin, 2008; Griffin, Botvin, Scheier, Diaz, & Miller, 2000). For these reasons, adolescence is a critical time period during which to intervene to prevent deterioration in mental health and enhance adaptive strategies for handling stress amidst developmental changes.

It is important to distinguish between primary (i.e., direct victimization) and secondary (i.e., indirect witnessing) violence exposure and to examine these types separately because they appear to affect youth in different ways (O'Donnell, Schwab-Stone, & Muyeed, 2002). While some researchers have found that both witnessing and victimization have harmful effects on a child's development (Richters & Martinez, 1993), it appears that actually becoming a victim of community violence may be more detrimental (Fitzpatrick & Boldizar, 1993). Even so, many studies do not attempt to fully examine the differences in the types of exposure (Salzinger, Feldman, Stockhammer, & Hood, 2002). We know that rates of witnessing violence tend to be much higher than rates of victimization (Kennedy, 2008; Lambert, Ialongo, Boyd, & Cooley, 2005), yet often researchers will group these categories together into a general concept of victimization regardless of this difference. We also know that being a victim as opposed to witnessing violence can have varying effects on those juveniles who become offenders (Wiesner & Rab, 2015). For these reasons, the current study examines the unique effects that each type of violence exposure may have on youth in relation to the variables of interest.

Effects of ECV on Aggression and Delinquency

All forms of ECV have been found to be more strongly linked to externalizing problems than internalizing problems, especially for adolescents, suggesting a great need for preventing

and reducing juvenile misconduct for these communities (Fowler et al., 2009; McMahon & Washburn, 2003; Wagstaff et al., 2016). There is a plethora of research identifying the impact of community violence on externalizing behaviors such as aggression and delinquency (Rosenthal, 2000; Chad, Kim, & Young, 2014; Romero, Richards, Harrison, Garbarino, & Mozley, 2015; Davis, Wagstaff, Grant, Taylor, Carleton, & Masini, 2016). It is theorized that ECV leads youth to feel vulnerable, and in turn they attempt to present themselves to others as strong by acting aggressively or delinquently in order to prevent future victimization (Cassidy & Stevenson, 2005). Similar to this hypothesis, General Strain Theory (Agnew, 1992) posits that strains in a child's life increase the likelihood of negative emotions like anger and frustration, which leads that child to try to alleviate those feelings through crime. These highly stressed individuals lack the skills to cope with the strain in an alternative manner. In line with these theories, learning how to appropriately cope with the emotions associated with strain such as ECV may reduce instances of delinquency by replacing offending with healthier behaviors.

Social learning theory, the idea that reinforcement can serve to increase the likelihood of particular stimulus responses, also plays a significant role in the development of behavior problems in response to traumatic environments (Bandura, 1971). For those youth who are habitually exposed to violence, they are socialized to consistently respond to situations in a similarly violent or aggressive manner due to the conditioning of this behavior through observational learning (Eron, 1987; Huesmann & Kirwil, 2007). This vicarious reinforcement creates enduring patterns of externalizing behaviors through children and adolescents attempting to model older community or family members. If these youth can start to be socialized to avoid

violent and delinquent behaviors, then there may be a chance this cycle could be disrupted through shifts in what types of behaviors are reinforced.

With regard to aggression in particular, children living in poor urban areas tend to approve more of aggression as they develop (Huesmann & Guerra, 1997). Repeated violence exposure desensitizes youth to its effects by decreasing arousal, therefore promoting aggression as a model for achieving one's goals by reducing the perceived consequences of acting violently (Mrug et al., 2008; Fowler et al., 2009). In this way, some hypothesize that ECV normalizes violence, ineffective coping, decreased self-efficacy, and hopelessness (McMahon, Felix, Halpert, & Petropoulos, 2009). ECV has been shown to be associated with increases in normative beliefs about aggression, aggressive fantasies, and aggressive behavior over time (Guerra, Huesmann, & Spindler, 2003). In a study by DuRant, Cadenhead, Pendergrast, Slavens, and Linder (1994), witnessing violence and being victimized in the past were the strongest predictors of current use of violence (e.g. involvement in fights and weapons carrying). Patchin, Huebner, McCluskey, Varano, and Bynum (2006) found that high community violence exposure was associated with personal assault behaviors and weapon possession. Firearm violence in Chicago has been found to double the probability of an adolescent aged 12 to 15 perpetrating violence in the following two years (Bingenheimer, Brennan, & Earls, 2005). These kinds of effects have been seen to exist even when controlling for prior aggression (Lynch, 2003).

ECV has also been found to be associated with increases in delinquent behaviors, meaning those socially unacceptable behaviors such as stealing, truancy, and vandalism that do not directly pertain to beliefs or perpetration of aggression (Barnow, Lucht, & Freyberger, 2005). Violence witnessing and victimization before age 10 have been shown to predict delinquent

behaviors ranging from running away from home to selling drugs, as well as violent behaviors ranging from making threats to shooting someone (Weaver, Borkowski, & Whitman, 2008). The factors of receiving traumatic news, direct victimization, recent life stressors, and association with criminal peers can increase a youth's risk of criminal offending in young adulthood (Eitle & Turner, 2002). Such effects, as stated above, also have been seen to exist when controlling for prior levels of delinquency (Pearce, Jones, Schwab-Stone, & Ruchkin, 2003).

It is essential that aggression and delinquency are examined as separate constructs because they are not representative of the same behaviors, even though they are both considered to be in the externalizing classification (Achenbach, Howell, McConaughy, & Stanger, 1995). One can increase or decrease in behavior in one realm but not in the other, and the presentation of these symptoms can differ by gender as well as age (Barnow et al., 2005). The current study takes these variations into account by using distinct measures of aggression and delinquency.

The Conceptualization and Categorization of Coping

Coping is defined as “the person's constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person's resources” (Lazarus & Folkman, 1984, p. 141). Coping can be understood as trait-oriented or process-oriented (Folkman et al., 1986). In the trait-oriented view, coping is a property of the person, thus the stressor involved does not make a difference in someone's coping style. This implies that coping is a stable attribute of the person. The alternate view is that coping is process-oriented, or that coping is a response to the psychological and environmental demands of particular stressors. In this view, coping is not stable and adapts to the nature of the

situation. Overall, under this interpretation, coping is contextual: an individual appraises the demands of the encounter and the resources they have for managing them.

Cognitive-transactional model. Similarly, the cognitive-transactional model of stress and coping states that the effectiveness of coping strategies cannot be defined independent of the context in which they are used (Forsythe & Compas, 1987; Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000). More specifically, Folkman et al. (1986) discuss primary appraisal as deciding whether and how the event affects one's well-being in terms of the stressful level of impact, while secondary appraisal is deciding its controllability and what can be done to reduce harm or increase the benefits of the situation. The stressful situation itself does not predict a person's stress level or reaction, but instead triggers a cognitive process in which that person assesses harm or threat to themselves and their ability to deal or cope with it. Resilience is achieved when one successfully puts into action the resources needed for adaptation and attains positive outcomes in response to a stressor (Compas et al., 2001). This perspective, which also negates the view that coping processes are static, permits investigation into which strategies provide the most benefit and which are used most frequently in the presence of particular pressures. In other words, in adopting this model, one can identify which coping strategies provide the best "fit" to a certain situation, and encourage such appraisals and reactions through cognitive behavioral therapy when appropriate.

In examining this "fit," coping is often viewed as a moderator that affects the relationship between two variables so that the impact of the predictor on the outcome varies according to the level of coping (Baron & Kenny, 1986). In this way, the coping strategy either reduces or enhances the effects of stress (Connor-Smith & Compas, 2002; Lewis & Kliever, 1996). Stress

and coping interact such that stress leads to negative outcomes when the coping is inefficient or nonexistent. Youth can choose to use more of certain strategies based on their experience or instruction, but this use does affect the type of impact that a stressor like ECV has (Evans & Lepore, 1997). Statistically speaking, a moderation model serves to answer the question of whether coping qualifies the main effect relationship between a stressor and its outcome and can help to ascertain which coping skills should be incorporated into prevention and intervention programs for youth exposed to violence.

Categories of coping. There is little consensus on how coping should be conceptualized and measured (Compas et al., 2001). Skinner, Edge, Altman, & Sherwood (2003) found that more than 100 different category systems and over 400 different category labels exist. Coping measures traditionally fail to capture the full range of diversity of responses to stress. Instead, they include overly simplistic dichotomies like problem versus emotion-focused and approach versus avoidance (Compas, Worsham, Ey, & Howell, 1996). Emotion-focused coping refers to regulating stressful emotions by expressing them, seeking support, or avoiding stress (Lazarus & Folkman, 1984). Problem-focused coping refers to altering the stressful person-environment relation by seeking information, generating solutions, and taking action (Lazarus & Folkman, 1984). Compas et al. (1996) points out that one strategy can serve both emotion and problem-focused goals. For that reason, this dichotomy is not conceptually clear, mutually exclusive, or exhaustive (Skinner et al., 2003).

Approach versus avoidant coping is another common distinction in the overarching coping literature and is somewhat more conceptually clear (Carver, Scheier, & Weintraub, 1989). Approach, or active coping, consists of managing the stress appraisal of a situation or

behaviorally dealing with the stressor (Billings & Moos, 1981). Avoidant coping involves avoiding confrontation with the stressor and can include attempts to block out the event completely from one's mind (Sandler, Tein, & West, 1994). Essentially, approach and avoidance include cognitive, emotional, and behavioral activity to orient either toward or away from danger, respectively (Roth & Cohen, 1986). This dichotomy emphasizes the focus of the coping rather than the function of the coping. The approach versus avoidance distinction is independent of the emotion versus problem-focused distinction, in that one can be both emotion-focused and avoidant (Nes & Segerstrom, 2006).

Approach versus avoidant coping serves as a more useful conceptualization of coping than emotion versus problem-focused coping for the purposes of this study. The former provides a more discrete yet holistic way of capturing coping since both emotion and problem-focused strategies can exist at the same time within one person's response to a situation, and can both be found within the categories of approach or avoidance. Zeidner & Endler (1996) cite the example of seeking information as a coping act that can serve multiple functions, such as calming oneself and reducing the threat as well as preparing for further action. It is easier to concentrate on the focus of the coping process (e.g., towards or away from the stressor) as opposed to its function (e.g., to soothe emotions or to change the situation) when tailoring interventions. For example, rather than telling a child to only work on dealing with their problem or their emotion, therapists can identify when it is more adaptive for the child to deal with the stressor or avoid it, both physically and emotionally.

How is Coping Adaptive and Effective?

There is debate in the literature over which types of coping should be promoted to

improve mental health. The higher order category of approach-avoidance revolves around whether a person copes by becoming closer in contact with or withdrawing from the stressful situation (Skinner et al., 2003). Individuals tend to either prefer to seek out information or shield themselves from it. Both types can be considered adaptive in different circumstances (Skinner et al., 2003). Approach coping allows for instrumental action and the integration of distressing experiences. Contrastingly, avoidance coping can lessen distress and provide safety and conservation of resources amid hardship (Roth & Cohen, 1986). It is essential to be clear whether a coping strategy is oriented towards or away from a stressor and to identify for which situations each orientation may be helpful. It is also essential to assess whether the coping strategy is “adaptive” in reducing short-term distress or “effective” in reducing longer-term negative outcomes (Tolan, Guerra, & Montaini-Klov Dahl, 1997).

Avoidance. Historically, avoidant coping has been shown to lead to mostly negative outcomes, specifically those which are more depressogenic, when dealing with common life stressors (Compas et al., 2001; Dumont & Provost, 1999; Blalock & Joiner, 2000). Interestingly, recent research has begun to address more adaptive functioning resulting from use of avoidant coping, especially in disadvantaged communities. Roth & Cohen (1986) suggest that approach coping is better suited for controllable situations under the following conditions: the source of the stress is known, the source of stress is receptive to feedback, the individual maintains good communication skills and self-confidence, there is adequate time to resolve the issue, not resolving the issue would create a worse outcome, and an action appears to be required. The same authors describe the following ideal circumstances for using avoidance coping: the situation is uncontrollable, emotional resources are limited, short-term memory is overloaded,

the source of stress is unknown, the immediate outcome is more important, time is limited, and the problem is likely unresolvable. Authors have found that the appraisal of a situation as uncontrollable is associated with the use of more avoidant coping processes (Carver et al., 1989; Folkman & Lazarus, 1980; Folkman & Lazarus, 1985). Additionally, racial discrimination on a personal level, which is generally uncontrollable in nature, has been shown to predict more avoidant strategy use, and these strategies predicted better life satisfaction and self-esteem (Utsey, Ponterotto, Reynolds, & Cancelli, 2000). Given this information, the type and context of a stressor become crucial in determining how one responds to that stressor.

It appears that the coping literature for ECV is very unique and diverges from traditional viewpoints on resilient coping. Since community violence is most often appraised as uncontrollable, is it wise to confront a dangerous situation that cannot be changed or mitigated on one's own? Does trying to approach such a situation have any benefit to one's mental health? These questions fit well into the cognitive-transactional framework of stress and coping. One's social environment can have a very immediate effect on whether someone has the cognitive, physical, and emotional resources to handle stress, which is then constantly interacting with one's own personal appraisal and emotional reaction to that stress (Lazarus & Folkman, 1984). When a child is first exposed to violence, they may initially appraise this as a controllable factor in their life given that they are not yet inundated with negative experiences and do not yet perceive this to be normalized. They may try to resolve the situation, either by trying to get the perpetrator to stop the violence or alerting community members about its occurrence. But when this violence starts to occur repeatedly, their perception of useful resources interacts with their social environment to produce a more defeated demeanor. With a heavy presence of gangs and

insufficient policing, it becomes unlikely that such efforts will prove fruitful. Combined with this social reinforcement that nothing can be done amidst ECV, the individual makes a choice of which coping strategies to resort to, thereby engaging in a transaction between their world and their own individual contributions to that world.

Research tends to support this kind of cycle of stress and coping as described above. Youth who attempt to actively intervene or engage in community violence situations seem to place themselves at higher risk for negative outcomes (Rasmussen, Aber, & Bhana, 2004). Active coping strategies may include confronting perpetrators or becoming involved in the violence, which then escalates into greater risk (Grant et al. 2000; Rasmussen et al., 2004). On the surface, it appears that an individual would not be able to effectively approach a violent encounter, thus this stressor calls for alternative methods. Tolan & Grant (2009) suggest that, in these instances, adopting a more realistic view that the situation is unalterable may be better than assuming personal responsibility for and control over the presenting difficult circumstances. Edlynn et al. (2008) found that greater use of avoidant coping was associated with reports of feeling safer, suggesting that youth make a conscious effort to avoid unsafe circumstances and learn to be more cautious in their high-crime environments. Put together, if approaching the stress doesn't seem to work, then likely this is not the best solution.

Cognition vs. Behavior. While there is preliminary evidence that avoidance provides the best “goodness of fit” in a situation involving community violence, specific aspects of avoidance are rarely identified and it is not clear through which mechanisms or for which outcomes avoidance may be most effective. Relevant to the pursuit of specificity and clarification, we know that coping is better represented by a more complex four-factor model of cognitive and

behavioral forms of approach and avoidance strategies rather than a two-factor model (Moos & Schaefer, 1993). Specifying the method of coping provides a more detailed, nuanced conceptualization of what is adaptive for whom (Cronkite & Moos, 1995). As Aldwin (2007) states, dichotomizing coping strategies is oversimplifying and fails to capture the manner of interacting with the problem, thus a four-category approach would serve to better reflect coping variability in adolescents without becoming too psychometrically complex. Identifying whether a coping response is cognitive or behavioral also proves useful for tailoring interventions towards specific thought processes or behaviors.

Blalock & Joiner (2000) define behavioral approach as seeking guidance and support and taking concrete action. This can include communicating with or confronting others so as to actively interact with the source of stress (Anshel, 2000). Cognitive approach refers to more covert strategies such as logically analyzing the situation, giving positive reappraisal, reinterpreting, praying, admitting one's own errors, and mentally rehearsing alternative actions and consequences in order to manage the stress and improve one's resources (Blalock & Joiner, 2000; Anshel, 2000). In this form, the person accepts the strain as real but restructures the situation more positively.

Oppositely, behavioral avoidance includes actively attempting to avoid a stressor, removing oneself from the situation, seeking alternate rewards, and releasing tension or negative emotions (Blalock & Joiner, 2000). This might involve helping others deal with a similar problem, getting involved in new activities (which could include using substances), turning to work or other activities, letting off steam, or doing something that might not work in order to distract oneself (Anshel, 1996; Roth & Cohen, 1986). Similarly, cognitive avoidance means

minimizing or denying the seriousness of the crisis, accepting the situation as unalterable, and mentally distracting oneself in order to psychologically distance oneself from the stressor (Anshel, 2000). In this form of coping, the individual tries to forget or not think about the problem, wish the problem away, use humor, blame others, relinquish a sense of control, and lose hope that the situation will relent (McCrae, 1992). These various strategies are worthwhile to examine in relation to particular negative psychosocial outcomes that can result from ECV.

Behavioral avoidance is thought to be the key component of avoidance that results in more positive outcomes in the face of ECV. Using ethnographic data, African Americans reported behavioral avoidance to be their most frequent and recommended process of coping with exposure to violence (Howard, Kaljee, & Jackson, 2002). In a sample of African-American, inner-city youth aged eleven to fourteen, Dempsey, Overstreet, & Moely (2000) revealed that cognitive distraction increased cognitive arousal, while behavioral avoidance reduced behavioral arousal, demonstrating protective effects of behavioral avoidance for PTSD symptoms. Interestingly, mild substance use, a component of behavioral avoidance, has been found not to be as detrimental for urban populations as it is for other groups of people (Brunswick, Lewis, & Messeril, 1992; Tolan, Gorman-Smith, Henry, Chung, & Hunt, 2002).

Avoidance in the context of externalizing symptoms. While avoidant coping's effects on internalizing symptoms have been investigated somewhat over the past decade, much less is known about how avoidant coping functions in relation to externalizing problems. There is a small amount of research that pertains directly to this question. Grant et al. (2000) identified a diminished relationship between stress and externalizing symptoms for low-income urban African American boys in sixth through eighth grade when they used avoidant strategies.

Similarly, Rosario, Salzinger, Feldman, & Ng-Mak (2003) hypothesized that avoidant coping would be related to reduced risk of delinquent behavior amidst high ECV. They revealed partial support for that claim. For boys who had both high reports of violence witnessing and victimization plus high use of confrontational strategies, thus more active techniques, they exhibited more delinquency. For boys with high victimization, avoidance strategies buffered the effect of exposure to violence on delinquency. On the other hand, high avoidance exacerbated externalizing problems for girls with reports of high violence witnessing, but had the opposite effect for the low witnessing group. Taken together, these results imply that avoidance can be beneficial and confrontational coping can be risky for boys' externalizing responses.

More current work in this field provides additional support for the argument in favor of promoting avoidant coping in certain situations. A recent study was performed incorporating active coping as both a mediator and moderator of the relationship between exposure to violence and internalizing and externalizing symptoms (Carothers, Arizaga, Carter, Taylor, & Grant, 2016). The researchers found that in a sample of urban, low-income African American and Latino youth, active coping acted as a risk factor to strengthen the positive relationship between high exposure to violence and maladaptive outcomes for girls. Contrastingly, at low levels of violence exposure, active coping led to more positive outcomes, which reinforces the notion that the context of uncontrollable stress, community violence exposure in this case, influences the effectiveness of coping strategies.

Although these three studies exist, the analyses were only performed cross-sectionally and parent and police reports were utilized for measuring ECV, not child report. This limits the ability to assert changes over time and could have resulted in underestimation of violence

exposure. The authors also only studied more behavioral strategies, thus they did not capture the full range of coping including cognitive strategies, and additionally failed to distinguish between aggression and delinquency as separate outcomes. Rosario et al. (2003) utilized the categories of avoidant, self-defense and confrontational coping, which leads to a great deal of conceptual overlap between avoidant and self-defense coping (e.g., “don’t go to certain places alone” and “be more careful about what you say or how you talk” could be construed as fitting into both types) (p. 492). Lastly, three studies hardly qualify as enough evidence to sufficiently support such a phenomenon, especially when the coping is dependent on tremendous variability in environmental and personal factors. These limitations provide justification for the need for much more research examining the role that avoidance plays in delinquency and aggression outcomes resulting from ECV.

The same authors later present conflicting hypotheses for avoidance as a risk factor, which further highlights the lack of clarity surrounding coping’s impact on adolescent resilience in the ECV context. Rosario, Salzinger, Feldman, & Ng-Mak (2008) found that increased use of defensive and confrontational coping led to increased internalizing symptoms for boys and girls exposed to community violence. This research overtly contradicts the more commonly shown positive effects of avoidance strategies on internalizing outcomes (Edlynn et al., 2008, Dempsey et al., 2000). To confuse matters more, Brady, Gorman-Smith, Henry, and Tolan (2008) classified some avoidance strategies like distracting others and not engaging in confrontation as “effective” for long-term adjustment, but then grouped other avoidance strategies like isolating oneself and trying to forget as “ineffective” (p. 9).

Two additional studies offer explicit evidence against using avoidance for externalizing

behaviors, but these findings are all cross-sectional. Among a sample of African American urban youth aged 12–18, an association between violence exposure and externalizing behavior was weakest among youth who engaged in “positive” general coping strategies (e.g., seeking social support) and strongest among youth who engaged in “negative” general coping strategies (e.g. avoidance; McGee, 2003). Similarly, an association between direct victimization and aggressive behavior was strongest among a sample of college students aged 18–22 who typically coped with stressors through disengagement (e.g., denying stressful events, abusing substances; Scarpa & Haden, 2006). Clearly, while one researcher may find hope in avoidance, there are equal numbers still arguing against its use.

In terms of the distinction between cognitive and behavioral avoidance and externalizing problems, behavioral avoidance seems to be the most promising coping response given that it is often most preferred and may reduce arousal. Gaylord-Harden, Cunningham, Holmbeck, & Grant (2010) suggest that certain avoidance strategies are useful for problem solving amidst urban poverty, while more “passive” attempts at avoidance, like cognitive avoidance, may be less efficacious. Research suggests that the more a child is exposed to violence, the greater the likelihood that they will view retaliation for retribution as a legitimate and justifiable response when provoked, therefore denying supportive resources and choosing aggression instead (Ardila-Rey, Killen, & Brenick, 2009). In this way, physically removing oneself from having the opportunity to retaliate through behavioral avoidance may prevent more harm than simply trying not to think about the violence and how one might retaliate as would be done through cognitive avoidance. Relatedly, in the domestic violence context, an intervention that fails to adequately reduce violence exposure can serve to promote retaliation (Dugan, Nagin, & Rosenfeld, 2003).

Therefore, physically avoiding situations where violence exposure would be prevalent could in turn be more beneficial in community violence contexts as well, since cognitive avoidance is less likely to directly decrease one's violence exposure.

Contrastingly, there is potential evidence that the advantages of behavioral avoidance strategies may be less powerful in more high stress contexts (Gaylord-Harden et al., 2010). Several authors have found that when youth's social support resources are depleted, as would likely happen in high ECV and impoverished communities, the benefits of using more avoidant-like strategies can vanish and these strategies may become risk factors instead (Grant, 2007; D'Imperio, Dubow, & Ippolito, 2000; Formoso, Gonzales, & Aiken, 2000; Seidman, Lambert, Allen, & Aber, 2003). These conflicting findings again reiterate that in order to accurately capture the best strategies for dealing with this harsh environment to inform interventions, it is crucial to investigate the different types of approach and avoidance coping with many different samples of urban youth.

Overall, it is evident that the relationship between violence exposure, coping, and mental health outcomes is very complicated and not at all yet fully understood. To the author's knowledge, only five published studies have explored avoidant coping and its connection to delinquency and/or aggression. Due to past research on behavioral avoidance in high ECV samples, this is likely to be the most adaptive form of coping for such youth when compared to cognitive avoidance or approach coping, but this is a difficult prediction to confidently assert. If found to be true, then cognitive behavioral interventions could incorporate such strategies into their evidence-based practices. On a theoretical level given the reduced amount of available data, it is potentially beneficial to promote strategies like avoiding or escaping risky situations, venting

negative emotions, and engaging in alternative activities for youth exposed to high levels of community violence.

The Influence of Gender

Gender plays a role in the efficacy of coping strategies and would be expected to moderate the moderation of the four coping factors on the relationships between ECV witnessing and victimization and delinquency and aggression. In general, it is understood that males report more violence victimization and witnessing (Farrell & Bruce, 1997; Fitzpatrick & Boldizar, 1993; Gladstein, Rusonis, & Heald, 1992). Males also tend to exhibit more externalizing problems than females, such as violence perpetration (DuRant et al., 1994; Ellickson, Saner, & McGuigan, 1997; Singer, Miller, Guo, Flannery, Frierson, & Slovak, 1999; Sussman, Simon, Dent, Steinberg, & Stacy, 1999; Yin, Katims, & Zapata, 1999) and increased delinquency (Snyder & Sickmund, 1999), while females exhibit more internalizing symptoms (McGee et al., 2001; McGee, 2003). More specifically, males are more likely to respond to violence with externalizing behaviors than females (Mrug & Windle, 2009).

Further, the way in which males externally respond to violence tends to be more physically retaliatory, while females engage in more relational aggression (Wilkowski, Hartung, Crowe, & Chai, 2012). In line with this finding, it seems that males would therefore receive increased benefit from removing themselves from the situation entirely by using behavioral avoidance, because this would lessen their chances for retaliation. Females, on the other hand, would still be able to engage in relational aggression via word of mouth or social media, even if actively trying to avoid being physically near community violence stress. This difference in the manifestation of externalizing behaviors may be the major underpinning of gender differences in

how coping interacts with ECV.

Although the studies examining gender coping effects are mixed, males do seem more likely to benefit from avoidance, particularly behavioral avoidance, than females. In terms of frequency of strategy use, boys have been found to use more avoidant coping than girls (Causey & Dubow, 1992; Winkler Metzke & Steinhausen, 2002; Eschenbeck, Kohlmann, & Lohaus, 2007). In terms of the interactions between coping and ECV, Rosario et al. (2003) and Grant et al. (2000) showed protective effects of avoidant coping for externalizing problems for boys but not girls. Contrastingly, Carothers et al. (2016) revealed active coping to be more detrimental for girls than boys exposed to ECV, suggesting that the opposite form of coping, avoidance, would prove to be a more advantageous coping alternative for girls than boys. Despite these inconsistent results, the larger body of evidence in favor of increased use of avoidance for boys implies that moderation effects of avoidance in the current study might be stronger for the male gender, such that males would benefit more from use of avoidance.

Scientific Contributions

There currently exist several gaps in knowledge in the coping literature, particularly involving the costs and benefits of avoidant coping for high levels of uncontrollable stress, with particular attention needed towards externalizing outcomes. This study provides longitudinal evidence to supplement the cross-sectional research on how forms of avoidant and approach coping moderate the relationship between ECV and delinquency and aggression. While most past studies use the general term of avoidance from the single-factor structure, this study provides a more detailed, accurate depiction of avoidance using both behavioral and cognitive components. To the author's knowledge, few models have been explicitly tested in the context of

ECV, avoidant and approach coping, and aggression and delinquency, thus this study contributes to the investigation into how these variables relate to and may influence one another. Gender has been shown to frequently moderate coping outcomes, but in varied directions, therefore using it as a moderator in the current research adds clarity to the effect of gender on the hypothesized protective effects of avoidant coping. Overall, the findings of this research serve to further illuminate what kind of coping techniques caregivers and clinicians should encourage youth to use when living in disadvantaged, violent neighborhoods.

Aims and Hypotheses

The current study sought to test the following aims and hypotheses:

Aim 1. The first aim of the study was to evaluate the hypothesized factors of the construct of coping, as measured by the Children's Integrated Stress and Coping Scale (Jose & Huntsinger, 2005; Taylor & Jose, 1995).

Hypothesis 1. Coping is composed of these four individual correlated factors: behavioral avoidance, behavioral approach, cognitive avoidance, and cognitive approach.

Aim 2. The second aim of this study was to assess whether the nature of a stressor influences the type of coping response that is elicited. Since ECV is considered to be an uncontrollable stressor, this should evoke more use of avoidant strategies, thus this study assessed whether higher ratings of ECV at one time point would predict greater use of avoidant coping strategies at that same time point, more so than approach strategies.

Hypothesis 2. Higher ratings of ECV at sixth grade will predict greater use of avoidant coping strategies, both cognitive and behavioral, at sixth grade. This effect will also occur cross-sectionally within seventh and eighth grade. This positive relationship is not expected to occur

for ECV predicting to approach strategies at concurrent time points.

Aim 3. The third aim was to test the longitudinal moderated moderation model (Figure 1) in which each coping factor moderates the relationship between type of ECV (witnessing or victimization) and aggression and delinquency separately, with this interaction being moderated by the participant's gender. The goal of this aim was to see which coping categories would be *adaptive* in mitigating the positive relationship between ECV and delinquency and aggression over the course of *one year*, and to examine how these effects would differ for boys and girls.

Hypothesis 3. Behavioral avoidance coping will serve to most frequently mitigate the positive relationship between ECV witnessing/victimization at sixth grade and externalizing behaviors (delinquency and aggression) at seventh grade, followed by cognitive avoidance. Cognitive and behavioral approach coping will less frequently reduce delinquency and aggression over time amidst ECV when compared to avoidance strategies, with potentially increased negative outcomes at highest levels of approach use.

Hypothesis 4. The moderation effect of each coping factor on the relationship between ECV and externalizing behaviors will be moderated by gender, such that boys will demonstrate greater adaptive coping than girls.

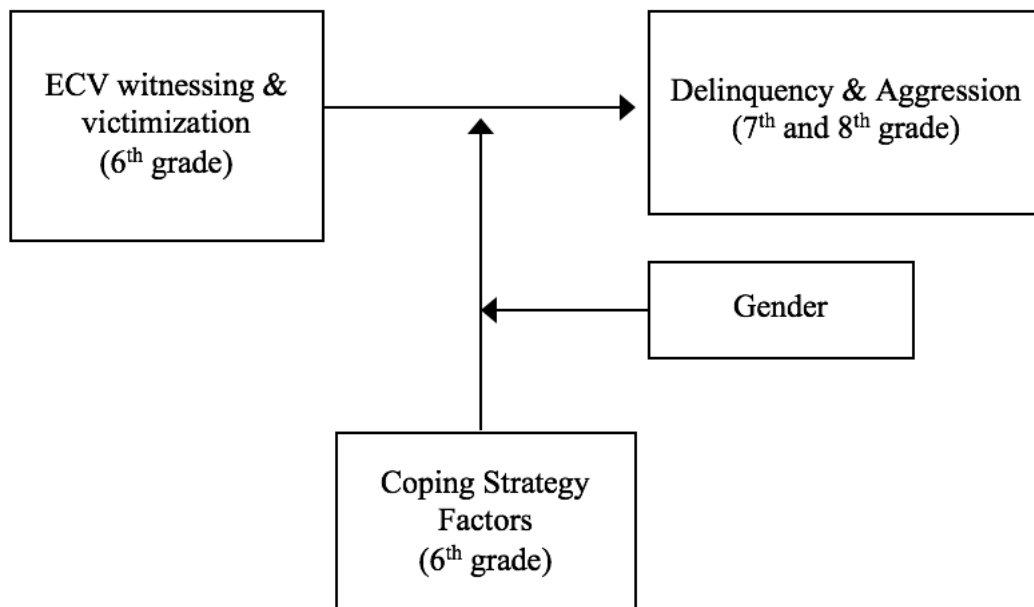
Aim 4. The fourth aim was to again test the longitudinal moderated moderation model (Figure 1) in which each coping factor moderates the relationship between type of ECV (witnessing or victimization) and aggression and delinquency separately, with this interaction being moderated by the participant's gender. The goal of this aim was to see which coping categories would be *effective* in mitigating the positive relationship between ECV and delinquency and aggression over the course of two years, and to examine how these effects

would differ for boys and girls.

Hypothesis 5. Behavioral avoidance coping will serve to mitigate most frequently the positive relationship between ECV witnessing/victimization at sixth grade and externalizing behaviors (delinquency and aggression) at eighth grade, followed by cognitive avoidance. Cognitive and behavioral approach coping will less frequently reduce delinquency and aggression over time amidst ECV when compared to avoidance strategies, with potentially increased negative outcomes at highest levels of approach use.

Hypothesis 6. The moderation effect of each coping factor on the relationship between ECV and externalizing behaviors will be moderated by gender, such that boys will demonstrate greater effective coping than girls.

Figure 1. The relationship between type of ECV at 6th grade, separated into witnessing and victimization, and delinquency and aggression at 7th and 8th grade, moderated by emergent coping strategy factors measured at 6th grade, then further moderated by gender.



CHAPTER TWO

METHOD

Participants

Data for the current study were derived from the Risky Contexts and Exposure to Community Violence study, a larger 3-year longitudinal study of the predictors and outcomes of ECV in African American youth. A sample of 284 sixth graders (mean age = 11.65, 59.9% female) was recruited from six public schools from low-income communities in Chicago during the 1999-2000 school year. These schools were selected based on their ethnic make-up as well as the crime statistics and income level of their locations within Chicago. The crime rates (e.g., murder, sexual and aggravated assault, and robbery) for these neighborhoods were two to seven times higher than average rates for the city (Chicago Police Department, 2001). The proportion of African American students at each school exceeded 90%. Thirty-one percent of parents reported being unemployed and median family income ranged from \$10,000 to \$20,000. Almost half (48%) of participants lived in single parent households and the average number of family members in each household was five. Eighty-three percent of parents reported having achieved a high school degree, while ten percent indicated that they had a college or graduate/professional degree.

Two hundred fifty-four students, or 89.44% of the original sample ($M = 12.57$ years, 59.1% female) continued into the second year of the study, and 222 students, or 78.17% of the

original sample were retained in the third year ($M = 13.58$, 59.0% female). Self-report data from the first two timepoints will be utilized for the current analyses. No significant group differences in parental education, annual household income, or parents' marital status were found between those participants retained and those lost to attrition (Goldner, Peters, Richards, & Pearce, 2011).

Procedure

Student assent and parental consent were obtained from all participants prior to the start of data collection and students were given the chance to ask questions before signing. Fifty-eight percent of families recruited via forms sent home with students agreed to participate, which aligns with recruitment statistics from past research on exposure to violence (Cooley-Quille & Lorion, 1999; Ozer & Weinstein, 2004). Trained research staff administered questionnaires to each student at their school over the course of five consecutive days during each of the three time points: 6th grade (Time 1), 7th grade (Time 2), and 8th grade (Time 3). Parent measures were sent home with participants to be returned to the school by the participants themselves. Handwriting checks were used to ensure that the child did not complete these packets on their parents' behalf. To account for participants' reading and comprehension levels, all survey questions were read aloud by staff. Although not utilized in the current study, youth data on current location, activity, companionship, thoughts, and feelings was obtained using the Experience Sampling Method (ESM). Overall, 31 measures were administered to youth and parents in the larger study, but only five measures are relevant for the research at hand. Youth were given the options of games, gift certificates, and sports equipment as compensation for participation after each time point.

Measures

Demographics. A variety of demographic information from both the parent and child were collected during the larger study. The Parent Information Form was included to assess marital status, ethnicity, education level, family structure, income level, and employment status at all three time points. The Student Information Form included questions about the child's age, date of birth, gender, school name, transportation to school, family presence, and recreational activities at all three time points.

Exposure to Community Violence. ECV was assessed using the 25-item My Exposure to Violence Interview (EV-R; Buka, Selner-O'Hagan, Kindlon, & Earls, 1997). This measure separates ECV into the categories of victimization (12 items; e.g., "Have you been stabbed with a knife?") and witnessing (13 items; e.g., "Have you seen someone get shot with a gun?"). Participants were asked to report the frequency of lifetime exposure to each incident on a five-point scale ranging from 0, indicating "never," to 4, indicating "four or more times." In the current sample, this scale yielded an alpha reliability coefficient of .71 for witnessing and .70 for victimization at sixth grade.

Coping. Coping strategies were assessed using the 21-item Children's Integrated Stress and Coping Scale (Jose & Huntsinger, 2005; Taylor & Jose, 1995). This measure first asks participants to indicate the most violent event they have experienced in the past year and then rate how often they used particular coping strategies in response to this event. Each item was rated on a four-point scale ranging from 0 ("not at all") to 3 ("a lot"). In terms of validity, this

scale has been shown to predict well-being in adolescents (Jose & Huntsinger, 2005; Taylor & Jose, 1995) and African American youth (Jose, Cafasso, & D'Anna, 1994).

There are various statistical ways in which researchers traditionally assess the emergence of coping categories, such as approach and avoidance. Factor analysis is a frequently used method for determining which items of a scale can be grouped into which factors underlying a particular construct, which provides a method for examining a construct in more conceptually broad ways as opposed to several individual item-level analyses. To achieve categories of coping, exploratory factor analysis (EFA) is often used and often results in conceptually unclear factors (Skinner et al., 2003). These resulting scales when there is no previously defined structure or presumed factors are difficult to label and are loosely linked to coping constructs (Ayers, Sandier, West, & Roosa, 1996). Thus, the categories need to be delineated a priori to determine whether there are enough representative items. Zeidner and Endler (1996) and Skinner et al. (2003) also argue against EFA and propose constraining item sets within a confirmatory factor analysis (CFA) which allows the researcher to discard items that tap into several categories, select items based on clarity, and recognize subtle differences within a coping scale. For these reasons, the CFA technique will be utilized in the current study.

The original EFA of this coping scale included ten items representing problem-focused coping (e.g., "I tried to solve the problem"), six items representing avoidant coping (e.g., "I ignored or tried to get away from the problem"), and five items representing emotion-focused coping (e.g., "I tried to control my feelings, calm down, and relax") (Taylor & Jose, 1995). Due to conceptual overlap in these categories and the need for two-factor distinctions between cognitive and behavioral as well as approach and avoidance strategies, a confirmatory factor

analysis was planned and performed with the goal of creating four new theory-driven subscales (Table 1). Emergent factors and reliability coefficients are discussed further in the results section.

Table 1. Proposed Confirmatory Factor Analysis of the Children's Integrated Stress and Coping Scale

Cognitive/Emotional Approach

- 8. I prayed or asked God for help.
- 12. I thought about the problem in a different way, and tried to see the good side.
- 14. I accepted the way things were.
- 17. I thought about all the things I could do to make the situation better.
- 18. I blamed myself for the problem.
- 20. I tried to control my feelings, calm down, and relax.

Behavioral Approach

- 10. I talked to someone in order to feel better.
- 11. I asked someone to give me help to solve the problem.
- 13. I tried to solve the problem.
- 16. I tried to get more information about the problem.

Cognitive/Emotional Avoidance

- 3. I pretended that it wasn't a problem.
- 5. I tried to tough it out until the problem went away.
- 7. I let my feelings out: cried, yelled, looked sad, or other things.
- 21. I laughed or joked in order to deal with the problem.

Behavioral Avoidance

- 1. I watched TV, listened to music, or played sports or games in order to feel better.
- 2. I ignored or tried to get away from the problem.
- 4. I went off by myself to get away from other people.
- 15. I didn't do anything.

Items not included due to multicollinearity concerns with delinquency outcome:

- 6. I got into a fight.

9. I smoked cigarettes, took drugs, or drank alcohol in order to deal with the problem.

19. I blamed someone else, lied, gave excuses, or cheated.

Delinquency. Frequency of delinquent behaviors as reported by the child was assessed using the 18 items from the Juvenile Delinquency Scale - Self-Report (JDS-SR; Tolan, 1988) that did not pertain to aggressive acts. This measure addresses behaviors ranging from minor delinquency (e.g., truancy, tobacco use) to illegal acts (e.g., stealing, substance use, property damage) and has been shown to be significantly correlated with other reports of delinquent behavior, direct interviews, and legal records (Hindelang, Hirschi, & Weis, 1981). Participants respond to each item on a six-point scale ranging from “never” (0) to “five times or more” (5). Participants were assured that their responses would remain confidential. In the current sample, this scale yielded a Cronbach’s alpha of .87 at sixth grade, .85 at seventh grade, and .79 at eighth grade.

Frequency of delinquent behaviors as reported by the parent was assessed using the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). This measure asks parents to report their child’s internalizing and externalizing problems. The 13-item delinquency subscale includes items such as, “Steals outside the home,” for which parents rate how true each item is now, or was within the past 6 months, using a 3-point scale ranging from “not true (as far as you know)” (0) to “very true or often true” (2). Parents used the same rating scale for responding to aggressive items such as, “Cruelty, bullying, or meanness to others.” Internal reliability for the externalizing problems scale in the current sample is .75 at sixth grade, .81 at seventh grade, and .78 at eighth grade.

Aggression. Frequency of aggressive behaviors as reported by the child was assessed using a combination of the Things I Do scale (TID) and five aggression items from the Juvenile

Delinquency Scale (JDS). The 9 items of the TID reflect aggressive and oppositional behavior (e.g., “How often do you push or shove others?”) on a 4-point rating of occurrence from 0 (never) to 3 (a lot). The TID and JDS were significantly correlated for sixth grade ($r = .36, p < .001$), seventh grade ($r = .28, p < .001$), and eighth grade ($r = .40, p < .001$). Therefore, using a procedure similar to that of Li et al. (2007), items from these two measures were standardized and combined to create the child-report of aggression variable. In the current sample, this combined scale yielded a Cronbach’s alpha of .74 at sixth grade, .74 at seventh grade, and .69 at eighth grade.

Frequency of aggressive behaviors as reported by the parent were assessed using the 20-item aggressive behavior subscale of the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). Parents rated how true each item is now, or was within the past 6 months, using a 3-point scale ranging from “not true (as far as you know)” (0) to “very true or often true” (2) for items such as, “Cruelty, bullying, or meanness to others.” Internal reliability for this subscale in the current sample is .88 at sixth grade, .90 at seventh grade, and .88 at eighth grade.

If the measures of parent-reported and child-reported delinquency as well as aggression were found to be moderately to highly correlated with each other ($r \geq .30, p < .05$), then these scales were to be standardized and averaged to form the overall construct of delinquency. If they were not substantially correlated, then these reports of delinquency and aggression would be analyzed as separate dependent variables for parents and children, leaving four outcomes of interest.

CHAPTER THREE

RESULTS

Sample Characteristics

The larger sample from which this study was derived includes 316 African American adolescents in sixth grade (mean age = 11.65 years), with females comprising 60% of the sample. Of the original sample, 94.78% of participants were retained at seventh grade, and 82.84% were retained in the eighth grade. In order to assess the variables of interest, the current study included 267 children (59.9% female) who completed the necessary measures in sixth grade as well as 199 parents at that same time point. In seventh grade, 244 children and 169 parents completed the measures utilized in this study. In eighth grade, 198 children and 184 parents filled out surveys pertinent to the following analyses.

Several demographic variables and the outcome variables of interest were examined for differences in the retained versus the missing participant groups. No significant group differences were found between the retained sample and the group of participants lost due to attrition in parental education, annual household income, or parents' marital status (Goldner, Peters, Richards, & Pearce, 2011). There were also no significant group differences between the retained sample and those lost due to attrition in parent-reported aggression ($t(197) = 1.09, p = .279$) and parent-reported delinquency ($t(197) = 0.80, p = .423$) at baseline. However, there were significant group differences between the retained sample and those lost due to attrition for child-reported aggression ($t(246) = 2.69, p = .008$) and child-reported delinquency ($t(269) = 2.31, p =$

.022) at baseline. Those participants retained through eighth grade had significantly lower baseline levels of aggression ($M = -.06$) than those who did not stay in the study all three years ($M = .15$). Similarly, those retained through eighth grade had significantly lower baseline levels of delinquency ($M = -.05$) than those who did not complete the study ($M = .14$).

Aim 1 - Hypothesis 1

Four-factor CFA. First, using LISREL 8.80 (Joreskog & Sorbom, 2006) software, a first-order oblique four factor CFA was run with the sample of 254 participants who filled out the entire coping measure. Those 19 participants missing the entire coping survey were excluded, while 11 participants with occasional missing data values were also removed due to Little's MCAR test being significant ($\chi^2(166) = 204.60, p = .022$), indicating that data were not missing completely at random and any imputed values may not be valid. A power analysis was performed which revealed 100% power at alpha level of .05 ($df = 129$, null RMSEA = .05, alternative RMSEA = .10) (Preacher & Coffman, 2006).

The overall fit of the model was determined by several fit indices. First, the likelihood ratio test, or χ^2 index, was examined to assess the level of discrepancy between the sample and fitted covariance matrices (Hu & Bentler, 1999). The comparative fit Index (CFI) was calculated as a measure of comparative or incremental fit that accounts for sample size (Hu & Bentler, 1999; Hooper, Coughlan, & Mullen, 2008). This index compares the fit of the estimated model to that of the null model in which all variables are uncorrelated (Bentler, 1990; Hooper et al., 2008) and is considered acceptable when above .90 (Bentler & Bonett, 1980). The non-normed fit index (NNFI) calculates the proportion in the improvement of the overall fit of the estimated model compared to the null model while adjusting for model complexity (Bentler & Bonett,

1980) and is also considered acceptable above .90 (Hu & Bentler, 1999). The standardized root mean square residual (SRMR), or the square root of the difference between the residuals of the sample covariance matrix and the hypothesized covariance matrix, is a measure of the model's absolute fit (Hooper et al., 2008; Hu & Bentler, 1999), with a cut-off score of less than 0.08 (Hu & Bentler, 1999). The root mean square error of approximation (RMSEA; Stieger & Lind, 1980) is a highly informative fit index that adjusts for model parsimony (Diamantopoulos, Siguaw, & Siguaw, 2000; MacCallum, Browne, & Sugawara, 1996) with less than .08 signifying acceptable fit (Browne & Cudeck, 1989). This value explains how well the model would fit the population covariance matrix and is based on the size of the residuals when the model is used to predict the data (Byrne, 1998).

This four-factor measurement model included: 1) six items loading onto the latent variable of Cognitive/Emotional Approach coping, 2) four items loading onto Behavioral Approach, 3) four items loading onto Cognitive/Emotional Avoidance, and 4) four items loading onto Behavioral Avoidance. Items were selected based on a priori reasoning stemming from a literature search on the types of behaviors and cognitions that best fit into each category (Table 1). After determining which items would load onto which factor, the item that loaded highest onto each factor was used as a referent loading in order to determine the variance of the latent variable. The Children's Integrated Stress and Coping Scale utilizes an ordinal scale from 0 ("not at all") to 3 ("a lot"), which meant that robust diagonally-weighted least squares (DWLS) estimation needed to be incorporated due to these unequal response intervals. This type of estimation produces a Satorra-Bentler scaled chi-square value that corrects standard errors and chi-square values for bias due to non-normality.

The oblique four-factor model seemed to reveal acceptable fit based on all the appropriate fit indices (Table 2) (RMSEA < .08; SRMR < .08; CFI > .90; NNFI > .90). Although this would indicate that the model would be appropriate for conceptualizing coping categories, the correlation matrix for the latent variables was not positive definite, suggesting perfect linear dependency between some of the constructs. The correlation between Cognitive Avoidance and Behavioral Avoidance was greater than one ($r = 1.069$), meaning that these constructs may actually be one distinct factor when controlling for measurement error in the items. Due to this impossible correlation, the next model tested did not include these factors as separate latent variables.

Three-factor CFA. Next, a first-order oblique three-factor CFA was performed using the same latent variables and loadings of Cognitive Approach and Behavioral Approach, but with the items for Cognitive Avoidance and Behavioral Avoidance combined into one Avoidance factor. Again, the measurement model revealed acceptable fit based on all of the appropriate fit indices (Table 2). There were no correlations between the latent variables above one, thus this model could be used to conceptualize coping as three factors for the current study.

Two-factor CFA. In order to compare all possible models to find the best fit to the coping scale data, a first-order oblique two-factor CFA was performed using the same Avoidance factor but including the Behavioral and Cognitive Approach items combined into a single Approach factor. Again, the fit indices revealed acceptable fit of the model to the data (Table 2). Due to the emergence of two good-fitting models, they were then compared to isolate the best one to use moving forward for moderation analyses.

Table 2. Goodness-of-Fit Statistics for Various Factor Models of Coping

<i>Factor Model</i>	χ^2	<i>df</i>	<i>RMSEA</i>	<i>SRMR</i>	<i>CFI</i>	<i>NNFI</i>
Two-factor	262.73	134	.062	.080	.976	.972
Three-factor	247.12	132	.059	.078	.978	.975
Four-factor ^a	239.47	129	.058	.078	.979	.975

Note: RMSEA is root mean square error of approximation; SRMR is standardized root mean square residual; CFI is comparative fit index; and NNFI is non-normed fit index.

^a PHI matrix was not positive definite.

Comparisons. The Satorra-Bentler chi square scaling procedure was utilized to generate a scaling correction factor to correct the χ^2 that is being minimized by the robust DWLS estimation. Using the Bryant-Satorra scaled difference test macro, the baseline three-factor model was compared to the more restrictive nested two-factor model with fewer estimated parameters and more degrees of freedom. There was a significant difference between the scaled χ^2 values (Table 3), thus the higher χ^2 value for the two-factor model suggests it is a worse fit to the data than the three-factor model. When examining the reliability alpha coefficients of the items for the three-factor model, the values are all above .70, supporting the use of the three-factor model to conceptualize coping (Cognitive Approach $\alpha = .73$, Behavioral Approach $\alpha = .76$, Avoidance $\alpha = .74$). Item-total correlations within each factor were positive and revealed that no item, if deleted, would substantially enhance any of the three subscales. The finalized items and categories are listed in Table 4.

Table 3. Scaled Chi-Square Difference Testing with DWLS Estimation

Model Tested	NTWLS χ^2	Satorra- Bentler Scaled χ^2	df	Nested Model Contrasted with Baseline Model		
				$\Delta\chi^2$	Δdf	$p <$
Baseline Model: Three-factor	547.52	247.12	132	--	--	--
Nested Model: Two-factor	576.26	262.73	134	39.84	2	.001

Table 4. Finalized Three-Factor Structure of the Children's Integrated Stress and Coping Scale

Cognitive/Emotional Approach

- 8. I prayed or asked God for help.
- 12. I thought about the problem in a different way, and tried to see the good side.
- 14. I accepted the way things were.
- 17. I thought about all the things I could do to make the situation better.
- 18. I blamed myself for the problem.
- 20. I tried to control my feelings, calm down, and relax.

Behavioral Approach

- 10. I talked to someone in order to feel better.
- 11. I asked someone to give me help to solve the problem.
- 13. I tried to solve the problem.
- 16. I tried to get more information about the problem.

Avoidance

- 3. I pretended that it wasn't a problem.
- 5. I tried to tough it out until the problem went away.
- 7. I let my feelings out: cried, yelled, looked sad, or other things.
- 21. I laughed or joked in order to deal with the problem.
- 1. I watched TV, listened to music, or played sports or games in order to feel better.
- 2. I ignored or tried to get away from the problem.
- 4. I went off by myself to get away from other people.
- 15. I didn't do anything.

Preliminary Analyses

Power analyses were performed using PASS Version 14 (Hintze, 2008) and indicated that the sample size would be sufficient for the proposed moderation analyses. Descriptive analyses were performed for all variables (Table 5). Tests of normality and evaluation of plots indicated that the variables of ECV and delinquency (both parent and child report) were positively skewed with high kurtosis at all time points. Transformations were not performed given that these variables would not be expected to be normally distributed (Finkelhor et al., 2015), and given that the bootstrapping procedure for the PROCESS macro does not require the assumption of normality (Hayes, 2013). Correlations between dependent, moderator, and independent variables at each time point were performed (Table 6). Since parent and child report of the outcomes of aggression and delinquency were not significantly correlated with each other at all time points and significant correlations did not typically exceed .30, these types of reports were not aggregated. Averages were used to address missing data for those participants who responded to at least 60% of the items in that particular scale. Multiple imputation was not used because data were not missing completely at random for any scale, likely due to many participants missing full waves of data for certain measures as well as the higher rate of attrition for those youth with greater child-reported delinquency and aggression (Little, 1988). School and parent income did not significantly predict any of the outcomes under study, thus these variables were not entered into the following statistical models as covariates.

Table 5. Descriptive Characteristics of Variables

6th Grade	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
1. ECV - Witnessing	0.259	.337	3.107	15.772
2. ECV - Victimization	0.124	.263	5.209	39.385

3. Cognitive Approach	1.495	.760	-0.254	-0.638
4. Behavioral Approach	1.548	.914	-0.106	-0.940
5. Avoidance	1.226	.690	0.176	-0.621
6. Child Delinquency	0.001	.625	4.404	23.682
7. Parent Delinquency	0.165	.208	3.053	14.762
8. Child Aggression	-0.001	.561	1.120	1.087
9. Parent Aggression	0.367	.313	0.984	0.374
<hr/>				
7th Grade	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
<hr/>				
1. ECV - Witnessing	0.188	.308	3.679	23.492
2. ECV - Victimization	0.085	.203	4.722	28.531
3. Cognitive Approach	1.314	.779	-0.088	-0.825
4. Behavioral Approach	1.345	.969	0.145	-1.134
5. Avoidance	1.128	.744	0.330	-0.516
6. Child Delinquency	0.001	.596	3.840	16.954
7. Parent Delinquency	0.157	.224	2.506	7.260
8. Child Aggression	0.001	.522	0.839	0.488
9. Parent Aggression	0.315	.324	1.346	1.272
<hr/>				
8th Grade	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
<hr/>				
1. ECV - Witnessing	0.215	.329	2.450	7.512
2. ECV - Victimization	0.068	.174	4.022	20.254
3. Cognitive Approach	1.459	.740	-0.327	-0.617
4. Behavioral Approach	1.485	.924	-0.075	-1.091
5. Avoidance	1.184	.663	0.157	-0.449
6. Child Delinquency	-0.001	.490	3.275	13.984
7. Parent Delinquency	0.166	.197	2.598	11.514
8. Child Aggression	0.001	.535	0.832	0.857
9. Parent Aggression	0.314	.296	1.689	4.598

Note: ECV = exposure to community violence. Child reported aggression and delinquency variables were created using standardized values.

2. ECV - Victimization (6 th grade)	.60**	--	--	--	--	--	--	--	--
3. Cognitive Approach	.15*	.04	--	--	--	--	--	--	--
4. Behavioral Approach	.07	.02	.74**	--	--	--	--	--	--
5. Avoidance	.33**	.18*	.56**	.44**	--	--	--	--	--
6. Child-reported Delinquency	.33**	.23**	.04	.02	.17*	--	--	--	--
7. Parent-reported Delinquency	.08	.03	.17*	.07	.19**	.31**	--	--	--
8. Child-reported Aggression	.26**	.16*	.02	-.02	.15*	.53**	.26**	--	--
9. Parent-reported Aggression	.09	.01	.18*	.05	.22**	.33**	.77**	.28**	--

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

Aim 2 – Hypothesis 2

A simple linear regression analysis was performed using IBM SPSS Statistics Version 24 (IBM Corp., 2016) to assess whether higher ratings of ECV at one time point would predict greater use of avoidant coping strategies at the same time point, as stated in Hypothesis 2. The relationships between ECV and each of the two approach categories were also examined within each of the three time points.

Both witnessing community violence ($B = .264$, $t(260) = 2.12$, $p = .035$) and being victimized in the community ($B = .312$, $t(260) = 1.95$, $p = .052$) in sixth grade was related to greater use of avoidance strategies in sixth grade, with victimization nearing significance.

Witnessing and victimization in sixth grade were not related to cognitive approach or behavioral approach use in sixth grade.

Neither witnessing community violence ($B = .059$, $t(217) = .371$, $p = .711$) nor being victimized in the community ($B = .135$, $t(217) = .561$, $p = .575$) in seventh grade was related to greater use of avoidance strategies in seventh grade. These predictors in seventh grade were also

not related to either cognitive nor behavioral approach strategy use in seventh grade.

Both witnessing community violence ($B = .679, t(190) = 4.85, p < .001$) and being victimized in the community ($B = .700, t(190) = 2.57, p = .011$) in eighth grade were associated with greater use of avoidance strategies in eighth grade. Additionally, witnessing community violence in eighth grade was associated with greater use of cognitive approach strategies in eighth grade ($B = .331, t(190) = 2.08, p = .039$), but victimization was not related to this type of coping. Neither witnessing nor victimization was associated with behavioral approach coping within eighth grade. In examining the models for avoidance and cognitive approach as they related to witnessing violence in eighth grade, avoidance ($R^2 = .111$) had a stronger relationship with witnessing ECV than cognitive approach ($R^2 = .022$). Consistent with hypothesis two, these results suggest that ECV and avoidant coping tend to coincide, more so than approach strategies, but this does not hold true at all time points.

Moderation Analyses

To examine the moderating influence of coping strategy usage on the relationship between exposure to community violence and externalizing outcomes, with gender acting as a moderator, a linear regression moderated moderation analysis was performed. The PROCESS macro for SPSS is capable of estimating the coefficients of a model using OLS regression as well as generating the conditional effects in moderation (Hayes, 2013). The proportion of the total variance of the outcome that is independently attributed to each interaction is presented. Moreover, the macro provides the ability to estimate the conditional effects of X at the 10th, 25th, 50th, 75th, and 90th percentiles of the selected moderator, which correspond to very low, low, moderate, high, and very high levels of the moderator, and will always fall within the range of

data (Hayes, 2013). Given these advantages, the PROCESS method was utilized to test the moderated moderation models of interest. The analyses were performed longitudinally across two years (from sixth grade to seventh grade) and across three years (from sixth grade to eighth grade) of data collection. The baseline level of the dependent variable, or the participant's rating of each outcome at sixth grade, was entered as a control variable for all longitudinal analyses in order to serve as the same starting point when examining change over time for both one and two year analyses. Main effects, two-way interactions, and three-way interactions were examined. When significant, only three-way interactions were presented.

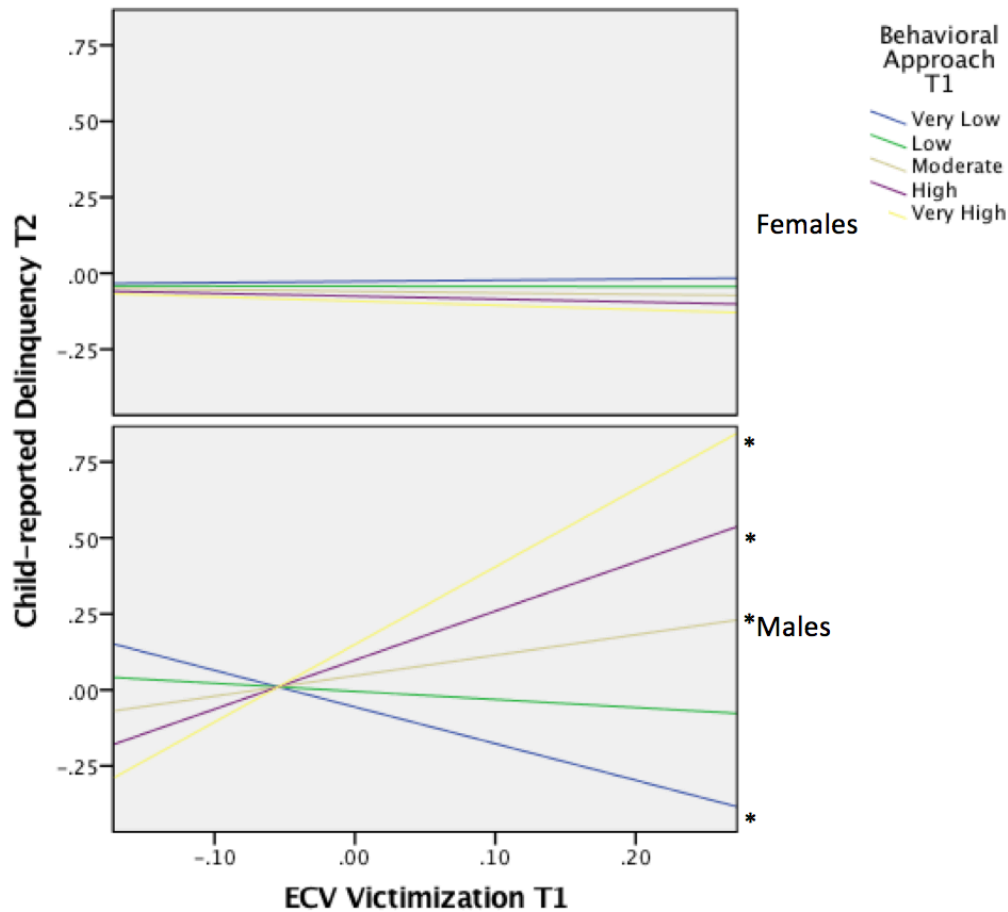
Aim 3 – Hypotheses 3 & 4

Adaptive coping (6th grade to 7th grade). The PROCESS v2.16 module for SPSS (Hayes, 2013) was used to test the longitudinal moderated moderation model in which each coping factor moderated the relationship between type of ECV and externalizing behaviors as stated in Hypothesis 3, with this interaction being moderated by the participant's gender as stated in Hypothesis 4 (Figure 1). The goal of these analyses was to see which coping categories would be *adaptive* in mitigating the positive relationship between ECV and delinquency and aggression over the course of one year, and how these effects would differ for boys versus girls. The independent variable of ECV was broken down into witnessing and victimization as two separate predictors (X) as measured in sixth grade. The dependent variables of delinquency and aggression were assessed as reported by the child and parent separately in seventh grade to create four outcomes (Y). The moderator variables (M) consisted of each of the three finalized factors of coping (Cognitive Approach, Behavioral Approach, and Avoidance) measured at sixth grade in order to examine the two-way interactions between ECV and coping. Gender was entered in as

the moderator of the two-way interactions (W) so that three-way interactions between ECV, coping, and gender could be examined. Model 3 in PROCESS was selected for each set of analyses as this conceptual and statistical diagram exemplifies a moderated moderation design. All significant and pertinent trending effects are reported in Table 7.

Child-reported delinquency. There was a significant three-way interaction between ECV victimization, behavioral approach, and gender on child-reported delinquency in seventh grade (Figure 2). The conditional effect of victimization on child-reported delinquency was significant for males at the 10th, 50th, 75th, and 90th percentiles of behavioral approach, but was not significant for females. Overall, the moderation effect was only significant for males. The graph indicates that at the lowest level of behavioral approach coping, moderate to high victimization in sixth grade predicts decreased delinquency in seventh grade. Oppositely, when males report moderate to high behavioral approach, more victimization in sixth grade predicted to increased delinquency in seventh grade.

Figure 2. The relationship between victimization at 6th grade and child-reported delinquency at 7th grade as moderated by behavioral approach coping at 6th grade, further moderated by gender.



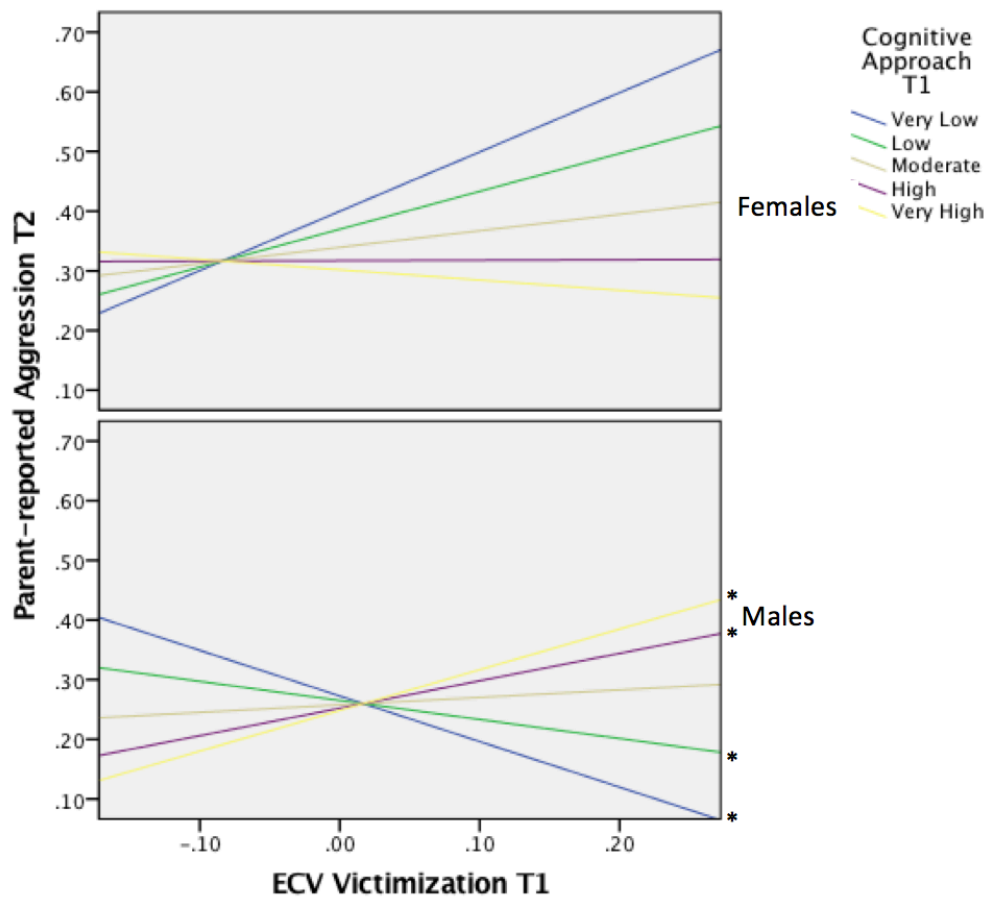
Note: Asterisk (*) indicates a significant percentile.

There was no significant three-way interaction between ECV witnessing, behavioral approach, and gender in sixth grade on child-reported delinquency in seventh grade. Neither ECV witnessing nor victimization interacted with avoidance and gender, or with cognitive approach and gender, in sixth grade for child-reported delinquency in seventh grade.

Parent-reported Aggression. There was a significant three-way interaction between ECV victimization, cognitive approach, and gender on parent-reported aggression in seventh grade (Figure 3). The conditional effect of victimization on parent-reported aggression was

significant for males at the 10th, 25th, 75th, and 90th percentiles of cognitive approach, but was not significant for females. Overall, the moderation effect was only significant for males. The graph indicates that at very low and low levels of cognitive approach coping, high level of victimization in sixth grade predicted decreased aggression in seventh grade for males. Oppositely, at high levels of cognitive approach coping, victimization in sixth grade predicted increased aggression in seventh grade.

Figure 3. The relationship between victimization at 6th grade and parent-reported aggression at 7th grade as moderated by cognitive approach coping at 6th grade, further moderated by gender.



Note: Asterisk (*) indicates a significant percentile.

There was no significant three-way interaction between ECV witnessing, cognitive approach, and gender in sixth grade on parent-reported aggression in seventh grade. Neither

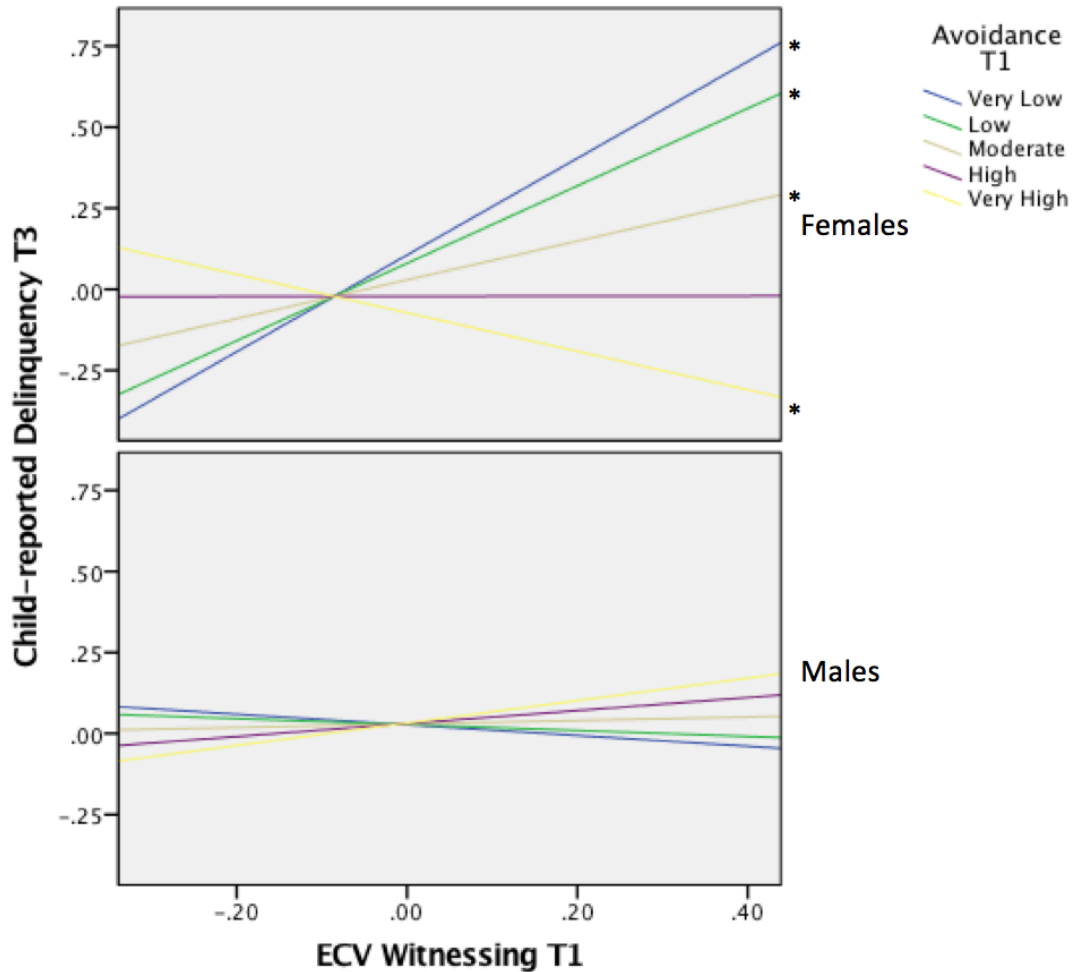
ECV witnessing nor victimization interacted with avoidance and gender, or with behavioral approach and gender, in sixth grade for parent-reported aggression in seventh grade. There were no significant three-way interaction effects for the outcomes of child-reported aggression or parent-reported delinquency in seventh grade.

Aim 4 - Hypothesis 5

Effective coping (6th grade to 8th grade). The goal of this next set of analyses was to see which coping categories would be *effective* in mitigating the positive relationship between ECV and delinquency and aggression over the course of two years, and how these effects would differ for boys versus girls, as stated in Hypothesis 5. All variables remained the same as in Aim 3, but the four outcome variables of child-reported and parent-reported delinquency and aggression were assessed at eighth grade instead of seventh grade. All significant and pertinent trending effects are reported in Table 7.

Child-reported delinquency. There was a significant three-way interaction between ECV witnessing, avoidance, and gender on child-reported delinquency in eighth grade (Figure 4). The conditional effect of witnessing on child-reported delinquency was only trending in significance for males at the 90th percentile of avoidance, but was significant for females at the 10th, 25th, 50th, and 90th percentiles of avoidance. Overall, the moderation effect was only significant for females. The graph indicates that when females report very low to moderate levels of avoidance coping, more witnessing in sixth grade predicted to increased delinquency in eighth grade. At the highest level of avoidance, witnessing at sixth grade predicted decreased delinquency in eighth grade for females.

Figure 4. The relationship between witnessing violence at 6th grade and child-reported delinquency at 8th grade as moderated by avoidance coping at 6th grade, further moderated by gender.

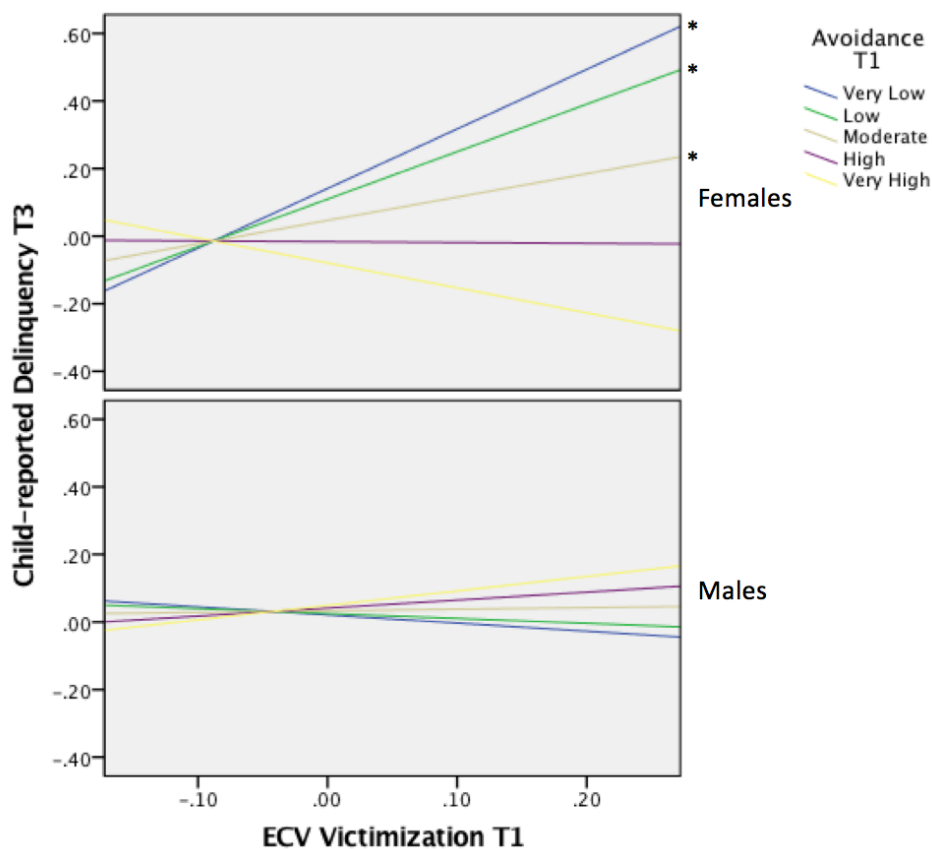


Note: Asterisk (*) indicates a significant percentile.

There was a significant three-way interaction between ECV victimization, avoidance, and gender on child-reported delinquency in eighth grade (Figure 5). The conditional effect of victimization on child-reported delinquency was significant for females at the 10th, 25th, and 50th percentiles of avoidance but nearing significance at the 90th percentile, and was not significant for males. Overall, the moderation effect was only significant for females. The graph indicates

that when females reported very low to moderate levels of avoidance coping, greater victimization at sixth grade predicted to increased delinquency at eighth grade, with this relationship decreasing in intensity as the level of avoidance increased.

Figure 5. The relationship between victimization at 6th grade and child-reported delinquency at 8th grade as moderated by avoidance coping at 6th grade, further moderated by gender.

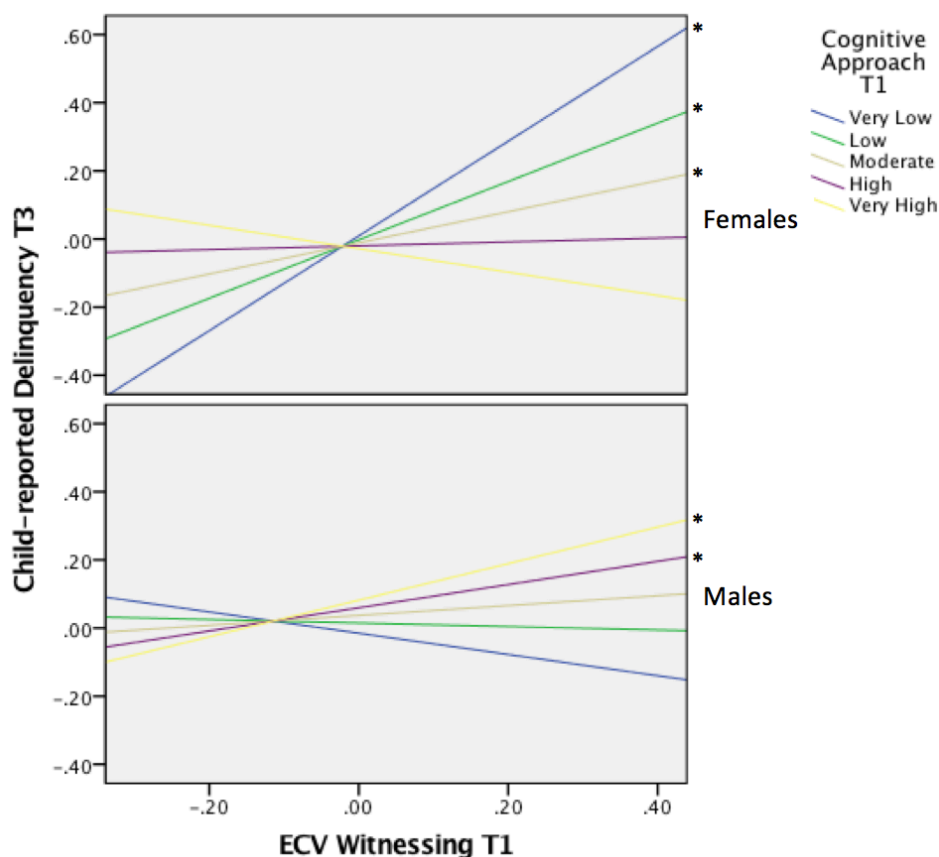


Note: Asterisk (*) indicates a significant percentile.

There was a significant three-way interaction between ECV witnessing, cognitive approach, and gender on child-reported delinquency in eighth grade (Figure 6). The conditional effect of witnessing on child-reported delinquency was significant for males at the 75th and 90th percentiles of cognitive approach, and was significant for females at the 10th, 25th, and 50th percentiles. Overall, the moderation effect was nearly significant for males and significant for

females. The graph indicates that when males endorsed high to very high levels of cognitive approach coping, higher rates of witnessing violence at sixth grade predicted to increased delinquency at eighth grade. The graph also indicates that when females endorsed very low to moderate levels of cognitive approach coping, greater witnessing at sixth grade predicted increased delinquency at eighth grade. There was no significant three-way interaction between ECV victimization, cognitive approach, and gender for child-reported delinquency in eighth grade.

Figure 6. The relationship between witnessing violence at 6th grade and child-reported delinquency at 8th grade as moderated by cognitive approach coping at 6th grade, further moderated by gender.

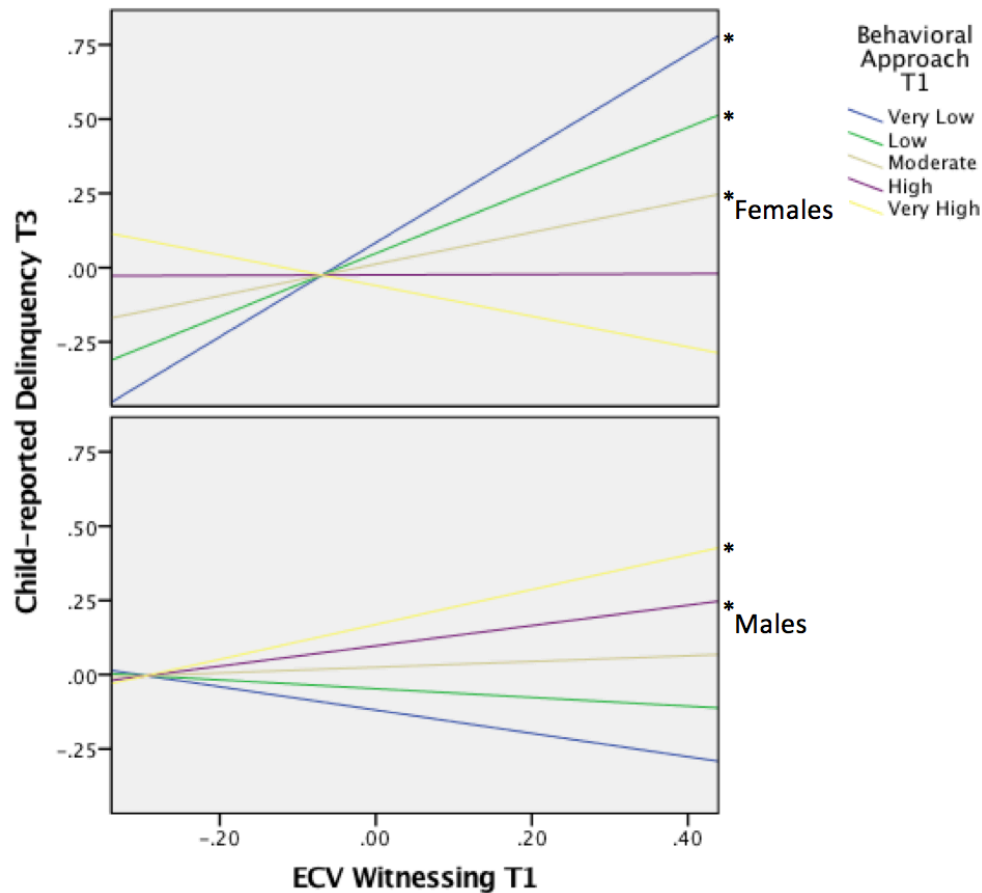


Note: Asterisk (*) indicates a significant percentile.

Lastly, there was a significant three-way interaction between ECV witnessing, behavioral

approach, and gender on child-reported delinquency in eighth grade (Figure 7). The conditional effect of witnessing on child-reported delinquency was significant for males at the 75th and 90th percentiles of behavioral approach, and was significant for females at the 10th, 25th, and 50th percentiles with trending significance at the 90th percentile. Overall, the moderation effect was significant for both males and females. For males at the two highest levels of behavioral approach coping, more witnessing of violence at sixth grade predicted increased delinquency at eighth grade. For females indicating very low to moderate levels of behavioral approach coping, high levels of witnessing at sixth grade predicted increased delinquency in eighth grade. There also seems to be a negative relationship between witnessing and delinquency at the highest level of behavioral approach coping for females. There was no significant three-way interaction between ECV victimization, behavioral approach, and gender for child-reported delinquency in eighth grade.

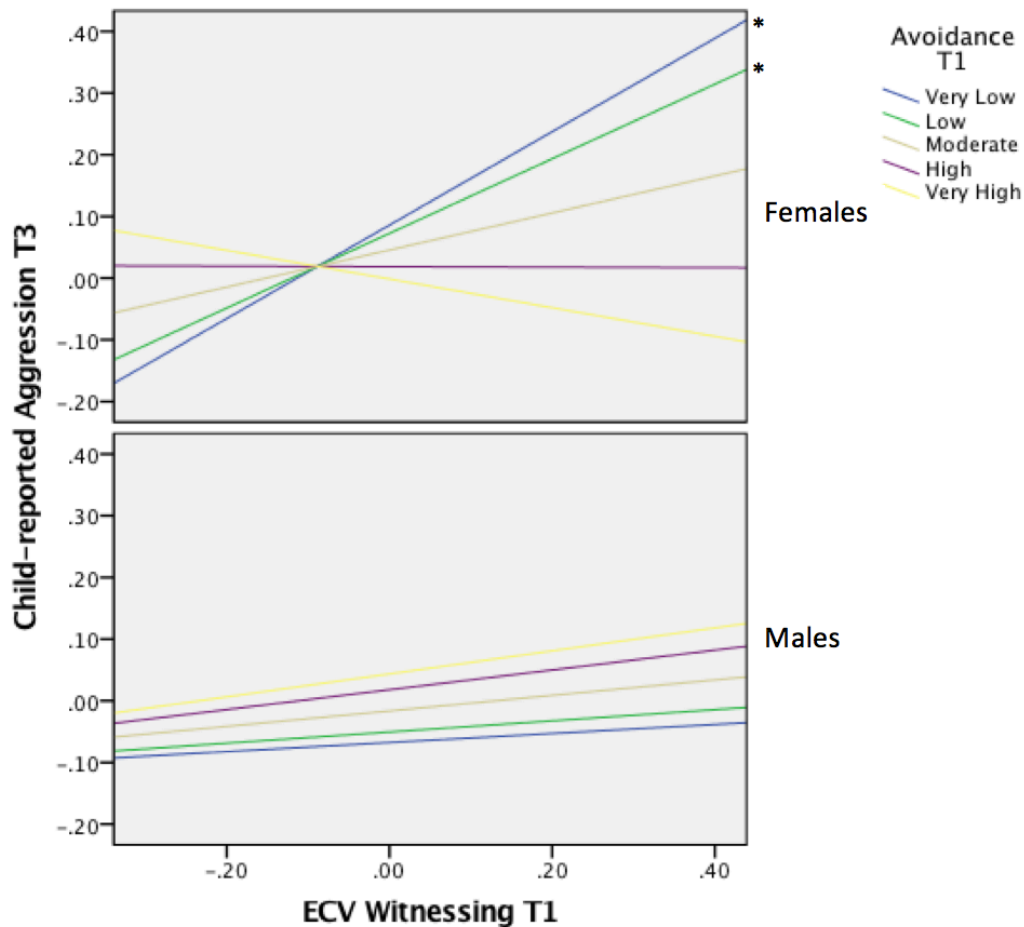
Figure 7. The relationship between witnessing violence at 6th grade and child-reported delinquency at 8th grade as moderated by behavioral approach coping at 6th grade, further moderated by gender.



Note: Asterisk (*) indicates a significant percentile.

Child-reported aggression. There was a significant three-way interaction between ECV witnessing, avoidance, and gender on child-reported aggression in eighth grade (Figure 8). The conditional effect of witnessing on child-reported aggression was significant for females at the 10th and 25th percentiles with trending significance at the 50th percentile and no significant percentiles for males. Overall, the moderation effect was significant only for females. For females endorsing very low to low levels of avoidance coping, high levels of witnessing at sixth grade predicted increased aggression in eighth grade.

Figure 8. The relationship between witnessing violence at 6th grade and child-reported aggression at 8th grade as moderated by avoidance coping at 6th grade, further moderated by gender.

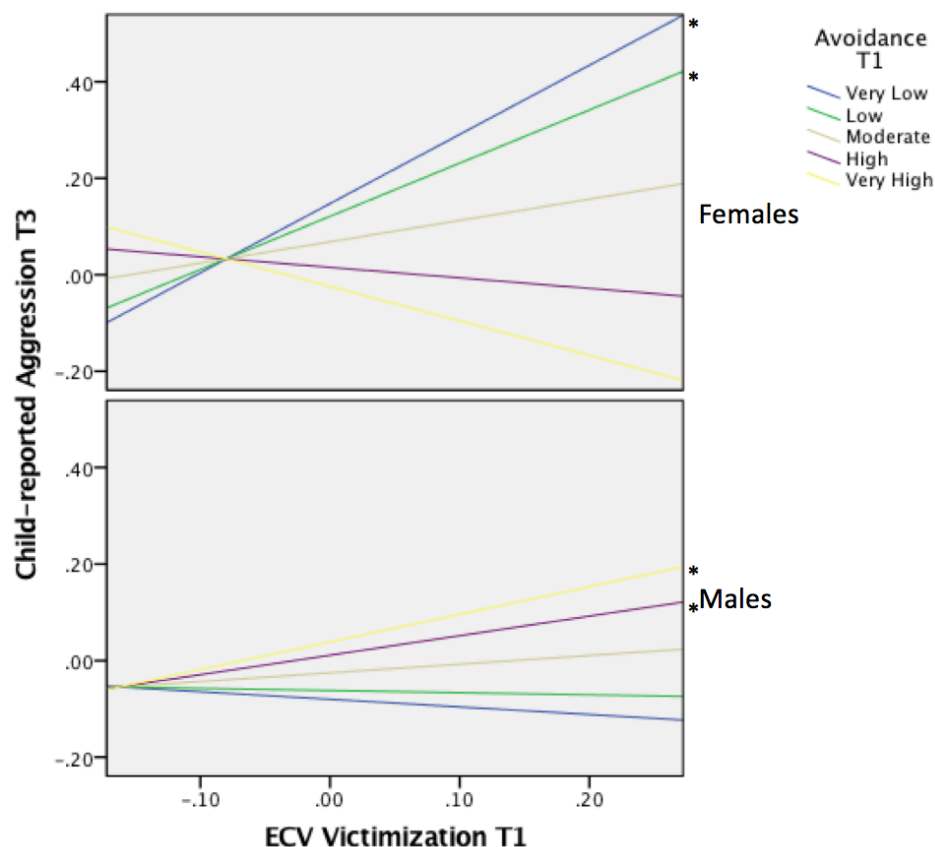


Note: Asterisk (*) indicates a significant percentile.

There was a significant three-way interaction between ECV victimization, avoidance, and gender on child-reported aggression in eighth grade (Figure 9). The conditional effect of victimization on child-reported aggression was significant for males at the 75th and 90th percentiles and was significant for females at the 10th and 25th percentiles with trending significance at the 50th and 90th percentiles. Overall, the moderation effect was significant only for females. At the two highest levels of avoidance for males, greater victimization in sixth grade predicted increased aggression in eighth grade. For females indicating very low to low levels of

avoidance coping, high levels of victimization at sixth grade predicted increased aggression in eighth grade. At the highest level of avoidance, there appears to be a trending steep negative relationship between victimization and aggression for females.

Figure 9. The relationship between victimization at 6th grade and child-reported aggression at 8th grade as moderated by avoidance coping at 6th grade, further moderated by gender.

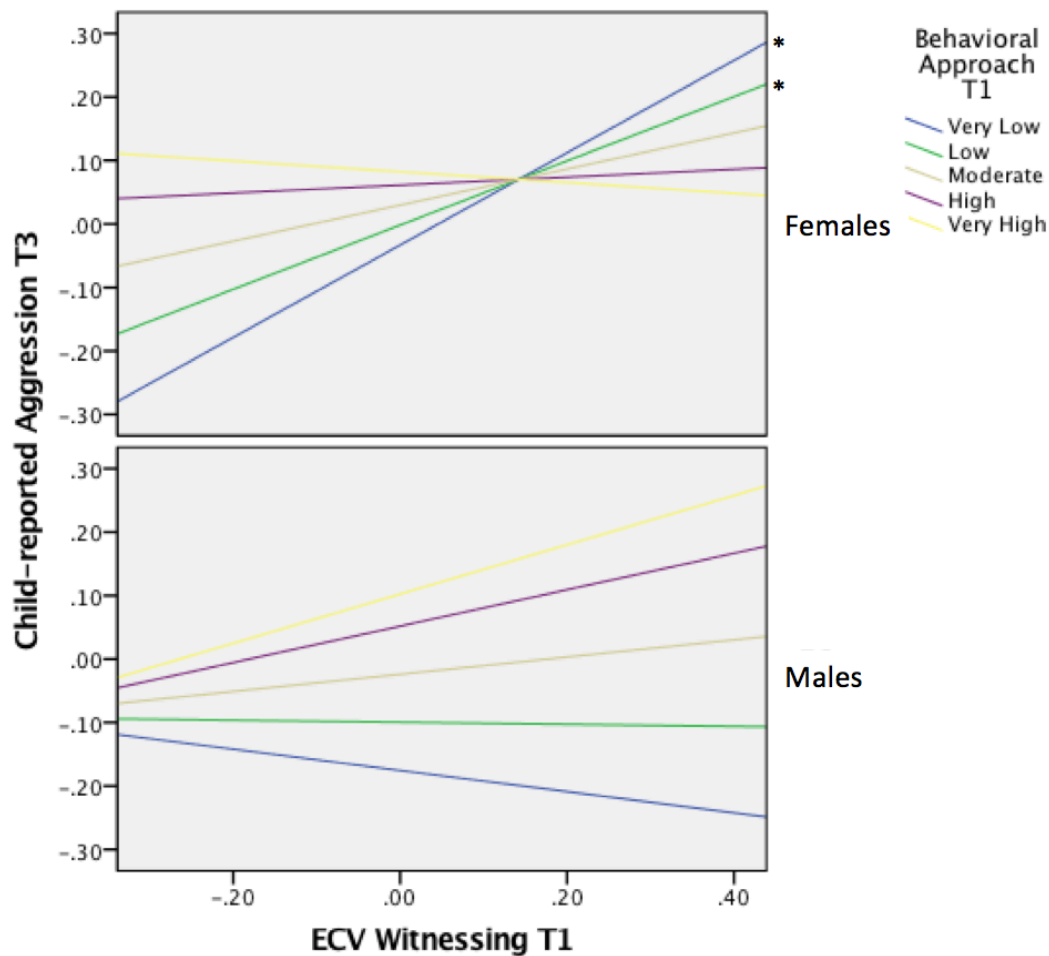


Note: Asterisk (*) indicates a significant percentile.

There was a significant three-way interaction between ECV witnessing, behavioral approach, and gender (Figure 10). The conditional effect of witnessing on child-reported aggression was nearly significant for males at the 75th and 90th percentiles of behavioral approach and was significant for females at the 10th and 25th percentiles with trending significance at the 50th percentile. Overall, the moderation effect was trending in significance

only for females. For males endorsing the two highest levels of behavioral approach, witnessing in sixth grade seems to predict increased aggression in eighth grade. For females indicating very low to moderate levels of behavioral approach coping, high witnessing at sixth grade predicted increased aggression in eighth grade. There was no significant three-way interaction between ECV victimization, behavioral approach, and gender for child-reported aggression at eighth grade.

Figure 10. The relationship between witnessing violence at 6th grade and child-reported aggression at 8th grade as moderated by behavioral approach coping at 6th grade, further moderated by gender.



Note: Asterisk (*) indicates a significant percentile.

There was no significant three-way interaction between ECV witnessing, cognitive approach, and gender for child-reported aggression at eighth grade, nor between ECV victimization, cognitive approach, and gender. There were no significant three-way interaction effects at all for the outcome variables of parent-reported delinquency and parent-reported aggression in eighth grade.

Table 7. Significant Main Effects, Two-way Interactions, and Three-way Interactions

Dependent Variable (DV)	Time DV Assessed	Independent Variables (6 th grade)	<i>Coeff.</i>	<i>t</i>	<i>df</i>	<i>p</i>	
Child-reported Delinquency	7 th Grade	Beh. Approach					
		Baseline Delinquency	.26	3.68	204	.001**	
		ECV victim Coping	.47	2.46	204	.010*	
		ECV victim Gender	-.80	-2.39	204	.018*	
		ECV victim Coping Gender	-1.31	-3.22	204	.002**	
		8 th Grade	Avoidance				
	ECV witness		.34	3.32	189	.001**	
	Baseline Delinquency		.21	3.49	189	.001**	
	ECV witness Coping		-.61	-3.92	189	.001**	
	ECV witness Gender		.43	2.24	189	.026*	
	ECV witness Coping Gender		-1.48	-5.10	189	.001**	
		ECV victim	.38	2.34	189	.021*	
		Baseline Delinquency	.23	3.43	189	.001**	
		ECV victim	-.71	-2.03	189	.044*	

		Gender			
Parent-reported	7 th Grade				
Aggression					
	Cog. Approach				
	Baseline	.51	6.49	126	.001**
	Aggression				
	ECV victim	-1.21	-2.53	126	.013*
	Coping				
	Gender				

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

CHAPTER FOUR

DISCUSSION

Overall, the goal of this research was to promote resiliency by illuminating the best ways for disadvantaged African American youth to handle the stress of exposure to community violence, in turn reducing maladaptive behavior. First, the current study sought to confirm a four-factor structure of coping that would align best with the categories of coping as they are defined in the current literature, with the hope of achieving a more nuanced understanding useful in identifying strategies for interventions. Next, the current study aimed to utilize these categories so as to assess which type of coping mitigates the positive relationship between exposure to community violence and externalizing outcomes (e.g., delinquency and aggression), and which type of coping exacerbates that relationship. It was expected that avoidance use would coincide with increased community violence exposure and would be an effective and adaptive type of coping for reducing delinquency and aggression over time. It was also postulated that approach strategies would not be effective and adaptive in that they would serve to increase maladaptive behavior amidst high community violence exposure. These effects were expected to be more prevalent for males than females. Altogether, these hypotheses were partially supported. Three factors of coping emerged instead of four. Avoidance use did coincide with community violence exposure, but not at all time points. Avoidance strategies were useful for females but not males, while approach strategies were unhelpful for males but not females. Possible explanations and implications of these findings are discussed in the following sections.

Coping Factors

In synthesizing the confirmatory factor analyses, coping was best defined by the three correlated constructs of cognitive approach, behavioral approach, and avoidance coping. Although the hypothesized four correlated factors of approach and avoidance split into behavioral and cognitive strategies revealed the best fit to the data, the two categories of avoidance were too highly correlated and were therefore combined. Overall, it was not possible to obtain the proposed conceptualization of coping capturing four distinct cognitive and behavioral mechanisms using the current coping measure and dataset, as is recommended in the literature (Moos & Schaefer, 1993; Aldwin, 2007). Even so, the three factors that did emerge bring about interesting points of discussion and still achieve a degree of nuance greater than alternate dichotomous conceptualizations of coping.

First, it is important to examine why avoidance did not split into cognitive and behavioral strategies that would align with modern theoretical definitions of coping (Blalock & Joiner, 2000; Anshel, 2000). It is possible this was a result of the phrasing of the items of the Children's Integrated Stress and Coping Scale (Jose & Huntsinger, 2005). The hypothesized avoidance factors were more correlated with each other than the approach factors, suggesting that the avoidance items themselves may be less distinct and more overlapping according to their wording. In examining the particular items themselves (Table 1), it does seem like the cognitive strategies of letting one's feelings out, toughing it out, and joking about the problem could also be construed as behavioral strategies depending on how one views the construct. Likewise, doing nothing or ignoring the problem could be considered cognitive instead of behavioral avoidance. This confusion amongst the cognitive and behavioral items speaks to the complexity involved in

identifying coping categories and the need for very carefully created items (Tobin, Holroyd, Reynolds, & Wigal, 1989).

In examining the past exploratory factor analyses originally performed for this scale, the authors identified the categories of problem-focused, emotion-focused, and avoidant coping. The use of conceptually overlapping categories of emotion-focused and avoidant strategies speaks to the muddled theory behind the measure, as one could be coping emotionally and disengaging at the same time (Scheier, Weintraub, & Carver, 1986). Had a different scale that is more widely used and validated in the literature been utilized in the overarching study, it is possible that a four-factor model might have emerged due to implementation of less ambiguous items that could fit better within the avoidance-approach conceptualization. Complicating the situation is the fact that “use of one coping response may be sufficient to reduce stress and thus lessen the need to use other responses from either the same or other categories of coping” (Billing & Moos, 1981, p. 145), causing latent variables to emerge less clearly for coping than for other constructs. Even so, the current three factor structure is still an improvement upon the exploratory factors that originally emerged.

Second, the exceedingly high correlations between cognitive and behavioral components of the category of avoidance may speak to this construct as being more of a generalized type of coping, for this sample of African American youth, or across samples. For example, Eisenberg and Silver (2011) and Aldwin et al. (2011) argue that coping should be construed more in terms of emotion regulation that is geared towards responding both behaviorally and emotionally. They reason that the coping literature has placed too much emphasis on primary control and problem-solving, and should instead address the control and accommodation strategies that accompany

adaptive self-regulation. In this way, an overarching emotion regulation construct may be more appropriate than distinguishing between approach and avoidance. While it could be that urban minority youth are simply endorsing broader forms of avoidance or self-regulation, this is difficult to assert given the complicated and inconsistent coping measurement used today.

Although more recent theory supports nuanced categories divided into cognitive and behavioral strategies, the majority of past research utilized one large avoidance construct (Folkman & Moskowitz, 2004), suggesting that more research needs to be done on how to best break this phenomenon into smaller parts. Most coping research has been performed using samples from the general population, yet studies encompassing African American youth samples have also consistently employed avoidance as a category without distinguishing between cognitive or behavioral strategies (Gaylord-Harden et al., 2010; Seaton, Upton, Gilbert, & Volpe, 2013; Sanchez, Lambert, & Cooley-Strickland, 2013). In sum, these findings suggest that it would be worthwhile to develop a brand-new measure based on a priori distinctions between cognitive and behavioral avoidance, when such differentiation amongst coping is the goal. It is essential to delineate categories that are as distinct from each other as possible to avoid overlap and perfect statistical linear dependency. Continuing to deconstruct over-generalized categories of coping will serve to unmask important differences within this nomenclature (Folkman & Moskowitz, 2004).

Coping Preference amidst Uncontrollable Stress

Since community violence is uncontrollable in nature, this kind of stressor is presumed to be associated with higher rates of avoidant coping because more traditional coping strategies of approaching the situation place youth at increased risk and may not be successful in combatting

the stress (Carver et al., 1989; Folkman & Lazarus, 1980; Folkman & Lazarus, 1985; Grant et al. 2000; Rasmussen et al., 2004; Tolan & Grant, 2009; Howard, Kaljee, & Jackson, 2002). In line with past research, witnessing violence and being victimized in the community was related to increased avoidance in sixth grade and eighth grade, but not in seventh grade. Witnessing was also related to increased cognitive approach in eighth grade. Although these findings are cross-sectional and causality cannot be inferred, they suggest that more exposure to community violence and more avoidance coping tend to coincide for early adolescent African Americans, more often than with approach strategies. In other words, youth seem to more often endorse withdrawing from problematic situations as opposed to confronting them directly, perhaps because they realize they cannot change the outcomes of community violence.

This effect is not completely stable as it did not hold true at all time points, indicating that avoidance may be the preferred, yet not rigidly adhered-to, coping tool amidst uncontrollable stress. This phenomenon is important to address in therapeutic settings given the fact that the cognitive match between a therapist and client can predict treatment outcomes. Zane et al. (2005) found that the therapist-client match in attitudes, beliefs, and expectancies, such as both assuming an avoidant coping orientation, resulted in better therapy outcomes, even after controlling for ethnic match and language preference. This is especially important given the fact that assigning a new therapist so that ethnicity and race align between both parties is likely not always a feasible option in community mental health settings. Therefore, recognizing and accepting that youth in this type of violent environment may prefer or default to using avoidance strategies can aid a therapist or counselor significantly during therapeutic alliance formation, prevention programs, or treatment of mental health problems.

Risk and Resilience Effects of Coping

Males over the course of one year. When examining exposure to community violence, coping, and externalizing behaviors from sixth grade to seventh grade, two significant major findings emerged. For those males reporting higher victimization, greater use of behavioral approach strategies appears to exacerbate youth-reported delinquency, while lower use appears to help reduce delinquency. Similarly, but to a lesser degree, males exhibited increased parent-reported aggression when using more cognitive approach strategies amidst high victimization, while those who use low amounts of such strategies actually exhibited decreases in aggression.

Interpreted together, it appears that neither behavioral approach nor cognitive approach coping were adaptive for dealing with exposure to community violence and its effects on delinquency and aggression in males. Instead, these types of coping appeared to increase boys' risk of maladaptive behavior when used more extensively over the course of one year. Although there were no significant effects for avoidance, these results indicate support for the original hypothesis that approach strategies, such as trying to control one's feelings or trying to solve the problem (the two most highly endorsed approach strategies), would be detrimental for males' externalizing behaviors at higher levels of violence exposure. Given only this information, one might suggest that deterring boys at this age from confronting violence exposure related stress directly could be the most helpful when they are being victimized in their community, but this does not reveal the full picture, as is explained below. Interestingly, no significant moderated moderation models for avoidant coping over one year resulted among males.

Males over the course of two years. When examining community violence, coping, and externalizing behaviors from sixth to eighth grade, three significant major findings emerged for

males. In terms of child-reported aggression, males with greater victimization exposure were higher in aggression at the two highest levels of avoidance. In other words, using avoidance strategies was a risk factor for developing aggression among males exposed to victimization. For males with high witnessing rates, endorsing the two highest levels of cognitive approach and behavioral approach resulted in increased child-reported delinquency. In this way, both types of approach were also risk factors for developing delinquency among males witnessing community violence. As seen in the findings over the course of one year, neither behavioral approach nor cognitive approach coping was effective in reducing delinquency for males dealing with greater exposure to community violence, while avoidance served as an additional risk factor for these types of behaviors.

Females over the course of two years. Females did not exhibit any significant effects when examined over the course of one year, from sixth to seventh grade. When examining community violence, coping, and externalizing behaviors from sixth to eighth grade, seven significant major findings emerged for females. In terms of avoidance, it appears that regardless of the type of community violence exposure (witnessing or victimization), females endorsing very low to moderate use of avoidance strategies in sixth grade maintained high levels of delinquency as reported by the youth in eighth grade, with very low use being the most detrimental. Females, who witnessed higher levels of community violence and endorsed very high use of avoidance strategies, exhibited a decrease in delinquency, indicating a protective buffering effect of avoidance (Luthar, Cicchetti, & Becker, 2000). These results support the original hypothesis and imply that avoidance strategies may be worth recommending to girls with high community violence exposure since it can be an effective way of coping to help reduce

delinquent behavior and can place youth at more risk if not used more often.

Similar but slightly different effects emerged for avoidance in how it affected the relationship between community violence exposure at sixth grade and child-reported aggression at eighth grade. For moderate to high witnessing rates, females who used the least amount of avoidance strategies exhibited increased levels of aggression. For moderate to highly victimized youth, the same phenomenon occurred. Therefore, avoidance was never explicitly effective in reducing aggression, but low use put females at greater risk of developing aggression over two years.

In terms of cognitive approach coping, it appears that when witnessing high levels of community violence, females endorsing very low to moderate use of cognitive approach strategies in sixth grade maintained high levels of delinquency as reported by the youth in eighth grade, with very low use being the most detrimental, meaning that lower use of cognitive approach strategies put females at greater risk of externalizing problems. In terms of behavioral approach coping, almost the exact same effects appeared. For females with moderate to high witnessing rates, those who endorsed the lowest three levels of behavioral approach strategy use exhibited high levels of child-reported delinquency, and the same occurred at the lowest two levels of behavioral approach coping for child-reported aggression. Together, minimal use of cognitive approach and behavioral approach strategies seems to be harmful for the development of delinquency in girls, as well as minimal use of behavioral approach is a risk factor for girls' aggression.

Comparing across genders. The findings are not in line with original gender hypotheses and suggest that girls may benefit more than boys from coping strategies amidst exposure to

community violence. Girls were more at risk of behavioral problems when they did not use avoidance strategies and exhibited reductions in delinquency specifically when they did use these strategies more. Girls were also more at risk for delinquency when they did not use as many approach strategies, as well as at risk for aggression when they did not use more behavioral approach. Thus, for girls over the course of two years, avoidance strategies were seen as advantageous when used at high levels and both avoidance and approach became disadvantageous at low levels. Oppositely, boys were more at risk for aggression when high in avoidance and more at risk for delinquency when high in cognitive and behavioral approach. For boys, both avoidance strategies (over the course of one year) and approach strategies (over the course of one and two years) were disadvantageous at high levels.

Synopsis

In sum, these findings suggest that any type of coping, either approach or avoidance, may be effective for girls for diminishing externalizing behaviors amidst exposure to community violence. Contrastingly, any use of coping strategies appears to be maladaptive and ineffective in reducing delinquency in boys. It is interesting to note that the same patterns seemed to emerge for both witnessing violence and being personally violently victimized, suggesting that these coping effects may not vary according to whether the violence exposure is direct or indirect, contrary to past literature separating the two constructs (Hammack, Richards, Luo, Edlynn, & Roy, 2004). These results imply less specialized effects of coping strategy type than seen in the current literature on coping. In examining the correlations among the coping factors of avoidance, behavioral approach, and cognitive approach, all are significantly positively correlated with each other at all three time points. This suggests that youth tend to use more

coping strategies in general in conjunction with one another rather than using more of one type of coping and less of another.

Traditionally, it is thought that active or instrumental coping is better suited for when someone appraises the situation as controllable, whereas uncontrollable situations warrant more passive techniques (Folkman & Moskowitz, 2004). Given all of the efforts of researchers to isolate the best strategies and all of the subsequent mixed results despite theoretically grounded predictions about particular situations, it seems that the broader phenomenon of frequency of coping may be most salient compared to type of coping when assessing youth across shorter time periods or earlier in adolescence, as seen in the current study. It is possible that for adolescents at the age of 11, 12, and 13, there is a more generalized effect of coping due to the continuing development of higher level cognitive processes. Because the brain is very actively maturing at this point, these youth are attempting to form their own sense of self-confidence, self-efficacy, and future orientation, while also trying to navigate a world full of risks and challenges (Garcia Coll & Szalacha, 2004). Executive functioning skills such as planning, response inhibition, and decision-making are also still in the process of improving at this point (Blakemore & Choudhury, 2006). Thus, internal resources may be more directed towards trying to cope with one's identity formation as it interacts with a high-risk environment in any way possible, regardless of orientation towards the stressor, leading to positive outcomes for girls who used more of any form of coping.

Contrastingly, boys did not seem to benefit from any type of coping and were actually more at risk when incorporated, begging the question of why trying to handle the violence related stress in some manner did not aide these youth in reducing delinquency and aggression.

First, this finding seems to be mirrored in some current research pertaining to coping and externalizing behaviors. Sanchez, Lambert, & Cooley-Strickland (2013) found that avoiding problems was protective for urban African American girls aged eight to twelve, while avoidance did not help to reduce externalizing problems for boys. It is possible that effective or adaptive coping may be undermined at high levels of community violence exposure for males because they become too overwhelmed by the uncontrollable stress (Scarpa, Haden, & Hurley, 2006). Similarly, girls may be better able to integrate and utilize coping strategies to produce actual changes in behavior because of their advanced sexual maturity (Marshall & Tanner, 1986) and subsequent expedited brain development compared to boys (Bramen et al., 2010). As the coping measure under study only asks about strategy use after the most violent event they experienced in the past year, it would be worthwhile to assess coping strategy use as it relates to a range of violent events, so that better assertions can be made about boys' responses and subsequent outcomes. It may be that regardless of coping strategies, the depletion of socioemotional resources in one's violence-ridden environment is so great that expending any extra cognitive effort for boys is simply unproductive.

Another possible explanation is that boys are simply at greater risk of delinquency and aggression amidst exposure to community violence, particularly physical retaliation, thus requiring increased external resources to supplement their coping strategies in order to observe actual positive change in maladaptive externalizing behaviors (Mrug & Windle, 2009; Wilkowski et al., 2012). In the current study, boys were significantly higher than girls in self-reported delinquency at sixth and seventh grade, suggesting that they would require greater efforts to reduce such behavior to achieve the same outcome levels as girls. Given that they are

more likely to get physically aggressive in general (Lansford et al., 2012) and in response to violence, coping as an intervention may not be sufficient enough to reduce their more intense externalizing behaviors. It is also possible that the construct in itself may not address coping in a way that is most appropriate for boys. The increases in delinquency and aggression associated with higher use of coping techniques may occur because these techniques measured are not most helpful for males. Coping at sixth grade may actually interfere with other mechanisms of resilience at that age for boys, therefore enhancing maladaptive behavior instead of mitigating it. Although it is unclear why girls are benefitting from coping and boys are not, this discovery shows that coping with community violence is a variable process depending on one's gender.

The lack of effects supporting one particular type of coping as most beneficial or most risky for girls and boys, respectively, may signify that the measure of coping is not fully capturing the successfulness of a particular strategy or category of strategies. The coping measure may not be assessing the mechanism by which a coping strategy serves to make youth more or less resilient, as it is simply measuring the frequency of use of a particular strategy. For example, we know that people first undergo an appraisal process in which they label the situation as controllable or uncontrollable, and thus cope according to that label (Folkman & Greer, 2000). In the current study, it is assumed that all youth labeled community violence as an uncontrollable stressor automatically. In reality, it may be that some youth see this as something they can control, perhaps because they have family members or friends actively involved in gangs. If some youth are appraising the stressor one way, and others another way, this could serve to mask any effects of particular strategy use, as they would then be viewed in a different light. Additional research should examine situation appraisal together with coping strategy

endorsement in order to maintain a complete picture of the coping process.

The emergence of only two significant moderated moderation models for community violence as it predicts to outcomes over the course of one year compared to seven significant moderated moderation models when outcomes were assessed after two years suggests that coping may be more effective than adaptive, thus having more of an impact in the long-term than the short-term (Tolan, Guerra, & Montaini-Klov Dahl, 1997). Seeing as these sixth grade youth are undergoing puberty and brain development typical of early adolescence compared to late adolescence, they may be less able to fully realize the effects of their strategies until these skills have become more engrained and repetitive. It is also possible that community violence is such an all-encompassing stressor that it could take longer to achieve demonstrable change in response to this stressor than in response to other uncontrollable events like moving to a new neighborhood. Regardless of the reason, coping appears to be more impactful over longer periods of time.

The higher prevalence of child-reported effects compared to parent-reported effects speaks to self-report as being a more valuable way of measuring externalizing behaviors in relation to coping. Although parent reports and child reports have often been shown to be correlated with each other, when it comes to looking at how individual factors can serve to alter a presentation of symptoms, it may be best to use the same reporter for all variables under study. By including two different observers into the same model, this eliminates consistency in perspective across constructs. Additionally, the parent sample was smaller than the child sample, creating reduced power to detect significant effects.

As proposed in the introduction, victimization and witnessing were examined as separate predictors representative of the overall construct of exposure to community violence. In examining the moderated moderation models, victimization was the significant predictor for both models that emerged over the course of one year, while witnessing was the significant predictor for five of the seven models that appeared over two years. It may be that only victimization led to effects over the shorter time frame due to the nature of this type of exposure. Although victimization is a less frequent experience (Lambert et al., 2005), the intensity of such an experience may in itself be more likely to elicit effects more immediately than after a less intense episode of witnessing violence. Contrastingly, witnessing violence tends to occur more repeatedly, therefore the accumulation of such negative experiences may be more likely to impact youth over the longer time course of two years. Although the cause of this particular pattern of predictors is unclear, parsing apart victimization from witnessing still appears to be valuable for further investigation, as varying effects did appear depending on time course. Had these types of exposure to community violence not been differentiated, it is possible that no effects over the course of one year could have emerged, stressing the importance of isolating the specific nature of violent events.

Strengths and Limitations

This research was performed utilizing a relatively large sample of low-income African American youth, providing increased power to detect effects and increased potential for generalizability to other youth in this ethnic group. This particular study builds upon the literature on how to conceptualize coping and provides confirmatory factor analyses based on a priori hypotheses in a field that has often used exploratory analyses with much less reasoning to

support the theory. The findings surrounding avoidance as a general factor help to justify the importance of making measures with clearly worded and categorized strategies and reiterate the complex nature of coping. Additionally, the approach-avoidance framework for coping is in itself a less ambiguous and overlapping distinction than the often-utilized emotion-focused versus problem-focused differentiation. The use of a moderated moderation analysis to include gender effects correctly accounts for differences between the groups that may occur due to differing developmental trajectories and social influences. Overall, this study makes a significant contribution to the knowledge base for how coping affects how youth interact with their environment.

There are still limitations despite the numerous strengths of this study. First, those participants who dropped out of the study over the two years of data collection were inherently higher in delinquency and aggression as reported by the children themselves. Those higher in such behavior issues may be more likely to be non-compliant across multiple settings, therefore more likely to drop out of a voluntary research study, hence the larger baseline values for child-reported outcomes for those participants lost due to attrition. Because those who completed surveys through eighth grade were inherently lower to begin with on the child-reported externalizing outcomes than those who did not, it is possible that the following results do not reflect the full range of outcomes that could occur. Those highest in initial behavioral difficulties could have amplified or muted the observed effects had they filled out surveys at all time points.

Another flaw of the current work is that all data used were based on self-report surveys, thus issues like social desirability bias or poor comprehension of the items based on underdeveloped cognitive abilities could have affected the responses given. Objective

measurement of coping remains a difficult endeavor. Additionally, surveys were only administered once each year, thus this study does not account for more subtle changes that could have occurred within the year itself between sixth and seventh grade, or between seventh grade and eighth grade. Coping is a very nuanced concept that is defined as constantly adjusting to the nature of the stressor, thus if the stressor changes in intensity at multiple times during the year, or if the type of coping changes frequently, or if something else major happens in a child's life, these factors could have varying effects on coping depending on when a child is surveyed. These subtleties also speak to use of a coping measure that assesses strategy use in response to a range of violent events, as opposed to only the most violent event that one experienced in the past year. Lastly, the distinction that was made between adaptive coping as existing over the course of one year and effective coping existing over the course of two years was somewhat arbitrary, emphasizing the need for additional research into the difference between these time courses.

Future Directions

Future studies should continue to utilize CFAs to identify different factor structures of coping across numerous samples so that more fine-grained interpretations can be made for use in prevention and intervention programs particular to a specific ethnicity or SES level. Further research should also continue to examine how different types of coping strategies can help or hinder adolescents when they are faced with community violence, especially since this uncontrollable stress can have such contrasting impacts on youth compared to more predictable stress in safer communities. More specifically, primary and secondary appraisal are vital concepts to address in coping models so that it is clear how a youth is interpreting a violent event and subsequently choosing a particular coping strategy (Folkman, 2013). It is also important to

utilize measures that are carefully selected to account for the exact type of coping that needs to be addressed so that meaningful categories can be created. A wider age range would be beneficial as well since youth delinquency and aggression can appear very different in early adolescence compared to middle and late adolescence. Additional research is warranted in examining children's qualitative perspectives on how they cope with community violence exposure and why they revert to certain strategies more than others to see which are more favored so as to enhance future therapeutic alliances.

Conclusions and Implications

First and foremost, this research shows how complex and nuanced coping with community violence can be, and how crucial it is to advance our knowledge of what makes youth resilient or vulnerable. Although a four-factor structure did not fit the items on the Children's Integrated Stress and Coping Scale (Jose & Huntsinger, 2005), an interesting three-factor structure of cognitive approach, behavioral approach, and avoidance did emerge. Utilizing this structure in seeing how each factor affects the relationship between exposure to community violence and delinquency and aggression enhances our understanding of how youth adaptively or effectively cope with this exposure and how the consequences of coping differ between genders. Although no specific strategies proved most useful or detrimental, females appear to have a generalized advantage when endorsing higher use of coping, while males appear to be disadvantaged by higher use.

The results outlined in this study speak to the utility of viewing coping within the context of the cognitive-transactional model. As seen in the current research, how a person assesses a stressful situation and how they proceed to allocate their emotional and behavioral resources to

cope with that situation can vary depending on their own individual factors, reiterating the notion that coping is not a static phenomenon. Contrary to what one might expect, for some (e.g., boys), choosing not to immerse oneself in coping efforts may be the best solution when exposed to high levels of community violence. In this way, their interactions with the stress in their world and how they choose to contribute to their world are both shaped by unique perceptions and cognitions. It is the ultimate hope that clinicians in intervention or prevention programs can take these findings into account when fostering youth resilience and engagement in coping activities in exceptional contexts such as urban, low-income African American communities.

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