

ABSTRACT

Title of Document: COMMUNITY VIOLENCE EXPOSURE AND CHILDREN'S EXTERNALIZING BEHAVIOR PROBLEMS: THE ROLE OF FAMILY MANAGEMENT STRATEGIES

Ashley Lauren Munger
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Directed By: Professor Sandra Hofferth, Ph.D.
Department of Family Science

The detrimental impacts of community violence exposure (CVE) for children's later behavior are well-established. In particular, children exposed to community violence exhibit more externalizing behavior problems (EBP). Although increased attention has been paid to the indirect impacts of CVE through family processes and parenting practices, relationships remain unclear. How parents manage children's experiences with the external world – family management (FM) – is a promising area of investigation.

FM is divided into two types of strategies: promotive – fostering children's skills and opportunities – and preventative – minimizing children's exposure to danger. Promotive strategies include parental involvement with children at home, parental involvement in children's schools, and children's involvement in organized activities, whereas preventative strategies include parental monitoring and harsh

discipline. Harsh discipline was conceptualized as strategy that may serve the function of family management but may also negatively impact children.

The present study examined whether the relationships between CVE and FM strategies are influenced (moderated) by available resources and whether the CVE-EBP relationship is mediated by specific FM strategies. Proposed relationships were informed by the Family Adaptation and Adjustment Response Model. The study used data from 2,310 mothers unmarried at the birth of the target child in the Fragile Families and Child Wellbeing Study to test hypotheses drawn from theory and prior literature.

CVE positively predicted FM strategies of parental involvement with children at home, parental involvement in children's schools, parental monitoring, and harsh discipline; however, none of the examined resources – income, social capital, or maternal self-efficacy – moderated these relationships. Findings suggest that, regardless of resources, mothers actively manage their children's experiences in the context of community violence. However, only harsh discipline mediated the relationship between CVE and EBP. This finding suggests a potential feedback loop from CVE to harsh parenting to EBP, which may then feed into the environment. As such, this may be a particularly salient area for intervention.

CVE is a significant public health problem that has impacts for individuals, families, and communities. Better understanding of the extent and nature of these impacts is important for developing responsive programs and policies to bolster communities and improve the lives of families facing difficult circumstances.

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BEHAVIOR PROBLEMS: THE ROLE OF FAMILY MANAGEMENT
STRATEGIES

By

Ashley Lauren Munger

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Advisory Committee:
Professor Sandra Hofferth, Chair
Professor Natasha Cabrera (Dean's Representative)
Professor Rada Dagher
Professor Stephanie Grutzmacher
Professor Sally Koblinsky

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Chapter 1: Introduction

Background

Community violence exposure (CVE), a significant public health problem, is defined as “the intentional threat or use of force to physically harm, injure, or kill another person or persons that occurs in the child’s environment but outside the child’s home” (Aisenberg, Ayón, & Orozco-Figueroa, 2008, p. 107). CVE can come in several forms: victimization, witnessing violence, or hearing about violence in one’s community (Fowler, Tompsett, Braciszewski, Jacques-Tiura, & Baltes, 2009).

Most children in the United States have been exposed to some form of violence (Finkelhor, Turner, Shattuck, & Hamby, 2013). In a nationally representative sample of children ages 17 and younger, 41% had experienced some form of physical violence; 24% had experienced property victimization, such as robbery, theft, or vandalism; 22% had witnessed violence in their homes, schools, and communities; and 3.4% experienced indirect violence –hearing about or seeing evidence of family or community violence – during the past year (Finkelhor et al., 2013).

Impacts of CVE for Children

Research has clearly demonstrated the detrimental impacts of children’s exposure to violence. Children exposed to violence are at risk for a wide variety of negative outcomes, including internalizing and externalizing behavior problems (Gorman-Smith, & Tolan, 1998; Kliwer, Lepore, Oskin, & Johnson, 1998);

delinquency (Gorman-Smith, Tolan, & Henry, 2000); declines in cognitive performance and reduced attention (Singer, Anglin, Song, & Lunghofer, 1995); poorer academic performance (Schwartz & Gorman, 2003); peer problems, such as reduced ability to understand social cues, greater likelihood of solving interpersonal problems using aggression, greater likelihood of attributing hostile intent to others (Schwartz & Proctor, 2000); poorer cognitive performance (Lynch, 2003; Margolin & Gordis, 2004); and perpetration of violence (Halliday-Boykins & Graham, 2001). Violence also diminishes children's sense of safety and belief that the world is a safe place (Lynch & Cicchetti, 1998; Maschi, Perez, & Tyson, 2010).

Children Most At-Risk

The high rates of CVE in urban areas (Farver, Xu, Eppe, Fernandez, & Schwartz, 2005; Stein et al., 2003) may put children in those areas at disproportionate risk of the negative outcomes associated with violence exposure (Lynch, 2003). Among children living in urban areas, Stein, Jaycox, Kataoka, Rhodes, and Vestal (2003) found that 50% to 96% were exposed to some form of violence in their neighborhoods. Urban neighborhoods with the highest levels of community violence are often the poorest neighborhoods, putting low-income children at particular risk (Selner-O'Hagan et al., 1998). Children from minority groups, particularly African American children, are also at disproportionate risk for exposure to community violence, in part because of overrepresentation of minority families in urban areas and racial disparities in socioeconomic status (Cooley-Strickland et al., 2009; Cooley-Quille, Turner, Beidel, 1995; Smith et al., 1999).

Pathways through which CVE Impacts Children

Evidence suggests that CVE can impact children directly through exposure to high levels of stress (e.g., Buka, Stichick, Birdthistle, & Earls, 2001; Gorman-Smith & Tolan, 2003; Lynch, 2003), as well as indirectly through the influence of CVE on children's families (e.g., Linares et al., 2001; O'Neil, Parke, & McDowell, 2001; Spano, Vazsonyi, & Bolland, 2009).

Direct pathways. Community violence may negatively impact children's behavior through children's physiological responses to being in a stressful environment (Margolin & Gordis, 2000). High levels of stress can disrupt the developing brain; stress has been shown to adversely affect several brain structures, including the amygdala, hippocampus, and prefrontal cortex (Teicher et al. 1993, Teicher et al., 1997). Such disruption can impair executive functions of the brain, such as planning, memory, attention, and impulse control. Disruption in these functions can negatively impact children's learning, emotional regulation, problem-solving abilities, and ability to relate to others (see Margolin & Gordis, 2000 for a review). Exposure to community violence may increase children's arousal and compromise children's ability to respond appropriately to stress; "an over concern with security issues, possibly coupled with hypervigilance to aggressive responses may lead children to process social information with a bias toward interpreting hostile intent," potentially resulting in children "responding primarily in a negative fashion" to social situations (Margolis & Gordis, 2000, p. 451).

Indirect pathways. Some studies have found that parenting practices may partially explain the relationship between CVE and children's outcomes. For instance,

O'Neil and colleagues (2001) found evidence that the relationship between mothers' perceptions of neighborhood danger and children's social behavior – assessed as children's prosocial tendencies, aggressive tendencies (reverse scored), and disruptive behaviors (reverse scored) – was partially mediated by mothers' limitation of children's activities. Perception of neighborhood danger was positively associated with mother's limitation of activities, which in turn was positively associated with children's social behavior.

Spano and colleagues (2009) found that parenting practices (indicated by monitoring and rule setting) mediated the effect of exposure to violence on African American children and adolescents' violent behaviors. Exposure to violence was negatively associated with parenting practices, which in turn were negatively associated with violent behaviors. Likewise, Fowler, Toro, Tompsett, and Baltes (2009) found a significant indirect effect from parental monitoring on the relationship between CVE and externalizing behavior. CVE was associated with less parental monitoring, which in turn was associated with greater externalizing behavior.

The Present Study

The purpose of the present study is to further investigate the relationship between CVE and a specific child outcome often associated with CVE – children's externalizing behavior problems (EBP). This study examines whether the CVE-EBP relationship is mediated by specific family management strategies and whether available resources influence the relationship between CVE and family management strategies (Figure 1).

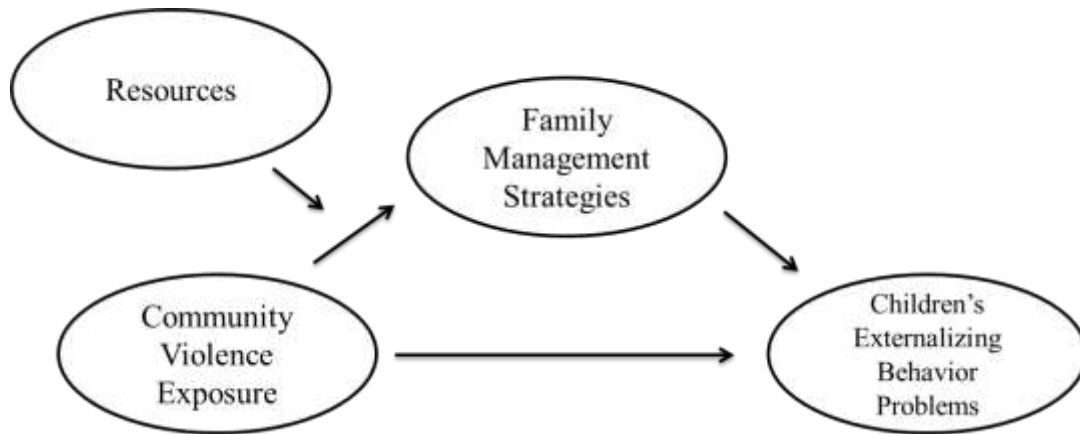


Figure 1. Simple model of proposed relationships between CVE, EBP, family management strategies, and resources.

CVE and EBP

Several studies have found that children exposed to neighborhood violence exhibit more EBP, defined as aggressive, delinquent, or hyperactive behaviors, than their non-exposed peers (Achenbach, 1991a ; Buka, Stichick, Birdthistle, & Earls, 2001; Gorman-Smith & Tolan, 2003; Liu, 2004; Lynch, 2003). EBP are associated with negative outcomes in youth, including academic problems (Schwartz & Gorman, 2003), and are a risk factor for substance use, unstable employment, relationship troubles, and criminal activity during adulthood (Liu, 2004; McMahon, Wells, & Kohler, 2006).

Given the risk CVE poses for children's development, increased attention has been paid to both the direct impacts of CVE on children, as well as the indirect impacts through family processes and parenting practices. Because not all children exposed to community violence exhibit behavior problems (Luthar & Goldstein,

2004), researchers have begun to explore moderating and mediating processes that influence the relationship between CVE and EBP (Fowler et al., 2009a).

Potential moderator of CVE and EBP: Gender. The magnitude of behavior problems evinced by children in response to CVE may be influenced in part by gender, as EBP are more common among boys than girls (Hinshaw, 1987). However, the findings concerning an interaction between CVE and gender are mixed. Some studies have found that boys are more likely to exhibit EBP in response to CVE (e.g., Maschi, Bradley, & Morgen, 2008), while others have found that girls are more likely to engage in externalizing behavior problems (e.g., Farrell & Bruce, 1997; Spano et al., 2009), and others found no difference by gender (e.g., Foster et al., 2004; Salzinger, Rosario, Feldman, and Ng-Mak, 2011). The present study will seek to shed more light on this issue, examining whether gender moderates this relationship.

Mediators of the CVE and EBP Relationship: Family Management Strategies

Although research clearly indicates the detrimental effects of CVE on children's behavior, less research exists concerning the family processes through which community violence influences children's behavior problems. Family management strategies may be an important mediator of this relationship (Fowler et al., 2009a; McDonald & Richmond, 2008).

Family management refers to the processes by which parents manage children's experience of "the external world by monitoring, locating, and cultivating the social contacts in which their children engage outside of the household" (Furstenberg et al., 1999, p. 12). Family management is often divided into promotive and preventive strategies. Promotive strategies are defined as strategies parents use to

foster children's skills and opportunities; these may include providing a stimulating home environment, seeking out local and extralocal resources, selecting quality neighborhoods, or choosing a particular school (Furstenberg, 1999). Preventive strategies are defined as strategies parents use to minimize children's exposure to danger. Such strategies may include discipline, monitoring, limiting access to unfavorable settings, selecting appropriate peers, or supervising children during social interaction (Furstenberg, 1999). Family management can occur both in and out of the home. Additionally, while family management strategies can include dyadic parent-child interactions, such as family processes like monitoring and control, they do not require direct parent-child interaction. As such, "family management adds an important dimension to the traditional family process perspective...because of its explicit focus on what parents are trying to do, particularly with regard to... neighborhood settings" (Furstenberg et al., 1999, p. 70).

Family management may be a link between CVE and children's outcomes, as "research suggests that the more that families offer children protection from violence and danger in their environment, the more they also protect them from the adverse psychological and developmental effects of living in a dangerous neighborhood" (Wallen & Rubin, 1997, p. 37). It is possible that CVE indirectly influences children's behavior via management strategies that mothers utilize to structure and regulate children's social experiences in their neighborhoods. A review of the mediating effects of family on children's CVE and their developmental outcomes suggests that parents may promote children's resilience to community violence when staying abreast of neighborhood danger and focusing on positive social development

(Wallen & Rubin, 1997). Parents who experience CVE may seek to exert control over – or manage – their children’s experiences in order to combat the harmful effects of living in a violent area by engaging in strategies such as monitoring their children, thereby helping to insulate them from dangers of the neighborhood, and seeking out resources inside and outside of the community, thereby broadening children’s opportunities and offsetting the impact of economically and socially stressful environments (Jarrett, 1999). Through family management practices, caregivers may be able to limit children’s exposure to harsh neighborhood conditions or provide them with exposure to other sorts of conditions. Preventive strategies may serve to keep children out of harm’s way, reducing their exposure to violence and subsequent EBP, while promotive strategies may help to foster prosocial behavior and combat the foreshortened sense of future associated with exposure to violence (Schwab-Stone et al., 1995).

Unfortunately, much of the existing research suggests that CVE may actually interfere with parenting, with CVE negatively associated with parenting practices such as monitoring and rule setting, which in turn are negatively related to poor outcomes (Fowler et al., 2009; Spano et al., 2009). Being in a “threatening and violent neighborhood may produce high levels of parental emotional distress... that likely limits a parent’s capacity to be involved with their children and to monitor their children’s behavior” (Colder, Mott, Levy, & Flay, 2000, p. 3). However, the evidence is mixed (Furstenburg et al., 1999; O’Neil et al., 2001). It is possible that these mixed findings may be attributable to variation in the amount of resources families have to cope with the stress of CVE. The extent to which various family management

strategies are related to CVE is unclear. The proposed study is the first to examine the relationship between CVE and a full range of family management strategies by including other management strategies, such as parents' involvement in children's schools and children's involvement in organized activities, in addition to dyadic parent-child interactions.

Moderators of the Relationships between CVE and Family Management

Strategies: Resources

The extent to which parents can engage in family management strategies may be influenced by the resources they have at their disposal. Parents with fewer financial resources may have fewer choices concerning the management of their children's experiences outside of the family. For instance, families with limited financial resources may not have the means to select communities that are safer, have better schools, and offer more services and opportunities for youth (Furstenberg, 1999).

Having or lacking social resources may also influence parents' abilities to effectively engage in family management practices. Social capital – feeling a sense of belonging to one's community and being connected to and supported by one's neighbors – can facilitate the “supervision and control of children and adolescents by other adults in the community” (Gorman-Smith, 2008, p. 18). Parents with high social capital may be better able to recruit and rely on others, such as neighbors, friends, and family members, to support family management strategies. For example, this may occur by asking one's neighbors to help monitor one's children outside of the home; “children growing up in social contexts with high levels of social capital and strong

institutions are likely to learn norms about interpersonal behavior and self-regulation...that reinforce what they have acquired at home” (Furstenberg et al., 1999, p. 18). This may enable parents to have energy to spend on promotive strategies, in addition to preventive strategies, thereby fostering better outcomes for their children (Leventhal & Brooks-Gunn, 2000; Sampson et al., 1997). Though less common, social capital can exist even in extremely disadvantaged neighborhoods; for example, in some extremely impoverished, high crime neighborhoods, Gorman-Smith et al. (2000) found high levels of social capital.

Another potential moderator is self-efficacy, a person’s beliefs about her ability to influence events in her life (Bandura, 1989). Lack of self-efficacy may impair mothers’ ability to effectively parent and engage in family management strategies (Jones & Prinz, 2005). Mothers with lower self-efficacy may doubt their abilities to influence their circumstances and may therefore be less likely to engage in both promotive and preventive family management strategies.

An important consideration for family management strategies is that more extreme forms of preventive strategies, such as exerting control by using harsh discipline or by keeping children isolated in the home, may inadvertently produce negative impacts. For families with fewer resources, there may be an increased tendency to use harsher strategies in response to CVE. Findings indicate that parents in low-income neighborhoods with higher levels of unemployment are more likely to “display less warmth and higher levels of harsh discipline and restrictive control” (Pinderhughes, Nix, Foster, & Jones, 2007, p. 2). It may be that parents with fewer financial resources feel the need to rely more on restrictive practices to control their

children's behavior in order to protect their children from potentially dangerous contexts. Another explanation may be that,

Neighborhood poverty, inadequate public services, and danger undermine positive parenting... when faced with the chronic stress of living in a neighborhood with few economic resources, few public services, and much violence and crime, parents are less able to marshal the energy necessary to be warm, appropriate and consistent, and non-harsh (Pinderhughes et al., 2007, p. 10).

The current research will examine income, social capital, and parental self-efficacy as potential moderators of the relationship between mothers' CVE and promotive and preventive family management strategies. It will also make a distinction concerning the impact of resources on the relationship between CVE and less restrictive preventive strategies, such as monitoring, and more restrictive strategies, such as harsh discipline. Monitoring is defined as "a set of correlated parenting behaviors involving attention to and tracking of the child's whereabouts, activities, and adaptations" (Dishion & McMahon, 1998, p. 61). Harsh discipline is defined as here as engaging in physical (spanking, slapping, pinching) or intense verbal (swearing, calling names) punishments.

Considerations: CVE

Mothers' CVE. The present study uses mothers' reports of their own CVE, specifically witnessing community violence, as an indicator of overall CVE. This is appropriate for several reasons. First, caregivers may not realize the extent of their children's CVE and underestimate it in their reports, even if they personally

experience CVE (Aisenberg, 2001; Ceballo, Dahl, Aretakis, & Ramirez, 2001). Second, mothers' and children's experiences of CVE tend to be related. Aisenberg (2001) found that, among Latino mothers' and their preschool children, children's CVE and mothers' CVE were highly correlated. Likewise, Self-Brown et al. (2012) found that parents' trauma exposure was significantly related to adolescents' CVE. Third, mothers' reports of CVE have been found to be associated with children's EBP (Linares et al., 2001). Finally, mothers' CVE is likely a more proximal factor to their family management strategies, a focus of this study. Mothers may be more likely to engage in particular management strategies based on their own experiences and perceptions of CVE, rather than children's CVE.

Perception of Neighborhood Danger and Family Management Strategies.

Although the objective level of violence in one's community influences one's perception of community violence, the relationship between objective and perceived community violence is not perfect (Commack & Lambert, 2002). Perception entails interpreting and giving meaning to one's environment (Pickens, 2005) and can be reflective of personal characteristics, biases, or unique experiences. The perception of an event helps to determine the level of stress one experiences and how a person responds to and copes with a situation (Lazarus & Smith, 1988). Thus, individual perception of community violence may be critical for understanding family coping and functioning (Kuther, 1999).

The way in which parents perceive their neighborhoods influences family management (Furstenberg et al., 1999; Jarrett, 1999). In neighborhoods perceived to be high-risk, parents' primary concern may be to protect their children from danger,

leading them to invest mostly in preventive family management strategies. However, there is likely to be variability in how neighborhoods are perceived and, thus, in the type of strategies that are used. Therefore, accounting for mothers' perception of neighborhood danger when considering mothers' CVE may be important in determining the impact of CVE on family management strategies. The present study will consider the relationship between mothers' witnessing of community violence and mothers' perception of neighborhood danger to determine whether perception should be included in an overall model.

Objectives

Cross-Sectional Models

More research is needed to clarify the indirect pathway between CVE and children's EBP. To date, studies have begun to examine the mediating role of family processes, but these studies have focused primarily on discipline, monitoring, and warmth, rather than other preventive and promotive strategies. Additionally, moderators of the relationship between CVE and family management strategies have not been explored. Addressing these gaps, this study seeks to determine the relationship between CVE and children's EBP. It will also determine whether specific family management strategies mediate this relationship. Promotive family management strategies that will be investigated include parental involvement with children in the home, parental involvement in children's schools, and children's involvement in organized activities. Preventive family management strategies include parental monitoring (mother-report), parental monitoring (child-report), and harsh discipline. This study distinguishes between the less restrictive preventive strategy of

parental monitoring and the more restrictive strategy of harsh discipline. It will also investigate whether income, social capital, and mothers' self-efficacy moderate the relationship between CVE and family management strategies.

The proposed relationships are informed by the Family Adjustment and Adaptation Response Model (Patterson, 1988), detailed in the literature review, and will be tested using data from the Fragile Families and Child Wellbeing Study, described in Chapter 2. The wave from which most of the data used in the present study are drawn occurred when the child participants in the study were approximately nine-years-old (Reichman, Teitler, Garfinkel, & McLanahan, 2001). See Figures 2 and 3 for more detailed models of hypothesized relationships.

Control variables. Control variables include maternal education, maternal race, maternal depression, family structure, number of children in the household, residential stability, intimate partner violence, and child temperament. Maternal depression was included as a control, as children of depressed mothers are more likely to exhibit behavior problems than children whose mothers are not depressed (Beck, 1999), and it may impair mothers' ability to effectively parent and engage in family management strategies (Knitzer, Theberge, & Johnson, 2008). Intimate partner violence was included as it is often comorbid with community violence and has been shown to be related to children's EBP (Richters & Martinez, 1993).

Children's temperament was included, as a control as differences in temperament may partly account for differences in prevalence and expression of behavior problems. Although temperament is influenced by environmental factors, it is thought to be genetic in nature and fairly constant (Goldsmith et al., 1987).

Behavioral disinhibition in the preschool years has been associated with later inattention, aggression, hyperactivity, and delinquency (Caspi & Silva, 1995; Raine et al., 1998; Rothbart et al., 1994; Tremblay et al. 1994). No studies of the present topic were found that controlled for children's temperament.

Change Model

In order to provide evidence for the proposed casual pathway from CVE to EBP, the study will also examine another model that assesses whether change in CVE is associated with change in EBP.

Control variables. For the change model, control variables include children's EBP at the previous wave, change in the number of children, change in residence, change in family structure, change in income, change in intimate partner violence, and change in mother's depression status.

Research Questions

Cross-Sectional Model

1. Is CVE associated with children's EBP?
2. Does the relationship between CVE and EBP vary by gender?
3. Is CVE associated with promotive and preventive family management strategies?
4. Do the relationships between CVE and promotive and preventive family management strategies vary by income, social capital, or self-efficacy?
5. Are promotive and preventive family management strategies associated with children's EBP?

6. Do promotive and preventative family management strategies explain the relationship between CVE and EBP?

Change Model

7. Does change in CVE predict change in children's EBP?

Hypotheses

Cross-Sectional Models

1. CVE will be positively associated with children's EBP.
2. Gender will moderate the association between CVE and EBP, with a stronger association between CVE and EBP for boys than for girls.
3. CVE will be negatively associated with promotive family management strategies.
4. The relationship between CVE and preventive family management strategies will vary.
 - a. CVE will be negatively associated with monitoring (mother-report and child-report).
 - b. CVE will be positively associated with harsh discipline.
5. The relationship between CVE and promotive family management strategies will vary as a function of income. Specifically, the negative association between CVE and promotive family management strategies will be weaker under conditions of greater income and stronger under conditions of lower income.

6. The relationship between CVE and promotive family management strategies will vary as a function of social capital. Specifically, the negative association between CVE and promotive family management strategies will be weaker under conditions of high social capital and stronger under conditions of low social capital.
7. The relationship between CVE and promotive family management strategies will vary as a function of self-efficacy. Specifically, the negative association between CVE and promotive family management strategies will be weaker under conditions of high self-efficacy and stronger under conditions of low self-efficacy.
8. The relationship between CVE and preventive family management strategies will vary as a function of income. Specifically:
 - a. The negative association between CVE and monitoring will be weaker under conditions of greater income and stronger under conditions of lower income.
 - b. The positive association between CVE and harsh discipline will be weaker under conditions of greater income and stronger under conditions of lower income.
9. The relationship between CVE and preventive family management strategies will vary as a function of social capital. Specifically:
 - a. The negative association between CVE and monitoring will be weaker under conditions of greater social capital and stronger under conditions of lower social capital.

- b. The positive association between CVE and harsh discipline will be weaker under conditions of greater social capital and stronger under conditions of lower social capital.
- 10. The relationship between CVE and preventive family management strategies will vary as a function of self-efficacy. Specifically:
 - a. The negative association between CVE and monitoring will be weaker under conditions of high self-efficacy and stronger under conditions of low self-efficacy.
 - b. The positive association between CVE and harsh discipline will be weaker under conditions of higher self-efficacy and stronger under conditions of low self-efficacy.
- 11. Promotive family management strategies will be negatively associated with children's EBP.
- 12. The relationship between preventive strategies and children's EBP will vary based on the strategy.
 - a. Monitoring will be negatively associated with EBP.
 - b. Harsh discipline will be positively associated with children's EBP.
- 13. Promotive family management strategies will partially mediate the relationship between CVE and EBP. Specifically, CVE will be positively associated with promotive family management strategies, which in turn will be negatively associated with EBP. Accounting for promotive strategies will reduce the association between CVE and EBP.

14. Preventive family management strategies will partially mediate the relationship between CVE and EBP. Specifically:

- a. CVE will be negatively associated with monitoring, which in turn will be negatively related to EBP. Accounting for monitoring will reduce the association between CVE and EBP.
- b. CVE will be positively associated with harsh discipline, which in turn will be positively associated with EBP. Accounting for harsh discipline will reduce the association between CVE and EBP.

Change Model

- 1. Change in CVE will predict change in children's EBP

Hypothesized Relationships

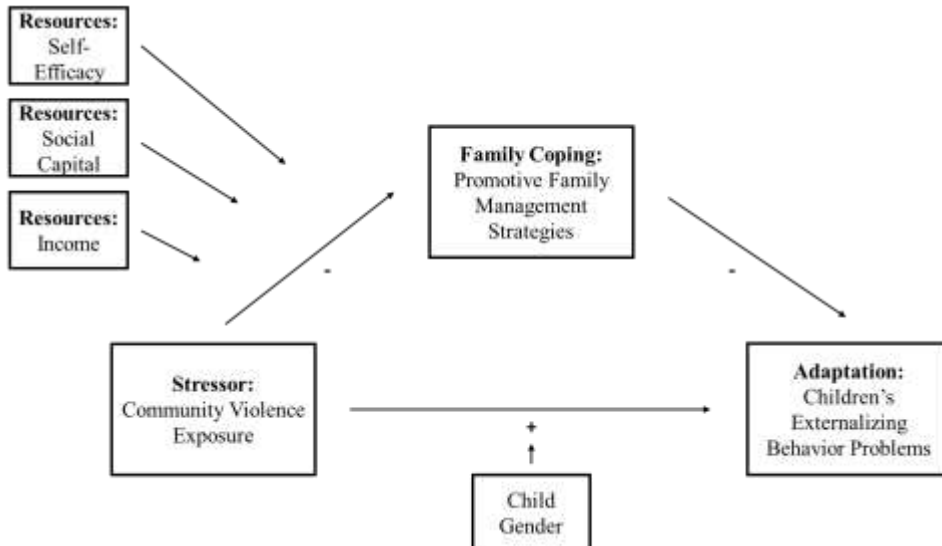


Figure 2. Hypothesized relationships among CVE, EBP, resources, and promotive family management strategies.

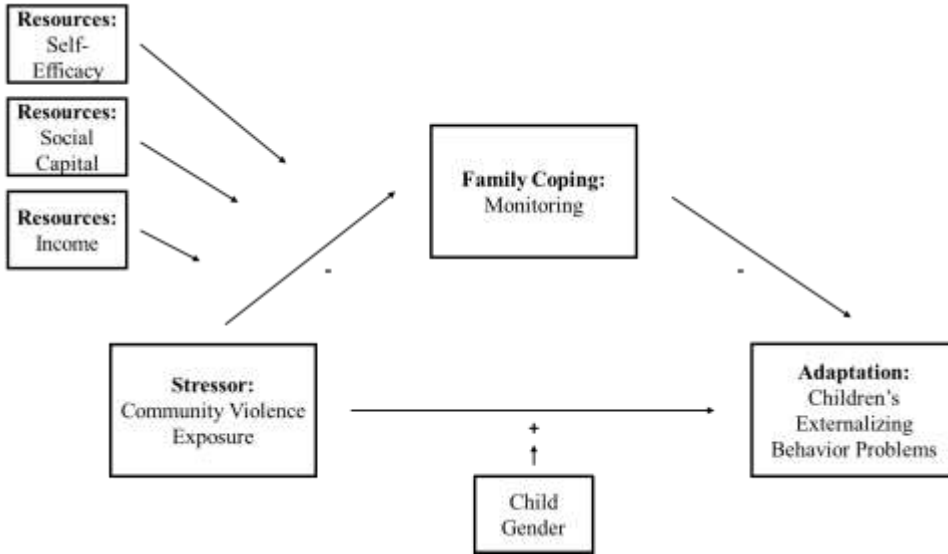


Figure 3. Hypothesized relationships among CVE, EBP, resources, and the less restrictive preventive family management strategy of parental monitoring.

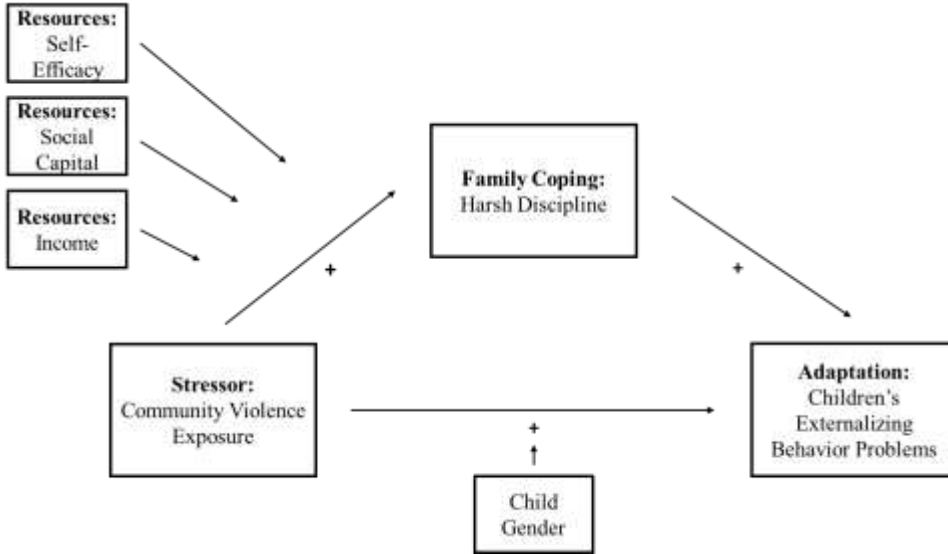


Figure 4. Hypothesized relationships among CVE, EBP, resources, and the more restrictive preventive family management strategy of harsh discipline.

Chapter 2: Literature Review

Theory

Family Adjustment and Adaptation Response Model

The premises that community context may influence family and child functioning and that family processes may influence children's behavior problems are consistent with family stress theories (Patterson, 1988; Patterson, 2002). The present study employs the Family Adjustment and Adaptation Response Model (FAAR; Patterson, 1988), a model that integrates the concepts of family stress and family resilience. Family stress is defined as an imbalance of demands and capabilities or resources, and family resilience is defined as the process of successfully overcoming adversity (Patterson, 2002). Context is emphasized in this model, as consideration of context is necessary to understand how and why families are stressed, as well as how families respond to stress.

According to this theory, families balance *demands* and *capabilities*, which interact with their *perceptions* of their circumstances. Family *demands* include normative and non-normative stressors (i.e., discrete events); ongoing, unresolved strains; and daily hassles. Demands and capabilities can come from any ecological level – individual family members, the family system, and the community in which the family is embedded. Family *capabilities* include resources, both tangible and psychosocial, and coping behaviors. Family *perceptions* includes a family's appraisal of their demands, known as primary appraisal, their view of their family unit, and

their view of their family context – the systems in which their family is embedded (Patterson, 2002).

The FAAR model suggests that this process of responding to crisis happens in two phases: family adjustment (pre-crisis) and family adaptation (post-crisis) (Patterson, 2002). Family adjustment occurs on a daily basis as families react to demands, developing relatively stable patterns of interaction. However, when family demands exceed family capabilities and that imbalance persists, previous patterns of interaction may no longer achieve a satisfactory result (Patterson, 2002). This results in disequilibrium and the family experiences crisis. At this point, the family enters the family adaptation phase, once again seeking to rebalance demands and capabilities. A family's reaction to the crisis (coping) can alter a family's trajectory – either by improving functioning, known as bonadaptation, or diminishing functioning, known as maladaptation. Functioning is improved if the family is able to successfully restore balance by reducing demands, increasing capabilities, or changing perceptions of the situation.

Coping efforts can be adaptive or effective. Adaptive coping addresses the immediate needs of the situation, but may not be prosocial. Effective coping is prosocial and has longer-term impacts (Tolan et al., 1997). The outcomes of coping efforts, bonadaptation or maladaptation, connect the functioning of the family to the functioning of an individual family member. Bonadaptation is “the family's (a) continued ability to promote the development of individual family members and (b) willingness to maintain their family unit so it can accomplish its life cycle tasks” (Patterson, 2002, p. 352), while maladaptation is the inability to do so.

FAAR applied to the current study. Using this model, community violence is conceptualized as a demand placed on families. The families' perceptions of the stressor -- that the situation is dangerous or threatening -- in part determine how they will respond to the stressor. Families' responses to the stressor (CVE) are also determined in part by the resources they have to help them adjust to the demands placed on them because of community violence. This model is based on a resilience perspective and assumes that families have inherent strengths and will do their best in a given situation; however, circumstances may impact their ability to cope with stressful circumstances or meet children's physical and emotional needs. Life stressors, such as community violence, may diminish a parent's ability to cope successfully with the stresses of child rearing if they lack the resources to cope with such adversity. Families exposed to violence would be more likely to engage in effective coping if they have adequate resources to address the situation. Resources examined in this study include income, social capital, and self-efficacy.

For the present study, family coping is conceptualized as family management efforts. Families with fewer financial, social, or emotional resources may engage primarily in adaptive coping -- coping that addresses the immediate needs of the situation -- relying primarily on more restrictive preventive strategies, such as harsh discipline or keeping children physically in the home. Such efforts may serve to keep children "out of harm's way," safe and away from negative influences (Garbarino, Kostelny, & Dubrow, 1991) but may result in negative outcomes, such as EBP. Conversely, families with more resources may be able to engage in more effective coping -- coping that is prosocial and has longer-term impacts -- engaging more in

promotive and less restrictive preventative family management strategies, resulting in positive outcomes, such as less EBP. Because we postulate that family management occurs in response to CVE, a unidirectional effect from CVE to family management strategies is assumed in the models, rather than a bidirectional effect.

Previous Literature

The following is a review of literature concerning the major relationships investigated in the study. Of note, much of the literature includes research concerning adolescent or mixed age samples. Findings from such studies need to be interpreted cautiously, as they may not be generalized to the current sample, nine-year-old children.

CVE and EBP

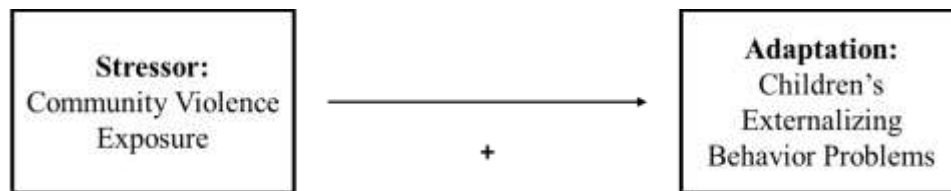


Figure 5. Proposed relationship between CVE and EBP.

Fowler, Tompsett, Braciszewski, Jacques-Tiura, and Baltes (2009) conducted a meta-analysis of studies investigating the effect of CVE on mental health outcomes of children and adolescents. Methodological details of the search are included in Appendix A. In total, 116 samples were drawn from 110 published and unpublished studies for the meta-analysis.

Based on analyses of effect sizes, total CVE predicted externalizing symptoms. All subtypes of violence – victimization, hearing about, and witnessing violence – had main effects for externalizing behaviors. Victimization and witnessing

had stronger effects for externalizing than hearing about CVE. No significant difference was found between effects of victimization and witnessing CVE pertaining to externalizing behaviors.

Moderators. For externalizing, there were main effects for all age groups, though adolescent samples yielded a stronger effect than mixed age samples, which, in turn, was stronger than for child samples. However, the categories were not refined; adolescence was broadly defined to include 12 to 25 years of age.

For externalizing behaviors, male, female, and mixed gender samples all exhibited main effects of CVE, though the strength of the effects was greater for mixed gender samples than for female or male samples. Male and female samples did not differ with respect to the effects of CVE on externalizing. However, it is important to interpret findings of gender samples cautiously, as there were small numbers of primarily male and female samples and these single-gender samples tended to be from studies targeted toward youth with specific issues, such as homelessness.

Weighted multiple regression analyses were used to examine the relationships between subtypes of CVE and externalizing, controlling for study characteristics of publication status (published or not), recentness of CVE (past year, lifetime), and CVE/outcome reporter discrepancy (self-report or other source). Weights accounted for the influence of sample size on the variance of each effect size; greater weight was given to effect sizes measured more reliably. Regression analyses confirmed that, for externalizing, victimization had a greater effect than witnessing or hearing about

violence, and witnessing had a greater effect than hearing about violence. There were insufficient studies available to examine gender differences.

Findings from this meta-analysis conclude that CVE strongly and consistently predicted externalizing behavior. However, gender differences could not be examined. Studies included in Fowler and colleagues' meta-analysis (2009a) will not be included in the present review.

Research conducted by Schwartz & Gorman (2003), not included in the meta-analysis, examined the relationships between children's CVE and academic problems, assessing the role of disruptive (i.e., aggressive and hyperactive-impulsive) behavior and depressive symptoms as mediators of the relationship. Here, the focus will be on the association between CVE and disruptive behavior. The sample consisted of 237 third-, fourth-, and fifth-grade children from a low-income area in Los Angeles county. Participants were primarily Hispanic American and European American. The latent variable of CVE was assessed using the violent victimization subscale of the Community Experiences Questionnaire (CEQ; Schwartz & Proctor, 2000). Children reported violent incidents that did not involve friends or family as perpetrators (e.g., "Somebody broke in or tried to force their way into your home"). Three items were used as indicators. The latent variable of disruptive behavior was measured using the teacher report scores of the aggressive and hyperactive-impulsive subscales of the Social Behavior Rating Scale (Schwartz, 2000), as well as peer-report scores of aggression. Aggression scores were derived by a peer nomination inventory. Children nominated three peers who fit the descriptions "kids who bully or pick on other kids" and "kids who hit or push other kids." The score was derived by counting the

nominations per child and standardizing the scores within each class. The latent construct of depression was assessed using the Children's Depression Inventory (CDI; Kovacs, 1985) completed as self-report by the children. The latent variable of academic functioning was assessed using children's GPA and the mathematic subscale of the Stanford Achievement Test – Ninth Edition as indicators (SAT-9, Psychological Corporation, 1996).

The direct and indirect relationships between CVE and academic functioning were examined using SEM. A model depicting a direct relationship between CVE and academic functioning indicated adequate fit. Within the model there was a significant negative association between CVE and academic functioning. However, when the mediator variables (disruptive behavior and depressive symptoms) were added to the model, the relationship was no longer significant. In this new model, the paths between CVE and disruptive behavior and between disruptive behavior and academic functioning were significant.

Findings from the study support the relationship between children's CVE and externalizing behaviors, such as aggression, hyperactivity-impulsivity. It also highlights the potential importance of addressing these behaviors to prevent further academic difficulties. Limitations of the study include a correlational design and a reliance exclusively on self-report for children's exposure to violence. Also, findings did not address potential differences by gender.

Spano, Vazsonyi, and Bolland (2009) sought to determine whether exposure to violence has a direct effect on later violent behavior. The study sample came from the Mobile Youth Survey (MYS; Bolland, 2003), and assessed 1,544 African

American youths ages 9 – 19 living in high poverty neighborhoods in Mobile, Alabama over three years. Data were collected in 1998 (time one), 1999 (time two) and 2000 (time three). The youths were asked to participate with caregivers' consent. Surveys were administered in groups, with questions read aloud to the younger youth and those who experienced difficulty reading.

The latent construct of exposure to violence (ETV) included indicators of lifetime and recent ETV. Lifetime ETV was assessed by asking youth if they had ever been threatened with a knife or gun; been cut bad enough to see a doctor; been shot at; had a family member or friend who has been shot or stabbed; or witnessed someone cut, stabbed or shot. Responses included yes and no. Recent ETV was assessed using the same questions as exposure to violence, but the questions were preceded with “during the last 90 days” for being threatened with a knife or gun and witnessed someone cut, stabbed or shot and with “during the past year” for being cut badly enough to see a doctor, being shot at, and having had a family member or friend who has been shot or stabbed. Higher scores indicated more ETV. The authors did not list a source for this measure. The latent construct of violent behaviors was assessed using indicators of lifetime and recent violence behavior. For lifetime violent behavior, youth were asked if they had ever told someone they were going to shoot them, pulled a knife or gun on someone, been in a fight, cut or stabbed someone, or shot a gun at someone. Similar questions were asked for recent violent behavior, asking respondents about the last 90 or 30 days. Higher scores indicated more violent behavior. The authors did not list a source for this measure.

Significant bivariate correlations existed among recent ETV, lifetime ETV, lifetime violent behavior, and recent violent behavior. Using SEM, the authors found that exposure to violence at time one was significantly and positively associated with violent behaviors at time three.

Moderators. The effect of ETV at time one on violent behavior at time three did not vary by age (i.e., early versus middle/late adolescents). However, nested model comparisons revealed that the effect was stronger for females than for males.

Study findings may not be generalizable to all youth as the sample consisted only of African American youth from a particular geographic area. Additionally, this study did not assess externalizing behavior per se, but instead, it assessed the related construct of violent behavior. Although the authors did test whether developmental stage moderated the relationship, the comparison consisted of two categories (early adolescents and middle/late adolescents), which did not utilize the full range of data.

Cammack, Lambert, and Ialongo (2011) examined the relationships among CVE, perceived neighborhood violence (PNV), and aggressive behavior of 456 African American seventh-graders in urban middle schools. Assessments were administered across multiple years. CVE was assessed using items from the Children's Report of Exposure to Violence (CREV; Cooley, Turner, & Beidel, 1995). For example, youth were asked to indicate whether they had witnessed someone being beaten up. PNV was assessed using three items from the Neighborhood Environment Scale (NES; Elliot, Huizinga, & Ageton, 1985). For example, youth were asked to indicate the extent of their agreement with the statement "Every few weeks, some kid in my neighborhood gets beat-up or mugged." Aggressive behavior

was assessed using the Teacher Report of Classroom Behavior Checklist (Werthamer-Larsson, Kellam, & Wheeler, 1991). Using latent class analysis (LCA) youth were classified according to the consistency or discrepancy between their CVE and PNV. Based on LCA, youth were classified into three groups: high CVE/high PNV, low CVE/high PNV, and low CVE and low PNV. After controlling for aggression reported in sixth-grade, youth in the low CVE/high PNV group exhibited more aggression than the low CVE/low PNV group. Findings were not compared by gender.

An important aspect of this study is that the perception of neighborhood violence is predictive of negative outcomes even when actual CVE is low. However, the study sampled only African American youth in a particular geographic area, and therefore may not be generalizable to other groups. Additionally, these youths are older than the sample of the present study.

Salzinger, Rosario, Feldman, and Ng-Mak (2011), as part of a larger study, examined the relationship between exposure to violence and externalizing behavior problems. Their sample included 667 children from middle schools in a high violence school district in New York City. Data collection took place every year for three years (children's sixth-, seventh-, and eight-grade years). The first round of data was collected in 1999 and used separate face-to-face interviews for children and their caregivers. Interviews took place at school or in participants' homes. CVE (year one and year two) was assessed using the Survey of Exposure to Community Violence (Richters & Saltzman, 1990). Aspects of CVE assessed included victimization and witnessing. Children were asked about their exposure to specific violent events during

the past year (e.g., chasing, knifing, gun violence), whether they were a victim or a witness of the event, and where the event occurred (e.g., school, neighborhood, other public place). Scores were determined for victimization and witnessing, respectively, by summing the number of events and combined instances of victimization and witnessing for a total CVE score. Externalizing problems were assessed using the externalizing scale of the Youth Self Report (YSR; Achenbach, 1991b). Using hierarchical regression, year three externalizing behavior problems were predicted by both CVE at year one and CVE at year two. Gender did not moderate the relationship between community violence and behavior problems.

This study was limited to one geographic area (one school district in New York City), and therefore, the findings may not be generalizable. However, the findings of this study highlight that CVE at an earlier time predicts externalizing at a later time, supporting the argument for causality.

Overall, the reviewed studies demonstrate a strong and consistent relationship between CVE and externalizing. However, all used children's, rather than mothers' CVE as a predictor, while the present study uses mothers' CVE. Many of the studies used non-representative samples from particular geographic areas and the findings concerning moderation by gender were mixed. The present study seeks to address these issues by using a representative sample and by examining whether child gender is a moderator of this relationship.

Perception of Community Violence

As part of a larger study, Furstenberg and colleagues (1999) examined the relationship between neighborhood resources and mothers' perceptions of danger.

This mixed methods study of families in Philadelphia sought to determine what family management strategies parents used, how those strategies varied by context, and how those strategies impacted adolescent development. Families were sampled from 65 (out of 365) census tracts located within Philadelphia. Census tracts were used as a proxy for neighborhood. Households with listed numbers within the 65 tracts were preliminarily screened for eligibility (i.e., household contained a youth between ages 10 and 14 and a biological or surrogate parent), yielding 805 families. These families consisted of 482 parent-and-youth pairs. The sample contained a larger proportion of African Americans and poor families than is representative of the city of Philadelphia. The parents in the sample were primarily African American (64%) and White (31%). The researchers used a combination of in-person interviews, self-administered questionnaires, and in-home observations to collect data from parents and children. Thirty-five families were re-interviewed two years after the initial interviews were completed.

Furstenberg and colleagues (1999) found that although neighborhood resources were related to perceptions of danger, there was not a one-to-one relationship. Parents varied in their perceptions of neighborhood danger; 45% of parents sampled said that they were worried about specific dangers. In low-resource neighborhoods, 77% gave this response, compared with 62% in medium-resource neighborhoods, and 37% in high resource neighborhoods. When asked whether they would like to move and why, those in low-resource neighborhoods were most likely to respond yes, with reasons cited including drugs (32%); to get away from being

killed, injured, or threatened (13%); and to get away from gangs (12%). However, 62% indicated that they did not have the financial resources to move.

Although this study did not specifically address the relationship between objective and perceived violence, its findings indicate that perceptions of neighborhoods seem to be related to objective factors of the neighborhood (e.g., census tract data), but do not correspond perfectly with those objective factors. Perceptions may be a more proximal force in shaping family management strategies and may account for some of the variation that was found across neighborhoods.

O'Neil, Parke, and McDowell (2001) examined the relationships among objective and subjective features of children's neighborhoods, assessing whether associations exist between objective and perceived neighborhood quality. The sample included 31 male and 32 female third-graders and their mothers from rural (5%), suburban (81%), and semi-urban (14%) neighborhoods in Southern California. The children were primarily European-American (59%) and Latino (32%).

Objective neighborhood quality was assessed by trained observers who went to the street and block of each child in the study and completed a 40-item assessment developed by Cupp, Spitzer, Isley-Paradise, Bentley, and Parke (1992), rating features of the neighborhood, such as rundown and abandoned homes, homelessness, vandalism, etc. Mothers' and children's perceptions of physical features of the neighborhoods were assessed using self-report instruments. For mothers, perceptions of neighborhood problems were assessed using four subscales: child-related neighborhood problems (e.g., cars going too fast, toys stolen), danger in the neighborhood (e.g., muggings, gangs, drugs), impoverished qualities (e.g., high

unemployment, homelessness, rundown buildings), and low social control (e.g., unsupervised children, lack of respect for laws, teens loitering). Mothers also reported on perceived resources available for children; this was assessed by having mothers indicate the presence or absence of child-care and recreational programs (e.g., YMCA, scouts) and informal amenities (e.g., parks, sidewalks). Children also reported their perceptions of problems in the neighborhood using a modified version of the survey given to mothers. Mothers' and children's reports were combined into one index of child-oriented resources (e.g., parks, libraries, sports teams).

The objective assessment of neighborhood problems by researchers was only related to the mothers' view that the neighborhood was troubled with child-related problems. Moderate relationships existed between mothers' and children's perceptions of the neighborhood. Those with higher incomes lived in neighborhoods that were objectively rated to have fewer problems, $r = -.39$, $p < .01$, but not subjectively rated (i.e., mothers' perceptions).

Findings from this study also highlight the discrepancy that can exist between objective and perceived neighborhood characteristics. Objective ratings by outside parties of neighborhood problems did not relate to mothers' perceptions of their neighborhoods. Likewise, median incomes of neighborhoods did not relate to mothers' perceptions of their neighborhoods. Once again, although this study objectively assessed "problems" rather than violence, it does highlight the discrepancy that can exist between objective and subjective appraisals. It is of note, however, that mothers' and children's perceptions of their neighborhoods did correspond. This may be because they were reacting to the same environment or

because parents transmit their views of their environment to their children. A notable limitation of the study is the small sample size.

Cammack, Lambert, and Ialongo (2011), described previously, investigated whether youths' reports of CVE and perceived neighborhood violence (PNV) correspond in their study of 456 African American seventh-graders in urban schools. CVE was assessed using items from the Children's Report of Exposure to Violence (CREV; Cooley, Turner, & Beidel, 1995). For instance, youth were asked to indicate whether they had witnessed someone being beaten up. PNV was assessed using three items from the Neighborhood Environment Scale (NES; Elliot, Huizinga, & Ageton, 1985). For instance, youth were asked to indicate the extent of their agreement with the statement "Every few weeks, some kid in my neighborhood gets beat-up or mugged." The difference between CVE and PNV was characterized as what the child actually witnesses versus what the child believes occurs in his or her neighborhood. The authors used latent class analysis (LCA) to determine whether youth could be classified according to the consistency or discrepancy between their CVE and PNV. Based on LCA, youth were classified into three groups: high CVE/high PNV (9.3% of youth), low CVE/high PNV (22.0% of youth), and low CVE and low PNV (68.7% of youth).

The findings of this study indicate that while CVE and PNV may often be similar, they are not perfectly related. The authors assert that regardless of CVE, urban youth may experience a high degree of PNV, and PNV is predictive of symptomology (i.e., those in the low CVE/high PNV group were more likely to experience externalizing symptoms than those in the low CVE/low PNV group).

Related to the present study, mothers may appraise their neighborhood as dangerous, even if they have had no personal exposure to violence, and that appraisal may influence their family management strategies. Therefore, it is important to consider the aspect of perception. However, this study obviously used children, rather than mothers, as reporters, making the comparison imperfect. The study also did not assess children's appraisal of the situation (e.g., whether they perceive their neighborhood to be dangerous).

CVE and Family Management Strategies

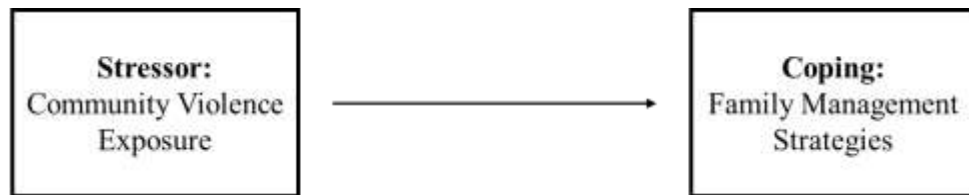


Figure 6. Proposed relationship between CVE and family management strategies.

In their mixed methods study of 482 families in Philadelphia, described earlier, Furstenberg et al. (1999) identified two primary types of family management strategies – promotive (strategies parents utilize to foster children's skills and opportunities) and preventive (strategies parents utilize to minimize children's exposure to danger). Promotive strategies included child participation in organized activities, specifically educational, spiritual, and health-related; parental fostering of children's special talents, skills, and interests through encouragement or providing opportunities to engage in those activities; parent-child involvement in shared activities; parental support of developmentally appropriate autonomy and decision making through involving children in decision making, teaching child constructive decision making; parental involvement in organizations, including religious

organizations; and parental selection of the child's school. Preventive strategies included talking to child or encouraging child to do better, teaching the child to use good judgment, enforcing rules, knowing who the child is with, punishing the child for behavior that can lead to problems, knowing the child's friends, keeping the child home as much as possible, maintaining daily routines and structure, and being consistent with discipline. In the categorization, some promotive and preventive strategies overlap or are similar, as they were grouped based on reported intention.

Furstenberg and colleagues (1999) found variation between neighborhoods in family management practices. Namely, they found that families in dangerous, low resource areas utilized more restrictive (preventive) strategies. Parents in low-resource areas were more likely than families in moderate or high resource areas to keep their children at home, keep them away from dangers, talk to them about dangers, and get them involved in prosocial activities outside of their neighborhoods. They were also more likely to indicate that there are places in their neighborhoods that they would not let their children go. Parents in high resource areas were more likely to enroll their children in organized activities and to get their children involved in activities within their neighborhood. However, they noted that there was more variation in family management practices within than between neighborhoods (i.e., census tracts). The authors conclude that, "these patterns suggest that both parenting and adolescent outcomes are linked to proximal forces, such as individual differences and family-level processes, than to more distal forces" (p. 101). The authors found that family management practices varied by neighborhoods, but parenting skills (e.g.,

warmth, commitment, discipline, control) did not. Less skilled parenting was not found more often in poor neighborhoods.

Family management practices may arise in part as a reaction to environments in which families live. However, census tracts may not be the most proximal factor influencing those practices. Parental experience and appraisal of their environment, not directly assessed by Furstenberg and colleagues, may be more directly related to family management strategies. The findings also indicate that family management, rather than parenting skills, may be more influenced by the family's environment. Unfortunately, because the study was cross-sectional, causality could not be inferred, necessitating further study. Additionally, clear distinctions were not drawn between promotive and preventive strategies, making it difficult to determine their respective roles.

Coley and Hoffman (1996) examined the relationship of parental supervision and monitoring to children's behavior problems. The sample included 355 third- and fourth-grade students and their mothers, recruited from eight urban elementary schools in a large Midwestern city. Families' neighborhoods were classified as primarily working-class or poor.

Neighborhood danger was assessed by rating each police district (10 square blocks) by frequency of crime. City police records were consulted for the numbers of crimes pertaining to personal violence, property violence, and drug crimes. The three subscores were summed to produce a total crime score for each police district (10 square blocks). Therefore, neighborhood danger was assessed as the total crime score of the police district corresponding to the family's address.

Supervision status was assessed by combining children's and mothers' reports of children's activities. Specifically, children were interviewed and asked to narrate everything they had done, where they were, how long they were there, and who they were with from the time school ended the previous day until the morning of the interview. After children finished, they were asked if this was what they usually did. If children said it was not, they were asked to describe what was usual. Mothers were asked whether their children were ever home after school or at other time without an adult present and, if so, were other children present at that time. They were also asked about the frequency and length of such unsupervised time and if rules or distal monitoring practices, such as checking in via the telephone, were used to structure unsupervised time. Based on children's and mother's reports, children were classified into three categories: 1) supervised, supervised by an adult or child over the age of 15 at all times or unsupervised for no more than once a week, 2) unsupervised and monitored, unsupervised more than once per week but monitored during that time through distal parental contact or through rules, and 3) unsupervised and unmonitored, unsupervised more than once per week and no distal contact or rules. The authors did not provide a source for this interview. Classifications for each child based on mothers' and children's reports were compared. Mothers' and children's reports concurred in 76% of cases. For cases where there was not agreement, the classification reflecting less supervision and monitoring was used. Sixty-eight percent of children were classified as supervised, 20% unsupervised and monitored, and 12% unsupervised and unmonitored. The authors found that supervision and monitoring did not vary by neighborhood danger.

Though the authors did not find that supervision and monitoring varied by neighborhood danger, only objective ratings of neighborhood danger – crime reports – were used. Mothers were not consulted about their views of neighborhood danger, which would be more proximal to their decisions about supervision. Also, since the data are derived from one Midwestern city, findings may not be generalizable to other geographic areas.

O’Neil and colleagues (2001), described previously, sought to determine to what extent objective neighborhood quality and perceptions of neighborhood quality, respectively, are associated with parental regulatory and supervisory practices. Their sample consisted of 63 third-graders and their mothers in Southern California. In addition to assessing objective – determined by raters – and subjective – mothers’ and children’s – reports of neighborhood quality, the researchers also assessed three facets of parental regulatory strategies. These included mothers’ limitation of children’s activities in response to perceptions of neighborhood problems, number of rules that parents have for playing or interacting with children in the neighborhood, and level of adult supervision reported by children. A 21-item scale was used to assess mothers’ limitation of children’s activities in response to perceptions of neighborhood problems, which included child-related problems, danger, impoverishment, and lack of social control. Number of rules that parents have for playing or interacting with children in the neighborhood was assessed using a telephone interview developed by Ladd and Golter (1988), wherein mothers were asked to describe family play rules. After the open-ended response, interviewers probed for rules concerning where and when the child could play, whom the child could play with, and how the child was

expected to behave. An index of total rules was created. Parental supervision of children's activities was assessed by asking mothers to indicate the extent to which each of 19 activities, such as going to the park, playing on a sports team, or going to the movies or library, was supervised by an adult.

No relationships were found between objective assessment of neighborhood problems and parents' regulatory strategies. However, relationships did exist between mothers' and children's perceptions of neighborhoods and regulatory strategies. Positive, significant bivariate correlations existed between mothers' limitation of children's activities in response to perceptions of neighborhood problems and mothers' perceptions of child-related problems ($r = .35, p < .01$), impoverishment ($r = .29, p < .05$), and lack of social control ($r = .43, p < .001$), respectively, in their neighborhoods. This indicates that mothers are more likely to limit their children's activities when they perceive their neighborhoods as having child-related problems, being impoverished, or lacking in social control. The number of rules that mothers have for playing or interacting with children in the neighborhood was negatively associated with lack of social control, $r = -.26, p < .05$, indicating that mothers had more rules in neighborhoods with less perceived social control. The amount of adult supervision (child-report) was positively associated with child-related problems in the neighborhood ($r = .34, p < .01$) and lack of social control ($r = .35, p < .01$) and negatively associated with neighborhood resources ($r = -.34, p < .01$). This indicates that children perceived higher levels of supervision when mothers perceived their neighborhoods to have higher child-related problems, a lack of social control, and fewer resources. All other relationships between the three regulatory strategies –

limitation of children's activities, rules for play, and adult supervision – and aspects of mothers' and children's perceptions of the neighborhood were not significant.

In general, the findings of this study support the existence of a relationship between mothers' perceptions of neighborhoods and their regulatory and supervisory strategies. It is interesting to note that no relationship was found between objective neighborhood problems and mothers' regulatory strategies, supporting the idea that mothers' perceptions of CVE are more closely tied to their parenting strategies. A notable limitation of this study is its small sample size.

Gorman-Smith and Tolan (1998) investigated whether family relationship characteristics and parenting practices relate to CVE. Data for the study came from the first two waves of the Chicago Youth Development Study (CYDS), a longitudinal study of inner-city African American and Latino adolescent males. Participants were recruited from fifth- and seventh-grade classrooms in Chicago public schools with high rates of poverty. The sample included 245 African American and Hispanic males, aged 11 to 15 at the first wave, and their caregivers. Children and caregivers were interviewed in their homes or in a mutually agreed upon location. The first two waves were administered approximately one year apart.

CVE was assessed using the Exposure to Violence Interview (Tolan & Gorman-Smith, 1991), which includes nine items assessing victimization and witnessing violence. For instance, youth were asked if they had seen someone beaten, shot, or killed or if they had been a victim of a violent act. Number of incidents in the last year was used as a CVE score. The researchers also assessed other stressful life events using the CYDS Stress and Coping Scale (Tolan & Gorman-Smith, 1991).

Using this scale, youth were asked to indicate whether 35 potentially stressful events had occurred during the past year.

Family relationship characteristics and parenting practices were also assessed. Family relationship characteristics were assessed using an instrument from Tolan and Gorman-Smith (1997). Relationship characteristics assessed included beliefs (i.e., beliefs about the importance and purpose of family and expectations about child development), cohesion (i.e., degree of emotional closeness, dependability, support, and clear communication), and structure (i.e., family organization, intolerance of antisocial values). Parenting practices were assessed using questions from the Pittsburgh Youth Study (Loeber, Stouthamer-Loeber, Farrington, & Van Kammen, 1987). Practices assessed included discipline and monitoring.

Correlations were run among family characteristics and parenting practices (i.e., monitoring, discipline, cohesion, beliefs, structure) at both waves and CVE at wave two (CVE was not assessed at wave 1). Family characteristics and parenting practices at wave one were not related to CVE at wave two; however, CVE at wave two was significantly and negatively related to discipline at wave two. The authors concluded that CVE “is not related to prior status of family functioning but may be related to concurrent parenting practices” (p. 109).

Consistent with the premise of the present study, the findings indicate that CVE is negatively related to discipline; however, it was not related to monitoring. Additionally, the finding was only correlational. Because CVE was not assessed at wave one, the authors could not determine if CVE at time one predicted later parenting practices. Additionally, the sample was limited to one geographic area.

Spano and colleagues (2009), described previously, investigated the relationship between CVE and parenting processes (i.e., monitoring and rule setting) in their longitudinal study of 1,544 African American youth ages 9 – 19 living in high poverty neighborhoods in Mobile, Alabama. Children’s lifetime and recent exposure to violence (ETV) was assessed. Parenting processes (i.e., monitoring and rule setting) were assessed. Items pertaining to monitoring included, “how much does your mother or father really know about how you spend your time?,” “How much does your mother or father really know about what you do most afternoons (after school) and during the day on weekends?,” “Does your mother or father try to find out how you spend your time?,” and “Does your father or mother know exactly where you are most afternoons (after school) and during the day on weekends and during the summer?” Responses for all questions included “don’t know,” “know a little,” and “know a lot,” except for the final question for which the responses were yes and no. Higher scores indicated more monitoring. Rule setting was assessed by asking youth if their families have rules about dating, drinking alcohol, and using drugs, respectively. Higher scores indicated more rule setting. Monitoring and rule items were based on work by Lamborn, Mounts, Steinberg and Dornbusch (1991). Both monitoring (at time one and at time two) and rule setting (at time one and at time two) were negatively and significantly related to both recent exposure to violence at time one and lifetime exposure to violence at time one. This indicates that greater exposure to violence was associated with less concurrent and future monitoring and rule setting.

These findings seem to coincide with the premise of the present study – that CVE impairs family management strategies. However, the study by Spano and colleagues (2009) assessed CVE as youth witnessing violence and victimization. Additionally, caregivers may not have the financial, social, or emotional resources to effectively engage in monitoring and rule setting, but this was not assessed.

Fowler, Toro, Tompsett, and Baltes (2009) examined the relationships between CVE and parental monitoring and CVE and parental warmth as part of a larger structural equation model. Their sample consisted of 214 at-risk urban adolescents in the Midwest. Adolescents' ages ranged from 13- to 17-years; 65% were female; 51% were European American and 49% were African American; 53% were homeless. Structured interviews were used to collect data. Consent was obtained from youth and their parents or staff members of the agency overseeing their care. To assess CVE, a modified version of Things I Have Seen and Heard (TSH; Richters & Martinez, 1990) was used. The instrument asks about frequency of exposure to specific violent events, answers on a five-point scale ranging from never to always. Items used in the study reflected personal victimization and witnessing. They found that community violence predicted decreased parental monitoring, but was not significantly related to parental warmth.

These findings seem to coincide with the premise of the present study; however, this study is unusual in that “parental” monitoring was assessed using reports of children’s guardians in institutions, which may be a unique relationship and not generalizable.

Lobo-Antunes (2012) used three waves of the Project of Human Development in Chicago Neighborhoods (PHDCN) to assess the relationship between neighborhood social disorder and family management strategies. The mean age of children in the sample was 10, 12, and 15 at waves 1, 2, and 3, respectively. The sample was approximately 50% male and primarily Hispanic (47%) and Black (33%). Neighborhood disorder was assessed by asking parents, “how much of a problem” various issues were in their neighborhoods. Issues included “litter, broken glass or trash on the sidewalks and streets,” “graffiti on buildings and walls,” “vacant or deserted houses or storefronts,” “people selling or using drugs,” “drinking in public,” “groups of teenagers hanging out in the neighborhood and causing trouble,” and “different social groups who do not get along with each other.” Family management was assessed by asking parents about items in the home that would foster developmental stimulation for children; harsh discipline; in-home supervision; discussing alcohol and drug use, health and hygiene, and sex with children; youth involvement in organizations at school; family activity involvement; restrictiveness; and knowledge of child’s peers. Family management was divided into promotive and preventive strategies, as well as in-home and out-of-home strategies. Hierarchical linear modeling was used to assess the relationships.

The author found that neighborhood disorder did have an effect on family management strategies. Concerning promotive strategies, those in more disordered neighborhoods were less likely to participate in shared family activities (e.g., family outings, support for children’s hobbies) and have a developmentally stimulating environment. However, the author speculated that this finding may be reflective of

lack of financial resources. Concerning preventive practices, neighborhood disorder was related to less knowledge of children's friends and more parental restrictiveness. However, when neighborhood-level structural characteristics (i.e., concentrated disadvantage, immigrant concentration, and residential stability) were included, collective efficacy (i.e., social capital) had the greatest influence on restrictiveness. Parents in neighborhoods with high collective efficacy were the least restrictive; parents in high disorder neighborhoods with high levels of collective efficacy allowed their children to have more access to their neighborhood. The author speculated, "It may be that these findings represent an interaction between disorder and collective efficacy and a cross-level interaction between these neighborhood measures and the relationship between individual characteristics and restrictiveness" (p. 144). The study also found that family management practices minimized children's exposure to violence.

This study examined the effect of neighborhood disorder on family management, rather than CVE. However, the findings do indicate that parents may respond to their environment by adjusting their family management practices. Though not explicitly included in the study, the findings also suggest that, consistent with the premise of the present study, the relationship between neighborhood and family management may be moderated by resources such as financial means and social capital.

Findings pertaining to the relationship between CVE and parenting practices are inconsistent. CVE is often measured from the perspective of the child, rather than the parent who is making the management decisions. Additionally, the types of

parenting practices assessed have been highly variable. Furthermore, little research exists concerning the relationship between CVE and management strategies, which may include but are not limited to dyadic interactions between parents and children. This is particularly true for promotive strategies. Finally, none of the studies accounted for the resources parents may have to carry out parenting practices. The present study will address these gaps by using the parental perspective of CVE, examining a range of family management strategies, and examining the influence of resources in the relationship between family management strategies and CVE.

Family Management Strategies and EBP



Figure 7. Proposed relationship between family management strategies and children's EBP.

Rothbaum and Weisz (1994) conducted a meta-analysis of studies pertaining to parents' caregiving behaviors and externalizing behavior problems in children. For the purposes of the study, externalizing behavior was defined as aggression (e.g., fighting, bullying), hostility, (e.g., anger), and noncompliance (e.g., disobedience, oppositional). Parents' caregiving behaviors included approval, guidance, motivational strategies, synchrony, coercive control, and restrictiveness. Approval was defined as "an attempt to highlight, through positive responses, desirable behaviors or characteristics of the child," guidance as "constructive assistance and supervision," motivational strategies as "greater reliance on positive than negative

incentives or incentives that are reasonable and fair,” and synchrony as “parental behavior that is congruent with the child’s previous behavior” (p. 58). Coercive control was defined as “attempts to influence the child using force, physical manipulation, or harsh or repetitive commands” (p. 59). Conversely, non-coercive control was defined as attempts to foster the child’s understanding. Lastly, restrictiveness was defined as “the extent to which parents place limits and constraints on the child’s behavior” (p. 59). Details of the search methodology can be found in Appendix A. The search yielded 47 studies. The age of youth in the study ranged from 10.5 months to “college age.” Over half of the studies had samples of children five years or younger.

To compute effect sizes, the authors converted each correlation into a z score, after which relevant correlations in each study were averaged to yield a single study effect score. These scores were averaged to form a population effect size, which entailed the average of all correlations for a particular parenting characteristic computed for each study and then averaged across studies. They also calculated the percentage of significant correlations in a study out of the number of relevant correlations reported. Across all studies, the mean study effect size between parenting behaviors and externalizing behavior problems was .24, with 46% significant effects. The effect size and percentage of significant effects were both significantly different from zero. Across studies, approval, guidance, motivational strategies, synchrony and coercive control had mean effect sizes and percentage of significant effects that were significantly different from zero, based on correlations where each caregiving variable was assessed separately. An ANOVA was conducted, comparing the effect

sizes across the types of parenting behaviors. No significant differences were found. Approval, guidance, motivational strategies, and synchrony were associated with less externalizing behavior, while coercive control was associated with greater externalizing behavior.

Additionally, the authors sought to determine whether caregiving measures assessing multiple variables better predicted child externalizing behavior than individual caregiving behaviors. The authors conducted a factor analysis on the identified caregiver behaviors, finding that all of the behaviors, except for restrictiveness, loaded on one factor, which they called acceptance-responsiveness. Approval, guidance, motivational strategies, and synchrony loaded positively onto this factor, while coercive control loaded negatively. The authors examined the strength of association for caregiving measures to determine whether differences existed based on the number of variables that were examined. ANOVAs were conducted comparing the effect sizes and the percentage of significant effects of studies that assessed either one, two, three, four, or all five of the caregiving behaviors loading on the acceptance-responsiveness variable. Results indicated that significant differences in mean effect size and the percentage of significant effects did exist among the groups. Post hoc analyses indicated a linear trend in both effect sizes and significant effects, with studies assessing just one of the variables that loaded on the acceptance-responsiveness factor having significantly lower mean effect size and percentage of significant effects than studies assessing all five of the variables that loaded on the factor.

To examine the impact of age, the authors divided the samples into two groups: 10.5 months to five years and six to 15.5 years. Using ANOVAs, the authors found that the groups did not have significantly different mean effect sizes, but they did vary significantly on percentage of significant effects, with the older children having the higher mean. The authors then removed questionnaire-based studies, which had been found to yield weaker effect sizes, and found significant differences for both effect size and percentage of significant effects based on age group, with the older group having higher means for both. When age was further divided into subgroups (0-2, 2.5-5, 6-11, and 12 and up) significant differences were found for both effect size and percentage of significant effects. Means for effect sizes for the age categories were .24, .20, .36, and .38, respectively, while means for significant percent of effect sizes were 30, 34, 59, and 75, respectively. The authors also found that mean effect size and percentage of significant effects did not vary significantly between girls and boys.

The authors reviewed longitudinal studies separately. They searched for longitudinal studies using the same procedure and the criteria are detailed in Appendix A. The search yielded 11 studies. Because there were so few studies and the age intervals varied considerably, they could not conduct a meaningful meta-analysis. However, the authors reported that the mean correlation between caregiving and later externalizing was .16 and the mean percent of significant effects was 47.

Though the study did not explicitly examine family management strategies included in the present study, the results indicate that both positive and harsh caregiving behaviors are associated with children's externalizing behaviors. However,

the authors were unable to determine the extent to which this is true over time because of the lack of longitudinal studies at the time of this meta-analysis. In aggregate, the impact of caregiving on externalizing did not differ by gender. Additionally, they found that the association between caregiving and externalizing was more pronounced for school-aged children (i.e., ages 6 and up).

Furstenberg et al. (1999), described previously, examined the relationship between parenting practices and family management strategies and adolescent outcomes. Youth were assessed on academic competence, involvement in positive, organized activities, problem behavior, self-competence and psychological adjustment. The sample was sorted into four clusters of youth with similar profiles of these outcomes. The four categories into which youth were sorted included academically competent, socially involved, at-risk, and delinquent. Questions assessing practices and management strategies came from the Iowa Youth and Family Project (Conger & Elder, 1994), the National Youth Survey (Elliot, Huizinga, & Menard, 1989) and the Adolescent Transitions Project (Eccles et al., 1989). Factor analysis was conducted to create family management factors; these included support for autonomy, positive family climate, discipline effectiveness, parental involvement with child, restrictiveness, economic adjustments that parents make because of their own relation to the outside world (e.g., changed eating habits to save money), institutional connections (e.g., participation in religious and social organizations), and positive social networks (i.e., access to resources, role models, and job opportunities). The authors compared the mean scores on management strategies (positive family climate, discipline effectiveness, support for autonomy, parental

involvement, institutional involvement, and restrictiveness) across groups. They found that, overall, positive family climate, discipline effectiveness, support for autonomy were more prominent for the two most successful groups of children (academically competent and socially involved).

The relationship between parenting practices and family management strategies and adolescent outcomes were assessed using OLS regression. Adolescent outcomes included activity involvement, academic competence, psychological adjustment, self-competence, and problem behavior. For the purposes of this review, only psychological adjustment and problem behavior will be discussed. For psychological adjustment, positive family climate, discipline effectiveness, and support for autonomy were significant predictors. All were positively associated. For problem behavior, both discipline effectiveness and economic adjustments negatively predicted problem behavior.

Results indicated that family management may have an impact on children's outcomes. Promotive strategies, such as positive family climate, may have impacts on overall profiles of children's behavior, but perhaps not on problem behaviors. Findings from the study must be interpreted cautiously, as it was cross-sectional. More research is needed to better determine the nature of these relationships.

Gorman-Smith and Tolan (1998), described previously, assessed whether family characteristics and parenting practices (i.e., monitoring, discipline, cohesion, beliefs, structure) predicted aggression. Aggression was measured using the aggression subscale of the Child Behavior Checklist (CBCL; Achenbach, 1991a). Child, caregiver, and teacher reports of the CBCL were collected. To obtain scores

for aggression, the child, caregiver, and teacher scores were converted to z scores and summed to obtain one score for aggression.

They found that structure (defined as family organization and intolerance of antisocial values) was significantly and negatively associated with aggression in a regression model that included CVE at wave two; monitoring, discipline, cohesion, beliefs at wave two; other stressful events at wave two; and interactions between monitoring, discipline, cohesion, and beliefs and CVE. Only structure predicted aggression. These results support the premise that family functioning is associated with children's externalizing behaviors across time, though it is surprising that only structure predicted aggression.

O'Neil and colleagues (2001), described previously, also sought to determine the relationship between maternal regulatory and supervision strategies (mothers' limitations of children's activities, number of rules that mothers have for playing or interacting with children in the neighborhood, and level of adult supervision reported by children) and children's social behavior (scored as the opposite of externalizing behavior). Children's social behavior was assessed using a combination of peer and teacher ratings of the child's prosocial tendencies, aggression tendencies (reverse scored), and disruptive behaviors (reverse scored). Questions came from a procedure developed by Asher, Singleton, Tinsley, and Hymel (1979) and scales developed by Cassidy and Asher (1992). Limits on activities were positively associated with children's social behavior, $r = .32, p < .01$, indicating that imposing more limits was related to better social behavior (i.e., less externalizing). However, all other relationships between regulatory strategies and social behavior were insignificant.

These results indicate that more limits by mothers were associated with less externalizing behavior. However, other regulatory strategies, such as number of rules that parents have for playing or interacting with children in the neighborhood and level of adult supervision were not significantly related. The findings must be interpreted with caution, though, because they are correlational, cross-sectional, and derived from a small (N=63) sample size.

Beyers, Bates, Pettit, and Dodge (2003) examined the relationship between parenting processes and externalizing behavior in a longitudinal sample of youth aged 11- to 13-years. Data came from the Child Development Project (CDP; Dodge, Pettit, & Bales, 1994). Participants were recruited in 1987 and 1988 from three cities – Nashville, TN; Knoxville, TN; and Bloomington, Indiana – from schools during kindergarten registration. Data for this study came from data collections over three waves when the children were aged 11, 12, and 13. Analyses included 440 children and their parents. Half were female; 15% were African American; 1% were of another ethnic group; the rest were White.

Parenting processes assessed included parental supervision, parental monitoring, and positive parental involvement. Parental supervision (assessed at age 11) was assessed using Activity Schedules (Posner & Vandell, 1994). Using this structured interview, parents and youths (separately) were asked report the youths' whereabouts from the end of the school day until three hours later for both the current and previous day. Specifically, they were asked what activities the youth was engaged in, how long the activity lasted, where the activity took place and who was present with the youth. Results were classified as time unsupervised (i.e., the number of hours

the youths spent without a parent or other adult present) and as time unsupervised while out in the community (i.e., the number of hours youth spent in their neighborhoods, excluding their own yards, without a parent or adult present). The time reports were highly correlated, and parent and child reports were averaged to produce a total score. Higher scores indicated more unsupervised time.

Parental monitoring (at age 11) was assessed using a mix of existing items (Capaldi & Patterson, 1989) and items developed for the purposes of the study. Nine items on a five-point scale were used. Examples included parents' awareness of their children's activities, who is present during activities, parents' beliefs about the difficulty of tracking children's activities. High scores indicated more parental monitoring. Positive parental involvement (at age 12) was measured using youth-report of ten items assessing how much parents participate in youths' lives (e.g., attendance of parents at school-sponsored activities). No source was provided for this measure. High scores indicated more involvement. Externalizing behavior (measured at age 11 and age 13) was assessed using teacher reports. Children's teachers completed the externalizing behavior scale of the Teacher Report Form (TRF; Achenbach, 1991b). The scale is comprised of 34 items assessing aggression and delinquency. Higher scores indicated higher externalizing.

Data were analyzed using Hierarchical Linear Modeling (HLM). Parental monitoring significantly predicted decreased externalizing at age 11. More time unsupervised in the community and less positive parental involvement significantly predicted larger growth rate in externalizing behaviors over ages 11 to 13.

The study supported the association between parenting practices and externalizing behavior, including constructs of interest in this study – parental monitoring and involvement. These practices are more in line with the family management practices examined in the present study. A unique strength of this study is that it examined the growth in externalizing problems, in addition to the raw score, yielding more nuanced results. However, the study was limited by a small sample size for the statistical technique (HLM) used. Additionally, the sample consisted primarily of European American middle-class families living in less dense urban areas, which means that the results may not be generalizable to other groups.

Hoeve et al. (2009) conducted a meta-analysis of studies pertaining to the relationship between parenting and delinquency. Though delinquency is not the same as externalizing, it is conceptualized as an aspect of it (Achenbach, 1991a), making it relevant to the present study. The authors sought to determine which parenting behaviors and styles are associated with delinquency and the strength of the connection between parenting and delinquency. Methodological details of the search for studies to include in the meta-analysis can be found in Appendix A. The search yielded 161 published and unpublished studies. Ages of children in the study samples ranged from 6 to 40; the age range goes past 18 because some of the studies used retrospective reports.

Across all studies, 432 different parenting variables were found. Similar constructs were collapsed into discrete parenting behaviors and then further classified by the authors into nine literature-based parenting dimensions. These categories included support (comprised of affection, involvement, open communication, neglect-

reversed, rejection-reversed, hostility-reversed), authoritative control (rewarding, inductive parenting), authoritarian control (physical punishment, verbal aggression as punishment, punishment), behavioral control (consistent discipline, inconsistent discipline, discipline, rule setting, decision making, permissiveness, monitoring), psychological control (over protection), general control, general parenting (parenting, authoritative parenting style), indirect parenting behavior (knowledge, child disclosure), other parenting (co-parenting).

Effect sizes for each study were calculated. To express the relationship between parenting and delinquency, Pearson's r was used. The correlations were converted to z scores before combined effect sizes were calculated to obtain a mean effect score across studies for each parenting behavior and dimension. The mean effect size can be interpreted as a correlation, r .

For the nine parenting dimensions, all had significant mean effect sizes. The largest effect sizes were for psychological control (positively related to delinquency), behavioral control (negatively related), and support (negatively related). For discrete parenting behaviors, affection, involvement, open communication, rewarding, inductive parenting, consistent discipline, discipline, rule setting, decision making, monitoring, knowledge and child disclosure all had significant mean effect sizes and were negatively related to delinquency. Neglect, rejection, hostility, physical punishment, verbal aggression, inconsistent discipline, permissiveness, psychological control, and overprotection all had significant effect sizes and were positively related to delinquency. Neglect, hostility, and rejection, as well as active monitoring, parental

knowledge, and child disclosure had the strongest mean effect sizes, ranging from 0.23 to 0.33.

The authors also examined potential moderating effects of time interval between measurements (i.e., cross-sectional versus longitudinal) on the relationship between parenting and delinquency. No evidence of moderation was found, indicating that the strength of association is similar for cross-sectional and longitudinal studies. Additionally, gender did not moderate the relationship between parenting and delinquency.

This meta-analysis strongly supports the relationship between parenting and delinquency, including parenting practices assessed in this study, though the strength of that relationship varies by particular parenting practice or dimension. However, these results are limited to delinquency, specifically, and not the broader construct of externalizing.

Lobo-Antunes (2012), described previously, investigated the relationship between family management and antisocial behavior. Anti-social behavior was assessed using questions from the Youth Self-Report Survey (Achenbach, 1991), Self-Report of Offending Survey (Earls, Brooks-Gunn, Raudenbush, & Sampson, 1994a), and the Substance Use Interview (Earls, Brooks-Gunn, Raudenbush, & Sampson, 1994b). Youth indicated via self-report whether they had engaged in particular behaviors (e.g., ran away from home overnight, stole from a store, attacked someone with a weapon, etc.). Aspects of family management that were related to antisocial behavior included harsh discipline (positive), supervision (negative), talking with youth about sex (positive), and restrictiveness (negative).

The results of this study did not support a relationship between promotive strategies and reduced chances for antisocial behavior. However, antisocial behavior is a more extreme form of the dependent variable of interest for the present study, externalizing behavior. Therefore, though they did not impact anti-social behavior, it is possible that promotive strategies may impact externalizing. Concerning preventive strategies, most results reflected the hypotheses – harsh discipline and less supervision were associated with increased antisocial behavior. However, contrary to the hypothesized relationships, talking with youth about sex increased the odds of antisocial behavior. A strength of this study is that these relationships were examined across time, lending support to the assertion that family management practices impact children’s later problematic behaviors.

There is considerable evidence in support of a relationship between parenting practices and children’s externalizing behavior; however, findings are mixed concerning the relationships between specific practices and EBP. Additionally, few studies have focused on family management, which is broader than dyadic interactions between parents and children. The present study will address this by examining the relationship between a broader range of family management practices and externalizing behavior.

Family Management Strategies as Mediators of the CVE and EBP Relationship

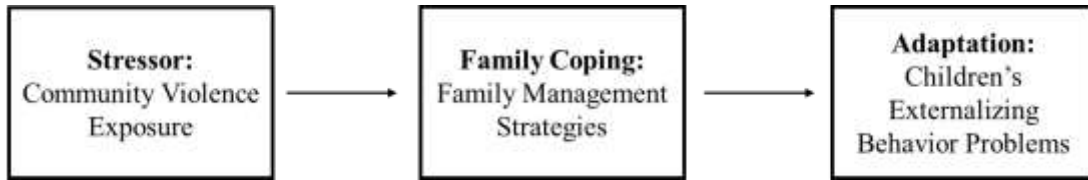


Figure 8. Proposed relationship between CVE, EBP, and Family Management Strategies

Colder, Mott, Levy, & Flay (2000) examined the mediating role of parenting practices (restrictive discipline, parental monitoring, and parental involvement) in the relationship between perceived neighborhood danger and childhood aggression. The sample consisted of participants in a pretest study for the Aban Aya Youth project. Surveys were administered to 732 5th graders, their parents, and teachers at ten inner-city and two suburban schools. Children were primarily African American (98%), and about half were female (52%). Mean annual household income, assessed categorically, was \$10,000 - \$15,000.

Child aggression was assessed using eight items from the Youth Risk Behavior Survey (US DHHS, 1994). Children were asked about the lifetime occurrence of their own verbal aggression, physical fighting, and gang involvement. Teachers and parents were also asked these questions about the children. Child-, parent-, and teacher-reports of aggression were included. Perceived neighborhood danger was assessed using child-report frequency of three events in the neighborhood: fights, stabbings or shootings, and robberies using a four-point scale ranging from 'not at all' to 'a lot,' and parent-report occurrence of public drinking,

drug sales or use, people taking advantage of each other, and gang fights in the neighborhood using a five-point scale ranging from 'never' to 'always.'

Parenting was assessed using parent self-report. Items assessed restrictive discipline by asking parents how strict they are with their children generally and during specific circumstances, such as when children are at friends' houses. Responses were on a five-point scale ranging from not at all strict to very strict. Parental monitoring was assessed using two items asking parents how much of the time they know what their children are doing when parents are not at home or when their children are not at home or at school. Responses were on a five-point scale ranging from never to all of the time. Parental involvement was assessed using two items asking parents how often they talk with their children about what they are doing in school and about things in their lives. Responses were on a three-point scale ranging from 'rarely' to 'often.'

Structural equation modeling was used to assess relationships. Parenting practices were not mediators of the relationship between perceived neighborhood danger and children's aggression, as perceived neighborhood danger was not associated with any of the assessed parenting practices. However, restrictive discipline and parental monitoring were negatively associated with childhood aggression. Contrary to the proposed relationships in the present study, parental involvement was not associated with either neighborhood danger or child aggression. However, parental involvement was only assessed using two items. Limitations of this study include use of a specific subsample, which limits generalizability; cross-

sectional data, which precludes causality; and lack of validated measures for several constructs.

O'Neil and colleagues (2001), described previously, tested whether the relationship between neighborhood quality and children's social adjustment was mediated by maternal regulation of children's experiences in the neighborhood (i.e., social experiences, limitations in activities, and rules/supervision). They ran a series of hierarchical regression analyses and found evidence that the relationship between mothers' perceptions of neighborhood danger and children's social behavior was mediated to some degree by mothers' limitation of children's activities, even after controlling for family income and maternal depression. The authors also found that the relationship between mothers' perceptions of low social control in their neighborhoods and children's social behavior was mediated by supervision of children's activities and limitation of children's activities, respectively, even after controlling for family income and maternal depression.

The findings suggest that limitation of activities and supervision may be two important ways parents deal with living in neighborhoods they perceive to be problematic. Additionally, this is one of the only studies that examines family processes as a mediator between neighborhood environments and children's outcomes. This study was limited by use of a small convenience sample ($N = 63$). In addition, objective assessments indicated that, though there was some variability, most of the neighborhoods of the sampled families were not disadvantaged. Therefore, the results may not be generalizable to more disadvantaged neighborhoods. In addition, as the sample came from primarily suburban areas of

Southern California, results may not be generalizable to other populations. Lastly, the study was very descriptive in nature; it relied primarily on bivariate correlations, which do not provide information about causation. The present study will address many of these issues by using a larger, representative urban sample and by examining a broader range of strategies (e.g., promotive as well as preventive).

Spano and colleagues (2009), described previously, investigated whether parenting processes at time two mediate the effects of exposure to violence at time one on violent behaviors at time three in their sample of 1,544 African American youth ages 9 – 19 living in high poverty neighborhoods in Mobile, Alabama. SEM was used to test a model wherein the latent construct of exposure to violence (indicators included lifetime and recent violence) was associated with both the latent construct of parenting practices (indicators included monitoring and rule setting) and the latent construct of violent behaviors (indicators included lifetime and recent). Additionally, in the model, parenting practices were related to violent behaviors. The authors found that the model fit acceptably. Additionally, all paths in the model were significant. The researchers also tested whether the direct and indirect effects by ETV through family processes on violent behaviors are moderated by family structure (single versus two parent families), developmental stage (early versus middle/late adolescents), or by gender (male versus female). They found no evidence that relationships varied by family structure (i.e., the way in which violence impacted parenting and violent behaviors did not vary by number of parents in the household), nor by developmental stage. However, the direct path between ETV and violent behavior did vary by gender, with the exposure to violence having a greater effect on

violent behaviors for females than males. The indirect path through parenting practices did not vary by gender.

Findings from this study correspond to findings by O'Neil and colleagues (2001) by supporting the assertion that parenting practices mediate the association between CVE and aggression (measured in this study as violent behavior); however, the direction of the relationship between CVE and parenting differs. This may be because of the way constructs were assessed. As the study uses a non-representative sample, the findings of this study may not be generalizable. Additionally, monitoring and rule setting were the only parenting practices assessed. These limitations will be addressed in the present study.

Fowler, Toro, Tompsett, and Baltes (2009) examined the mediating role of parenting, specifically monitoring and warmth, on the relationship between exposure to violence (i.e., community and family violence) and externalizing problems among their sample of 214 at-risk urban adolescents in the Midwest. Family violence was assessed using the revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), which asks about the presence of specific acts of psychological and physical violence during the previous year. Based on factor analysis, items reflecting physical and psychological aggression, but not physical injuries were retained for analyses. To assess parenting, a measure similar to the Parent Monitoring Scale (PMS; Brown, Mounts, Lamborn, & Steinberg, 1993) was used. Adolescents, aged 13 to 17, answered questions about their primary caregivers. Monitoring questions assessed adolescents' perception of their caregivers' knowledge of their whereabouts, activities, and friends. Warmth questions assessed the amount

of acceptance and affection expressed by caregivers. Externalizing problems were assessed using the sections of the second edition of the Diagnostic Interview Schedule for Children (DISC; Fisher, Wicks, Shaffer, Piacentini, & Lapkin, 1992). Symptoms of conduct problems and substance abuse/dependence were counted to provide a continuous measure of problems.

Using SEM, two models were compared. CVE, family violence, and externalizing were latent variables, while parental monitoring and warmth were manifest variables. Model one included CVE and family violence as related exogenous variables, each with a direct path to externalizing problems, an indirect path to externalizing through parent monitoring, and an indirect path to externalizing through parent warmth. Monitoring and warmth in the model were related. The model met the fit criteria specified by the RMSEA, CFI, and Tucker-Lewis Index (TLI). Additionally, all factor loadings were significant. Community and family violence significantly predicted reduced parental monitoring. Family violence also predicted reduced warmth. Parental monitoring was negatively associated with child externalizing behavior. A significant indirect effect existed from parental monitoring on the relationship between CVE and externalizing behavior. Likewise, there was a significant indirect effect from parental monitoring on the relationship between family violence and externalizing behavior. This model explained 40% of the variance in externalizing. A more parsimonious model, model two, was also assessed. For that model, the direct effects of CVE and family violence were removed, leaving only the indirect effects. The authors determined that this model did not fit as well as model one.

Next, the authors sought to determine whether the mechanisms identified in model one were moderated by gender, housing status, or race. While they found no evidence for moderation by gender or housing status, they did find evidence for moderation by race. The authors split the dataset by race, rerunning separate models for European American and African American participants. The model fit better for the European American sample than for the African American sample.

The findings of this study indicate that monitoring, and not warmth, mediated the relationship between CVE and externalizing behavior, and this pattern may be a better fit for European American, rather than African American, families. However, the study findings may not be generalizable as a large portion of the sample was comprised of a unique subpopulation – homeless children. Parenting practices were assessed using personnel from the shelters or institutions in which they were living. The dynamics in these relationships may differ significantly from dynamics in households where the child has a primary caregiver. Additionally, the study was cross-sectional, precluding determinations of causality.

Salzinger et al. (2011), mentioned previously, examined the potential mediating role of attachment to parents in the relationship between exposure to violence and externalizing behavior problems in their sample of 667 children from middle schools in a high violence school district in New York City. The authors did not find evidence that attachment to parents mediated the relationship between CVE and externalizing.

The reviewed literature seems to indicate that aspects of parenting, such as monitoring and restrictiveness, may mediate the relationship between CVE and

externalizing; however, the findings are clearly mixed. A wider variety of management practices needs to be assessed in order to better understand this relationship. Overall, studies are limited by nonrepresentative samples and, in some cases, small sample sizes. Additionally, the studies have primarily focused on adolescents, rather than children, and family management strategies parents employ may vary by developmental stage. The present study will address these limitations.

Conclusions

Overall, previous literature suggests that CVE is strongly related to children's externalizing behavior problems; however, the findings concerning moderation of this relationship by gender are mixed. Additionally, less research exists concerning the relationship between CVE and mothers' family management strategies. The research that does exist reaches mixed conclusions concerning the presence and direction of effects. These mixed findings may be attributable to the unexamined role of resources in this relationship. The extent to which the relationships between CVE and family management strategies may vary by resources, such as income, social capital, and maternal self-efficacy, has not been examined. Additionally, evidence suggests that parenting practices do have a bearing on children's externalizing behaviors; however, little research has examined the relationship between family management, which is a broader construct than parenting practices, in relation to children's externalizing behavior, particularly with a pre-adolescent population.

The present study seeks to contribute to the literature by examining the extent to which CVE is associated with children's externalizing behavior problems; whether the relationship between CVE and children's externalizing behavior is moderated by

gender; whether CVE is associated with family management strategies; whether the relationship between CVE and family management strategies vary by income, social capital, or maternal self-efficacy; and whether family management strategies influence children's externalizing behavior problems in a sample of nine-year-old children.

Chapter 3: Methods

Sample

The present study is a secondary analysis of data from the Fragile Families and Child Wellbeing Study. A three-stage sampling process was used to obtain a representative longitudinal sample of nonmarital births in 20 large US cities. Large cities are defined as having populations over 200,000 persons. Sampled cities included Indianapolis, IN; Austin, TX; Boston, MA; Santa Ana, CA; Richmond, VA; Corpus Christi, TX; Toledo, OH; New York, NY; Birmingham, AL; Pittsburgh, PA; Nashville, TN; Norfolk, VA; Jacksonville, FL; San Antonio, TX; Philadelphia, PA; Chicago, IL; Newark, NJ; Oakland, CA; Detroit, MI; and San Jose, CA.

Hospitals were sampled to be representative of non-marital births in each city, and sampled births were representative of those at each hospital. Baseline data were collected from mothers shortly after children's births. Initial data collection took place from 1998 to 2000. Approximately 4,700 mothers were included in the study: 3,600 were unmarried at the time of the child's birth (baseline data collection) and 1,000 were married. The married at birth sample was not representative and was collected only for comparison purposes. The present study does not use data from the married at birth sample; it includes only the mothers who were unmarried at the time of birth (baseline data collection). Those unmarried at baseline represent a more economically vulnerable sample than those married at baseline, which is appropriate to examine some of the constructs of the study, such as CVE. Details of the original

research methodology and sampling procedures are provided by Reichman, Teitler, Garfinkel, and McLanahan (2001).

Weights

The full Fragile Families sample consists of 20 cities; however, only 16 of the cities were selected via a stratified random sample. National-level weights use data from only the 16 cities originally selected cities and make the data set nationally representative of births occurring in large US cities from 1998 and 2000. City-level weights make the data representative of nonmarital births occurring in the 20 large cities during the years the sample was obtained. For the present study, the city-level weights are used instead of the national-level weights in order to maximize sample size and power to detect effects.

Study Years

Additional waves of data were collected at one, three, five, and nine years after baseline assessment. For clarity, waves will be referred to by the approximate year of data collection. For example, wave four will be referred to as year five, while wave five will be referred to as year nine. Data for the present study come from year five and year nine, when the children were approximately five- and nine-years-old, respectively. For year five, survey components included the core scales administered to biological mothers and fathers at each wave, primary caregiver in-home interview, and teacher interview. For year nine, survey components included the core scales for biological mothers and fathers, in-home observations, primary caregiver interview, primary caregiver self-administered survey, child interview, and teacher interview.

Specific survey components used in the present study come from year five core scales from biological mothers and in-home interviews, as well as year nine core scales from biological mothers, primary caregiver interview, primary caregiver self-administered survey, and child interview. Additionally one variable – child’s temperament – was assessed at year one. The year five response rate for the core scale for biological mothers was 85%; for the in-home interview, the response rate was 81%. For year nine, the response rate for biological mothers was 76%, and the response rate for the primary caregiver interview was 77%.

Participant Selection

For the present study, cross-sectional models were used, because family management variables used in the present study were only assessed in the most recent wave of data, Year 9. The change model serves to establish the plausibility of a causal pathway from CVE to EBP.

Data for the cross-sectional models were drawn primarily from year nine; the exception is the child temperament variable, which was assessed at year one. For the longitudinal change model, data from year five were included as well. As such, only those present for data collection at year five were included in the sample for both models in order to maintain a consistent sample. This was desirable because the change model serves as a sensitivity check for the cross-sectional models. Because almost all of the in-home and primary caregiver surveys were completed by children’s biological mothers, only mothers’ reports were included. Additionally, participants must have lived with their children at least part time in both years five and nine and be considered the child’s primary caregiver in year nine. These

exclusion criteria were put in place because to accurately assess family management, a focus of the study, it was important that only parents who had a caregiver role in their children's lives at data collection were included.

Measures for Cross-Sectional Model

Below are descriptions of variables used for the cross-sectional models. All of these variables were assessed at year nine of data collection, except for child temperament, which was assessed at year one.

Independent Variable: CVE

Violence continuous score. Maternal community violence exposure was assessed using a subset of items from the "My Exposure To Violence" questionnaire (Buka, Selner-Ohagan, Kindlon, & Earls, 1996, see Selner-Ohagan, et al., 1998). Respondents were asked questions pertaining to violence they witnessed being carried out by people other than their family and friends, no matter who the victim might have been, excluding violence in TV or in movies.

The questions included, "In the past year, about how many times did you see someone else get hit, slapped, punched, or beaten up by someone?;" "In the past year, about how many times did you see someone else get attacked by someone with a weapon like a knife or bat?;" and "In the past year, about how many times did you see someone else get shot at by someone?" response options included 0=never, 1=once, 2=two to three, 8=four to ten, 10=more than ten. Responses were summed across items and divided by the number of items to produce an item average; scores

represent the frequency of witnessing CVE in the past year. Cronbach's alpha for this scale was .75 at year nine.

Violence categorical score. Because the distribution of the continuous violence score was skewed (Skewness = 6.52) due to the large number who reported witnessing no violence, a categorical violence score (0=did not report any CVE, 1=did report CVE) was included. Bivariate plots of violence scores and children's externalizing behavior problems indicated a linear trend when those with no CVE were excluded. The categorical violence variable serves to control for the presence or absence of CVE so that the linear relationship can be examined.

Perception of neighborhood danger. This was assessed using the question "Have you ever been afraid to let your child go outside because of violence in your neighborhood?" Responses include 1=Yes and 0=No.

Dependent Variable: Externalizing Behavior Problems

Maternal report of externalizing behavior problems was determined using the externalizing subscale of the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). Externalizing behavior was derived by summing the scores of the items from the aggressive behavior and rule-breaking behavior subscales. Thirty items were used. For this measure, parents were asked to endorse the extent to which their child exhibits certain behaviors. Example questions from the aggressive subscale include, "child is cruel, bullies, or shows meanness to others;" "child physically attacks people;" and "child has temper tantrums or a hot temper." Example questions from the rule breaking behavior subscale include "child drinks alcohol without parents' approval;" "child doesn't seem to feel guilty after misbehaving;" and "child

breaks rules at home, school or elsewhere.” Responses include 0=not true, 1=sometimes true, and 2=very true or often true. Responses were summed across all items producing a total externalizing behavior score for each wave. Scores were divided by the number of items answered to produce an average score for each wave. Higher scores indicate more externalizing behavior. The distribution of EBP was not normal because of the large number of low scores. Several transformations were tried, but none improved the distribution. In order for results to be more interpretable and comparable to previous literature, the continuous, untransformed scale was used. Additionally, when sample sizes are large, there is greater robustness to violations of the assumption of normality. Cronbach’s alpha for this scale was .92.

Mediators: Promotive Family Management Strategies

Promotive strategies included parental involvement with children in home, parental involvement in children’s school, and children’s involvement in organized activities. All variables were assessed at year nine.

Parental involvement in home. Parental involvement with children in home was assessed using questions that asked mothers how often they have done various activities with the child during the past month. Activities included doing dishes, preparing food, or doing other household chores together; playing sports or doing outdoor activities together; watching TV or videos together; playing video or computer games together; reading books with the child or talking with him/her about books he/she reads; participating in indoor activities together such as arts and crafts or board games; talking with the child about current events, like things going on in the news; talking with the child about his/her day; checking to make sure the child

has completed his/her homework; and helping the child with homework or school assignments. Responses to items included 0=not once in the past month, 1=one to two times in the past month, 2=about once a week, 3=several times a week, and 4=every day. Cronbach's alpha for the scale was .72.

Parental involvement in school. To assess parental involvement in children's schools, respondents were asked the frequency with which they engaged in particular school activities over the last year. Specifically, they were asked how often they attended an open house or back-to-school night; attended a meeting of a PTA, PTO, or parent-teacher organization; went to a regularly scheduled parent-teacher conference with their child's teacher; attended a school or class event, such as a play, sports event, or science fair, in which their child participated; attended a school or class event, such as a play, sports event, or science fair, in which their child did not participate; volunteered at the school or served on a committee; met with a school counselor; visited or sat in on their child's classroom; had a conference with their child's school principal; and went to a workshop or meeting at school about health, nutrition, or safety issues. Responses included 0=never in the past year, 1=once in the past school year, and 2=more than once in the past school year. Cronbach's alpha for the scale was .78.

Children's participation in organized activities. Children's participation in organized activities in year nine was assessed by asking mothers whether their child had participated in various activities outside of school hours in the past year. These activities included organized athletic activities, like basketball, soccer, baseball or gymnastics; music lessons, art classes, or a performing arts program; church or

religious groups; clubs, like Cub Scouts or Brownies; programs at the YMCA, YWCA, or similar organizations; and academic activities, like tutoring or math lab. Responses included 0=no and 1=yes. Responses across items were summed and divided by the number of items answered to produce an average score. Higher scores indicate greater participation in organized activities.

Mediators: Preventive Family Management Strategies

Preventive strategies included parental discipline, parental monitoring (mother-report), and parental monitoring (child-report). All variables were assessed at year nine.

Parental discipline. Parental discipline was measured using the non-violent discipline subscale of the Parent Child Conflict Tactics Scales (CTSPC; Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). Mothers were asked how often they engaged in various disciplinary behaviors, including explaining why something the child did was wrong, giving the child something else to do instead of what he/she was doing wrong, taking away privileges or grounding the child, and putting the child in “time out” (or sending the child to his/her room). Responses include 0=never in the past year; 1=yes, but not in the past year; 2=once; 3=twice; 4=three to five times; 5=six to ten times; 6=eleven to twenty times; 7=more than twenty times. The psychological aggression and physical assault scales of the CTSPC were also used (Straus et al., 1998). Mothers were asked how often they engaged in various disciplinary behaviors, such as swearing or cursing at the child, calling him or her dumb or lazy, slapping the child, or shaking the child. Responses include 0=never in the past year; 1=yes, but not in the past year; 2=once; 3=twice; 4=three to five times;

8=six to ten times; 15=eleven to twenty times; 25=more than twenty times, as recommended in the Fragile Families Core Scales Documentation (CRCW, 2013). Discipline items were included in a Principle Components Analysis to determine which items would be in the final scale. The approach used to determine the final scale is described in a later section.

Parental monitoring (mother-report). Monitoring was measured using the questions that assess the frequency with which mothers know what their child does during his/her free time and with his/her money, how many of their children's close friends they know by sight and by first and last name, and how many of their children's close friends' parents they know by sight and by first and last name. For the frequency with which mothers know what their child does during his/her free time and with his/her money, responses include 0=never, 1=sometimes, 2=often, 3=always. For the number of children's close friends mothers know by sight and by first and last name, responses included 0=none of them, 1=only a few, 2=about half, 3=most of them, or 4=all of them. For the amount of their children's close friends' parents mothers know by sight and by first and last name, responses included 0=none of them, 1=only a few, 2=about half, 3=most of them, or 4=all of them. These questions came from the National Survey of Children's Health (2003). Responses across items were summed and divided by the number of items answered to produce an average score. Higher scores indicate greater monitoring. Cronbach's alpha for the scale was .58. Removing any items did not substantially improve internal consistency.

Parental monitoring (child-report). Children were asked to report how often their primary caregiver knows what the child does during his/her free time; knows

which friends the child hangs out with during his/her free time; asks the child about things that happened when they are not together; makes the child say where he/she is going and who he/she is going with before he/she goes out; and knows what the child spends his/her money on. Response categories are 0=never true, 1=sometimes true, 2=often true, 3=always true. Responses across items were summed and divided by the number of items answered to produce an average score. Higher scores indicate greater monitoring. Cronbach's alpha for the scale was .47. Removing any of the items did not improve internal consistency.

Moderators

Child gender was a proposed moderator of the CVE and EBP relationship. Income, social capital, and self-efficacy were proposed moderators of the relationship between CVE and management strategies.

Child gender. Child gender was assessed as 0=male or 1=female.

Income. Income was assessed using the income-to-poverty ratio. This ratio is obtained by dividing total household income by the Federal Poverty Line (FPL) based on household size, producing a continuous score. Scores of below '1' indicate the family is below the FPL, while scores greater than '1' indicate the family is above the FPL.

Social capital. Social capital was measured using questions from the informal social control and social cohesion and trust scales of Sampson and colleagues' (1997) measure of collective efficacy. Respondents indicate the likelihood that neighbors would get involved in the following events: "If children were skipping school and

hanging out on the street,” “If children were spray painting on buildings with graffiti,” “If children were showing disrespect to an adult,” “If a fight broke out in front of the house or building,” and “If the fire station closest to the neighborhood was threatened and its budget cut.” Responses include 5=very likely, 4=somewhat likely, 3=not very likely, 2=very unlikely. Also, respondents also indicated the extent of their agreement with the following items: “People around here are willing to help their neighbors,” “This is a close-knit neighborhood,” “People in this neighborhood can be trusted,” “People in this neighborhood generally don’t get along with each other,” and “People in this neighborhood do not share the same values.” The last two items are reverse coded. Responses are on a Likert-type scale and include 4=strongly agree, 3=somewhat agree, 2=somewhat disagree or 1=strongly disagree. Respondents are also asked “How many of the families on your block would you say that you know well?” Responses include 4=almost all, 3=most, 2=some, 1= very few, and 0=none. Principle components analysis indicated that all items loaded significantly on the same component. Scores from the eleven items are summed to produce a total score and divided by the number of questions answered to produce an average score. Higher scores indicate higher levels of social capital. Cronbach’s alpha for the scale was .86.

Self-efficacy. To assess self-efficacy, mothers indicated the extent of their agreement with the statements, “I have little control over the things that happen to me,” “There is really no way I can solve some of the problems I have,” “There is little I can do to change many of the important things in my life,” “I often feel helpless in dealing with problems,” and “Sometimes I feel that I’m being pushed around.”

Responses were reverse coded, such that 1=strongly agree, 2= somewhat agree, 3=somewhat disagree, 4=strongly disagree. Higher scores indicate higher self-efficacy. A total average score was produced by summing item totals and dividing the number of items. Cronbach's alpha was .78. Because the distribution of responses was highly skewed toward high self-efficacy, self-efficacy scores were divided into categories, the bottom 25% of scores (low self-efficacy) and all others.

Control Variables

Control variables for the cross-sectional models included children's temperament, maternal depression, maternal education, maternal race, number of children in the household, family structure, intimate partner violence, and residential stability.

Child's temperament. Children's temperament was assessed at year one when children were one-year old using the Emotionality section of the Emotionality, Activity, and Sociability Temperament Survey for Children (EAS; Mathieson & Tambs, 1999). Emotionality is the tendency to become aroused easily and intensely. Parents were asked to indicate the extent to which their child often fusses and cries, gets upset easily, and reacts strongly when upset. Responses range from 1=not at all like my child to 5=very much like my child. Scores were summed and divided by the number of answered item to produce a total score. Higher scores indicate more emotionality. Cronbach's alpha was .60.

Maternal depression. Maternal depressive symptoms in the sample were assessed using the Major Depression Episode (MDE) subscale of the Composite International Diagnostic Interview – Short Form (CIDI-SF; Kessler et al., 1998). The

measure was constructed based on criteria for Major Depression found in the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (DSM-IV; APA, 1994). Reliability and validity of the instrument have been previously established (Kessler & Walters, 1998).

Respondents were asked whether they experienced two weeks of either depression or the inability to enjoy pleasurable things during the past year. If the respondents responded affirmatively and indicated that symptoms occurred almost every day and lasted for at least half of the day, they were asked additional questions concerning loss of interest, tiredness, change in weight, trouble sleeping, trouble concentrating, feeling worthless, and thoughts about death. The present study uses a constructed dichotomous depression variable already present in the dataset created by the Fragile Family staff (1=depressed, 0=not depressed) based on scoring the CIDI-SF.

Maternal education. Education was divided categorically into less than a high school degree, a high school degree or equivalent, some college or technical school, and college degree or graduate degree. Less than a high school degree was included as the reference group in analyses.

Maternal race. Racial/ethnic categories include Hispanic, non-Hispanic Black, non-Hispanic White, and other. Because of small response rates for some races/ethnicities, “other” includes Asian, American Indian/Alaskan Native, and those who identified as “other” race/ethnicity on the survey. White was included as the reference group in analyses.

Number of children in the household. The number of children in the family was assessed as the number of children in the household at year nine.

Family structure. Though all mothers were unmarried at baseline, they may have married during the intermediate period. Using a dummy-variable, mothers were classified by whether they were in a marital/cohabitating relationship=1 or single=0 at year nine.

Intimate partner violence (IPV). IPV was assessed using questions from year nine which ask the mother whether her partner “tries to keep you from seeing or talking with your friends or family,” “tries to prevent you from going to work or school,” “withholds money, makes you ask for money, or takes your money,” “slaps or kicks you,” “hits you with a fist or an object that could hurt you,” “tries to make you have sex or do sexual things you don’t want to do,” “throws something at you,” and “pushes, grabs, or shoves you.” Responses include 2=often, 1=sometimes, 0=never. Scores were initially summed and divided by the number of answered questions. Cronbach’s alpha for the continuous scale was .82. Because the distribution was skewed due to a large proportion of scores of 0, a category was created representing 1=report of some IPV and 0=no report of IPV. The categorical variable was used in analyses.

Residential stability. At each wave, mothers are asked if they had moved since the date of their last interview and how many times they had moved. Because the distribution was highly skewed toward fewer moves, categories were constructed reflecting no moves, one move, and two or more moves. The category reflecting no moves was used as the reference category.

Table 1

Summary of Variables for the Cross-Sectional Models

Type of Variable	Variables
Independent Variable	CVE (Continuous) CVE (Categorical) Perception of Neighborhood Danger*
Dependent Variable	EBP
Mediators of CVE and EBP	
Promotive Family Management	Parental Involvement with Children in Home Parental Involvement in Children's Schools Children's Involvement in Organized Activities
Preventive Family Management	Parental Monitoring (Mother-Report) Parental Monitoring (Child-Report) Harsh Discipline
Moderators of CVE and Family Management Resources	Income Social Capital Maternal Self-Efficacy
Moderator of CVE and EBP	Children's Gender
Control Variables	Children's Temperament Maternal Depression Maternal Education Maternal Race Number of Children in the Household Family Structure (Single or Married/Cohabiting) Intimate Partner Violence Residential Stability

*Not included in final models

Measures for Change Model

Below are the measures used for the change model. Variables were created to capture change between year five and year nine, with the exception of externalizing behavior problems. Externalizing behavior problems at year nine is used as the dependent variable, and change is captured by controlling for externalizing behavior problems reported at year five.

Independent variable: Change in CVE

A description of how CVE was assessed can be found above. Categories assessing change in CVE were constructed by dichotomizing CVE into those who had a CVE score of 0 and those who had a CVE score of greater than 0. This method was chosen because of the large number of 0 scores. This was done for CVE at year five and year nine, respectively. Then, categories were constructed representing change between year five and year nine: CVE at neither year, CVE at both years, CVE at year five only, and CVE at year nine only.

Dependent Variable: Externalizing Behavior Problems at Year Nine

A description of how EBP at year 9 was assessed can be found above.

Control Variables

Externalizing behavior problems at year five. EBP at year five was assessed in the same manner as EBP at year nine. Specifically, maternal report of EBP was determined using the externalizing subscale of the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). Externalizing behavior was derived by summing the scores of the items from the aggressive behavior and rule-breaking behavior subscales. Thirty items were used. For this measure, parents were asked to endorse the extent to which their child exhibits certain behaviors. Responses were summed across all items producing a total externalizing behavior score. Scores were divided by the number of items answered to produce an average score. Higher scores indicate more externalizing behavior. Cronbach's alpha at year five was .87.

Change in income. Categories were developed based on the amount of change in income using the income-to-poverty ratio (described above). Categories include the middle (25th to 75th percentile) of the distribution with the least amount of change, the 25% of the distribution with the greatest decrease in resources, and the 25% with the greatest increase in resources.

Change in maternal depression. Variables constructed by the Fragile Families staff indicating whether the respondent was depressed at year five and year nine, respectively, were used to construct categories reflecting depression status over the two years. Categories include no change in depression, which encompassed both depressed at neither year and depressed at both years; depressed at year five only; and depressed at year nine only.

Change in number of children in the family. A variable was constructed representing the change in number of children in the household over the two years. Categories include no change, more children, and fewer children.

Change in family structure. Categories were constructed to reflect whether mother's relationship status changed between years five and nine. Categories included 1) no change in relationship status (not in a relationship at either year or in a relationship at both years), 2) in a relationship at year five only, and 3) in a relationship at year nine only.

Change in IPV. Categories were constructed to reflect changes in IPV between years five and nine. Categories include 1) no change in IPV (no IPV at either year or IPV present at both years), 2) IPV at year five only, and 3) IPV at year nine only.

Change in residence. At each wave, mothers are asked if they have moved since the date of their last interview and how many times they have moved. Categories were constructed reflecting a change in residence and no change in residence.

Preliminary Analyses to Inform Development of Measures

All analyses were conducted using SAS 9.4 Software (SAS Institute Inc.).

Inclusion of Perception in the Model

As part of preliminary analysis, the relationship between CVE and the dichotomous perception of neighborhood danger was examined to determine whether perception of neighborhood danger should be incorporated into the measure of CVE. The bivariate correlation between CVE and perception of neighborhood danger was $r = .33, p < .001$. To test the importance of including perception of neighborhood danger in the model, categories were constructed wherein perceived and actual violence were combined. For the purpose of constructing categories, CVE was dichotomized into reporting (1) or not reporting (0) any CVE. These categories were combined with the measure of perception of neighborhood danger.

This resulted in the following categories: no perceived danger and no CVE; perceived danger and no CVE; no perceived danger and CVE; perceived danger and CVE. However, none of these categories was significantly related to externalizing behavior problems, the outcome of interest, so perception was not included in the model.

Factor Analysis of Family Management Variables

Initially, Principle Components Analysis (PCA) was proposed as a data reduction technique to 1) determine if promotive and preventive were appropriate distinctions for categories of family management and 2) create an overall measure of promotive and preventive family management strategies, respectively. When items were combined and analyzed to determine whether proposed categories were appropriate, results from the PCA were not interpretable. Therefore, items were retained in their original scales and tested using PCA to ensure that items for each scale loaded on one component. This was the case for all of the scales except for discipline. For discipline, items loaded on and were most easily interpreted using two separate components.

Discipline. The fourteen items from the Parent Child Conflict Tactics Scales were analyzed using PCA in accordance with procedures outlined by O'Rourke, Hatcher, & Stepanski (2009). To extract components, the principle axis method, followed by a varimax (orthogonal) rotation was used. Using the principle axis method, four components had Eigenvalues greater than 1, indicating potentially viable components. However, the last two components did not have at least three items with significant loadings and were subsequently excluded. Next, a two component solution was tried using varimax rotation. The two components accounted for 43% of the total variance.

To interpret the rotated factor solution, an item was considered to load on a particular component if the loading was .35 or greater on one component and .35 or less on the other. Shaking the child and threatening to kick the child out of the house

did not load on either component, and therefore, these items were excluded. Shouting at the child and threatening to spank the child without following through on the threat loaded significantly on both factors, so these items were excluded as well. Of the remaining items, explaining to the child why something he/she did was wrong, putting the child in “time out,” giving the child something else to do instead of what he/she was doing, and taking away the child’s privileges loaded on component 1. The items hitting the child on the bottom with a hard object, spanking the child with one’s hand, swearing at the child, slapping the child, pinching the child, and calling the child names loaded on component 2. The components were interpreted as positive discipline and harsh discipline.

Item values across these scales were summed and divided by the number of answered questions to produce final scores for each construct. However, these two scales were very highly correlated, $r = .46$, $p < .001$, so to avoid issues of multicollinearity (Allison, 1999), only harsh discipline was examined. Harsh discipline was selected because of the theoretical interest in a strategy that may serve the function of preventive management, to keep children out of harm’s way, but may itself produce negative consequences. Additionally, harsh discipline has been shown to be associated with children’s externalizing behavior problems (Beyers et al., 2003).

Addressing Missing Data

Data for this study come from multiple waves and components (e.g., core and in-home interviews) of the Fragile Families and Child Wellbeing Study, and not all respondents participated in every wave or component for each wave. Multiple imputation (MI) of missing data was used in order to address potential bias and loss

of power from analyzing only complete cases. MI obtains valid inferences by estimating the distribution of missing data based on the observed data. The use of MI requires a large sample size and the assumption that the data are missing at random. MI occurs in three stages. First, the imputation model is defined and missing values are imputed. In this process, all key analysis variables, variables that are correlated with the analysis variables, and variables that predict item missing on analytic variables are included. Multiple copies of the dataset are created, replacing missing values with imputed values. Second, analytic models are fitted to each of the created datasets. Third, results from all models are averaged together to provide overall estimated associations and standard errors (Berglund & Heeringa, 2014).

For the present study, two MI datasets were created, one dataset for the cross-sectional models and one for the longitudinal change model. For variables included in the cross-sectional models, all variables had missing information for less than 10% of cases, except for IPV, which was missing 16%. For additional variables included in the change model, all variables had missing information for less than 10% of cases, except for CVE at year 5, which was missing 22%.

All variables included in the respective models were included in the respective datasets, including year nine city-level weights. Based on visual inspection of the missing data pattern using the output provided by default using the PROC MI NIMPUTE command, it was determined that the data had an arbitrary pattern of missing data (i.e., there are no particular patterns in the structure of the missing data). The fully conditional specification (FCS) model was used to impute data, because it is an appropriate option for use with arbitrary missing data patterns in datasets with

mixed continuous, nominal, and ordinal variables. Twenty multiple imputation repetitions ($M = 20$) were specified for imputation (i.e., 20 datasets were created). This choice was made because even when the fraction of information missing is high (30-50%), 20 repetitions can maintain a relative efficiency of 95% or greater. Relative efficiency is the extent to which the same results would be achieved with a much greater number of imputation repetitions (Berglund & Heeringa, 2014). Each analysis was conducted using each imputed dataset. Results were combined to produce overall associations and standard errors for each test.

Analytic Strategy

Because key family management variables were only assessed at year nine and not the previous waves, analyses primarily consisted of cross-sectional models. Variables in these models were all assessed at year nine, except for child temperament which was assessed at year one. Controlling for relevant covariates, the models tested the association between the primary independent variable, CVE, and the primary dependent variable, EBP. The associations between CVE and each family management strategy were also tested, as well as the associations between each family management strategy and EBP. Mediation models were then run for any variables meeting the criteria for mediation, discussed below, to determine whether these variables may explain the relationship between CVE and EBP. Models were also tested to determine whether the relationship between CVE and each family management variable varied by resources, as well as whether the relationship between CVE and EBP varied by child gender.

A change model was also tested in order to assess the viability of causality from CVE to EBP. The model examined change in EBP from year five to year nine as a function of change in CVE and other relevant variables. Specific details of these procedures can be found below.

Ordinary least squares regression was used to test hypotheses because the dependent variables were at the interval level. Analyses were conducted using SAS 9.4 Software (SAS Institute Inc.). For all analyses, the PROC SURVEYREG command was used and included city-level weights and replicate weights constructed by the Fragile Families and Child Wellbeing Study.

To test hypothesis 1, that CVE is positively associated with children's externalizing behavior problems, externalizing behavior problems were regressed onto a linear combination of the continuous violence measure, violence category, and control variables (children's temperament, maternal education, maternal age, maternal depression, maternal race, number of children in the home, family structure, income-to-poverty ratio, residential stability, and IPV). Of the control variables, maternal race, maternal education, and residential stability consisted of multiple categories. For maternal race, dummy categories included Black, non-Hispanic; White, non-Hispanic; Hispanic; and Other. White was used as the reference category. For maternal education, dummy categories included less than a high school education, high school education, some college or technical training, and college or graduate education. Less than a high school education was used as the reference category. For residential stability, dummy categories included no moves, one move,

and two or more moves. No moves was used as the reference category. This was consistent for all cross-sectional models.

Hypothesis 2 is a test of moderation, wherein the relationship between two variables is altered as a function of a third. According to Baron and Kenny (1986), for cases with a continuous independent variable (continuous CVE) and a categorical moderator (gender), the linear hypothesis is tested by including the product of the independent variable and the moderator in a regression model that also controls for the main effects of the independent and moderator variables. If the product is a significant predictor in the regression model, moderation effects are indicated. Therefore, hypothesis 2, that there is a stronger association between CVE and externalizing behavior problems for boys than for girls, was tested by regressing externalizing behavior problems onto a linear combination of the continuous violence measure, violence category, control variables and child's gender. Next, an interaction term for continuous violence and child's gender was added to the model.

To test hypothesis 3, that CVE is negatively associated with promotive family management strategies, each promotive family management strategy was regressed onto a linear combination of CVE, control variables, and moderators (income-to-poverty ratio, social capital, and self-efficacy) to assess independent effects.

To test hypotheses 4a and 4b, that a) CVE is negatively associated with monitoring and b) CVE is positively associated with harsh discipline, each preventive family management strategy was regressed onto a linear combination of CVE, control variables, and moderators (income-to-poverty ratio, social capital, self-efficacy) to assess independent effects.

Hypotheses 5 – 10 also include tests of moderation. As two of the proposed moderators (income and social capital) of the CVE-family management relationships were assessed using continuous measures, these tests of moderation include a continuous independent variable and continuous moderators. To test for moderation in this case, Baron and Kenny (1986) recommend a similar strategy as that for tests of moderation with a continuous independent variable and categorical moderator (see above). In these cases, tests for moderation also include adding the product of the independent variable and the moderator to a regression model that also controls for the independent effects of each. If the product is significant, then there is evidence of moderation. Further assessment of the effects of the independent variable at each level of the moderator can be accomplished using procedures outlined by Aiken and West (1991).

To test hypotheses 5-7, which propose that the relationship between CVE and each promotive family management strategy will vary as a function of each proposed moderator, each promotive family management strategy was regressed onto a linear combination of continuous and categorical CVE, control variables, moderators (income, social capital, self-efficacy), and interactions between continuous CVE measure and each moderator variable. Significant interactions were followed up with post hoc analyses to determine the nature of the interaction.

To test hypotheses 8-10, that the relationship between CVE and each preventive family management strategy varies as a function of each proposed moderator, each preventive family management strategy was regressed onto a linear combination of continuous and categorical CVE, control variables, moderators

(income ratio, social capital, self-efficacy), and interactions between continuous CVE measure and each moderator variable. Significant interactions were followed up with post hoc analyses to determine the nature of the interaction.

To test hypothesis 11, that promotive family management strategies are negatively associated with children's externalizing behavior problems, children's externalizing behavior problems were regressed onto a linear combination of each promotive family management strategy and control variables.

To test hypotheses 12a and 12b, that a) monitoring (mother-report and child-report) is negatively associated with EBP and b) harsh discipline is positively associated with EBP, children's externalizing behavior problems were regressed onto a linear combination of each preventive family management strategy and control variables.

To test hypotheses 13, 14a, and 14b, determining if family management strategies explain the relationship between CVE and externalizing behavior problems, criteria laid out by Baron and Kenny (1986) to determine mediation were used. According to Baron and Kenny (1986) in order for a variable to be a mediator of the relationship between two other variables, significant relationships must exist (a) between the independent variable and the mediating variable (Path A), (b) between the mediating variable and the outcome variable (Path B), and (c) between the independent variable and the outcome variable (Path C). Second, the relationship between the independent and outcome variables (Path C) must no longer be significant when the relationship between the independent and mediating variables (Path A) and the relationship between the mediating and outcome variables (Path B)

are controlled. Partial mediation may be demonstrated if the association between the independent and outcome variables, controlling for the mediating variable, is still significantly different from zero but also is lower than the correlation between the independent and outcome variables without the mediator included. If any family management strategies were significantly associated with CVE and with EBP, each was included in a full model wherein EBP were regressed onto a linear combination of continuous and categorical CVE, control variables, and significant moderator variables.

To test hypothesis 15, that change in CVE predicts change in children's EBP, children's EBP at year nine were regressed onto a linear combination of children's EBP at year five, change in violence, change in maternal depression, change in poverty ratio, change in family structure, change in number of children in the household, change in IPV, and change in residence.

Chapter 4: Results

This chapter presents findings concerning the cross-sectional and change models assessing the hypothesized relationships. First, the chapter includes a description of the analytic sample, as well as a comparison of those with complete information and those for whom variables were imputed. Next, regression results concerning the cross-sectional models, which examined the proposed relationships between CVE, EBP, family management strategies, and resources, are presented. Finally, a description of the change variables and the regression results for the change model, which examined the relationship between change in CVE and change in EBP, is presented. For each model, unstandardized regression coefficients and standard errors are provided. A table summarizing the support of hypotheses can be found at the beginning of Chapter Five.

Description of Sample

As previously mentioned, the analytic sample consists of biological mothers unmarried at the time of original data collection who participated in years five and nine of data collection, lived with the children at least some of the time in years five and nine, and were the child's primary caregiver in year nine. This resulted in a sample of 2,310 participants. The same sample was used for both the cross-sectional and change models. Correlations among study variables can be found in Table 2. Bivariate correlations indicate relationships between major independent and dependent variables. Specifically, the correlation between continuous CVE and EBP,

$r = .09, p < .001$, was significant. Correlations are modest, presenting no issues concerning potential multicollinearity.

Table 2
Bivariate Correlations among Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Education																	
2. Depression	-.08***																
3. Temperament	-.11***	.01															
4. Poverty Ratio	.30***	-.10***	-.09***														
5. Family Structure	.04	-.02	.04	-.02													
6. Children	-.14***	.07**	.06	-.30***	.10***												
7. Moves	.03	.14***	-.02	-.15***	.11***	.08***											
8. IPV	.08***	-.01	.00	.21***	-.04	.02	-.07**										
9. CVE (cont.)	-.03	.11***	.01	-.18	.02	.14***	.02	-.10***									
10. EBP	.00	-.12***	.11***	-.08**	.09***	.01	.01	.03	.09***								
11. Involve Home	.10***	-.04	-.15***	-.05*	-.02	-.09***	.06**	-.13***	.10***	-.04							
12. Involve School	.13***	-.03	-.06**	.01	-.03	.01	.02	-.07***	.12***	-.01	.26***						
13. Child Active	.24***	-.03	-.06*	.19***	-.09***	-.13***	.03	-.01	.12***	-.07**	.22***	.32***					
14. Monitor M-R	.17***	-.03	-.15***	.12***	-.02	-.09***	.03	-.06**	.03	-.09***	.20***	.32***	.20***				
15. Monitor C-R	-.08***	-.01	-.07**	-.03	-.01	.02	-.04	-.09***	.04	.01	.04	.06**	-.03	.10***			
16. Harsh Disc.	.11***	.10***	.07**	.04*	.04	.01	.10***	.03	.10***	.32***	.00	-.02	.05*	.04	-.11***		
17. Social Capital	.08***	-.07**	-.08***	.16***	-.09***	-.12***	-.09***	.06**	-.24***	-.11***	.13***	.16***	.15***	.21***	.01	-.04	
18. Self-Efficacy	.23***	-.26***	-.04	.16***	.07**	.01	-.07**	.02	-.13***	-.16***	.08**	.03	.02	.12***	-.02	-.08**	.07**

Descriptive statistics for variables used in the analyses for the cross-sectional models are shown in Table 3. Concerning race/ethnicity, 55% of the sample was Black, non-Hispanic; 31% was Hispanic; 12% was White, non-Hispanic; and 2% were of other race/ethnicity. Most of the mothers in the sample had some college or technical training as their highest level of education (38%), 28% did not have a high school diploma, 27% had a high school diploma, and 7% had a college or graduate degree. For children, 51% were male, and 49% were female. On average, household income was at 135% of the Federal Poverty Line, with 48% of households in poverty. The average number of children in the household was three, and families moved an average of one time between years five and nine. Thirty-six percent of mothers reported CVE (Table 3).

Table 3

Description of Sample, Weighted, Year Nine (N=2,310)

Variables	M(SD), Range or % For Dichotomous Items
Maternal Education	
Less Than High School	27.63
High School	26.59
Some College or Technical School	38.43
College	7.35
Maternal Race/Ethnicity	
Black, Non-Hispanic	55.06
Hispanic	30.83
White, Non-Hispanic	11.68
Other	2.43
Maternal Depression	14.30
Child Sex	
Male	50.99
Female	49.01
Child Temperament (Emotionality)	2.89 (8.59), 0.03 – 6.47
Income-to-Poverty Ratio	1.35 (9.02), 0 – 14.40
Family Structure (Married or Cohabiting)	39.80
Number of Children in Household	2.79 (10.59), 0 – 8
Number of Moves from Year Five to Nine	0.95 (9.07), 0 – 20
None	45.69
One	28.65
Two or More	25.64
Experienced Intimate Partner Violence	28.51
CVE (Continuous)	0.44 (8.39), 0 – 11
CVE (Categorical)	35.74
Child Externalizing Behavior Problems	0.25 (1.94), 0 – 2
Promotive Family Management Strategies	
Parental Involvement with Child at Home	2.79 (4.88), 0 – 4.32
Parental Involvement in Child's Schools	0.88 (3.66), 0 – 2.60
Child's Involvement in Organized Activities	0.37 (2.07), 0 – 1.14
Preventative Family Management Strategies	
Parental Monitoring (Mother-Report)	2.77 (5.59), 0.75 – 4.26
Parental Monitoring (Child-Report)	2.22 (4.47), 1 – 4.08
Harsh Discipline	1.31 (16.29), 0 – 25
Social Capital	2.90 (5.19), 0 – 4.45
Low Self-Efficacy	27.90

Comparison of Complete and Incomplete Cases

T-tests were conducted to determine if participants with complete information on all variables differed significantly from those without complete information on study variables. P values were adjusted for multiple comparisons using the Bonferroni method (UCLA: Statistical Consulting Group, 2015). Given the number of t-tests, the significance value was set to $p < .002$. Those with complete information reported more violence, higher emotionality in child temperament, and more changes in residence between year five and year nine. Additionally, those with complete information were more likely to report IPV, less likely to be Black, and more likely to be Hispanic.

Cross-Sectional Models

CVE and EBP

EBP was regressed onto a linear combination of the continuous violence measure, violence category, and control variables (children's temperament, children's gender, maternal education, maternal age, maternal depression, maternal race, number of children in the home, family structure, income-to-poverty ratio, residential stability, and intimate partner violence). Among imputed datasets, this model accounted for an average of 10% of the observed variance in children's EBP. After controlling for other variables in the model, continuous CVE was a significant predictor of children's EBP, $B(SE) = .02(.01)$, $p = .006$ (Table 4).

Gender as a moderator. EBP was regressed onto a linear combination of the continuous violence measure, violence category, control variables, and an interaction

term for continuous violence measure and child's gender. The interaction term was not significant, $B(SE) = -.02(.02)$, $p = .25$, providing no evidence of moderation.

Therefore, we did not test it further in the models.

Control variables. In the main model, child temperament, $B(SE) = .04(.01)$, $p = .03$, maternal depression, $B(SE) = .07(.02)$, $p < .001$, and social capital, $B(SE) = -.03(.01)$, $p = .006$, were significant predictors of children's EBP (Table 4). These variables consistently predicted EBP across all models.

Table 4
*Regression of Children's Externalizing Behavior Problems
on Community Violence Exposure and Controls (N=2,310)*

Variables	Model 1	
	<i>B</i>	<i>SE B</i>
CVE (Continuous)	.02**	.01
CVE (Categorical)	-.03	.06
Child Gender	.05	.03
Child Temperament	.02*	.01
Mother Education: High School	.03	.02
Mother Education: Some College	.01	.02
Mother Education: College	.11	.09
Mother Race/Ethnicity: Black	-.04	.03
Mother Race/Ethnicity: Hispanic	-.03	.04
Mother Race/Ethnicity: Other	.04	.06
Mother Depression	.07***	.02
Income-to-Poverty Ratio	-.02	.02
Family Structure	.05	.02
Intimate Partner Violence	.03	.02
Number of Children in Household	-.01	.01
One Move Since Previous Wave	.00	.02
Two or More Moves Since Previous Wave	-.03	.03
Social Capital	-.03**	.01
Low Self-Efficacy	.03	.03
<i>R</i> ²		.10

Note: **p* < .05. ***p* < .01. ****p* < .001.

CVE and Promotive Family Management Strategies

Each promotive family management strategy was regressed onto a linear combination of CVE, control variables, and proposed moderators (income-to-poverty ratio, social capital, and self-efficacy). Continuous CVE positively predicted parents' activities with children in the home, $B(SE) = .07(.03)$, $p = .04$. This model accounted for 14% of the observed variance (Table 5). Continuous CVE also positively predicted parents' involvement with children's schools, $B(SE) = .04(.01)$, $p = .004$. This model accounted for 10% of the observed variance (Table 6). Categorical CVE positively predicted children's involvement in organized activities, $B(SE) = .06(.03)$, $p = .04$. This model accounted for 17% of the observed variance (Table 7).

Income, social capital, and self-efficacy as moderators. Each promotive family management strategy was regressed onto a linear combination of continuous and categorical CVE, control variables, moderators (poverty ratio, social capital, self-efficacy), and interactions between continuous CVE measure and each moderator variable. In the model predicting parental involvement with children at home, interactions between continuous CVE and income, $B(SE) = .02(.04)$, $p = .50$, social capital, $B(SE) = -.00(.04)$, $p = .98$, and low self-efficacy $B(SE) = .08(.04)$, $p = .06$, were not significant. In the model predicting parental involvement in school, interactions between continuous CVE and income, $B(SE) = -.04(.04)$, $p = .37$, social capital, $B(SE) = .01(.04)$, $p = .87$, and low self-efficacy $B(SE) = .03(.04)$, $p = .43$, were not significant. In the model predicting child involvement in organized activity, interactions between continuous CVE and income, $B(SE) = .01(.03)$, $p = .72$, social

capital, $B(SE) = .02(.02)$, $p = .51$, and low self-efficacy $B(SE) = .01(.03)$, $p = .72$, were not significant.

Income, social capital, and self-efficacy as independent predictors. Social capital was an independent predictor of parental involvement with the child at home, $B(SE) = .14(.05)$, $p < .01$, parental involvement with child's school, $B(SE) = .14(.05)$, $p < .01$, and child's involvement with organized activities, $B(SE) = .06$, $p < .05$. Low self-efficacy was an independent predictor of parental involvement with children at home, $B(SE) = -.12(.04)$, $p < .01$. Income was not a significant predictor of any promotive strategy.

Table 5
*Regression of Parental Involvement with Children on
 Community Violence Exposure and Controls (N=2,310)*

Variables	Model 2	
	<i>B</i>	<i>SE B</i>
CVE (Continuous)	.07*	.03
CVE (Categorical)	.00	.07
Child Gender	-.09*	.04
Child Temperament	-.06**	.02
Mother Education: High School	-.04	.07
Mother Education: Some College	.03	.07
Mother Education: College	.30	.17
Mother Race/Ethnicity: Black	-.16	.12
Mother Race/Ethnicity: Hispanic	-.30	.18
Mother Race/Ethnicity: Other	-.00	.09
Mother Depression	-.04	.09
Income-to-Poverty Ratio	-.06	.03
Family Structure	-.03	.11
Intimate Partner Violence	-.13*	.06
Number of Children in Household	-.05	.04
One Move Since Previous Wave	-.01	.05
Two or More Moves Since Previous Wave	.12	.14
Social Capital	.14**	.05
Low Self-Efficacy	-.12**	.04
<i>R</i> ²		.14

Note: **p* < .05. ***p* < .01. ****p* < .001.

Table 6
*Regression of Parental Involvement with Children's School
on Community Violence Exposure and Controls (N=2,310)*

Variables	Model 3	
	<i>B</i>	<i>SE B</i>
CVE (Continuous)	.04**	.01
CVE (Categorical)	.12	.07
Child Gender	-.05	.05
Child Temperament	-.01	.03
Mother Education: High School	.04	.03
Mother Education: Some College	.11***	.03
Mother Education: College	.16	.11
Mother Race/Ethnicity: Black	.10	.12
Mother Race/Ethnicity: Hispanic	.03	.08
Mother Race/Ethnicity: Other	-.09	.11
Mother Depression	-.05	.04
Income-to-Poverty Ratio	.00	.02
Family Structure	-.03	.06
Intimate Partner Violence	-.06	.08
Number of Children in Household	.00	.01
One Move Since Previous Wave	.05	.03
Two or More Moves Since Previous Wave	.04	.05
Social Capital	.14**	.05
Low Self-Efficacy	.00	.08
<i>R</i> ²	.10	

Note: **p* < .05. ***p* < .01. ****p* < .001.

Table 7
*Regression of Children's Involvement in Organized
 Activities on Community Violence Exposure (N=2,310)*

Variables	Model 4	
	<i>B</i>	<i>SE B</i>
CVE (Continuous)	.03	.02
CVE (Categorical)	.06*	.03
Child Gender	-.03**	.01
Child Temperament	-.00	.01
Mother Education: High School	.01	.04
Mother Education: Some College	.07*	.03
Mother Education: College	.17	.09
Mother Race/Ethnicity: Black	.07*	.03
Mother Race/Ethnicity: Hispanic	.01	.03
Mother Race/Ethnicity: Other	.06	.06
Mother Depression	-.02	.04
Income-to-Poverty Ratio	.03	.02
Family Structure	-.04	.04
Intimate Partner Violence	-.01	.01
Number of Children in Household	-.02	.01
One Move Since Previous Wave	.05	.06
Two or More Moves Since Previous Wave	.04	.04
Social Capital	.06*	.03
Low Self-Efficacy	.01	.01
<i>R</i> ²	.17	

Note: **p* < .05. ***p* < .01. ****p* < .001.

CVE and Preventive Family Management Strategies

Each preventive family management strategy was regressed onto a linear combination of CVE, control variables, and moderators (income-to-poverty ratio, social capital, and low self-efficacy). Continuous CVE positively predicted parental monitoring (mother-report), $B(SE) = .05(.02)$, $p = .01$. This model accounted for 15% of the observed variance (Table 8). Continuous CVE did not predict parental monitoring (child-report), $B(SE) = .01(.03)$, $p = .71$. This model accounted for 6% of the observed variance (Table 9). Continuous CVE positively predicted harsh discipline, $B(SE) = .20(.07)$, $p = .004$. This model accounted for 7% of the observed variance (Table 10).

Income, social capital, and self-efficacy as moderators. Each preventive family management was regressed onto a linear combination of continuous and categorical CVE, control variables, moderators (poverty ratio, social capital, low self-efficacy), and interactions between continuous CVE measure and each moderator variable. Contrary to hypotheses, no interactions were significant. In the model predicting parental monitoring, interactions between continuous CVE and income, $B(SE) = -.06(.07)$, $p = .40$, social capital, $B(SE) = .01(.01)$, $p = .81$, and low self-efficacy, $B(SE) = -.00(.02)$, $p = .84$, were not significant. In the model predicting harsh discipline, interactions between continuous CVE and income, $B(SE) = .10(.15)$, $p = .49$, social capital, $B(SE) = .10(.15)$, $p = .50$, and low self-efficacy, $B(SE) = -.15(.27)$, $p = .58$, were also not significant. Interactions concerning parental monitoring (child-report) were not examined as CVE and parental monitoring (child-report) were not significantly related.

Income, social capital, and self-efficacy as independent predictors. Social capital was a significant and positive predictor of parental monitoring (mother-report), $B(SE) = .23(.04)$, $p < .001$. Income was a significant and positive predictor of parental monitoring (mother-report), $B(SE) = .04(.01)$, $p < .01$, and harsh discipline, $B(SE) = .10$, $p < .05$. Low self-efficacy was not a significant predictor of any preventive strategy.

Table 8
*Regression of Parental Monitoring (Mother-Report) on
 Community Violence Exposure (N=2,310)*

Variables	Model 4	
	<i>B</i>	<i>SE B</i>
CVE (Continuous)	.05**	.02
CVE (Categorical)	.08	.06
Child Gender	-.18*	.09
Child Temperament	-.06*	.03
Mother Education: High School	.03	.14
Mother Education: Some College	.16	.11
Mother Education: College	.19	.12
Mother Race/Ethnicity: Black	-.17*	.07
Mother Race/Ethnicity: Hispanic	-.33**	.10
Mother Race/Ethnicity: Other	-.03	.21
Mother Depression	-.01	.06
Income-to-Poverty Ratio	.04***	.01
Family Structure	-.02	.06
Intimate Partner Violence	-.09	.04
Number of Children in Household	-.03	.01
One Move Since Previous Wave	.12	.10
Two or More Moves Since Previous Wave	.05	.07
Social Capital	.23***	.04
Low Self-Efficacy	-.08	.06
<i>R</i> ²	.15	

Note: * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 9
*Regression of Parental Monitoring (Child-Report) on
 Community Violence Exposure (N= 2,310)*

Variables	Model 5	
	<i>B</i>	<i>SE B</i>
CVE (Continuous)	.01	.03
CVE (Categorical)	.05	.16
Child Gender	-.16**	.06
Child Temperament	-.03	.03
Mother Education: High School	.07	.10
Mother Education: Some College	-.04	.10
Mother Education: College	-.15	.22
Mother Race/Ethnicity: Black	-.09	.07
Mother Race/Ethnicity: Hispanic	.01	.08
Mother Race/Ethnicity: Other	-.01	.13
Mother Depression	-.03	.05
Income-to-Poverty Ratio	.00	.02
Family Structure	-.01	.03
Intimate Partner Violence	-.12	.08
Number of Children in Household	.01	.03
One Move Since Previous Wave	-.01	.07
Two or More Moves Since Previous Wave	-.07	.08
Social Capital	.03	.03
Low Self-Efficacy	.06	.13
<i>R</i> ²	.05	

Note: **p* < .05. ***p* < .01. ****p* < .001.

Table 10
*Regression of Harsh Discipline on Community Violence
 Exposure and Controls (N=2,310)*

Variables	Model 6	
	<i>B</i>	<i>SE B</i>
CVE (Continuous)	.20**	.07
CVE (Categorical)	-.14	.27
Child Gender	.30	.21
Child Temperament	.13	.11
Mother Education: High School	.03	.24
Mother Education: Some College	.31*	.15
Mother Education: College	.87	.81
Mother Race/Ethnicity: Black	.24	.23
Mother Race/Ethnicity: Hispanic	-.30	.25
Mother Race/Ethnicity: Other	.07	.80
Mother Depression	.53*	.25
Income-to-Poverty Ratio	.10*	.04
Family Structure	.18	.21
Intimate Partner Violence	.19	.15
Number of Children in Household	.01	.04
One Move Since Previous Wave	.12	.15
Two or More Moves Since Previous Wave	.30	.16
Social Capital	-.06	.10
Low Self-Efficacy	.08	.18
<i>R</i> ²	.07	

Note: **p* < .05. ***p* < .01. ****p* < .001.

Promotive Family Management Strategies and Children's EBP

Children's EBP was regressed onto a linear combination of each promotive family management strategy and control variables. No promotive strategies were significantly associated with children's EBP (Table 11).

Table 11
Regression of Children's Externalizing Behavior Problems on Promotive Family Management (N=2,310)

Variables	Model 7		Model 8		Model 9	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
Parental Involvement with Child	-.01	.01	.	.	.	.
Parental Involvement at School	.	.	.01	.02	.	.
Child Organized Activities	.	.	.	.	-.05	.05
Child Gender	.05	.03	.05	.03	.05	.03
Child Temperament	.02*	.01	.02*	.01	.02*	.01
Mother Education: High School	.01	.02	.01	.02	.01	.02
Mother Education: Some College	.00	.02	.00	.02	.00	.01
Mother Education: College	.10	.09	.10	.09	.11	.09
Mother Race/Ethnicity: Black	-.04	.03	-.04	.03	-.03	.03
Mother Race/Ethnicity: Hispanic	-.03	.03	-.03	.03	-.03	.04
Mother Race/Ethnicity: Other	.05	.06	.05	.06	.05	.06
Mother Depression	.09***	.02	.09***	.02	.09***	.02
Income-to-Poverty Ratio	-.02	.01	-.02	.01	-.02	.01
Family Structure	.05	.03	.05	.04	.05	.03
Intimate Partner Violence	.02	.02	.03	.02	.02	.02
Number of Children in Household	-.01	.01	-.00	.01	-.01	.01
One Move Since Previous Wave	-.01	.02	-.01	.02	-.00	.02
Two or More Moves Since Previous Wave-.02	-.02	.03	-.03	.03	-.02	.03
<i>R</i> ²	.07		.07		.07	

Note: **p* < .05. ***p* < .01. ****p* < .001.

Preventive Strategies and Children's EBP

Children's EBP was regressed onto a linear combination of each preventive family management strategy and control variables. Parent monitoring (mother-report) negatively predicted children's externalizing behavior, $B(SE) = -.02(.01)$, $p = .04$, and harsh discipline positively predicted children's externalizing behavior, $B(SE) = .04(.01)$, $p < .001$. These models accounted for 7% and 16% of the observed variance, respectively. Parent monitoring (child-report) did not significantly predict children's externalizing behavior (Table 12).

Table 12
Regression of Children's Externalizing Behavior Problems on Preventive Family Management Strategies (N=2,310)

Variables	Model 10		Model 11		Model 12	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
Parental Monitoring (Mother-Report)	-.02*	.01	.	.	.	.
Parental Monitoring (Child-Report)	.	.	.02	.01	.	.
Harsh Discipline	.	.	.	.	.04***	.01
Child Gender	.05	.03	.05	.04	.04	.03
Child Temperament	.02*	.01	.03*	.01	.04**	.03
Mother Education: High School	.01	.02	.01	.02	.01	.02
Mother Education: Some College	.00	.02	.00	.02	-.01	.01
Mother Education: College	.10	.09	.10	.09	.07	.06
Mother Race/Ethnicity: Black	-.04	.03	-.04	.03	-.05	.03
Mother Race/Ethnicity: Hispanic	-.04	.03	-.03	.03	-.02	.04
Mother Race/Ethnicity: Other	.05	.06	.05	.06	.05	.04
Mother Depression	.09***	.02	.09***	.02	.07***	.02
Income-to-Poverty Ratio	-.02	.01	-.02	.02	-.03	.02
Family Structure	.05	.04	.05	.04	.04	.03
Intimate Partner Violence	.02	.02	.03	.02	.02	.02
Number of Children in Household	-.01	.01	-.01	.01	-.01	.01
One Move Since Previous Wave	-.00	.02	-.01	.02	-.01	.02
Two or More Moves Since Previous Wave-.02	-.03	.03	-.02	.03	-.04	.03
<i>R</i> ²	.07		.07		.16	

Note: * $p < .05$. ** $p < .01$. *** $p < .001$.

Preventive Strategies as Mediators of CVE and Children's EBP

EBP was regressed on full models, which included continuous and categorical CVE, control variables, proposed moderators (child gender, income-to-poverty ratio, social capital, and low self-efficacy), as well as parental monitoring (mother-report) and harsh discipline, respectively. Full models were tested using only parental monitoring (mother-report) and harsh discipline. Those strategies were significantly predicted by CVE and significantly predicted children's EBP, and therefore, were the only strategies that could potentially meet the criteria for mediation.

Because the proposed moderators of the CVE-family management strategies relationships were not included in the models examining the family management strategies-EBP relationships, two additional models were run that regressed EBP on parental monitoring and the proposed moderators, as well as harsh discipline and the proposed moderators to ensure that the variables were consistent across all models.

Parental monitoring (mother-report). Initially, parental monitoring predicted EBP. However, to ensure that parental monitoring was a mediator, variables included in other models needed to be consistent across models used to test for mediation. When these variables (social capital and low self-efficacy) were included in the model regressing EBP onto parental monitoring (mother-report) and controls, parental monitoring was no longer a significant predictor of EBP. Therefore, the criteria for mediation set forth by Baron and Kenny (1986) could not be met. The model explained 9% of the observed variance (Table 13).

Table 13

Regression of Children’s Externalizing Behavior Problems on Community Violence Exposure, Parental Monitoring (Mother-Report), and Controls (N=2,310)

Note: * $p < .05$. ** $p < .01$. *** $p < .001$

Variables	Model 12		Model 13		Model 14	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
CVE (Continuous)	.02**	.01	.	.	.02**	.01
CVE (Categorical)	-.03	.06	.	.	-.03	.06
Parental Monitoring (Mother-Report)	.	.	-.01	.01	-.02	.01
Child Gender	.05	.03	.05	.04	.05	.04
Child Temperament	.02*	.01	.02*	.00	.02*	.01
Mother Education: High School	.03	.02	.02	.02	.03	.02
Mother Education: Some College	.01	.02	.01	.02	.01	.02
Mother Education: College	.11	.09	.12	.08	.11	.09
Mother Race/Ethnicity: Black	-.04	.03	-.04	.03	-.04	.03
Mother Race/Ethnicity: Hispanic	-.03	.04	-.04	.04	-.03	.04
Mother Race/Ethnicity: Other	.04	.06	.04	.06	.04	.06
Mother Depression	.07***	.02	.08***	.01	.07***	.02
Income-to-Poverty Ratio	-.02	.02	-.02	.02	-.02	.02
Family Structure	.05	.02	.04	.03	.04	.03
Intimate Partner Violence	.03	.02	.02	.02	.02	.02
Number of Children in Household	-.01	.01	-.01	.01	-.01	.01
One Move Since Previous Wave	.00	.02	-.00	.02	-.00	.02
Two or More Moves Since Previous Wave	-.03	.03	-.03	.03	-.03	.03
Social Capital	-.03**	.01	-.04**	.01	-.03**	.01
Low Self-Efficacy	.03	.03	.03	.04	-.03	.03
<i>R</i> ²	.09		.08		.09	

Harsh discipline. When harsh discipline was included in the full model, the association between CVE and children’s EBP was no longer significant, $B(SE) = .01(.01), p = .14$. The model explained 17% of the observed variance (Table 14).

Table 14

Regression of Children's Externalizing Behavior Problems on Community Violence Exposure, Harsh Discipline, and Controls (N=2,310)

Variables	Model 14		Model 15		Model 16	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
CVE (Continuous)	.02**	.01	.	.	.01	.01
CVE (Categorical)	-.03	.06	.	.	-.03	.05
Harsh Discipline	.	.	.04***	.01	.04***	.01
Child Gender	.05	.03	.04	.03	.04	.03
Child Temperament	.02*	.01	.02*	.01	.02**	.01
Mother Education: High School	.03	.02	.02	.02	.03	.02
Mother Education: Some College	.01	.02	-.00	.02	-.00	.02
Mother Education: College	.11	.09	.08	.06	.08	.07
Mother Race/Ethnicity: Black	-.04	.03	-.05	.03	-.05	.03
Mother Race/Ethnicity: Hispanic	-.03	.04	-.02	.04	-.02	.05
Mother Race/Ethnicity: Other	.04	.06	.04	.04	.04	.04
Mother Depression	.07***	.02	.05**	.01	.05***	.01
Income-to-Poverty Ratio	-.02	.02	-.02	.02	-.02	.02
Family Structure	.05	.02	.04	.02	.04	.03
Intimate Partner Violence	.03	.02	.02	.02	.02	.02
Number of Children in Household	-.01	.01	-.01	.01	-.01	.01
One Move Since Previous Wave	.00	.02	-.01	.02	-.00	.02
Two or More Moves Since Previous Wave	-.03	.03	-.04	.03	-.04	.03
Social Capital	-.03**	.01	-.03**	.01	-.03*	.01
Low Self-Efficacy	.03	.03	-.02	.04	.03*	.02
<i>R</i> ²		.09		.17		.17

Note: * $p < .05$. ** $p < .01$. *** $p < .001$.

Change Model

Description of Sample

As previously mentioned, the same sample is used for the cross-sectional and change models. Descriptive statistics for variables representing change are presented in Table 15.

Table 15
Description of Change Variables, Weighted (N=2,310)

Variables	M(SD), Range or %
Externalizing Behavior Problems Year 9	0.25(1.93), 0-2
Externalizing Behavior Problems Year 5	0.47(2.30), 0-2
Violence Neither Year	35.08
Violence Both Years	26.49
Violence Year Five Only	29.18
Violence Year Nine Only	9.25
Same Income	52.03
Less Income	25.47
Greater Income	22.50
No Change in Depression	81.77
Depression Year Five Only	9.14
Depression Year Nine Only	9.09
Same Number of Children in Household	47.55
Increase of Children in Household	37.66
Decrease of Children in Household	14.78
Change in Residence	54.31
No Change in IPV	69.61
IPV Year Five Only	11.09
IPV Year Nine Only	19.30
No Change in Marital/Cohabiting Relationship	52.12
Married or Cohabiting Year Five Only	31.03
Married or Cohabiting Year Nine Only	16.85

Regression Results

Change in CVE and children's EBP. Children's EBP at year nine was regressed onto a linear combination of children's EBP at year five, change in violence (CVE at neither year, CVE at both years, CVE at year five only, and CVE at year nine only), change in maternal depression, change in poverty ratio, change in family structure, change in number of children in the household, change in IPV, and change in residence. Experiencing CVE only at year five and not at year nine significantly predicted EBP at year nine, $B(SE) = -.03(.01)$, $p = .01$. The model accounted for 25% of the observed variance (Table 16).

Control variables. Mother's depression at year nine only significantly predicted EBP at year nine. No control variables were significant predictors.

Table 16

Regression of Children's Externalizing Behavior Problems on Change in Community Violence Exposure and Controls (N=2,310)

Variables	Model 17	
	<i>B</i>	<i>SE B</i>
Externalizing Behavior Problems Year 5	.41	.07
Violence Both Years	-.03	.03
Violence Year Five Only	-.03**	.01
Violence Year Nine Only	.02	.06
Less Income	-.02	.02
Greater Income	-.00	.02
Depression Year Five Only	.01	.06
Depression Year Nine Only	.06*	.02
Increase of Children in Household	-.03	.03
Decrease of Children in Household	-.02	.06
Change in Residence	-.01	.02
IPV Year Five Only	.02	.02
IPV Year Nine Only	-.00	.02
Married or Cohabiting Year Five Only	-.02	.02
Married or Cohabiting Year Nine Only	.01	.04
<i>R</i> ²	.25	

Note: **p* < .05. ***p* < .01. ****p* < .001.

Chapter 5: Discussion

Review of Findings

The present study sought to contribute to the literature by examining the extent to which CVE is associated with children's externalizing behavior problems; whether the relationship between CVE and children's externalizing behavior is moderated by gender; whether CVE is associated with family management strategies; whether the relationship between CVE and family management strategies vary by income, social capital, or maternal self-efficacy; and whether family management strategies influence children's externalizing behavior problems in a sample of nine-year-old children. This chapter reviews support for research questions and discusses the implications of the findings for theory, policy, and practice; limitations of the study; and directions for future research. A summary of support for hypotheses can be found in Table 17.

Table 17
Support for Hypotheses

Hypothesis	Result
CVE – EBP	
1. CVE will be positively associated with children’s EBP.	Supported
Moderation of CVE – EBP	
2. Gender will moderate the association between CVE and EBP.	Not Supported
CVE – Family Management Strategies	
3. CVE will be negatively associated with promotive family management strategies.	Not Supported (Significant Positive Association)
4a. CVE will be negatively associated with monitoring (mother-report and child-report).	Not Supported (Mother-Report: Significant Positive Association; Child-Report: No Association)
4b. CVE will be positively associated with harsh discipline.	Supported
Moderation of CVE-Family Management	
5-10 The associations between CVE and family management strategies will vary by income, social capital, and self-efficacy.	Not Supported (No Interactions)
Family Management – EBP	
11. Promotive family management strategies will be negatively associated with children’s EBP.	Not Supported
12a. Monitoring (mother-report and child-report) will be negatively associated with EBP.	Supported for Mother-Report Not Supported for Child-Report
12b. Harsh discipline will be positively associated with children’s EBP.	Supported
Mediation of CVE – EBP	
13. Specifically, CVE will be positively associated with promotive family management strategies, which in turn will be negatively associated with EBP. Accounting for promotive strategies will reduce the association between CVE and EBP.	Not Supported
14a. CVE will be negatively associated with monitoring, which in turn will be negatively related to EBP. Accounting for monitoring will reduce the association between CVE and EBP.	Not Supported
14b. CVE will be positively associated with harsh discipline, which in turn will be positively associated with EBP. Accounting for harsh discipline will reduce the association between CVE and EBP.	Supported
Changed in CVE-Change in EBP	
15. Change in CVE will predict change in children’s EBP.	Partially Supported (Only prior violence related)

RQ1: Is CVE associated with children's EBP? CVE was significantly and positively associated with EBP, suggesting that CVE may disrupt children's social development. This finding is congruent with previous literature, which found that CVE positively predicts EBP (e.g., Fowler et al., 2009). However, it is the amount, rather than the mere presence, of CVE that seems to be important. Although the continuous CVE variable predicted EBP, the categorical CVE variable, which signified the presence or absence of CVE, did not predict EBP.

RQ2: Does the relationship between CVE and children's behavior problems vary by gender? The relationship between CVE and EBP did not vary by gender. Although externalizing behavior problems are more common among boys than girls (Hinshaw, 1987), findings concerning variation in the CVE-EBP relationship by gender are mixed (Farrell & Bruce, 1997; Foster et al., 2004; Maschi, et al., 2008; Salzinger et al., 2011; Spano et al., 2009). This suggests that other variables may need to be considered concerning gender and the CVE-EBP relationship, such as age or type of exposure. An important consideration for this study is that the children were only 9-years-old, an age at which gender differences in independence from parents may be minimal.

RQ3: Is CVE associated with promotive and preventive family management strategies?

Promotive strategies. It was hypothesized that CVE would negatively predict specific promotive strategies. Contrary to predictions, mothers who reported more CVE were more likely to engage in the promotive strategies of parental involvement with children at home and parental involvement in children's schools. Additionally,

compared to mothers who did not report CVE, mothers who reported CVE also reported greater involvement of their children in organized activities.

In the literature review, scant research examined the relationship between CVE and promotive strategies. However, in the present study, CVE is clearly associated with the assessed promotive strategies, indicating that mothers may be engaging in active coping – coping that is prosocial and aimed at long-term impacts – in the context of community violence.

Preventive strategies: Parental monitoring. Contrary to predictions that CVE would be associated with less monitoring, mothers who reported more CVE were also more likely to report engaging in monitoring. Similarly, O’Neil and colleagues (2001) found that mothers’ perceptions of neighborhood danger were associated with greater limitation of children’s activities, and limitation of activities was associated with greater prosocial behavior in children. However, this finding contrasts with other research, which has found that CVE is associated with poorer parenting practices (Fowler, Toro, Tompsett, and Baltes, 2009; Spano et al., 2009). In yet another vein, Colder and colleagues (2000) found that mothers’ and children’s perceptions of neighborhood danger did not relate to parenting practices, defined as parental involvement, restrictive discipline, and parental monitoring.

Various ages at time of assessment may account for variations in findings concerning the relationship between CVE and parenting practices. Youth in the study by O’Neil and colleagues (2001) were in third grade. Fowler and colleagues (2009) utilized a sample of adolescents, and the sample from Spano and colleagues (2009) were aged 9-19. Colder and colleagues (2000) used a sample of youth in 5th grade.

The samples from O'Neil and colleagues (2001) and Colder and colleagues (2000) were most similar in age to the present sample, and found a positive relationship and no relationship, respectively, between neighborhood danger and CVE. Though conclusions drawn from these age differences are tenuous due to the small, unrepresentative samples used by the studies, it is possible that parents feel they have greater control over their younger children and seek to exert that control in the context of CVE. As children age and become more autonomous, that sense of control may decline, resulting in less monitoring.

Another potential explanation for variations in findings may be disparate methods of measurement for community violence. To assess exposure to community violence, both Fowler and colleagues (2009) and Spano and colleagues (2009), who both found a negative relationship between CVE and parenting practices, used youth reports of witnessing and victimization. O'Neil and colleagues (2001), who found a positive relationship, defined perceptions of neighborhood danger as mothers' perceptions of the extent to which muggings, gangs, and drugs occur in the neighborhood. Colder and colleagues (2000), who found no relationship, used child-report frequency of occurrence of fights, stabbings and shootings, and robberies, as well as parent report of frequency of public drinking, drug sales or use, people taking advantage of each other, and gang fights. These conceptualizations of neighborhood danger differed from what was proposed in the present study. The present study sought to consider perception of neighborhood danger using a single-item indicator assessing parents' fear of letting children play outside because of violence in the

neighborhood. However, this item was not incorporated in the model because of lack of relationship with other study variables.

Previous research has not made a distinction between types of violence exposure (victimization, witnessing, or hearing about violence), reporter of the exposure (parent or youth), and perceptions of the extent to which one's neighborhood is a dangerous place when investigating the relationship between community violence and subsequent parenting and management practices. Given current findings and previous studies, these may be important distinctions to make.

In the present study, mothers' witnessing of CVE was used as an indicator of overall CVE. However, there may be an important difference in mothers' family management strategies in response to victimization by community violence, witnessing community violence, and perceiving the neighborhood to be dangerous. Mothers who experience victimization may be overwhelmed by the experience, which may interfere with their parenting, while witnessing CVE or perceiving the neighborhood as a dangerous place may sensitize mothers to dangers in their environment, prompting them to take a proactive approach to their family management.

Unlike mother-report, child-report of parental monitoring was not significantly associated with CVE. This may indicate an issue with common-method variance, which occurs when variance is attributable to similarities in the ways responses are assessed, rather than the constructs that were supposed to be measured (Kazdin, 2003). Other than parental monitoring (child-report), all of the measures

were mother-report, and only a modest correlation existed between mother- and child-report of parental monitoring.

The items used to capture monitoring assessed the extent to which mothers “know” things about their children, such as how they spend their time and money and who their friends and friends’ parents are. Mothers may over-estimate or children may under-estimate how much mothers are aware of children’s lives. Additionally, parents may intend to implement particular strategies and may factor in their intentions when they self-report, or because of social desirability bias, parents may optimistically report their parenting behaviors. This reporting may not coincide with children’s experiences. Regardless, the present finding indicates that mothers’ perceptions of their own monitoring are significantly associated with the extent to which they report witnessing CVE.

Preventive strategies: Harsh discipline. As predicted, a positive relationship existed between CVE and harsh discipline. This finding was largely consistent with reports from previous literature that parents in dangerous neighborhood contexts tend to use harsher discipline (Furstenberg et al., 1993; Jarret, 1997; Pinderhughes, Nix, Foster, Jones, 2007). As pointed out by Pinderhughes et al. (2007), this relationship is often attributed to parenting practices being undermined by parents’ stress associated with dangerous settings (McLloyd, 1990); that parents’ purposefully use harsh strategies to prepare children for life in dangerous contexts (Furstenberg et al., 1993); or that parents have an increased desire for control in response to a living in a dangerous context and therefore use harsher parenting, which is associated with higher levels of immediate compliance (Gershoff, 2002).

The finding that CVE is positively associated with harsh discipline is particularly interesting given that CVE is also positively associated with promotive family management strategies and the less-restrictive preventative strategy of monitoring. That CVE is associated with all of these strategies may be indicative of parents' attempt to seek control in a potentially dangerous situation through multiple strategies.

As a follow-up to determine whether parents were using harsh discipline in conjunction with promotive strategies, cross-tabulations were conducted between harsh discipline and promotive family management strategies. Family management variables were dichotomized using a median split. In the sample, 29% of parents who used harsh discipline also used at least two promotive strategies. Additionally, 39% of parents who used harsh discipline also reported monitoring children. This indicates that some parents who are using harsh discipline are also using other, more positive, strategies.

RQ4: Do the relationships between CVE and family management strategies vary by income, social capital, or self-efficacy? Based upon the theoretical framework used to guide the study (FAAR), as well as the mixed findings from previous studies concerning the relationship between CVE and various family management strategies, it was proposed that the relationships between CVE and management strategies would vary by resources. It was anticipated that the amount of resources available to families could help to explain the variation in the findings of previous studies; however, this was not the case. None of the relationships between CVE and specific family management strategies varied by the resources investigated.

Although income, social capital, and self-efficacy did not moderate the relationship between CVE and family management strategies, social capital and self-efficacy had main effects on specific strategies. Social capital independently and positively predicted parental involvement with children at home, parental involvement in children's schools, children's involvement in organized activities, and parental monitoring (mother-report). The relationship between social capital and family management strategies suggests the importance of community context for family management. Low self-efficacy independently and negatively predicted parental involvement with children in home. Income positively predicted the preventive strategies of parental monitoring (mother-report) and harsh discipline.

RQ5: Are promotive and preventive family management strategies associated with children's EBP?

Promotive strategies. No promotive strategies were significantly associated with children's EBP. Findings from other studies concerning the impact of promotive strategies on EBP are mixed. For instance, Beyers and colleagues (2003) found that less positive parental involvement significantly predicted larger growth rate in externalizing behaviors. Parental involvement is conceptualized in the present study as a promotive strategy. Conversely, Lobo-Antunes (2012) found that youth involvement in organizations at school and family activity involvement, also conceptualized as promotive strategies in the present study, were not associated with youth anti-social behavior, a more extreme form of EBP.

Though promotive strategies – parental involvement with children at home, parental involvement in children's schools, and children's involvement in organized

activities – were not associated with EBP, they may be associated with other outcomes for children, such as academic competence (Furstenberg et al., 1999). Additionally, as mentioned previously, parents may use promotive strategies in conjunction with harsh discipline, which may offset any positive effects of promotive strategies on EBP. It is also possible that though parents are doing positive things for their children, it may be insufficient to reduce EBP. Children may be embedded in a high-risk environment that overrides the impact of promotive strategies; “The demographic, neighborhood, and caregiver’s resources that make up the risk context are more important in determining behavioral problems” (Furstenberg et al., 1999, p. 180).

Preventive strategies. Mother-reported monitoring was negatively associated with EBP. This finding coincides with previous literature. For instance, Beyers and colleagues (2009) found that parent-report of monitoring negatively predicted teacher-report of children’s EBP.

Conversely, child-report of parental monitoring was not related to mother-report of EBP, which contradicts previous literature. Fowler and colleagues (2009) found that youth-report of parenting practices, assessed as monitoring and rule setting, negatively predicted EBP assessed by child diagnostic interviews. This suggests that the identity of the reporter may be important.

As predicted, harsh discipline significantly and positively predicted EBP. This finding is also consistent with previous literature (e.g., Chang, Schwartz, Dodge, & McBride-Change, 2003; Chen et al., 2015; Wiggins, Mitchell, Hyde, & Monk, 2015).

RQ6: Do family management strategies explain the relationship between CVE and EBP?

Promotive strategies. Because no promotive strategies predicted EBP (see discussion of RQ5), the criterion for mediation laid out by Baron and Kenny (1986) could not be met. This finding indicates that the examined promotive strategies are not an indirect pathway through which CVE influences EBP.

Preventive strategies: Parental monitoring. Because child-report of parental monitoring was not related to CVE or EBP, it could not explain the CVE and EBP relationship. Moreover, though CVE was significantly related to mother-report of parental monitoring, which was, in turn, negatively related to EBP, including parental monitoring in the model did not reduce the CVE-EBP association. Therefore, the criterion for mediation proposed by Baron and Kenny (1986) was not met. Furthermore, although significant, parental monitoring (mother-report) had a modest relationship with EBP, and this relationship was no longer significant when monitoring was placed into a full model that included social capital and self-efficacy.

This finding is not consistent with previous research (Fowler et al., 2009). However, there are some concerns regarding the measurement of monitoring. Validated instruments were not used to assess mother- and child-report monitoring. Additionally, the scales demonstrated low internal consistency.

Preventive strategies: Harsh discipline. Harsh discipline did explain the relationship between CVE and EBP. It may be that CVE heightens parents' stress, interfering with their parenting, which in turn results in higher levels of EBP. Another potential explanation is that this process is reflective of an adaptive coping process,

wherein parents are seeking to meet the needs of the immediate situation but inadvertently producing negative effects. Specifically, parents may seek to control their children in response to danger by engaging in harsh discipline, as it is associated with immediate compliance in children (Gershoff, 2002). However, harsh discipline is also related to increased aggression in children (Chang et al., 2003).

A contribution of the present study is the finding that families with greater violence exposure are more likely to use harsh discipline, which in turn is associated with EBP. Other studies have shown that harsh discipline is also associated with bullying, perpetration of violence, delinquency and crime (Moore et al., 2015). Parents may be trying to control their child, but may be inadvertently contributing to a feedback loop of violence in the community: parents experience CVE and engage in harsh discipline, which in turn is associated with children's aggression. In turn, children's aggression may feed back into neighborhood conditions.

RQ7: Does change in CVE predict change in EBP? Change in CVE was assessed using four categories: CVE at neither year, CVE at both years, CVE at year five only, and CVE at year nine only. The only category that predicted change in externalizing behavior problems was CVE at year five only. CVE at year five only was negatively associated with EBP. That is, decline in CVE yields a decline in EBP; all other pathways of CVE had no effect on EBP.

The purpose of assessing the relationship between the change in CVE and change in EBP was to provide evidence for the proposed casual pathway from CVE to EBP. Results indicated that reduction in exposure leads to a reduction in EBP, supporting the hypothesis that there is a causal effect. However, the converse was not

true. Increase in exposure did not predict an increase in EBP. Although analyses included a robust set of controls, there might be other, non-assessed factors that changed during the same time period and produced the effect. For instance, this finding may reflect that the circumstances of families who reported CVE at year five and not at year nine have improved in other ways, resulting in a decrease in EBP. However, this finding provides evidence for causality from CVE to EBP.

Implications

Theory

Stressors and coping. In the present study it was proposed that family management strategies would be negatively related to CVE, based on theory and previous literature, but that this relationship would vary based on the resources families had to help them cope with the stressor. However, it was found that the proposed stressor of CVE was positively associated with the proposed coping behavior of family management strategies. Even though this is not what was hypothesized, this finding can be interpreted as consistent with the FAAR model, as parents were engaging in coping strategies in response to the stressor of CVE.

Stressors, coping, and resources. Contrary to what was predicted using the FAAR model, the relationship between the stressor and coping was not moderated by the presence of family resources. Results indicate that, regardless of resources, the more CVE mothers report, the more they reported engaging in strategies such as involvement with their children, involvement in children's schools, monitoring, and harsh discipline. Interpreting this finding using the FAAR model, mothers are actively coping with the stressor of CVE using both effective and adaptive coping

strategies. As mentioned previously, effective coping is prosocial and directed toward long-term outcomes, such as parental involvement and parental monitoring. Adaptive coping is focused on meeting the immediate needs of the situation and may have negative long-term consequences, such as harsh discipline.

Because resources did not influence the relationship between CVE and any family management strategies, the conceptualization of the resources examined in the study may need to be reconsidered. Even though the examined resources did not moderate the CVE and family management relationship, one proposed resource – social capital – significantly and positively predicted most management strategies, as well as the proposed adaptation – children’s EBP. Therefore, it may make more sense to consider social capital as part of the broader context that has independent effects on family management and children’s behavior, rather than as a discrete resource. Surprisingly, income did not moderate or independently predict any of the promotive family management variables; however, did positively predict parental monitoring (mother-report) and harsh discipline.

Stressors, coping, and adaptation. In accordance with what was proposed, CVE positively predicted harsh discipline, which in turn was positively associated with EBP. Interpreting this finding using the FAAR model, parents may seek to cope with CVE using harsh discipline, an adaptive coping strategy that meets the needs of the immediate situation but is not beneficial long-term, in order to keep their children safe. However, coping using harsh discipline may contribute to the outcome of children’s EBP.

Unlike what was predicted using the FAAR model, promotive family management strategies did not have an impact on EBP. This implies that, even though families may be coping effectively, in prosocial ways aimed at long-term outcomes, it is not enough to reduce EBP, particularly in disadvantaged contexts.

Policy and Practice

It is important to develop more accurate and nuanced models concerning the impact of community violence on families and individuals to enable policy makers to intervene and mitigate negative impacts. Results of this study reaffirm approaching families from a resilience perspective in policies and programs. Though the sample in the present study was particularly economically disadvantaged, CVE was positively associated with family management strategies such as parental involvement with children, parental involvement with schools, and parental monitoring. This indicates that mothers are actively seeking to foster children's skills and opportunities in the presence of community violence. The strength and resilience of parents should be at the forefront of policy discussions of CVE and also when approaching mothers for programs addressing CVE. However, it is also important that policies and programs ameliorate cumulative stressors that mothers face, stressors which potentially contribute to more negative parenting strategies, by providing access to supportive services and addressing economic hardship (Barth, 2009; Ross & Vandivere, 2009).

Improving parenting skills. Unfortunately, though CVE was associated with parental involvement with children, parental involvement with schools, and parental monitoring, CVE was also associated with harsh parenting. This may be an important area for intervention, as harsh parenting is positively associated with EBP in this

study and in the broader literature. Increased access to evidence-based parenting programs through schools, community organizations and faith communities may help to empower parents to rely more on positive parenting strategies and less on harsh discipline.

Some existing parenting programs have substantial empirical support, such as the Triple P-Positive Parenting Program. Concerning harsh discipline, the Triple P-Positive Parenting Program “teaches parents specific child management and behavior change strategies that are alternatives to coercive and ineffective discipline practices (such as shouting, threatening, or using physical punishment)” (Sanders, 2008, p. 509). A meta-analysis of evaluation data found that the program both improved parenting skills and reduced problem behavior (Nowak & Heinrichs, 2008).

Many of the programs that explicitly seek to reduce harsh discipline have the distal goal of preventing child maltreatment. Child maltreatment is obviously more extreme than harsh discipline and was not assessed in this study. However, it is relevant to the present discussion as the implementation and evaluation of such programs is extensive, and reducing harsh discipline is a consistent intermediate goal. Evidence is mixed concerning which delivery methods for child maltreatment prevention programs work best (Stanger & Lansing, 2009), but programs utilizing parent education, parent support groups, and home-visiting components have all demonstrated effectiveness to some degree (Barth, 2009).

One type of program recommended by The Task Force of Community Preventative Services based on an extensive review of program effectiveness is early childhood home visitation. Generally, early childhood home visitation programs

provide parents with examples of constructive and caring interactions, facilitate the development of parents' life skills, strengthen social support, and link families to social services. Acting early in the child's life helps to prevent negative patterns of parent-child interaction from becoming firmly established (Centers for Disease Control and Prevention, 2015).

The present findings suggest some important considerations for these programs if they are seeking to improve parenting in potentially dangerous contexts. Since parents may be engaging in harsh discipline as an adaptation to dangerous circumstances, effective programming should acknowledge the legitimate worries that might lead parents to seek control in that way, inform them of the negative consequences of particular parenting strategies, and provide education and training about realistic parenting alternatives that are sensitive to mothers' environmental contexts and concerns.

Addressing community violence. An obvious implication of the present study is the need to address community violence generally. The findings of the study indicate that community violence impacts both families and children. In particular, CVE may contribute to a feedback loop involving harsh parenting and children's aggression, which feeds back into the community.

Schools may be an important source of intervention for reducing violence, as they are important institutions in communities with access to children and parents. Though the potential role of schools was not assessed in the present study, school-based violence prevention programs are recommended for use in preventing youth violence by The Task Force of Community Preventative Services because of strong

evidence of effectiveness (CDC, 2015). The reviewed programs focused primarily on reducing children's aggression and taught conflict resolution, self-esteem, emotional control, social problem solving, positive social skills, and team work.

Additionally, one community-level policy that has been shown to reduce rates of violent crime in communities is the implementation of Business Improvement Districts (BIDs). A BID is “a nonprofit organization created by neighborhood property owners or merchants to provide services, activities, and programs to promote local improvements and public safety” (National Institute of Justice, n.d., n.p.). A BID is contained to one geographical area, wherein property owners and merchants in that area pay a set fee for services to improve sanitation and safety. The theoretical basis for BIDs includes the broken window theory and theories of collective action. Such programs are supported by empirical evidence and rated as ‘Promising’ for reducing crime by the National Institute of Justice (n.d.). In one study, MacDonald, Golinelli, Stokes, and Bluthenthal (2010), analyzed pre-post changes in incidence of violent crime and robbery in areas in which BIDs were implemented in Los Angeles from 1994 to 2005. There were 30 BIDs implemented during this time. BID implementation was associated with a 12% reduction in robbery and an 8% reduction in violent crime.

Addressing economic disadvantage. According to Marc and Willman (2010), concentrated violence is generally found in areas with strong economic disadvantage and social exclusion. Addressing economic disadvantage and building social capital in communities are important steps for addressing community violence and improving wellbeing. Cumulative disadvantage in particular contexts may be

addressed by bringing “power, resources, and capacity to the affected area” (Beck, Ohmer, & Warner, 2012, p. 229). Families in these environments need support, not just in terms of programs providing skills, but also in terms of improving the contexts in which they are nested. Because community violence, along with many other conditions that harm family and individual functioning, are linked to economic hardship in communities, policies that promote a living wage and provide parents with tangible supports for work, such as child care and workforce training, may be an important step in improving economic conditions.

Building social capital. In a review of strategies for building collective efficacy, akin to social capital in the present study, Beck and colleagues (2012) outlined three types of interventions: interventions that promote awareness among community members about social capital and its importance, that use traditional community development approaches to support social capital, or that have the explicit goal of developing social capital. Specific strategies such as “community policing, community security councils, conflict mediation, public security forums, and cross-sector one stop access to police, courts, and services” have been implemented as ways to increase social capital (Moore et al., 2015, p. 71). Largely, interventions to increase social capital have not been subject to rigorous evaluation, and there is limited evidence of their ability to reduce violence (Moore et al., 2015). However, empirical links between social capital and positive outcomes, including increased promotive family management strategies and decreased EBP in the present study, suggest this is a promising area of investigation, and further development and evaluation of these sorts of interventions is needed.

Concerning policy, changes in the types and purposes of punishment for illegal activity may help to foster social capital within communities. Particularly, reforms aimed at integrating “restorative justice” into the legal system may help to increase communal ideals of cohesiveness and the greater good. Restorative justice embodies a perspective shift from justice defined as punishing offenders to justice defined as rectifying the harm caused to the community and the victims. Examples of practices associated with restorative justice include community conferencing and mediation; youth development; victim-offender dialogues; victim and community input to court decisions; restitution made through community service; service to victims or surrogate victims; and reintegration support after incarceration (Bazemore & Erbe, 2004). These sorts of practices have been adopted in some settings, and show promise, but there is great need for systematic implementation and evaluation to truly understand impacts.

Limitations

Although the present study contributes to the research by elucidating the relationships between CVE, family management strategies, and EBP, there are several limitations to consider when interpreting results. In particular, the models explained a relatively small amount of the variance in EBP, and this should be kept in mind when considering the implications of the findings. Additional limitations concerning research design and measurement are listed below.

Research design

Sample. The sample for the present study was representative of non-marital births in 20 large US cities. The sample was particularly economically disadvantaged.

Therefore, results may not be generalizable to other groups, such as those in suburban or rural areas or who are more affluent. Moreover, children in the study were approximately 9-years-old. Results may not be generalizable to younger children or adolescents. Lastly, while child gender and race/ethnicity were included as model controls, differences by child gender or family race/ethnicity may exist but were not explored.

Additionally, reports of children's biological fathers were not included in this study. This was because of lower father response rates and particular interest in children's primary caregivers, which were preponderantly biological mothers in this study. A further complication was that data were not collected from mothers' current partners if different from biological fathers of the focal children. Because of these issues, we are unable to assess the role of fathers or mothers' partners in the present research.

Causality. This study was cross-sectional, as key study variables were not assessed at the previous wave. As such, causality among variables cannot be determined. The present study sought to address this limitation by examining whether changes in the main independent variable, CVE, were associated with changes in the main dependent variable, EBP, and the results supported a causal interpretation. However, causality is still not established, and this should be considered when interpreting findings.

Measurement

The data used in this dissertation are limited by being exclusively self-report. Additionally, almost all measures were reported by mothers in the study. Therefore,

results may be influenced by social desirability bias, as mothers may over or under report particular behaviors based on social desirability, or common-method variance, as variance may be attributable to similarities in the ways responses are assessed, rather than the constructs that were supposed to be measured (Kazdin, 2003).

Independent variable. CVE was assessed using mothers' witnessing as an indicator. This fact may complicate interpretation of the findings, as the types of violence (victimization, witnessing, hearing about violence) may influence family management strategies or EBP differently. Ideally, it would be best to include measurements for all types of violence and examine the impact collectively as well as separately over time. However, this was not possible using the current dataset.

To assess CVE, both a categorical and continuous assessment of CVE were included in the cross-sectional models. This was because bivariate plots of CVE and EBP indicated a linear relationship when scores of 0 were removed. The categorical CVE variable was included to control for scores of 0. Ordered dummy categories were also tried. However, this did not capture the relationship between CVE and EBP, because when CVE is divided into dummy variables and included in a regression model with no CVE as the reference category, each category is essentially being compared to no violence. Treating the variable this way does not capture a linear trend.

Mediators. Though the study tested a range of family management variables, only the promotive and preventative strategies that were able to be assessed using the preexisting data set were included in the study. Additionally, family management variables were not assessed using validated instruments, though some consisted of

items drawn from validated instruments. Concerning reliability, most family management variables had good internal consistency, defined as a Cronbach's alpha of .7 or more. The exceptions are mother- and child-report parental monitoring, which demonstrated poor internal consistency, defined as a Cronbach's alpha of .6 or less. Lack of quality for the assessment of parental monitoring may have impacted the results.

Moderators. Though the study sought to determine whether resources moderated the relationship between CVE and specific family management strategies, only three constructs conceptualized as resources were used – income, social capital, and self-efficacy. It is possible that other resources may be important, but were not assessed or included.

Additionally, the measure of self-efficacy was not drawn from a validated instrument. Self-efficacy demonstrated a ceiling effect, where scores were skewed toward the highest value. Therefore, values were dichotomized. However, this may have limited variability and, therefore, the ability to detect an effect.

Time between waves. To assess change over time, the present study examined the relationship between change in CVE and change in EBP. However, there was a four-year interval between waves, which makes it more difficult to interpret the relationship. The status of CVE may have changed several times during that period, which may have influenced the relationship between variables. However, other studies that provide more robust evidence of causality (e.g., Saltzinger, 2011; Spano et al., 2009) support the results of the present study.

Directions for Future Research

A notable limitation of the present study is the reliance on mother self-report. Future research should include reports from other parties, such as children or teachers, to see if the observed relationships remain the same. Additionally, investigating the role of other figures in family management, such as children's biological fathers or mothers' current partners, may provide a fuller understanding of the research questions.

Because analyses involving family management were cross-sectional, causality could not be established. A longitudinal examination was not possible as measures assessing family management strategies were not consistent between assessment at year 5 and year 9. This is due to the large developmental gap between these ages. However, evidence for causality from CVE to specific family management strategies, as well as from CVE to harsh parenting and subsequent EBP may be able to be drawn from future waves of data. Future waves of data may also be able to inform how management strategies in response to CVE may vary by children's developmental stages. Investigating variation in management strategies by age and by children's gender are also potential areas for future investigation.

Findings from the present study in conjunction with those from previous literature indicate that greater distinction among the types of violence – victimization, witnessing, and hearing about violence – may be important to understand how CVE impacts parenting. While these distinctions have been made concerning how CVE impacts EBP, they have not been made when examining how CVE is related to

parenting. This may be important for understanding disparate findings in the literature.

Additionally, though CVE was clearly related to family management strategies in the present study, it is still unclear what sort of impacts those strategies may have for children. Promotive strategies were not associated with CVE but may be associated with other outcomes, such as academic performance. It is also possible that positive coping attempts may be overridden by particularly high-risk contexts. Investigating a broader range of outcomes and using multilevel methods that account for community context may be important for understanding how parents' coping in response to CVE impacts children.

Further investigation of family management strategies not assessed in the present study, as well as potential constellations of strategies, may also be a relevant area of investigation. For instance, warmth, though not a family management strategy per se, may be an important consideration concerning how family management influences children's outcomes. Fowler et al. (2009) examined the role of warmth in explaining the relationship between exposure to violence and externalizing behavior problems among urban adolescents, finding that it did not explain the relationship. However, warmth occurring in conjunction with other management strategies, such as discipline, may produce different outcomes than when those strategies occur alone. For instance, McLoyd and Smith (2002) found that maternal emotional support altered the relationship between spanking and problem behaviors. Spanking was associated with increased behavior problems in the context of low levels of support, but not high levels of support. This relationship held across

race/ethnicity. This illustrates the potential importance of the emotional context in which family management takes place and warrants consideration for future study.

Racial and ethnic differences may also be important areas for consideration. Previous literature suggests that physical discipline strategies, part of the conceptualization of harsh discipline in the present study, may have differential impacts by race/ethnicity. For instance, Landsford, Deater-Deckard, Dodge, Cates, and Pettit (2004), found racial differences concerning the impact of physical discipline on children's externalizing behavior problems. Physical discipline predicted higher levels of EBP at later points in time for European American adolescents, but not African American adolescents. Participants in the present study primarily identified as African American, and race/ethnicity was controlled for in regression analyses. However, potential variations by race/ethnicity were not explored. This may be a pertinent area of investigation for future research.

Conclusions

The present study proposed that CVE would be negatively associated with promotive and less restrictive preventative family management practices, which in turn would be negatively associated with EBP. It was also proposed that financial resources, social capital, and maternal self-efficacy would moderate the relationship between CVE and family management strategies. These premises were not supported. Contrary to previous studies, CVE positively predicted parental involvement and monitoring, and none of the examined resources moderated the relationship. These findings suggest that, regardless of resources, mothers are actively coping in the context of CVE.

Additionally, it was found that harsh discipline, conceptualized as a strategy that may serve the function of family management but may also negatively impact children, mediated the relationship between CVE and EBP. This finding suggests a potential feedback loop from CVE to harsh parenting to EBP, which may then feed into the broader environment. As such, this may be a particularly salient area for intervention.

CVE is a significant public health problem that has impacts for individuals, families, and communities. Better understanding of the extent and nature of these impacts is important for developing responsive programs and policies to bolster communities and improve the lives of families.

Appendix A: Methodological Details of Meta-Analyses and Reviews

Fowler, Tompsett, Braciszewski, Jacques-Tiura, & Baltes (2009)

The authors searched databases (e.g., PsychInfo and Electronic Collections Online) and reference lists of papers they had found. They also contacted CVE researchers via email, asking them to send their published and unpublished work on the subject. For inclusion in the meta-analysis, the authors set forth the following criteria. First, studies must have used a multiple-item self-report or objective (e.g., crime statistics) measure of CVE. Self-report respondents may include the youth themselves, parents, or teachers. Second, studies must have included measures of internalizing, externalizing, or PTSD symptoms. For the purposes of this review, only findings pertaining to externalizing will be reported. Third, studies must have included bivariate correlations between measures of CVE and outcomes or included information from which such correlations could be calculated. If this information was not included, attempts were made to contact the papers' authors directly to obtain the information. Fourth, the majority of the study sample must have been under the age of 25 years. Qualitative research and reviews were excluded. For longitudinal studies, only baseline findings were included.

The authors created two databases to calculate effect sizes. The first database included only studies that assessed three unique components of CVE – victimization, witnessing violence, and hearing about violence in one's community – to determine the effect sizes of the relationships between these unique components and the outcomes. The second database included all studies and was used to determine effect sizes of total CVE and the respective outcomes – PTSD, internalizing, externalizing.

The authors also coded features of the studies. These features included whether the study was published, whether the sample assessed was explicitly labeled as high-risk (i.e., sample was drawn from areas of high crime or violence), whether lifetime or recent exposure to violence was used as the independent variable, who reported the outcomes (i.e., self, parent, teacher, or multiple informants), who reported the CVE (i.e., self, parent, or objective crime reports), which types of exposure to CVE were assessed (i.e., total, victimization, witnessing, and/or hearing about violence), and whether the same informant was used to report both CVE and the outcomes. The authors found that most of the studies were unpublished; had samples that were not explicitly labeled as high-risk; used lifetime CVE as the independent variable; used self-report measures for externalizing symptoms and CVE; examined only total CVE; and used the same reporter to assess CVE and outcomes. Demographic variables such as age, race, and gender were also coded. Age was trichotomized into child (11 years or younger), adolescent (12 to 25 years), and mixed (age range spread across other categories). If the sample was comprised of 70% or more of one race/ethnicity (i.e., African American,

Hispanic, or White) then it was coded as that race/ethnicity; if it was comprised of less than 70% of one race/ethnicity or was from non-United States youth, then it was coded as a mixed race sample. If the sample was comprised of 70% or more of one gender (i.e., male or female), then the gender of the sample was coded as that gender; if the sample consisted of less than 70% of one gender, then it was classified as a mixed gender sample. Effect sizes of relationships (d statistic) between total CVE and outcomes, as well as subtypes of CVE and outcomes, were calculated across these 116 samples. Weighted average effect sizes were calculated. First, the total effect of community violence on each outcome was calculated. Next, the effect of each subscale on each outcome was calculated. Q statistics were calculated to determine the homogeneity of effect sizes. The Q value of an average effect is a variability index determined as a χ^2 . Post hoc contrasts were conducted to determine the nature of effects. After testing for outliers, one study consisting of two samples was excluded; thus, the sample for the meta-analysis included 114 study samples.

Hoeve, Dubas, Eichelsheim, van der Laan, Smeenk, & Gerris (2009)

The authors searched electronic databases (ERIC, PsychINFO, Sociological Abstracts and Criminal Justice Abstracts) and reference lists for studies between 1950 and 2007. They also contacted experts in the fields to ask if they knew of relevant published or unpublished studies. To be included, studies had to meet the following criteria: operationalization of delinquency (behavior prohibited by law) and parenting (behavior of the parent directed toward the child) as set forth by the authors, Western sample, and inclusion of bivariate associations of parenting and delinquency.

The authors coded features of studies, including gender of the child, gender of the parent, study design (cross-sectional or longitudinal), publication status (published or unpublished), time-interval between measurements, age of children, reporter of delinquency (self-reported or official), type of delinquency (general, overt, or covert), reporter of parenting behavior (parent or child), percentage of assessed behavior that includes illegal activities.

Rothbaum & Weisz (1994)

The authors searched for studies published between 1940 and 1992 using databases (PsycLit, Child Development Abstracts, and ERIC databases) and reference list searches. To be included in the meta-analysis, the study had to include a measure of externalizing in line with the one endorsed by the authors (i.e., aggression, hostility, noncompliance), to report information from which effect sizes could be calculated, and include associations of externalizing with parenting variables. Additionally, studies that included clinical samples of parents or children were excluded. Study data were derived from questionnaires, interviews, and/or observations. The authors coded specific features of the studies, including demographic information of the sample (e.g., SES, race, family size, family structure, and setting from which participants were recruited), age of children, type of parenting behavior

assessed and whether single parenting behavior or a constellation of parenting behaviors were assessed, type of measure for parenting behavior (e.g., interview, observation, etc.), type of child behavior assessed, setting in which child behavior was assessed, gender of child, and gender of parent.

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