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**Growing up with violence: Examining the role of moral development in mediating the effects of community violence exposure.**

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Running Head: MORAL DEVELOPMENT MEDIATING VIOLENCE EXPOSURE

GROWING UP WITH VIOLENCE: EXAMINING THE ROLE OF MORAL  
DEVELOPMENT IN MEDIATING THE EFFECTS OF COMMUNITY VIOLENCE  
EXPOSURE

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A Dissertation

Presented to

The Faculty of the School of Education

The College of William & Mary in Virginia

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In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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by

John A. Dewell

June 2011

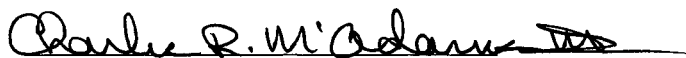
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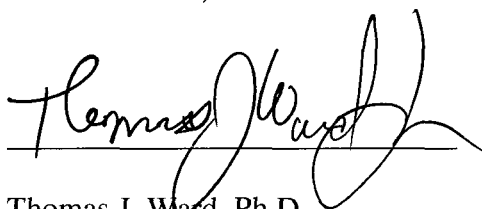
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## ABSTRACT

Over the last several decades researchers have demonstrated that our nations' youth are exposed to shocking rates of violence within their communities. Community violence exposure (CVE) is correlated to a frightening array of negative behavioral, affective, and developmental outcomes. Effective and sustainable intervention for this population requires an understanding of the factors that mediate the relationship between CVE and harmful outcomes. This study investigated the mediating role of adolescent and parental moral development on the relationship between community violence exposure and negative behavioral symptomology. It further investigated the relationship between community violence exposure, moral development, and internalizing and externalizing behaviors. Data was collected on parent and adolescent moral development, youth and parent report of behavioral symptomology, and youth report of CVE from twenty-one families. Pearson-Product Moment correlations revealed support for the hypothesized relationship between CVE and externalizing behaviors and partial support for the relationship between moral development and externalizing behaviors (at the .05 level). The path analyses were severely limited by the number of participants; however, they did reveal statistically significant data supporting the role of moral development in mediating the relationship between CVE and internalizing behaviors. This study lends preliminary empirical support for the role of moral development as a significant mediator and suggests that the study be replicated with a larger sample size.

## DEDICATION

This dissertation could not have been completed without the support of my dissertation committee, family, and friends. They all combined to help make this a valuable learning experience and eventually to complete what seemed like a never ending process. I would particularly like to thank Rip McAdams for his tireless and diligent work in supporting me throughout my entire doctoral program. Throughout the dissertation process your research acumen has been invaluable and your teaching and mentoring have become an integral piece of my identity as an educator and counselor.

I would also like to thank my professors and mentors throughout the process; specifically my dissertation committee. Dr. Ward, I have always found you to be an extraordinary teacher and I truly appreciated every conversation we had about the statistics and overall utility of the study. Dr. Foster I have greatly enjoyed our interaction throughout the program and thank you tremendously for your conversation and expertise.

The love, patience, and support I received from my wife has allowed me to pursue my interests and taught me a good deal about how to love selflessly. Her gentle prodding was also a prime contributor in the completion of this paper, but the person directly responsible for wrapping the dissertation up on time has yet to be born. The first major contribution of my soon to be born daughter was to keep this process in perspective and stress the importance of embracing beginnings and not holding onto the past. Finally, I'd like to dedicate this to my child-hood friends Damien and Lawrence. I hope that the next time we see each other on the RTA we will be able to speak about our wonderful childhood and not let the barriers we didn't know existed back then get in our way.

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## **CHAPTER ONE**

This study considers the role of development in the relationship between Community Violence Exposure (CVE) and behavioral symptomology. Specifically, it investigates two proposed models suggesting that moral development mediates the relationship between community violence exposure and externalizing and internalizing symptomology. The study also investigates the relationships among the constructs of CVE, moral development, and externalizing and internalizing symptomology.

This chapter will provide an introduction to the construct of CVE and its relationship with externalizing and internalizing symptomology. It will then suggest the need to investigate the role of development in mediating this relationship. Finally, it will introduce the cognitive developmental paradigm as a framework for moral development and assert its utility in mediating the relationship between CVE and behavioral symptomology. Chapter Two follows with a selected view of the relevant literature, while Chapter Three describes the research design. Chapter Four reviews the data and presents the results of the study. Finally, Chapter Five provides a discussion and interpretation of the findings as well as a review of the limitations of the study and suggestions for future research.

### **Statement of the Problem**

#### **Community Violence Exposure as a public health epidemic**

A shocking number of our nation's youth are raised in communities plagued by violence. They spend their formative years exploring, playing, and taking risks in an environment that is miles from the American dream. They walk to school and hurry

home accompanied by the ever present soundtrack of sirens and gunshots. In these communities youth learn to keep their head down, who and what to avoid, and how to cope with looming violence. For youth growing up in the shadow of violence, optimal development is consistently forced to take a back seat to safety and survival.

Research on children living in war torn areas, on chronically abused children, and on returning soldiers, demonstrates the pervasive impact exposure to violence can have. It is also generally recognized that singular moments of either direct or indirect exposure to violence can have a significant impact and result in the development of short term symptomology or post-traumatic stress. It is further assumed that the antecedents of these symptoms necessitate informed clinical interventions. Unfortunately, the national consciousness does not similarly embrace the millions of youth whose day-to-day lives are marred by exposure to violence.

Understanding the unique impact of exposure to violence in the community is a complex task that requires looking beyond singular incidences of victimization. For youth growing up in violent communities the violence is often chronic and present throughout their lives; thus, it never provides moments of respite. The violence is also often present across generations and, as such, its' impact is infused throughout these children's family systems. By definition the violence is also infused into the ecology of their neighborhoods; leaving no respite outside the home. This deficient ecology in which many youth are raised is often colloquially referred to as the "urban was zone" (Garbarino, 2001, p.362).

Not surprisingly, investigations into the lived effects of those youth developing in these ecologies have produced shocking results. Youth exposed to violence in their

communities have consistently poor outcomes across almost all measures of healthy development. The situation is so dire, that the Center for Disease Control has concluded that it constitutes a public health epidemic (Finkelhor, Turner, Ormrod, Hamby, & Kracke, 2009). An increased recognition of the effects of growing up in such an ecology has led to a call from senators and innumerable researchers to expand our knowledge and develop interventions to help those navigating a youth marred by continual exposure to violence (Specter, 2008; Brady, Gorman-Smith, Henry, & Tolan, 2008).

### **The Effects of Community Violence Exposure**

Scholars, politicians, and the public's concerns are supported by a consistently expansive body of research that demonstrates the severity of the correlated effects of CVE. CVE is now understood to have significant effects on emotional, cognitive, and behavioral outcomes (Gorman-Smith, Henry & Tolan, 2004). Correlates of community violence exposure span a frighteningly broad span of symptomology such as; aggression, violent attitudes, delinquency, depression, anxiety, post-traumatic stress disorder, higher rates of substance abuse, school retention, and overall poorer mental health (Cooley-Quille, Boyd, Frantz, & Walsh, 2001; Gorman-Smith & Tolan, 1998; Lynch, 2003; Margolin et al., 2009; Zinzow et al., 2009). This litany of symptomology depicts the gravity of the effects of exposure to community violence.

CVE has also been shown to have a dramatic effect on long and short term developmental problems in youth (Gorman-Smith & Tolan, 2003). Overstreet (2000) concluded that the stress, anxiety, and fear generated by exposure to violence interfere with significant normal developmental tasks such as the development of trust, sense of safety, emotional regulation, explorations of the environment, and forming social

relationships. These tasks are the foundation of personality development and govern how youth make meaning of and subsequently interact with their environment. This suggests that CVE's effect on development may not only impact youth behavior, but may impact the developmental process itself. This has led researchers to call for continued investigation into youth development and developmental processes in communities that have high rates of exposure to violence (Margolin et al., 2009).

Research into CVE has further demonstrated that its effects extend beyond psychological symptoms to also impact physiological functioning. Physiological processes, once thought to occur a priori to environmental influences, have been demonstrated to be much more malleable than previously thought, and there is a growing body of literature that suggests that CVE has a significant impact on these processes. In one study, it was found that exposure to violence contributes over and above the effects of genetic influences to various critical outcomes such as IQ (Koenen, Moffitt, Caspi, Taylor, & Purcell, 2003). CVE may also cause disturbances in the hypothalamic-pituitary-adrenal axis (the stress response system) and it may impact physical and sexual development as well as impaired memory and concentration (Margolin & Gordis, 2000; Margolin & Gordis, 2004). Prolonged exposure can lead to disruptions in nervous and immune systems; which can lead to severe social, emotional, and cognitive impairments; as well as behaviors that cause disease, injury, and social problems (Feerick & Silverman, 2006).

The literature is overwhelming in stating that CVE is related to severe detrimental cognitive, behavioral, developmental, and physical outcomes. The presence of such a body of literature has led to senators, the Center for Disease Control, and innumerable

scholars to increase their involvement and call for immediate action (Spectre, 2008; Brady, Gorman-Smith, Henry, & Tolan, 2008). In the recent literature this call has taken several forms: investigations into the outcomes of community violence exposure, into the factors that mediate and moderate these outcomes, and into developing a theoretical conceptualization of how CVE interacts with environmental factors. Before these areas are addressed, a review of the theoretical tenets of CVE is warranted.

### **Community Violence Exposure as a Theoretical Construct**

The research clearly identifies CVE as an epidemic with severe consequences, yet CVE remains a complex construct with varying operational definitions (Buka, Stichick, Birdthistle, & Earls, 2001). The construct was developed as researchers became interested in understanding the unique effects of chronic exposure to violence in the community as opposed to a single traumatic event. Drawing from research on the lasting effects of violence on individuals in war torn areas such as Northern Ireland, Israel, and Palestine; scholars proceeded to investigate CVE utilizing a broad construct that the literature describes as “any deliberate act intended to cause physical harm against a person or persons in the community” (Wallen & Rubin, 1997; Cooley-Quille & Turner, 1995, p. 202). Early research into CVE typically approached all forms of violence as a single variable; not differentiating between the type of violence, the source of the violence, the amount of exposure, or whether the violence was direct or witnessed (Richters & Martinez, 1993). As mounting evidence of the effects of violence exposure grew, researchers began to ask questions about its nature and about whether or not this evidence was attributable to a unique CVE construct as opposed to other factors.



In an attempt to better understand this proposed construct, later researchers investigated the differences between the effects of violence experienced in the home and school versus violence experienced in the community at large (Kliewer, Lepore, Oskin, & Johnson, 1998). Research designed to assess the impact of exposure to violence in the family and in schools yielded few significant results, and was unable to effectively account for the correlated effects of CVE with either family or school violence exposure alone. Research into the moderating effects of race, gender, education, or socio-economic factors also failed to show that the impact of CVE is unique to a specific demographic. This research added significant support to the notion that the impact of CVE is unique and not better explained by any of its parts.

CVE may not only have a unique impact above and beyond the impact of its factors, but the historical tendency among researchers and practitioners to deconstruct the problem of CVE by type of exposure may have led to an underestimation of the entirety of the impact (Kracke & Hahn, 2008). Kracke and Hahn elucidated this point with their assertion that while not all events are traumatic, the stress accumulated over a life-time of exposure can have at least as great an impact as a single traumatic event. This suggests that in order to understand, and subsequently address, the impact of CVE; mental health fields have to resist the temptation to distill violence exposure into singular traumatic events within specific contexts. Instead researchers are called upon to recognize that the impact of multiple exposures across multiple contexts is greater than the sum of each moment of exposure.

CVE continues to have a growing body of literature that recognizes that the amplification of multiple incidences of exposure can have a significant effect that rivals

singular dramatic incidences of exposure. There are, however, continued investigations aimed at establishing a clearer picture of exactly what the influence of CVE is on youth. Despite continued calls to better understand the construct of community violence exposure; the presented research has led most researchers to adopt the position that the complex and synergistic nature of community violence in all of its forms creates a unique construct worthy of continued investigation (Margolis & Gordis, 2000; Salzinger, Ng-Mak, Fledman, Kam, & Rosario, 2006).

### **Defining CVE**

As used in the current literature, the construct of community violence exposure is composed of both direct exposure (i.e. victimization) and indirect exposure (i.e. witnessing violence) (Buka et al., 2001). Historically direct exposure (or intentional acts initiated by others to cause harm) has been better researched (Kuther, 1995). Direct exposure includes being chased, assaulted, shot, threatened, raped, or killed and may include drug or gang related violence (Buka et al. 2001, Groves, 1997). The victims of direct exposure are typically obvious and easier to measure. The indirect victims, however, are more numerous (Cooley-Strickland, et al., 2009). Unfortunately, there is less agreement regarding the definition of indirect exposure.

Indirect exposure has been defined variably in the literature. Some literature has referred to it only as eye-witnessing events involving death, injury, or physical threats to others. Other literature has included hearing violent events that took place such as gunshots or screams, or witnessing lesser crimes such as property damage and viewing violence on television and in movies (Lai, 1999, Cooley-Quille, Turner & Beidel, 1995).

Indirect exposure has also included simply having knowledge of another's victimization (Bell & Jenkins, 1993).

Ambiguity around its defining criteria has led to several problems in gaining an accurate picture of CVE, as the body of knowledge about the rates of and effects of exposure differs depending on the definition used. Overstreet (2000) suggests that the broader the definition, the higher the reported rates of exposure. This assertion suggests that there should be heightened scrutiny over the definition utilized when comparing and making judgments based on research into CVE. In order to have a more methodologically sound comparison of data, a standardized definition is warranted. The majority of the research has been consistent in including self-reports of direct and indirect exposure and excluding exposure that does not include real life events; such as viewing violence on television or movies. This is fortunate because it allows for a cleaner comparison of data.

The current study adheres to Buka et al.'s 2001 definition of CVE. Accordingly, it is defined as a broad class of events that are composed of direct victimization, witnessing of violent events, or hearing about real life violent events. Buka et al.'s definition is broad, and conceptualizes CVE as occurring across three levels; primary exposure (direct victimization), secondary exposure (violence seen or heard), and tertiary exposure (learning about violent acts to another real person). This definition excludes exposure to violence on television, video games, and in movies. Also it is consistent with the definitions used in the majority of existing studies of CVE, thus allowing for a more methodologically sound analysis and comparison of their findings.

### **Rates of Exposure**

Research into the rates of Community Violence Exposure in the United States is an issue that has gained notoriety over the last several decades (Osofsky, 1997; Margolin et al., 2009). It has been widely studied across various populations and demographics, and the literature demonstrates an alarming rate of exposure in our nation's youth. Estimates suggest that more than 60 % of all children are exposed to violence either directly or indirectly each year, and the majority of youth growing up in American inner cities directly experience some form of violence (Finkelhor, Turner, Ormrod, Hambe, & Kracke, 2009; Fowler & Braciszewski, 2009).

A closer examination of exposure was conducted by the Crimes Against Children Research Center in its most recent Developmental Victimization Survey (DVS). This longitudinal study was designed to assess a comprehensive range of childhood victimizations across gender, race, and developmental stage, and found that forty-six percent of youth assessed were assaulted in the last year, more than twenty-five percent witnessed a violent act, and nearly ten percent witnessed a family member assaulted (Finkelhor et al., 2009). In other studies, the assessed rates of exposure in inner-city communities are even higher. On the low end, one study found that 25-40 percent of urban youth had been exposed to some kind of direct violence (Frey, Ruchkin, Martin, & Schwab-Stone, 2008). On the high end, other studies have found that between 50- 100 percent of urban children have witnessed community violence (Gorman-Smith, Henry, & Tolan, 2004, Brady et al., 2008). These rates are clearly alarming, and have led many researchers to focus their research on the inner city. However, it should be emphasized here that the detrimental effects of community violence are not limited to inner city communities.

Rural and middle class communities have similarly shocking rates of exposure. Singer and Anglin (1995) found that more than twenty-five percent of “small city” youth had witnessed at least one shooting, and about the same percentage had witnessed a knife attack or a stabbing. In a follow-up study, Slovak and Singer (2002) found that a substantial percentage of third through eighth graders from rural areas (primarily Caucasian) reported being punched, hit, or slapped at home (45.1%) and school (40.1%). These findings have led researchers to conclude that children from all communities are vulnerable to exposure to violent trauma (Giaconia & Reinherz, 1995).

Much of the violence experienced is more serious than might be imagined. In a 1995 study of 2000 urban adolescents in public schools, more than forty percent had been exposed to a shooting or stabbing in the last year (Schwab-Stone & Ayers, 1995). In a 1999 study thirty-five percent of six to ten year-old boys in New York City reported witnessing a stabbing, thirty-three percent had seen someone shot, and twenty-three percent had seen a dead body in their neighborhood (Overstreet, 2000).

Youth also appear to be chronically exposed to violence. In the aforementioned review conducted by the DVS, sixty-seven percent of those assaulted had experienced at least one other victimization, and twenty-two percent of children aged two to seventeen years were found to have experienced four or more different kinds of victimizations in the previous year. In a 1993 study in Chicago, thirty-four percent of middle school youth had witnessed more than one violent event (Bell & Jenkins, 1993). Fredland, Campbell, and Han (2008) found that among 309 African American seventh graders in urban middle schools, less than one percent of reported no violence exposure, whereas twenty-three

percent were exposed to one form of violence, forty-five percent were exposed to two, and thirty-one percent to at least three forms of violence.

The high rate of exposure to community violence highlights that this is not just a singular issue in youths' lives, but one that has a pervasive and chronic impact on youth development. These rates of exposure require attention and have furthered the call for continued investigations to the behavioral, emotional, and developmental effects of CVE on youth attempting to navigate a childhood marred by exposure to violence. One avenue the literature has pursued to address the alarmingly high rates of exposure to violence is through increasing the field's conceptual knowledge of the process through which youth exposure to violence results in behavioral symptomology.

### **CVE and Symptomology**

Current literature has conceptualized CVE as a multiplistic problem, and has posited several theories to explain the positive relationship between CVE and negative behavioral outcomes. Researchers have applied a social learning or adaptive model to explain the development of behaviors such as aggression (Ng-Mak, Salzinger, Feldman, & Stueve, 2004; Wilkinson & Carr, 2008). These researchers posited that adopting aggressive behaviors in these communities may constitute a necessary adaptation to a violent ecology. In this hypothesis behavioral symptomology such as aggression are viewed as coping mechanisms that increase adolescents' ability to survive and thrive in violent communities. Investigations into this hypothesis left researchers surprised with the finding that those exhibiting violent behaviors reported similarly low rates of self-esteem and depression as those that did not display aggressive behaviors (Wilkinson & Carr, 2008). This research led researchers to conclude that the link between CVE and

aggression is much more complex than the adaptive model suggests; despite the intuitive connection to the benefits in adopting aggressive behaviors as a survival mechanism in violent communities.

One of the most promising conceptualizations of the development of both externalizing and internalizing symptomology as a result of CVE is Ng-Mak et al.'s (2004) pathologic adaptation model. Their model suggests that individuals respond to the unique threat of community violence in one of two ways; through a normalizing pathway or through a distress pathway. The normalizing pathway is characterized by attitudes that view violent actions towards self and others as morally permissible. For example, a youth exposed to high rates of CVE might view shooting someone as an accepted response to being disrespected by them. The distress pathway is characterized by developing an internalized focus to mitigate exposure. Those responding along this pathway might respond to repeated high rates of CVE by developing separation-anxiety disorder and refusing to attend school.

This pathologic adaptation model is one of the few models explaining the impact of CVE that has empirical support. Several studies have found data to supporting both the development of normalizing beliefs and the process through which distress symptoms develop among samples exposed to community violence (Ng-Mak et al., 2004; Boxer et al., 2008). Despite this data, this model has been challenged by those that suggest the pathologic adaptation model does not effectively account for the multiple contexts and developmental influences in youth's lives.

In an attempt to respond to a more complex picture of CVE researchers have also looked beyond a static understanding of the impact of exposure such as the pathologic

adaptation model towards more dynamic theories. These theories conceptualize the impact of CVE as occurring not just as an intra-psychic phenomenon but one that occurs as the individual interacts within multiple contextual levels. Researchers such as Kracke and Cohen have drawn on a social-ecological theory that views behavior as being multi-determined, of multiple origins, and driven largely by the relationships that individuals have within the systems with which they interact (2008). The social-ecological theory asserts that the effect of CVE on children is more fully explained by accounting for the effects of the community, families, and other social contexts in addition to children's psychological processes (Cummings, Goeke-Morey, Schermerhorn, Merrilees, & Cairns, 2009; Cummings et al., 2010). These theories have informed research aimed at understanding the multiple mediating and moderating factors between the relationship of youth exposure to violence and negative behavioral symptomology.

### **Mediating Factors of CVE**

An emerging and important body of research has focused on identifying the mediating and moderating factors of the negative effects of CVE. This research has sought to identify factors that mitigate the impacts of CVE and that subsequently could lead to interventions that can effectively combat the damaging effects of CVE. This research has occurred along three contextual levels: the family system's impact, social system's impact, and individual factors.

The literature provides the strongest support for the family system as a potential mediating factor in the effects of CVE. Several researchers have produced compelling data that depicts a mediating role of family structure, parental monitoring, and parental cohesion (Gorman-Smith & Tolan, 1998; Gorman-Smith, Henry, & Tolan, 2004). This



research has led to the assertion that the relationship between CVE and behavioral symptomology can be impacted through the parental system. It also has issued a continued call for a better understanding of the nature of the parental systems mediating role.

There is some research evidence to support social systems as having a mediating impact on CVE. Nikitopoulos, Watters, Collins, and Watts (2009) concluded that youth engagement in the community, especially through positive relationships with adults, appears critical to preventing behavioral symptomology and building resilience in the face of violence. School involvement also appears critical, as higher levels of school support are correlated with lower levels of behavioral symptomology (O'Donnell, Schwab-Stone, & Muyeed, 2002).

Peer support also has shown to mediate depression and anxiety (Hammack, Richards, Luo, Edlynn, & Roy, 2004). Unfortunately, the research also suggests that among those exposed to highest levels of CVE, peer support can lead to increased behavioral symptomology (O'Donnell, Schwab-Stone, & Muyeed, 2002) and rates of school attendance are markedly lower (Frey et al., 2008). These somewhat contradictory findings suggest that peer involvement and felt support may serve as a potential mediator of some internalizing behaviors but suggest that it also can promote externalizing behaviors and overall symptomology. This research has led to speculation that the true impact of the social system contextual level on youth is too complex for linear correlations; and requires can best be understood within the context of the other contextual levels.

Individual factors have also shown some promising research results as mediators of the relationship between CVE and behavioral symptomology. Edlynn, Gaylord-Harden, Richards, and Miller (2008) demonstrated that individual coping styles, such as avoidance and defensive coping, were correlated with decreased internalizing behavioral symptomology over time. Brady et al. (2008) also found that coping effectiveness was correlated with decreased externalizing symptomology such as aggressive and delinquent behaviors. This has led researchers to conclude that promoting coping styles may mitigate the deleterious effects of CVE.

Researchers have generally questioned the efficacy of individual responses to a multiplistic problem such as CVE; suggesting that the transaction between the individual and the ecology cannot be ignored. For example, they have suggested that promoting coping styles only provides a temporary buffer against the symptoms of CVE, and does not constitute a meaningful and sustainable response to the problem (Brady, et al. 2008). While increasing coping may temporarily reduce behavioral symptoms, this intervention may only remain viable if it is utilized as part of an intervention that also takes into account more complex transactional processes. Wallen and Rubin (1997) echoed this sentiment; suggesting that coping with exposure to violence alone is not sufficient; “cognitive mastery is also essential” (p. 3). Implying that youth must be able to not just assimilate effective coping styles but also have to be able to accommodate to new and effective ways of interacting with a violent ecology.

### **The Missing Element: Development and Morality**

The current literature is clear in calling for a better understanding of the factors that mediate community violence exposure. Although scholars have gained some ground

in understanding the mediating and moderating factors, none of the contextual levels presented are capable of accounting for the impact of CVE on their own. To address this gap, researchers are united in suggesting that multiplistic CVE interventions are needed. In a 2009 review of the mediating factors of CVE, Salzinger posited that the major implications of this research are that multiple interventions are necessary because one strategy cannot address all the processes for all children at all developmental levels. This statement portends the growing interest in the role of development in mediating the relationship between community violence exposure and behavioral symptomology.

Developmental approaches to CVE suggest that an important aspect of exposure is not simply what the affects are on emotional, cognitive, affective, and physiological processes, but also what these effects are at different stages of development (Margolin & Gordis, 2005). Investigations into the role of developmental seek to address the gaps in our understanding and need for a multiplistic approach through a construct that has the adaptive flexibility to include unique individual structures as well as maintain an ecological perspective. Developmental approaches have been suggested to be of vital importance for youth precisely because of the active and dynamic nature of their developmental stages (Ozer, Richards, & Kliewer, 2004). Despite this acknowledgement there is little empirical evidence to shed light on the role of development in mediating the relationship between community violence exposure and behavioral symptomology.

There is some anecdotal evidence that CVE has a strong relationship with development. Previous research has concluded that exposure to violence interferes with significant developmental tasks such as the development of trust, a sense of safety, emotional regulation, and the ability to form social relationships (Overstreet, 2000). This

has led researchers to posit that CVE is a significant threat not just to behavioral symptomology but also to optimal youth development such as an understanding of the social world and moral development (Kuther, 1999). In one of the few studies on CVE and development Burdett-Schiavone's 2009 qualitative study concluded that a major theme in coping with exposure to violence during adolescents was individual development capacities. While these studies call for further investigation into the relationship of individual development and CVE, the lack of a more extensive body of literature speaks louder.

Another arena that the literature suggests needs further investigation is the role of the moral self in mediating the relationship between CVE and behavioral symptomology. Burdett-Schiavone's (2009) research further identified the moral self as a theme for youth development in the face of community violence. This finding is an intriguing concept that also has a surprising amount of theoretical literature supporting the "intuitive connection" (Kuther & Wallace, 2003, p. 180) between CVE and moral reasoning.

Research has suggested that exposure to community violence interferes with the social-moral developmental process because it disrupts relationships and undermines feelings of safety and trust (Kuther, 1999). Sparks (1994) went as far as to say that the breakdown in human relationships due to high rates of exposure to community violence constitutes human rights violations and as such is a moral issue. He went on to suggest that if youth are to arrive at moral answers then their moral climate must serve as a guide and if we are to truly address community violence exposure then we must be able to match our approach to the moral climate. This led researchers to call for increased

research into the role of the moral self to determine the relationship between exposure to community violence and moral reasoning (Kuther & Wallace, 2003).

The literature is clear in its call for continued investigations into the factors that mediate and moderate the relationship between exposure to community violence and behavioral symptomology. Several authors have posited that the role of development is a concept that has some anecdotal evidence to support its role as well as provides a construct that potentially can address the need for multiplistic interventions. The role of the moral self also has significant research calling for investigations into its role in mediating the effects of community violence exposure. These represent significant gaps in the research that warrant further investigations. This research endeavors to investigate the role of moral development in mediating the relationship between community violence exposure and negatively behavioral symptomology in youth.

### **Theoretical Rational for the Study**

#### **Justification of a Cognitive Developmental Framework**

Cognitive Developmental Theory incorporates several theories that explain the development of the cognitive, internal structures that humans use to make sense of their environment. Its central premise is that reasoning and behavior are directly related to one's level of psychological complexity (Foster & McAdams, 1998). At lower stages of development reasoning is more concrete and rigid and individuals are generally less adaptive. At higher stages individuals have the ability to reason abstractly, take multiple perspectives and are generally more adaptive in problem solving situations (Brendel, Kolbert, & Foster, 2002). Thus lower levels of stage development result in behaviors that are more concrete, rigid, and less adaptive.

Cognitive Developmental Theory also suggests that individuals develop through sequential, hierarchical stages that progress in an invariant sequence (Sprinthall & Burke, 1985). As individuals progress through this hierarchical sequence they are moving through a series of distinct and independent stages of increasingly complex meaning making structures to gain mastery over themselves and their environment (Mosher & Sprinthall, 1971). Growth along this sequence can occur throughout the life-span and is an innate potentiality; however, it does not occur automatically. Development only occurs when the environment is capable of facilitating growth. This makes Cognitive Developmental Theory particularly intriguing for use in research on community violence exposure as it recognizes the impact that a dysfunctional ecology can have on youth development. It further recognizes that youth in an unhealthy environment will not be provided with the richest opportunity to develop and therefore they are less likely to develop the ability to flex and adapt to environments fraught with violence.

### **Introduction to Moral Development**

As the presented literature has suggested, the moral self is a theme that has significant implications for the relationship between behavioral symptomology and those growing up in violent communities. These youth are often being raised by families, school systems, and communities that have also been impacted greatly by exposure to violence. They are then attempting to navigate a world where they have to construct meanings about the violence they are witnessing or are directly experiencing. The domain of moral development specifically looks at the way that youth are making these meanings and connects these meanings to their behavior.

Moral development is a domain of cognitive development that looks at issues of justice and fairness as they relate to moral decision-making. It was developed by Kohlberg (1968) and later expanded on by Neo-Kohlbergians such as Rest, Narvaez, Gilligan, Bebeau, and Thoma. Moral development is particularly relevant to CVE as it looks at the manner through which individuals make decisions about moral issues. For adolescents being raised with the ever present spectre of violent events their ability to make sense of these events not only helps them cope but also informs the way they will respond when confronted with a moral issue. For adolescents there is a large body of literature that provides evidence of an inverse correlation between moral development and negative behavioral symptomology (Stams et. al, 2004).

Moral Development also provides a clear picture of the developmental tasks and challenges that accompany each stage of development. Adolescents are often at a developmental stage where they are attempting to move beyond an egocentric orientation (pre-conventional reasoning) toward a socio-centric orientation (conventional reasoning). In practice this is the developmental shift from a rigid right and wrong perspective based on individual gain towards a more complex perspective that increasingly incorporates the moral perspectives of larger social systems. Kuther (1999) states that when developing in an environment that is punctuated by consistent exposure to violence it is likely that youth will be limited to this individualistic perspective and remain at Kohlberg's stage two; much the way that moral reasoning in juvenile delinquents has been found to be arrested at stage two (Taylor & Walker, 1997).

The central task at this moment is therefore to move past the pre-conventional reasoning that supports externalizing behaviors and move toward a mutualistic stage that

will not only help them make sense of their complex world but also be less likely to contributing to moral reasoning that perpetuates the cycle of violence. As a result, it has been suggested that individual experiences that foster moral development may counterbalance the effects of exposure to community violence (Wallen & Rubin, 1997).

### **Justification for the Study**

Community Violence Exposure has a dramatic and broad impact on our society; however, research is still needed to better understand the factors that mediate the negative effects of exposure. Development in general, and specifically moral development, appears to be a promising avenue to pursue in teasing out these mediating factors. The role of moral development, specifically in youth, on this process warrants further investigation.

Research into moral development suggests that it has strong implications for both externalizing and internalizing behaviors. Research into the construct of community violence exposure has a plethora of data highlighting its relationship to externalizing and internalizing behaviors. This has led researchers to suggest that the role of development may be an important factor in mediating the effects of CVE, however, little research has been done on the relationship of moral development to the construct of community violence has been conducted.

### **Purpose of the Study**

The purpose of this study is to investigate the mediating role of youth moral development on the relationship between community violence exposure and behavioral symptomology. This study will further examine the role of parental moral development on the relationship between child exposure to community violence and behavioral



symptomology. The researcher will accomplish this through a path analysis of assessments of community violence exposure, moral development, and behavioral symptomology. It is hypothesized that lower levels of moral development will be correlated with increased externalizing and internalizing symptomology. It is also hypothesized that moral development will have an inverse correlation with rates of community violence exposure. It is further hypothesized that both youth and parental moral development will play a mediating role between rates of exposure and negative symptomology. Specifically, the purpose of the study is to answer the following questions:

1. What is relationship between exposure to community violence and moral development?
2. What is the relationship between moral development and externalizing and internalizing symptomology?
3. Will there be continued support for the relationship between community violence exposure and behavioral symptomology in a clinical population?
4. Is there a mediating role of moral development between the relationship of community violence exposure and behavioral symptomology?
5. Does parental moral developmental level mediate the relationship between exposure to community violence and negative symptomology for their adolescent children?

### **Definition of Terms**

Community Violence Exposure: A broad class of events composed of direct victimization, witnessing of violent events, and hearing about real life violent events.

Moral Development: A cognitive developmental theory developed by Lawrence Kohlberg and expanded by James Rest and others that describes how individuals think about issues of justice and fairness along a continuum of hierarchical stages, with higher stages indicating a principled perspective.

Externalizing Behaviors: Problem behaviors typically associated with conduct disorder and oppositional defiant disorder such as aggression, destruction of property, defiance, or hostile behaviors towards authority.

Internalizing Behaviors: Problem behaviors that impact individual healthy functioning such as depression, anxiety, and PTSD symptomology.

### **General Research Hypotheses**

This study was developed to investigate the proposed role of moral development in mediating the deleterious effects of exposure to community violence. The research indicates that exposure to community violence will be positively correlated with negative behavioral symptomology. The research also strongly suggests that moral development will be correlated with negative behavioral symptomology. This research expects to further find that moral development mediates the relationship between community violence exposure and negative symptomology.

### **Hypotheses**

1. There will be a significant relationship between the construct of community violence exposure as measured by the Screen for Adolescent Violence Exposure (SAVE) and negative behavioral symptomology as measured by the Achenbach Youth Self-Report Inventory (YSR) and the Clinical Assessment of Behavior (CAB).

2. There will be a significant relationship between the construct of community violence exposure as measured by the SAVE and moral development as measured by the Defining Issues Test II (DIT-II).
3. There will be a significant relationship between youth moral development as measured by the DIT-II and youth negative behavioral symptomology as measured by the YSR and the CAB.
4. Youth moral development as measured by the DIT-II serves as a mediating factor of the relationship between community violence exposure as measured by the SAVE and negative behavioral symptomology as measured by the YSR and the CAB.
5. Parental moral development as measured by the DIT-2 serves as a mediating factor between Community Violence Exposure as measured by the SAVE and negative behavioral symptomology as measured by the YSR and the CAB.

### **Sample Description and Data Gathering Procedures**

This study gathered data from thirty youth between the ages of eleven and eighteen and their parents referred to the New Horizons Family Counseling Center. The youth participants received a packet of three assessments designed to measure moral development, exposure to community violence, and externalizing and internalizing behaviors. The adults received a packet of two assessments designed to assess their moral developmental level and to rate their children's level of externalizing and internalizing behaviors. The youth packet consisted of the Defining Issues Test (DIT-2) to measure moral development levels, the Screen for Adolescent Violence Exposure

(SAVE) to measure rates of Community Violence Exposure and the Achenbach Youth Self Report Inventory (YSR) to assess externalizing and internalizing behaviors. The adult packet consisted of Defining Issues Test (DIT-2) to measure moral development levels and the Clinical Assessment of Behaviors (CAB-P) to assess their child's externalizing and internalizing behaviors. Participants were given these assessments by their current clinician at New Horizons Family Counseling Center from June 2010 to January 2011.

### **Limitations of the study**

The major limitations of this study are the small select, non-random sample of families referred for counseling services at the New Horizons Family Counseling Center. The small sample will limit the generalizability of the study and reduce the power of the statistical findings. The clinical sample will further limit the generalizability as the levels of externalizing and internalizing behaviors will be expected to exceed that of the general population. Additionally the sample will be drawn from a limited geographical location and as such will have limited generalizability to the larger population of youth exposed to community violence.

### **Chapter Summary**

This chapter presents an overview of the pressing need for greater knowledge of the factors that may mediate the effects of community violence exposure. It also presents the call for an investigation into the role of development and the moral self in mediating the negative effects of exposure. The theoretical rationale for utilizing a cognitive developmental and specifically a moral developmental lens to accomplish this is presented. The research design was outlined including operational definitions and

hypotheses, expected results, proposed sample characteristics, data collection procedures, and study limitations. Chapter Two will provide a detailed critical look at selected relevant literature.

## **CHAPTER TWO: CURRENT LITERATURE REVIEW**

This chapter provides a critical review of literature related to the construct of community violence exposure. Specifically, it reviews literature on the impact of exposure to community violence, current conceptualizations of how negative symptomology develops, and the factors that moderate and mediate the impact of community violence exposure. It also presents research on the domain of moral development in the context of exposure to community violence. Finally, implications of the presented literature are examined and applied to justify the current study.

### **Community Violence Exposure (CVE)**

Over the last several decades researchers have endeavored to document the frequency and impact of exposure to violence in the community on adolescents. The literature has primarily focused on adolescents, because they are at the greatest risk of exposure to community violence (Lambert, Ialongo, Boyd, & Cooley, 2005). Adolescents between the ages of 12 and 19 have been shown to have the highest rates of exposure (Bureau of Justice Statistics, 2008). Among these adolescents, those living in low income, minority, and urban communities have the highest rates of exposure (Bureau of Justice Statistics, 2008).

While this demographic research highlights that minority adolescents living in low-income urban communities are most likely to be exposed to community violence, research also finds that demographics are not a protective factor. This is evidenced by several studies that suggest exposure to community violence has similar detrimental outcomes in both rural and urban communities when demographic factors are controlled

for (Stein, Jaycox, Kataoka, Rhodes, & Vestal, 2003; Fowler & Braciszewski, 2009). Song, Singer, and Anglin (1998) found that in their sample of more than 3000 ethnically diverse adolescents that demographic variables such as age, race/ethnicity, parental education, and family composition only accounted for one percent of the variance in violent/aggressive behavior after controlling for exposure to violent events. This research, and others like it, demonstrates that CVE has an enormous influence on adolescents regardless of demographics.

The literature further recognizes that the risk of CVE on adolescents is not simply due to increased rates of exposure, but also because of the unique developmental challenges adolescents face. Consistent physical, emotional, and psychological changes place adolescents at heightened risk of maladaptive developmental outcomes (Freedy & Resnick, 1994). Exposure to violence constitutes a significant stressor and impediment to successfully navigating these demanding developmental challenges (Freedy & Resnick, 1994; Rosenthal, 2000). Recognition of this heightened risk for negative outcomes has led to intensive investigations into the lived effects of exposure on youth.

### **The Impact of CVE on Adolescents**

The literature on CVE consistently conceptualizes the impact of exposure in two broad categories; the development of internalizing and externalizing symptomology. The research into the effects of community violence has shown that CVE is especially insidious in the development of externalizing symptoms (Fowler & Braciszewski, 2009).

#### **CVE and Externalizing Symptomology**

As presented in Chapter One, externalizing behaviors are defined as problem behaviors typically associated with conduct disorder and oppositional defiant disorder

such as aggression, destruction of property, defiance, or hostile behaviors towards authority. These behaviors in youth are a national priority, as the estimates of the direct and indirect cost of youth externalizing behavior exceeds \$158 billion every year ([www.edarc.org/pubs/tables/youth-viol.htm](http://www.edarc.org/pubs/tables/youth-viol.htm)). The intuitive connection between growing up in violent communities and violent attitudes and behaviors is supported by literature suggesting that youth aggression, anger, and other correlates of violent behavior are closely linked to exposure to community violence (Frey, Ruchkin, Martin, & Schwab-Stone, 2008).

In one of the first studies of CVE and youth, Bell and Jenkins (1993) found that witnessing violence was significantly correlated with alcohol and drug use, carrying guns and knives, and aggressive behaviors in school. Bell and Jenkins' study has been followed up with a plethora of research that suggests adolescent exposure to community violence is significantly related to antisocial behavior and aggression (Gorman-Smith, Henry, & Tolan, 2004). Decades of research replicate this correlation; demonstrating that youth exposed to violence in the community are four times more likely to carry weapons, have increased rates of peer-rated aggression, have higher rates of gang-involvement, and show significant increases in antisocial behavior (Richters & Martinez, 1993; Attar & Guerra, 1994; Martin, 1995; Hill & Madhere, 1996; Gorman-Smith & Tolan, 1998; Cooley-Quille et al., 2001).

One such study is Miller et al.'s 1999 investigation into the relationship between witnessing community violence and antisocial behaviors in youth. The study collected data from a sample of 97 males aged six to ten that the authors identified as high risk for displaying antisocial behavior based on residing in an urban environment and having a



sibling with a juvenile court conviction. Rates of antisocial behavior were assessed via parental report on the Achenbach Child Behavior Checklist and rates of CVE were assessed via youth self-report of CVE on a modified version of Richters and Martinez's (1990) Things I Have Seen and Heard. Data was collected at three intervals (time one, two, and three) over a 30 month period.

Using a multiple regression the authors found that witnessed violence was related positively to antisocial behavior at time two ( $r=.23$ ,  $p<.02$ ) and three ( $r=.31$ ,  $p<.002$ ). The authors also found that when previous antisocial behavior was controlled for (reported at time two), witnessed violence was still correlated to changes in antisocial behaviors from time two to time three ( $r=.23$ ,  $p<.03$ ). This finding is significant, as it highlights not just the positive relationship between CVE and antisocial behavior, but also the significant influence CVE can have on antisocial behaviors even during a relatively short period of time (15 months).

The authors concluded that this data adds to previous research correlating CVE with antisocial behaviors. It also revealed that CVE has a positive relationship to changes in antisocial behaviors over time. This finding was particularly noteworthy, as the stability of antisocial behaviors in this sample over 30 months was high ( $r=.56$ ,  $p<.001$ ). The authors further concluded that this study's replication of the findings of other studies correlating antisocial behavior and CVE was impressive, given that this study utilized a younger age group and a specialized risk group.

The authors noted that the study was limited in its generalizability by the use of a high risk, all male sample. They also noted that the measure of CVE employed asks about exposure over the entire lifetime, and as such, conclusions about the effect of

timing of the exposure cannot be made. Despite these limitations, they concluded their article by noting that their findings were highly consistent with other research positively correlating CVE with antisocial behaviors, and that future research should examine the long-term effects of this exposure.

Subsequent research has followed that recommendation and has found that externalizing behaviors in youth continue to increase as youth get older. Youth exposed to community violence at a young age have been shown to be at risk for greater involvement in violent behavior in later adolescence and to demonstrate escalating violence throughout the teenage years (Brady et al., 2008; Wilkinson & Carr, 2008). One study found that for middle school aged children in a high crime inner city neighborhood, exposure to community violence in the first year of middle school was associated with increased aggressive antisocial behavior a year later (Salzinger et al., 2008). This suggests that not only are externalizing behaviors likely to be exhibited by those exposed to CVE but those exposed are likely to demonstrate increasing externalizing behaviors throughout their teenage years.

Lynch and Cicchetti (1998) posited that these increasing externalizing behaviors also create a positive feedback loop between CVE and externalizing behaviors. In their study assessing 322 children at a day camp for disadvantaged children, they conducted an ecological-transactional analysis of CVE's impact. The authors did this by assessing youth exposure to community violence on Richters and Martinez's Community Violence Survey (Richters & Martinez, 1990) and behavioral symptomology on the teacher version of Achenbach's Child Behavior Checklist (Achenbach, 1991). Then the results of these measures were compared to other contextual variables over the course of a year.

Their research depicted a cycle, whereby externalizing behaviors among youth seven to twelve years-old predicted witnessed violence ( $R^2=.02$ ,  $p<.01$ ) and direct victimization ( $R^2=.02$ ,  $p<.01$ ) one year later, even when prior exposure was controlled for. These findings, compared with other research identifying the relationship between exposure and the development of externalizing behaviors led Lynch (2003) to posit that these youth are in a self-perpetuating cycle between exposure and externalizing behaviors. The findings have grave implications for the ecological impact of CVE; youth not only have to cope with witnessing or hearing about violent events, but the results of those violent events, externalizing behaviors, portends future exposure.

One recent study by McMahon, Felix, Halpert, and Petropoulos (2009) noted that it is surprising how more attention is not focused on CVE's effect on adolescent aggression, given that it poses such a significant societal problem. McMahon et al. added to our understanding of the development of externalizing behaviors through their research into CVE and aggressive behaviors among African American communities in a public housing development. They proposed that increased exposure to community violence would lead to *increased beliefs supporting retaliatory aggression and decreased self efficacy to control aggressive behavior*. As other literature has suggested, their sample of 126 youth ages 10-15 (83 girls and 43 boys) found a significant correlation between the path of exposure to community violence and aggressive behaviors ( $r=.29$ ,  $p<.01$ ). They further found support for their proposed path between exposure to community violence and aggression and decreased self efficacy (GFI 1.00). The authors concluded that more exposure not only predicts increased aggressive behaviors but also predicts beliefs and self-perceptions that support violence.

McMahon et al. (2009) acknowledge that our understanding of the relationship between aggression and community violence is nascent, and that another model may explain the relationship just as well as their own. They also acknowledge that the scope of their study was limited by only conducting research with on a lower SES African American population, and as such, the study has limited generalizability. They also call for continued research into the aggression-community violence relationship, suggesting that a more complex and a multifaceted understanding of the relationship would lead to more effective interventions. Despite these limitations, the decades of research that support the relationship between CVE and externalizing behaviors allow for a strong endorsement of the correlation.

### **CVE and Internalizing Symptomology**

While the impact of CVE on adolescents' externalizing behaviors is clear, it is perhaps easier to view adolescents as the victims of violence exposure, and not the source of it when looking at internalizing symptomology. Internalizing symptomology is defined as problem behaviors that impact an individual's healthy functioning such as depression, anxiety, and PTSD symptomology. As the literature presented in Chapter One states, there is a robust amount of data linking CVE to internalizing behaviors such as depression, anxiety, negative effects on self esteem, and other internalizing symptomology (Buka et al., 2001; Gorman-Smith & Tolan, 1998).

One of the most common areas of relevant research investigates the correlation between CVE and the development of post traumatic stress symptoms. This is not surprising, inasmuch as PTSD offers a unifying description of the anxiety disorder most often associated with overwhelming life experiences (Mazza & Overstreet, 2000; Buka et

al., 2001). In general, the literature states that both chronic and acute exposure to violence in the community are correlated with the symptomatology of PTSD, particularly in youth (Buka et al., 2001). For adolescents, the literature demonstrates positive correlations between CVE and re-experiencing traumatic events, persistent increased arousal, and avoidance of the stimuli associated with the trauma (Ozer & Weinstein, 2004; Buka et al., 2001). Overstreet (2000) found that about a third of their sample of 10-15 year-olds exposed to CVE displayed symptoms consistent with the DSM-IV criteria for PTSD.

One landmark study in CVE's correlation to internalizing symptoms is Cooley-Quille, et al.'s (2001) investigation of 185 inner-city high school students. The study found that inner-city adolescents exposed to high levels of community violence expressed more fears, had more trait anxiety (consistently heightened anxiety), and more internalizing behaviors than those exposed to low levels. They also found that several psychiatric symptoms were positively correlated with community violence exposure, including posttraumatic stress symptoms ( $r=.42, p<.05$ ) and separation anxiety symptoms ( $r=.50, p<.05$ ). Total community violence exposure also significantly predicted PTSD symptoms ( $F(1,25) = 4.61$ ), and witnessing violence significantly predicted separation anxiety symptoms, ( $F(1,25)= 6.31$ ). The authors also conducted a longitudinal examination of internalizing symptoms, and found evidence that exposure to community violence is related to anxious and PTSD symptoms one and two years later.

This study has the limitation of utilizing self-report instruments for rates of community violence exposure (Child-Report of Exposure to Violence; Cooley, Turner, & Beidel, 1995), internalizing behaviors (Youth Self-Report Form of Achenbach's Child

Behavior Checklist; Achenbach, 1991), and fears (Fear Schedule Survey for Children-Revised; Ollendick, 1983). While the instruments had good test-retest reliability ( $r=.75$ ,  $r=.71$ , and  $r=.82$ ) and internal consistency (Cronbach's alpha  $.78$ ,  $.81$ ,  $.94$ ), the accuracy of the rates of exposure and internalizing behaviors is questionable and would be bolstered by having multiple informants. Cooley-Quille et al. (2001) recognize this as a concern, and add that there is increased reason to be concerned about the accuracy of self-reports of internalizing behaviors and community violence exposure in youth in inner-cities, because those youth are potentially desensitized to violence and internalizing symptoms. The authors concluded that future research is needed in order to provide consistently generalizable data on the effects of community violence exposure and internalizing behaviors.

A study by Rosario, Salzinger, Feldman, and Ng-Mak (2007) provides a continued look at the impact of CVE on internalizing behaviors in a longitudinal sample. The authors found results similar to Cooley-Quille et al. (2001) in a sample of 667 inner city middle school students in New York City who were assessed over a three year period. In their sample, exposure to community violence as either a victim or witness was significantly related ( $p<.05$ ) to more internalizing symptoms over time. Specifically, the authors found that direct exposure to community violence in year one was significantly correlated with depressive symptoms in year two ( $r=.11$ ,  $p<.01$ ) and year three ( $r=.10$ ,  $p<.05$ ), anxiety in year two ( $r=.16$ ,  $p<.01$ ) and year three ( $r=.15$ ,  $p<.01$ ), and PTSD symptomology in year two ( $r=.17$ ,  $p<.01$ ) and year three ( $r=.13$ ,  $p<.01$ ). The authors also found that witnessing community violence in year one was significantly correlated with depressive symptoms in years two ( $r=.14$ ,  $p<.01$ ) and three ( $r=.09$ ,  $p<.05$ ),

anxiety symptoms in years two ( $r=.12$ ,  $p<.01$ ) and three ( $r=.11$ ,  $p<.01$ ), and PTSD symptoms in years two ( $r=.18$ ,  $p<.01$ ) and three ( $r=.14$ ,  $p<.01$ ).

The study identified the limitations of not utilizing a random sample; recognizing that such a sample may not be representative of adolescents in other contexts. The study recognized, as has the majority of the presented research in this area, that the use of self report data is susceptible to recall and self-presentation effects. While no causal interpretations are possible with its data, the research does contribute to a body of literature that shows a linear relationship between violence exposure and internalizing symptoms that persists over time.

A meta-analysis by Wilson and Rosenthal (2003) sought to determine the size of the relationship between CVE and psychological symptoms among adolescents. The authors defined psychological symptoms as psychological distress, depression, anxiety, PTSD symptoms, or other internalizing behaviors. They reviewed all relevant studies done in the last 20 years that met the following criteria: (a) was presented in the archival literature (not dissertations and papers), (b) utilized a sample in which a substantial piece was aged 12-19, (c) included independent variables with operational definition as witnessing or being the victim of one or more type of community violence, (d) included dependent variables measuring psychological distress, (e) utilized individuals as the unit of analysis, (f) presented empirical data about the nature of the relationship between CVE and psychological distress, and (g) provided sufficient empirical data to compute an effect size. These criteria yielded 37 independent samples from 1993 to 2001 that were suitable for analysis.

The authors concluded that the null hypothesis of no relationship between CVE and internalizing behavioral symptomology ( $Z=5.31$ ,  $p<.00003$ ) can be rejected with considerable confidence. They stated that the included research clearly showed a significant positive correlation between CVE and internalizing behaviors. The estimated effect size of the relationship between exposure and psychological distress in the studies reviewed yielded a Pearson's Correlational Coefficient of .25; a low to medium effect size. The authors noted that this is an effect size equal to or greater than effect sizes generated on the impact of child sexual abuse on internalizing psychological symptoms. The researchers concluded that while this is not a large effect size, it does suggest a relationship of real practical importance.

Wilson and Rosenthal noted that there are several limitations of this analysis. As in any meta-analysis, its quality is limited by the quality of the studies examined. The studies examined were correlational, and as such, do not allow for any statements of causality. The authors further noted that while they were able to limit the criteria of included studies, there were varying definitions of CVE and criteria for behavioral symptomology within those studies. Despite these limitations, this research suggests not only is there significant support for the correlation between CVE and internalizing behaviors across over a decade of research, but also that there is empirical data highlighting the harmful impact of CVE compared to other harmful life experiences.

As shown above, current research outlines a significant problem that has been characterized by the CDC as a public health epidemic (Finkelhor et al., 2009). The documented effects of CVE on both externalizing and internalizing symptoms is clear, and it suggests that youth raised in violent communities are at great risk for negative



behavioral, cognitive, and emotional outcomes. In an effort to better understand and guide efforts aimed at ameliorating the effects of CVE, researchers have developed several theoretical conceptualizations of the impact of community violence exposure.

### **Theoretical Conceptualizations**

As the empirical evidence illustrating the alarming impact of exposure mounts, researchers have begun to develop theoretical and conceptual models to explain the development of symptomology in adolescents exposed to community violence. Developing a conceptual understanding of this complex construct is necessary both to inform effective research but also to make sense of the considerable amount of data demonstrating a correlation between exposure to violence in the community and negative symptomology. One of the leading conceptual frameworks that may shape interventions and future research is the pathologic adaptation model.

#### **Pathologic Adaptation Model**

Ng-Mak et al. (2004) and Boxer et al. (2008) have championed this model, and offered insight into the developmental pathways violent communities create that support violent youth. They found empirical support for a theoretical model termed the “pathologic adaptation model” (Ng-Mak et al., 2004, p. 196). The pathologic adaptation model attempts to shed some light on the way youth make meaning of and cope with CVE. In the pathological adaptation model, youth adapt to exposure to community violence in two ways; through a distress pathway, where youth respond with general maladaptation including emotional distress, and through a normalizing pathway, where youth come to view violence as morally permissible and develop uncaring attitudes. This

framework offers a succinct explanation of why youth internalizing and externalizing behaviors develop.

As proposed by Ng-Mak et al. (2004), the distress pathway is characterized by youth who develop internalizing behaviors such as PTSD symptomology, depression, and anxiety in response to exposure to violence. This conceptual model suggests that youth who do not develop internalizing behaviors may, in fact, adapt to cope with exposure to violence by developing uncaring attitudes and moral judgments that promote externalizing behaviors such as violence and delinquency. This depicts a system that not only produces internal and externalizing behaviors, but also provides a framework that promotes tolerance of and engagement in future violence.

To test this model, they collected data from 471 sixth graders (mean age of 12.3 years) and their guardians in an inner-city school district. They conducted two-hour face to face interviews, assessed exposure to violence, and assessed behavioral symptomology from both the child and the guardian between January and July of 1999. The authors utilized a hierarchical regression/correlation analysis to test the hypothesized pathologic adaptation model. The results of the study were not conclusive; however, there was some support for the model. The authors found that inner-city youth in their sample who were exposed to high levels of CVE showed evidence of psychological desensitization to violence while also becoming more violent. The authors noted that evidence supporting the model was specific to child-reported rather than parent-reported levels of psychological distress.

The authors concluded that although the data was partially consistent with the pathologic adaptation model to CVE, future research should continue to try to delineate

the mechanisms involved in adapting to violent communities. They pointed out the limitations of their study that included low rates of exposure to violence, low participation rates, and less than ideal measures of psychological distress, suggesting that these would need to be addressed in future studies.

Boxer, Morris, Terranova, Kithakye, Savoy, and McFaul (2008) followed up on Ng-Mak's pathologic adaptation model, and integrated research on individual coping. To accomplish this they conducted two studies aimed at finding support for both the distress pathway and the normalizing pathway. The first study had a sample of 35 minority inner-city youth (mean age of 10.7), and examined the distress pathway. This study posited that avoidant coping was the individual coping style that leads to the distress pathway and measured CVE on a modified version of Richters and Martinez's Things I Have Seen and Heard Scale (1993), avoidant coping was measured by a modified version of Causey and Dubow's Self-Report Coping Survey (1992), and psychological adjustment was measured on the Strengths and difficulties Questionnaire (Goodman, 2001).

The authors predictably found that witnessed violence and being victimized by low level aggression correlated with emotional symptoms ( $r=.41, p<.05$  &  $r=.58, p<.01$ ); however, emotional symptoms did not correlate with aggressive behaviors. The authors also found that engagement in avoidant coping correlated significantly with emotional symptoms ( $r=.41, p<.05$ ) but not aggression. They concluded that this is consistent with the hypothesized distress pathway, in which youth who engaged in avoidant coping only developed internalizing symptoms.

The second study had a sample of 70 minority inner-city youth (mean age 11.3) and added a measure of aggression supporting beliefs, the Normative Beliefs about

Aggression Scale (Huesmann & Guerra, 1997), to assess both the distress and the normalizing pathway. A path analysis was utilized to assess the roles of avoidant coping and aggression supporting beliefs in accounting for the links between exposure to violence and emotional symptoms. The authors found witnessing violence and low level aggression predicted normative beliefs approving of aggressive responding ( $r=.29, p<.05$  &  $r=.27, p<.05$ ), which, in turn predicted higher levels of aggressive behaviors ( $r=.48, p<.01$ ). The normalizing pathway was supported, in that aggression and witnessing violence positively predicted higher levels of aggressive behavior.

The authors noted several limitations and highlighted that the results are preliminary given the size of their study. They pointed to the potential inaccuracy of self-report measures, the broad age range of participants, and low internal reliability measures for the witnessing and coping measures in the first study as limitations. They concluded by suggesting that to advance the pathologic adaptation model, replication with larger numbers and multi-informant reports of children's behavior was needed. They also argued, as did Ng-Mak et al. (2004), that a longitudinal approach was the next step. Taken as a whole, Ng-Mak and Boxer et al.'s (2008) studies provide some empirical support for the pathologic adaptation model; however, its support is far from conclusive.

### **Ecological Models**

In addition to the pathologic adaptation model, researchers have utilized more dynamic theoretical conceptualizations that include the interaction between the individual and the surrounding ecology. One of the leading models is the ecological model, which posits that children and their families are embedded within multiple systems that have both direct and indirect influences on their behavior, and that these influences are

reciprocal and bi-directional (Kracke & Cohen, 2009). This model views youth as not only suffering from the direct effects of exposure, but also from the systems that surround them and the complex factors of multiple systems that result in cognitive, emotional, and behavioral outcomes.

Exposure to community violence is uniquely suited to an ecological model in that it clearly influences several levels of youths' lives such as family interaction, peer interaction, and the school environment. Youth and adolescence have largely been considered as a time of growth and experimentation that requires the surrounding ecological systems to provide a buffer from harmful interactions, or what Erikson referred to as a period of moratorium (Erikson, 1963). In violent communities, exposure to violence is sufficiently disruptive to erode this buffer and often creates a situation where youth experience compressed intervals of growth and development (Carter & McGoldrick, 2005). Without this buffer and in the face of continued exposure to community violence, the child's development can be severely impacted.

The ecological model also suggests that stunted development is not the end of the effects of growing up in violent communities. There is a reciprocal process in which the individual is not only impacted but the individual impacts the ecology. The recursive problem of violence suggests that in violent communities, youth are not provided with sufficient buffers to enable them to explore and develop healthy behaviors; instead, traumatic exposure and a truncated ability to develop results in internalizing and externalizing behaviors. The presence of youth displaying these behaviors contributes to an ecology that cannot, in turn, provide a healthy buffer for optimal growth and development. This cyclical process not only negatively impacts individuals, but creates a

community ecology that struggles to provide a safe and supportive place for future generations to grow.

There is a large body of literature that has examined this recursive problem and it suggests that violence in communities is all the more insidious because of its long term effects. CVE creates a cycle where youth exposed to violence are not only affected individually, but also begin to display more aggressive behaviors that perpetuate violent communities (Frey et al. 2008; Kluttig, Odenwald, & Hartmann, 2009). This leads to a situation where exposure to community violence in one generation will contribute to exposure to community violence on that generation's children which will then perpetuate exposure in their children's children ad infinitum unless there is a pointed and intentional effort to interrupt the impact.

This is evidenced by emerging research suggesting that integral support systems such as parenting practices are greatly impacted by parental exposure to community violence (Zhang & Anderson, 2010). One study of note is Mitchell, Lewin, Horn, Valentine, Sanders-Philips, and Joseph's (2010) examination of the direct effects of CVE on parental mental health and parenting practices. Their study took the notion of the recursive problem of violence one step further by investigating the way intergenerational transmission of trauma impacts parenting behaviors.

Their sample consisted of 230 young African-American mothers who participated in structured interviews and filled out assessments of community violence exposure. As research presented earlier in the chapter would suggest, CVE was associated with increased depression ( $r=.19, p<.01$ ) and aggression ( $r=.15, p<.01$ ) in mothers. These mothers' increased depression and aggression was also correlated with harsher and more

aggressive discipline ( $r=.20$ ,  $p<.01$ ) and poorer home quality ( $r=.11$ ,  $p<.01$ ). This led the researchers to conclude that their study provided support for the intergenerational transmission of the impact of CVE.

The researchers identified the limitations of utilizing a self-selected sample and self-report measures for the study. They further, pointed out the limitation of relying on a measure of exposure to violence that is concerned with past events, noting that a longitudinal study would have been advantageous. However, these limitations do not overshadow the relevance of the finding that parental exposure to violence may have some of the same consequences for their children as direct or indirect exposure would have on them. This finding lends support to the importance of understanding the ecological model of the impact of CVE.

The literature presented thus far in this chapter has shown that youth subjected to violent communities develop a host of internalizing and externalizing symptoms. Exposure to community violence is seen as a significant disruption in healthy youth development and the systems that support healthy development. The literature has responded to this with a consistent call for research that teases out the factors that mediate the impact of CVE.

### **Mediating and Moderating CVE**

In response to the mounting evidence that CVE does correlate with negative outcomes, some scholars have made a strong case for extending research towards investigations into the factors that mediate and moderate the effects of exposure to community violence (Ozer, Richards, & Kliwer, 2004; Margolin & Gordis, 2004). Mediating factors help explain the mechanism or process through which exposure leads

to negative outcome (Dahlberg & Potter, 2001). Research on the mediating factors of CVE can be broadly broken down into three general mediating factors: family, social systems, and individual factors. These three factors constitute separate contextual levels that help to explain the differences in a child's vulnerability to the maladaptive effects of exposure to community violence (Margolin & Gordis, 2004). Research into these factors hopes to shed light on their relationship to CVE and, subsequently, to provide direction for the development of interventions designed to mitigate the negative effects of CVE on youth.

### **Family Systems Impact**

One mediating factor that has received a large amount of attention in the professional literature is the family system. While the research suggests that the family system has no significant effects on whether or not children are exposed to community violence, it does suggest that several family system characteristics appear to mediate the effects of exposure on externalizing and internalizing behaviors.

The majority of the research into the family system's role in mediating the effects of CVE has focused around family structural qualities. Family structure has been shown to have significant effects on behavior, and the literature suggests it has a particularly significant effect on externalizing behaviors (Schoppe, Mangelsdorf, & Frosch, 2001). Parental monitoring has been found to have a protective effect on delinquent behavior in youth exposed to community violence and to moderate the relationship between CVE and aggression (Griffin, Scheier, Botvin, Diaz, & Miller, 2000). Negative parenting, defined as confrontational or punitive parenting, has been shown to correlate with increased aggressive and externalizing behaviors one year later (Salzinger et al. 2006). Sullivan,



Kung, and Farrell (2004) demonstrated that at low levels of CVE, family support and parental monitoring reduced both drug initiation and use several months later. These studies provide empirical evidence that parental monitoring, support, and style do, in fact, mediate the effects of CVE on externalizing behaviors for youth.

The research has also suggested that family systems play an integral role in mediating internalizing behaviors. Parental helpfulness, as self-reported by youth, was shown to mediate the effects of violence exposure on PTSD symptoms, and mother and sibling perceived helpfulness have been shown to mediate the effects of violence exposure on depression (Ozer & Weinstein, 2004). A study by Kliewer, Cunningham, Diehl, Parrish, Walker, and Atiyeh (2004) of 101 pairs of children and their care-givers found that felt acceptance from the caregiver and the observed quality of the caregiver-child interaction were protective factors for children exposed to community violence. Specifically, the study concluded that the quality of the relationship, both felt and perceived, may be a mitigating factor of CVE on depression and anxiety.

Two landmark studies have provided solid evidence that family structure does play a role in mediating the effects of community violence exposure on both internalizing and externalizing symptoms. In a study of 245 African American and Latino fifth and seventh grade boys in inner-city Chicago, Gorman-Smith and Tolan (1998) found that increased family structure, defined in terms of organization and support levels, was a significant predictor of lower levels of aggressive behaviors and depression ( $T=-2.48$  [ $p<.005$ ] and  $-2.62$  [ $p<.001$ ] respectively). They also found that in families with lower levels of family cohesion, CVE was correlated with anxiety and depression ( $.30$ ,  $p<.001$ ).

The researchers followed up this study with a study of 263 African American males in inner-city Chicago five years later (Gorman-Smith, Henry, & Tolan, 2004). This study's results were consistent with others reporting a significant relationship between youth exposed to community violence and their subsequent perpetration of violence. Also consistent with previous research was the finding that higher levels of parental discipline and monitoring were associated with lower levels of violence perpetration (Chi Square = 4.11). Gorman-Smith, Henry, and Tolan concluded that youth from families that consistently used poor parenting practices were more likely to be at-risk for aggressive behaviors, and families functioning at a high level of structure, discipline, and cohesion were more likely to mitigate aggression and anxiety in youth.

The authors of these studies acknowledge that there are some notable limitations. The clearest of these limitations is the generalizability of these results to populations with different social ecologies. Both studies relied on high-risk samples of poor urban males, and the authors state that it is not known how these results apply to girls, youth of different ages, and to samples more reflective of the general population. It is further suggested that parenting practices may be fundamentally different in high-risk samples, and, as such, the results may not be reflective of the general population.

Despite these limitations, the research as a whole appears to very successfully describe that youth from families with high levels of structure and that maintain good relationships with their children may serve to mitigate some of the negative effects of CVE. This suggests that family focused interventions such as structural family therapy may prove effective in abating the effects of community violence exposure. Several researches have followed up their findings with the caveat that family factors provide

only one level of mediation (Lynch, 2003; Tolan, Gorman-Smith, & Henry, 2003; Kliewer et al., 2004). Larger environmental factors may also play an important role in internal family dynamics, disciplinary practices, growth opportunities, and systems of support that influence the mediation of CVE symptomology (Dahlberg & Potter, 2001).

### **Social Systems Impact**

The mediating effects of the larger contextual factors such as community, school, and peer groups on behavioral symptomology have been less conclusive than the family system's effect but still have a significant body of supporting literature. The research into community factors suggests that youth engagement in the community, especially through positive relationships with adults, seems critical to preventing violence and building resilience in children (Nikitopoulos, Waters, Collins, & Watts, 2009). This is supported by the previously discussed finding that perceived neighborhood risk is positively correlated with aggression in youth, and that even relatively low levels of CVE can increase the risk of students displaying aggressive behaviors at school (Frey et al., 2008; Bradshaw et al., 2009). The findings have prompted the development of community based interventions such as Richmond Youth Against Violence and the Neighborhood Club aimed at reducing the harmful impact of CVE through promoting positive involvement in the neighborhood (Ceballo, Ramirez, Maltese, & Bautista, 2006).

School support appears to have a broad range of impact on the effects of community violence exposure. For children with the highest rates of exposure, the positive effects tend to be strongest in the areas of substance abuse and school misconduct (O'Donnell et al., 2002). This is consistent with other studies that have found that school support was negatively related to externalizing behaviors (Garnefski &

Diekstra, 1996). On youth with the highest levels of exposure, teacher influence on reducing substance abuse and inappropriate school behavior becomes stronger over time, while parental influence weakens (O'Donnell et al., 2002). This implies that school factors may become more important as youth move into the teenage years.

Unfortunately, research also suggests that community violence exposure appears to mediate the effectiveness of school. Frey et al.'s (2008) investigation of 652 predominantly minority inner city youth found that higher levels of CVE were predictive of lower levels of school attachment one year later ( $F=7.10, p<.01$ ). Academic outcomes have also been shown to be poorer in areas with high levels of community violence exposure (Frey et al., 2008). This calls into question some of the preventative affects of school support, and suggests that the literature is inconclusive at best.

Peers have an increased influence on the emotions, cognitions, and behavior of youth as they move into their teenage years, and peer impact on the effects of community violence follows the same path. Peer support has been shown to be a mediating factor of CVE for younger children, and has been correlated with less trait anxiety and greater school competence in that age group (O'Donnell, Schwab-Stone, & Muyeed, 2002; Hill & Madhere, 1996). Research has also found that both a general sense of social support and the daily experience of social support moderate the effects of exposure to community violence on depression and anxiety (Hammack, Richards, Luo, Edlynn, & Roy, 2004). Peer support has also been associated with positive traits such as self-reliance, higher levels of future expectations, and interpersonal relationships (O'Donnell et al., 2002).

Unfortunately, peer influence has also shown to be positively associated with depression, substance abuse, school misconduct, and to predict perpetration of violence

against others (O'Donnell et al., 2002; Feigelman et al., 2000). Perceived peer delinquency has been shown to predict adolescent aggression ( $R^2=.11$ ,  $p<.01$ ) and parent rated externalizing problems ( $R^2=.10$ ,  $p<.01$ ) in a sample of youth with high levels of CVE (Salzinger et al., 2008). Peer support in older youth with the highest rates of exposure has also been associated with increased internalizing and externalizing symptoms (O'Donnell, Schwab-Stone, & Muyeed, 2002). This research has led to the conclusion that the impact of peer influence on youth is, perhaps, too complex for linear correlations or clear statements about its protective effects on exposure.

What does seem to be better understood at the social system contextual level is that specific factors increase the risk of exposure to community violence. Economic disadvantage, high levels of crime and social disorder, poverty, and residential instability all are risk factors for high levels of exposure to community violence (Salzinger et al., 2006). As previously discussed, ethnicity, race, and gender all have been shown to be predictive of high levels of exposure. In as much as these are not malleable factors, several researchers have concluded that the best way to reduce the negative outcomes of CVE is to reduce the exposure itself. While this is clearly the optimal goal, researchers have continued to recognize the difficulty in achieving it and the need for multiplistic approaches that match unique individual characteristics.

Another study of note is that of Rosenthal and Wilson (2008) examination of the role of emotional social support and a sense of personal control (an individual moderator) as protective factors in the relationship between CVE and psychological distress. The study utilized a diverse sample of 947 high school aged adolescents in New York City. Data was collected using measures of psychological distress, violence exposure,

emotional and social support, and sense of personal control. These measures were applied in a cross sectional correlational research design.

The authors analyzed the data according to three forms of protection; preventative, compensatory, and stress buffering (moderating). Along the preventative protective function (defined as reducing the level of exposure), they found significant negative correlations between emotional social support and exposure of ( $r = -.11, p < .01$ ), emotional social support and psychological distress ( $r = -.35, p < .01$ ), and sense of personal control and psychological distress of ( $r = -.48, p < .01$ ). Along the compensatory function (defined as reducing the level of distress), the correlation between emotional social support and distress ( $r = -.35, p < .01$ ) accounted for twelve percent of the variance in psychological distress, and the correlations between a sense of personal control and psychological distress ( $r = -.48, p < .01$ ), accounted for twenty three percent of the variance. Neither variable had a buffering or moderating effect.

Despite limitations in this study of not having a random sample, potential confounding variables threatening internal and external validity, and the nature of correlational design making it impossible to discuss causality, the research appears to have several important contributions. The authors concluded generally that both emotional social support and a sense of personal control do perform protective functions with regard to psychological distress and exposure to community violence for older adolescents. This assertion appears to be confirmed, given that the data supports the role of both emotional social support and a sense of personal control as serving a compensatory function. In effect, these variables do not buffer the relationship between CVE and psychological distress; however, their presence does reduce the level of distress

regardless of exposure and compensates for increased distress that may result from exposure.

The research literature suggests that there is not merely an intuitive connection between the social system and the relationship between CVE and behavior. Rather, there is a growing body of literature empirically supporting such a relationship. Research has highlighted the negative relationship between poor school attachment, performance, and negative peer influence with high levels of CVE, but it has not shown a clear and consistent role of the social system contextual level in moderating the impact of CVE. The research does offer some evidence that the social system may at least function as a compensatory protective factor (Rosenthal & Wilson, 2008). The literature presented further portends the role of individual factors (sense of personal control) in impacting the relationship between CVE and behavioral symptomology.

### **Individual Impact**

Individual behavior and development result from a complex interaction between ecological systems and the individual (Kracke & Cohen, 2009). As such, researchers have sought to gain insight on the role of individual coping factors in mediating the negative effects of CVE. Coping is by far the most researched aspect of the individual contextual level (Foster & Brooks-Gunn, 2009). Drawing on research associating coping with reduced emotional and behavioral problems in adolescents, researchers have set out to determine if it also proves to mediate the effects of CVE (Edlynn, Gaylord-Harden, Richards, & Miller, 2008).

As discussed previously in Ng-Mak et al.'s (2004) pathologic adaptation model, there is evidence of a correlation between styles of coping and internalizing behaviors.

Specifically, in youth exposed to community violence, there is a correlation between internalizing symptoms and avoidant and defensive coping strategies (both defined as avoiding actively confronting a problem), and confrontational coping (exemplified by getting back at someone or carrying a gun). Avoidant coping, seen generally as a maladaptive coping strategy, has been shown to provide a protective function on anxiety symptoms over time (Edlynn et al. 2008). Rosario, Salzinger, Feldman, and Ng-Mak (2008) demonstrated that coping positively impacted internalizing behaviors longitudinally. They discovered that defensive coping at year one was related to anxious symptoms at year two and three, and confrontational coping at year one was significantly related to anxious, depressive, and PTSD symptoms at year two and three. These findings indicate that the coping strategies employed may mediate the development of internalizing symptoms. They also suggest that while defensive, avoidant, and confrontational styles may lead to increased internalizing behaviors, avoidant and defensive coping, although generally considered maladaptive, may provide some protective function.

Unlike internalizing behaviors, research into individual coping and externalizing behaviors has produced little consistent data. This led Kliewer et al. (2004) to conjecture that youth coping mechanisms are more strongly related to their internal lives than to their external behavior, and consequently, such mechanisms may not be sufficient mediators of key issues as aggressive behaviors. This assertion appears to have been contradicted in a study by Brady et al. (2008) of 285 fifth and seventh grade African American and Latino males in inner-city Chicago. Brady et al. interviewed participants over the course of a year about the ways they coped with exposure to violence, and then



performed a content analysis on the coping styles reported. They found that coping effectiveness (operationally defined according to an individual's: (a) level of activity in responding to violence, (b) level of recognition that violence was a stressor in need of a coping response, (c) direct consequences of the coping plan, and (d) level of reactive or proactive response) moderated the longitudinal association between community violence exposure and violent behavior ( $t(234)=2.19, p<.05$ ). They found that greater exposure at the initial assessment was associated with greater violent behavior one year later among those youth that coped less effectively with violence exposure ( $t(117)=2.88, p<.01$ ). In contrast to this, there was no longitudinal association between violence exposure and violent behavior among those youth that coped more effectively with violence exposure ( $t(116)=.20, ns$ ).

Brady et al. concluded that exposure to community violence during middle adolescence was associated with greater involvement in serious violent behavior during later adolescence. Consistent with other research, this finding held true for both direct and indirect victimization. However, unique to this study was the fact that the finding held true only for those that coped poorly with community violence in middle adolescence. Later violent behavior was not associated with CVE for those that coped well. The researchers further concluded that maladaptive coping with community violence exposure may promote the long-term adoption of violent behavior as a strategy to negotiate the demands of living in a violent environment. Consequently, they suggested that future interventions should target the enhancement of coping skills. They added that these skills are likely developed as a result of guidance and support of care

givers over time; recognizing the role of other contextual factors that support and promote resiliency.

The research findings described above lend convincing empirical support for the notion that the way youth make meaning of, and subsequently cope with, exposure to violence can be a protective factor in the development of both internalizing and externalizing behaviors. Interventions designed to promote coping in youth have had some success, and they have demonstrated that increased coping with CVE can result in lower rates of delinquent behavior at a one year follow up (Lochman & Wells, 2004). Brady et al. (2008) acknowledged the role of the larger system in supporting youth, and recognized that it is incumbent on the larger systemic forces to set the stage for youth to learn to thrive in violent communities.

The research literature that has been presented on mediating influences offers some promise that purposeful attention to the family, social system, and individual contexts of children's lives can reduce the negative outcomes of community violence exposure. Continued research is needed to increase understanding of the specific factors that can most efficiently and effectively mediate the impact of CVE. There is also a need for comprehensive interventions and conceptualizations that are capable of addressing the multiple contextual levels of protection and prevention. The research presented suggests a clear need for not only more research into the mediating effects, but also the need for a fresh understanding of the processes that may mediate community violence exposure. The influence of cognitive development on the effects of CVE holds promise as an area of scholarly inquiry that may promote such understanding.

### **Development and CVE**

In a review of mediating effects of community violence exposure on negative outcomes, Salzinger et al. (2008) concluded that the major implications of the current research for clinical intervention are that multiple intervention strategies are necessary, because one strategy cannot address all the processes giving rise to exposure for all children at all developmental levels (Salzinger et al., 2008). This conclusion mirrors the assertion of the majority of the literature into CVE suggesting that in order to provide effective interventions, current approaches must offer multiplicitic interventions that seek to intervene on as many contextual levels as possible. It also implies that developmental level or stage is an integral factor in addressing CVE. This has given credence to a persistent but under researched domain; investigating the way that exposure to community violence affects youth at different developmental stages.

Developmental approaches to CVE suggest that a more complete picture of the impact of exposure is not merely illustrated in the emotional, cognitive, affective, and physiological effects, but also in what the effects are at different stages of development (Margolin & Gordis, 2005). A developmental context integrates a perspective that includes the unique factors of each individual as they interact within violent communities. Doing so allows for a more complex understanding of the individual and as such might allow for a more complex understanding of the relationship between the individual exposed to community violence and negative symptomology.

For adolescents the developmental context appears to be particularly crucial, as it is a tumultuous time period that is characterized by developmental growth and an increased reliance on peers, social systems, and the community. Adolescence also provides numerous opportunities for youth to benefit from protective processes and to

shift maladaptive trajectories into healthier ones (Ozer, Richards, & Kliewer, 2004).

Despite an acknowledgment that comprehensive preventative programs should also be sensitive to the developmental needs and developmental contexts of youth (Williams, Guerra, & Elliot, 1997), there is little empirical evidence to shed light on the role of individual development in mediating exposure to community violence.

There is, however, some anecdotal evidence that relates CVE to development. According to developmental psychopathology perspectives, the effect of violence is jointly determined by the interaction between the nature of the violence exposure and the developmental capacities of the child (Margolin & Gordis, 2004). Previous research has concluded that the stress, anxiety, and fear generated by exposure to violence interfere with significant normal developmental tasks such as the development of trust, sense of safety, emotional regulation, explorations of the environment and the ability to form social relationships (Overstreet, 2000). Witnessing violence in the community has also been suggested to be a threat to optimal youth development (Kuther, 1999; Martinez & Richter, 1993).

In one of the few recent studies on CVE and development, Burdett-Schiavone (2009) stated that a gap exists in our understanding of the effects of community violent exposure on adolescent identity development. She conducted a qualitative analysis of 14 participants between the ages of 18 and 22 that sought to shed light on personal narratives and contextual meanings of exposure to community violence. Data was collected around the participants' experiences of community violence, the interpretations and meaning participants' ascribed to exposure, and how exposure affected their view of identity and right and wrong. A constant comparative analysis was performed on the data, and several

themes emerged: (a) coping and living with violence, where participants expressed that exposure was excessive and imbued a sense of confusion, vulnerability, and emotional distress; (b) self-perceptions, efficacy, and survival where participants related a struggle between trying to be perceived as good and taking steps to ensure safety; (c) issues of right and wrong and negotiating a moral self as participants related moral dilemmas of being just in what they perceived as an unjust community; and (d) the future self where participants reported their goals for the future.

The researcher concluded that CVE impedes adolescent identity development; specifically, it does so by engendering stress, alienation, and compromised psychological integrity. Burdett-Schiavone also concluded that the participants' developed coping mechanisms such as distrust and remaining detached from peers that served as a means of self preservation, but that these mechanisms were antithetical to important tasks for adolescent development. Burdett-Schiavone suggested that while this may be an adaptive behavior in the short term, it is detrimental to healthy adult development. The study further revealed that a crucial aspect of identity development that emerged in the study was that of a "moral self". This was illustrated in her data as the participants discussed the struggle not to adapt to street culture and adhere to their own "moral script" (p. 103).

The nature of this study limited its generalizability in that it only offered a sample of the experience of the inner city environment. It also did not attempt to control for levels of exposure to violence or pre-existing risk factors. No conclusions can be made about the general population from this study; however, it does suggest that development and the moral self plays a role for some individuals exposed to community violence.

### **The Moral Self**

Burdett-Schiavone's (2009) emphasis on the moral self as a theme for youth development within violent communities enjoys considerable support in the research literature. It coincides with literature suggesting that CVE has serious implications for developmental concepts such as children's understanding of the social world and moral development (Kuther, 1999). The literature also alleges that chronic exposure to violence interferes with the social-moral developmental process, because it disrupts relationships and undermines feelings of safety and trust (Kuther, 1999). However, the most direct theoretical foundation for the role of moral self in adolescents faced with CVE can be found in Sparks' (1994) paper on human rights violations in the inner city.

Sparks (1994) has voiced that violence is not only a public health problem, but it also represents a breakdown in human relationships and a disruption in human connections and, thus, is a moral issue. She went on to state that the conditions under which inner-city children are growing up raises questions about the impact of violence on their moral development. In line with the ecological model of development, Sparks asserts that if youth are to arrive at moral answers the moral climate must serve as a guide.

Accordingly, approaches to community violence must understand and engage with the moral context of the urban environment as well as the moral concepts and lenses youth use to explain and make meaning of violence. Sparks (1994) adds that moral assumptions and beliefs are acquired through social experience, and violence complicates this interactional process, because it disrupts relationships and undermines feelings of safety and trust. She suggests that community violence and morality are inextricably linked, and further asserts that morality may be significantly affected by community

violence exposure. Her research leads to the conclusion that if we are to truly address community violence exposure, we must be able to match our approach to the moral climate of the individuals developing in violent communities.

Despite the “intuitive connection” (Kuther & Wallace, 2003, p. 180) between CVE and moral reasoning and development there is little empirical research in this area. Fields (1987) looked at co-victimization, or indirect exposure, of those exposed to political violence and found that it is associated with lower levels of moral reasoning and called for continued investigation. Kuther and Wallace (2003) have called for more research with larger samples to be done to establish a relationship between co-victimization and moral reasoning.

The presented research highlights the need for a better understanding of the interaction between CVE and youth development. Furthermore, there is a need for an approach that can match interventions to the individual’s developmental level, include the moral-self, and create an environment that allows for developmental growth. Further investigation of such an approach is necessary to identify the pathways, risks, and protective factors that will inform future prevention and intervention programs (Overstreet & Mazza, 2003). This need for a developmental approach that can address the moral component of behavior is corroborated in Dahlberg and Potter’s (2001) conclusion that effective intervention programs must address not only the cognitive, behavioral, and emotional components of youth behavior but also the systems that potentially shape cognitions, beliefs, and behavior. It is suggested that these expressed needs can be uniquely and effectively addressed through a cognitive developmental framework.

## **Cognitive Developmental Theory**

Cognitive Developmental theory is a well researched and empirically validated theory of human development that looks into the manner in which humans make meaning across the life span (Sprinthall, 1994). Its central premise is that reasoning and behavior are directly related to one's level of psychological complexity (Foster & McAdams, 1998). At lower stages of development reasoning is more concrete and rigid, and individuals are generally less adaptive. At higher stages individuals have the ability to reason abstractly, take multiple perspectives, and are generally more adaptive in problem solving situations (Brendel, Kolbert, & Foster, 2002).

Cognitive Developmental theory can trace its roots back to John Dewey and Jean Piaget. Dewey was a philosopher at the University of Chicago and later at Columbia who believed that each "situation gets perpetually reconstructed, and this reconstruction is the process of which all reality consists" (James, 1904, p. 3). He went on to add that experience is constantly enlarging, and we are, thus, forced to continually construct new systems of making meaning to incorporate our new experiences. Piaget, who considered himself a genetic epistemologist, followed up on Dewey's ideas by attempting to describe the development of these systems of making meaning. Piaget was especially interested in describing the ontogenetic changes in cognitive development from birth to adolescence. He believed that each stage is defined by schema, cognitive structures through which individuals adapt to and organize their environment. These schemas are challenged as experience is enlarged, and we are forced to adapt them to our new perspectives. Piaget identified two processes through which humans do this: assimilation and accommodation. Assimilation occurs when we integrate new stimuli into our already existing schemas,



and accommodation occurs when assimilation is not possible, and we are forced to create new meaning making structures to understand new stimulus events.

Piaget also believed that development seeks a state of equilibrium; when development is in equilibrium there is a balance between assimilation and accommodation. For Piaget the movement towards equilibrium was viewed as a self regulatory process that was necessary to ensure a healthy interaction with the environment. Conversely, he discussed the process of disequilibrium, where the individual is not able to make sense of his or her current environment in a manner that allows healthy interaction. When development is in disequilibrium it initiates the processes of assimilation and accommodation in order to return the individual to a state of equilibrium.

Cognitive Developmental theorists have expanded our understanding of development and advanced specific domains of development through rigorous research and testing. Kohlberg's Moral Development (1969); Loevinger's Ego Development (1976); Perry's Intellectual Development (1968); Hunt's Conceptual Development (1971); and Fowler's Faith Development (1991) are the most well known of the domain theories of development. Sprinthall (1984) states that no one theory encompasses all of cognitive development; however, each of these domain models is unified by a common set of guiding assumptions. McAdams (1989) has identified these assumptions as follows:

1. Human motivation towards competence and mastery is intrinsic
2. Cognitive development occurs in stages where each stage represents an individual's currently preferred style of comprehending the environment

3. Stage growth refers to a qualitative rather than quantitative transformation
4. Stage growth is hierarchical and sequential
5. The direction of the developmental sequence is both invariant and irreversible
6. Growth is not automatic; it depends on the interaction between the person and the environment
7. There is a consistent relationship between stage and behavior
8. Cognitive development involves physiological as well as psychological transformations
9. Stage growth is domain specific
10. Stage definition is modal rather than fixed and
11. Cognitive development is universal across cultures

The application of the tenets of cognitive developmental theory to youth exposed to community violence leads to the proposition that such youth have an innate propensity to develop cognitively, that their current stage of development reflects their preferred way to interact, and that they are growing across invariant sequence towards a more complex way of making meaning of the world that cannot be reversed. Furthermore, their stage of development is related to their behavior, and cognitive growth is dependent on the interaction between the individual and the environment.

### **Higher is Better**

Regardless of the specific domain of development, it appears that higher stages of development represent more adaptive ways of engaging with and understanding the world. Higher stages of development are connected with more complex reasoning, thinking, and interacting with the environment. Higher stages of development are also

said to be better tools for making sense of the world (Rest, 1994). In the counseling field there is a significant amount of research suggesting that higher stages of development are also correlated with desirable and, in some cases, necessary qualities for effective practice. Higher levels of cognitive development are associated with greater empathy, autonomy, appreciation for cultural diversity, self awareness, clinical hypothesis, and a greater ability to understand and meet the needs of clients (Carlozzi, 1983; Brendel, Kolbert, & Foster, 2002).

Developmental research led Kohlberg and others to posit that if higher is better in terms of development, then promoting development ought to be what education is about. This dictum from is to ought was carried out by Kohlberg as he pursued his life's work creating Just Schools and Communities and furthering the field of moral development (Rest, 1994). Drawing on the notion that growth does not occur automatically but requires an adequate learning environment (Morgan, Morgan, Foster, & Kolbert, 2000), an intervention referred to as Deliberate Psychological Education or DPE was designed to promote cognitive development (Mosher & Sprinthall, 1971). Promoting development through DPE involves the establishment in a learning environment of five core conditions: (a) a significant new role taking experience, (b) a balance between support and challenge, (c) guided reflection, (d) a balance between this guided reflection and experience, (e) and continuity of at least six months duration.

DPE's have been implemented successfully and have promoted development in nurses (Foster, 1992), child care counselors (Foster & McAdams, 1998) pre-service teachers (Brendel, Kolbert, & Foster, 2002), law enforcement trainees (Morgan, Morgan, Foster, & Kolbert, 2000), and many others. In his 1994 meta-analysis of DPE's

promoting moral and conceptual development Sprinthall found effect sizes demonstrating the significant impact DPE's can have on promoting moral development. Research such as this, provides support and structure for educators and mental health practitioners interested in promoting more adaptive ways of making meaning of, and interacting with, the environment.

One recent study by Royal and Baker (2005) demonstrated the utility of the deliberate psychological educational tenets in promoting cognitive development for care-givers of elementary school students. The researchers utilized a quasi-experimental design; in which, an experimental group of nineteen care-givers ( $M=36.4$ ) participated in a moral education group twice a week for four weeks. The moral education group was based on the common elements of DPE and focused primarily on enhancing moral development of the participants rather than on specific parenting skills. Participants in the experimental group engaged in dilemma discussion and guided reflection each session. The participants were also given homework aimed at stimulating continued reflection outside of the group.

The participants' moral judgment, as measured by the Defining Issues Test (DIT-I), perspective taking, as measured by the Multiple Perspectives Inventory (MPI), and parental problem solving ability, as measured by the Parental Problem Solving Measure (PPSM), were assessed pre and post treatment. The experimental group was compared to a control group drawn from a similar population who did not receive the treatment. There were no significant differences between the experimental and control group at the pre-test on the DIT-I [ $F(1,35)=0.63$ ;  $p=.43$ ], the MPI [ $F(1,35)=1.47$ ;  $p=.23$ ], or the PPSM [ $F(1,35)=1.36$ ;  $p=.25$ ].

Post-test scores revealed significant differences in moral judgment between the treatment and control groups [ $F(1,35)=16.56$ ;  $p=.003$ ] and on parental perspective taking [ $F(1,35)=1.98$ ;  $p=.05$ ]. There were no significant changes in the parental problem solving measure. The researchers also calculated that the effect size for moral reasoning was  $d=1.13$ , a large effect (Cohen, 1969), and the effect size for the parental perspective taking was  $d=.65$ , a medium effect (Cohen, 1969). The researchers concluded that these findings indicate that DPE's have the potential to enhance the moral development and perspective taking of parents and care-givers of elementary school children. They added that inasmuch as previous research has highlighted the influence of parents and care-givers on their children, this intervention has the ability to also impact the moral judgment and perspective taking of these parents' children.

The researchers recognized that the study's validity was limited by the non-random sampling procedures and the self-selection of the experimental group. The researchers concluded that they may have found larger effects of the intervention on problem solving if it had followed the DPE tenet of continuing the intervention for at least six months (Mosher & Sprinthall, 1971). The researchers also recognized that despite the attempts to manualize the treatment groups the specific treatment interaction may be difficult to replicate. Despite the limitations, the researchers concluded their study suggesting that moral education groups can greatly impact moral development of parents, and potentially their children; and, as a result, positively impact key competencies such as perspective taking.

The presented literature demonstrates that increased cognitive development is positively correlated to pivotal developmental capabilities such as perspective taking and

empathy, and can be promoted in clinical interventions. The application of cognitive developmental theory to healthy youth development has occurred across a number of different domains, including the moral, ego, and conceptual domains. This paper suggests that the domain most applicable to understanding and addressing the needs of youth marred by community violence exposure is moral development.

### **Moral Development**

Moral development is a domain of cognitive development that looks at issues of justice and fairness as they relate to moral decision making (Rest, 1994). The domain of moral development is based on the innovative work of Lawrence Kohlberg. Kohlberg utilized hypothetical dilemmas to assess moral judgment, and constructed his theory around the structures of meaning making rather than particular moral decisions (Rest, 1999). He posited that these meaning making structures occur in an “invariant sequence of six hierarchically ordered stages of moral judgment, consisting of three levels, namely: preconventional, conventional, and postconventional” (Stams et al., 2006, p. 697).

Scholars such as Rest (1994) and Gilligan (1977) have challenged and expanded the structure and cultural relevance of Kohlberg’s theory. Along with others they have collaborated to form the Neo-Kohlbergian perspective of moral development that expands on Kohlberg’s theory by exploring issues of content, culture, context and new ideas about moral relativity (Rest, Narvaez, Thoma, & Muriel, 2000). The Neo-Kohlbergian perspective continues to shape current debate and research on the moral domain, however, Kohlberg’s basic structure remains intact.

Moral developmental theory postulates that moral development occurs in an invariant sequence of stages that progress unidirectionally, with each stage being

mutually exclusive (Rest, 1994). The theory has three levels each of which contains two stages of development. The first level is termed the preconventional level. At the preconventional level, moral reasoning is defined by rigid and concrete thinking and rigid notions of right and wrong. The first stage within that level, Stage One, is impulse and sensory focused and maintains a preoccupation with avoiding punishment. The second stage, Stage Two, still has rigid and concrete notions of right and wrong but is characterized by opportunistic and manipulative reasoning. Individuals at the second level primarily engage in simple exchanges with a “I’ll scratch your back if you scratch mine” mentality.

The next level is termed the conventional level. In the conventional level, moral reasoning is characterized by doing what is right to maintain order and meet others’ expectations. The conventional level is the modal stage of human moral development. In the first stage within the conventional level, stage three, moral reasoning is greatly influenced by pleasing others and conforming to the group standards and roles. In the next stage, stage four, laws are to be obeyed, and social order is to be maintained. Rules and social order are seen as absolutes, and the person is expected to follow them.

The third level of moral development is termed post-conventional moral reasoning. The individual at the first stage within the post-conventional level, stage five, recognizes the importance of laws and social order as in stage four, but reasons that life and liberty take precedence. In this stage, the idea of a social contract is raised, in that the individual is concerned with looking for the greatest amount of good for the greatest number of people. The sixth stage is a hypothesized stage where morality takes

precedence over all else. Individuals at this stage respect all human beings, and the reasoning at this stage transcends the established laws.

### **Moral Development in Youth**

Youth, and primarily adolescence, is a particularly unique time in moral development for a number of reasons. First it is the foundation for adulthood. Moral development at this stage is preoccupied with exploring new schemas for interacting with and understanding the world. There is a significant amount of research that correlates higher stages of moral development in adolescents with increased pro-social behaviors in adulthood. In fact, Locke and Zimmerman (1987) suggested that the best predictor of pro-social behaviors in adulthood is the presence of certain developmental factors in youth and adolescence. This is not a surprise, as one of the central tenets of cognitive developmental theory is that there is a consistent relationship between stage of development and behavior.

The moral development framework outlines the progression of moral reasoning in youth from an egocentric, impulse focused interaction with the environment (stage one and two) to a more complex reasoning process that incorporates the perspectives of the social group (stage three). This is an important developmental shift in moral reasoning, as the individual wants and needs are no longer primary and the individual is capable of interacting appropriately within a social group. As youth continue to develop, moral reasoning begins to incorporate societal laws and rules (stage four) which inform behaviors that are more likely to be appropriate within a society. Reasoning beyond the conventional level moves into a more complex perspective that transcends the societal rules.



The construct of moral development also posits that as youth develop, they are better able to adapt to complex situations and respond to complex stimuli. In the case of community violence, this would suggest that youth at higher levels of moral reasoning would have increased adaptability to the unique challenges of communities plagued by pervasive violence. Unfortunately, youth developing in these communities may not be presented with an environment that provides the necessary components for development beyond the preconventional stage of moral reasoning.

### **Moral Development and Externalizing Behaviors**

Correlations of moral development to externalizing and delinquent behaviors are particularly well researched. Stams, Brugman, Dekovic, van Rosmalen, van der Lan, and Gibbs (2006) conducted a meta-analysis 50 studies of moral judgment in juvenile delinquents that yielded a large and significant overall effect size of  $d=.76$ ,  $p<.001$ , indicating lower moral judgment scores for delinquents when compared to non-delinquents. Gender effects were indicated by larger effect sizes for male samples ( $d=.82$ ) than for female or mixed samples ( $d=.64$ ):  $Q(1)=10.06$ ,  $p<.01$ . Stams et al.'s conclusion was that deficit moral judgment is strongly associated with juvenile delinquency, even after controlling for socioeconomic status, culture, gender, age, and intelligence (2006).

There is also evidence that juvenile offenders use consistent and distinctive cognitive structures for handling moral problems (Taylor & Walker, 1997). These cognitive structures are, for the most part, based in what Kohlberg referred to as stage two moral reasoning (Taylor & Walker, 1997; Raaijmakers et al., 2005). Typical stage two reasoning is more amenable to anti-social behaviors, as it is only concerned with

consequences of actions for the self (e.g. “The teacher is out to get me so I’ll get him” and “No one else cares so why should I?”). Stage three reasoning suggests a structure that includes loyalty to groups and friends and not disappointing the expectations of others. Stage two to three movement from an egocentric orientation towards a sociocentric orientation is imperative to promote prosocial behaviors. As children enter adolescence and increase in size, strength, sex impulse, and ego strength, those who have not achieved at least a mutualistic (stage three) understanding of social life are at risk given antisocial opportunities and peer influences (Stams et. al, 2006).

The research presented implies that moral developmental stage has a significant correlation to externalizing behaviors. The moral developmental framework also provides a clear conceptualization of the supporting cognitive structures and developmental trajectory of youth who display these externalizing behaviors. Stage two reasoning is indicative of externalizing behaviors, and development to stage three appears to be an integral step in changing cognitive structures that support many externalizing behaviors. This assertion offers valuable insight into where and how to intervene with youth exhibiting externalizing behaviors (Stams et al., 2006).

### **Moral Development and Internalizing Behaviors**

While the relationship between externalizing behaviors and moral development is generally accepted (Marshall, 1989), the literature is less pronounced on moral development’s relationship to internalizing behavior. In fact, the literature is particularly sparse in this area, with the exception of a few investigations. Schnell and Gibbs (1987) review of delinquent youth moral reasoning concluded that more mature moral reasoning provides a buffer against anti-social influences and temptations, and as such, morally

mature youth are less likely to become engaged in delinquency or aggression. At the same time, they posited that those morally mature youth who do engage in delinquent behavior may evidence high levels of psychopathology of an internalizing type. This is due to the fact that high levels of moral reasoning have been positively correlated with guilt and anxiety (Eisenberg, 2000). It seems that internalizing symptoms such as guilt and anxiety are more consistent with stage three moral reasoning and above while externalizing behaviors are more consistent with stage two and below.

Schnell and Gibbs (1987) provide some theoretical support for the notion that youth exhibiting externalizing symptoms are operating at stage two and that those exhibiting internalizing symptoms are at stage three or higher levels of development. Unfortunately, there are few recent studies that have added to the understanding of the role of moral reasoning on internalizing behaviors.

One related inquiry into the relationship between moral development and internalizing behaviors was conducted by Taylor and Baker (2007). They conducted a study of the moral development of 64 veterans diagnosed with Post Traumatic Stress Disorder (PTSD). Comparing those exposed to combat trauma to others not exposed to trauma, the researchers found evidence that those diagnosed with PTSD showed lower levels of moral development. Their findings supported the contention of other researchers who have suggested that traumatized individuals with arrested moral development may be more likely to develop PTSD (Wilson, 1980). This study adds evidence to the proposed connection between internalizing behaviors and moral development. However, with such a paucity of research on the topic, the proposed connection is tenuous at best and requires further investigation.

## **Moral Development and CVE**

Kohlberg stated that the environment's provision of pro-social role taking experiences to the child is very important to the development of morality. Unfortunately, situations of chronic community violence may offer few opportunities for pro-social role taking (Kuther, 1999). Growing up in an unchallenging moral environment that is bereft of these role taking experiences can lead to a truncated moral perspective (Kuther, 1999). This suggests that communities with high levels of community violence may not only lead to harmful behavioral symptomology but also not provide the necessary structures needed to promote moral development in their children. Without continued moral development, youth will be deprived of the moral reasoning skills they must have to survive and thrive in a society grounded in principles of moral justice.

### **Chapter Summary**

The literature presented in this chapter has illustrated the apparent correlation between CVE and externalizing and internalizing symptomology. It also has highlighted current theoretical perspectives on how these behaviors develop and are sustained. The chapter then describes current attempts to identify factors that mediate the effects of CVE and justifies the need for a better understanding of the role of cognitive development in mediating the detrimental impact of CVE. The moral developmental framework is described and proposed as a new and fresh approach to conceptualizing current gaps in understanding that warrants further investigation.

### **CHAPTER THREE: RESEARCH METHODOLOGY**

Chapter Three describes the proposed research design and methodology for this study. Specifically, it clarifies the target population, sampling and data gathering procedures, and provides justification for the instrumentation. Finally, research hypotheses, proposed methods of data analysis, ethical considerations, and study limitations are offered.

#### **Population and Sample**

The target population for this study is all adolescents involved in the mental health system. As presented in Chapter One and Two, adolescents exposed to community violence are more likely to exhibit behavioral symptomology and, as a result, they are more likely to need mental health intervention. Adolescents involved with the mental health system were chosen in order to target an at-risk group that is in need of increased conceptual tools and treatment strategies to thrive in the face of community violence exposure.

Chapter One and Two also presented the call for an increased understanding of the role of development, specifically moral development, in mediating the relationship of exposure to violence and negative symptomology for this population. The presented literature further highlighted the call for continued explorations into the role of parental moral development in mediating the relationship between adolescent exposure to community violence and behavioral symptomology. In order to gain access to both adolescents and their parents, the study required a sample that had access to both individual adolescents and their parents or guardians. Obtaining a random sample of

adolescents involved in the mental health system whose parents/guardians were available would require such a massive sample and immense resources as to make it impossible at the current time. For this reason a convenience sample was utilized with the recognition that this limits the generalizability of the data.

This study's sample was drawn from the New Horizons Family Counseling Center (NHFCC) at the College of William and Mary in Williamsburg, Virginia. This sample was chosen both because of the accessibility of the adolescents to the researcher and because the nature of family counseling provided access to both adolescents and their parents/guardians. The sample was ultimately selected from all families receiving counseling services at NHFCC between July 2010 and January 2011 that had an adolescent child. The final sample consisted of 25 adolescents with ages ranging from 11 and 18 and one of their parents/guardians.

### **Data Collection Procedures**

Each family that had an adolescent family member who received services at NHFCC between July 2010 and January 2011 was asked to participate in the study by their current family counselor. Participation was only requested from clients who had received counseling services for three or fewer sessions to limit potential influence of clinical treatment on behavioral symptomology outcomes. After identifying potential participants, counselors made a verbal request for participation and outlined the requirements for participation and the client's right of refusal. A five dollar gift card was also offered to each family as an incentive to participate. Signed informed consent was secured from all participants prior to participation in the study, and parental authorization was secured for all participants in the study who are under the age of eighteen.

After receiving the consent to participate and the necessary authorizations, counselors arranged a time to complete the assessments with the participants. At the scheduled time the counselors administered the assessment battery to their clients. Instructions for filling out the assessments were delivered to each participant by the counselor, and the counselor remained available to facilitate appropriate completion of each assessment. Each adolescent participant was given an assessment battery that consisted of three assessment instruments: an assessment of community violence exposure, an assessment of moral development, and an assessment of behavioral symptomology. Their parents/guardians were given an assessment of their own moral developmental level and then asked to rate their child's levels of behavioral symptomology.

When the counselor verified that all instruments were complete, participants were thanked for their time and participation, debriefed about the purpose and hopes of the study, provided contact information to obtain results of the study, and provided a five dollar gift card as an incentive for participating. Each battery of assessments was identified by a four digit number to ensure anonymity of the participants. The counselor then placed the completed assessments in a locked file cabinet for the duration of the study.

Unfortunately, not all potential participants were able to be included in the sample. Due to client retention, an inability to schedule extra session time, clinical judgment, non-English speaking parents, and families refusing to participate; several potential participants were excluded from the sample. In order to maximize potential participants, each counselor was instructed to request participation from every family, no

matter the family characteristics or level of distress. Several families declined to participate after they learned of the requirements; they were summarily excluded from the sample, and their clinical treatment continued as planned.

Among those that agreed to participate in the study, several potential participants encountered logistical hurdles and were not able to fully participate in the study. The most common problem involved scheduling time to fill out the assessments when both the counselor and client were available. As problems arose counselors were instructed to consult with the lead researcher in order to make alternative arrangements for completing the assessments. Extra session times were routinely established to complete the assessments, and arrangements were made to have other counselors administer the assessments if the current counselor was unavailable at the scheduled collection time.

As the counselors were all interns at NHFCC, they were also instructed to consult with their supervisors as to the ethical and clinical appropriateness of involving each family in the study. Families were to be excluded if the clinical supervisor deemed that the current level of distress or cognitive capabilities of family members were of sufficient levels to make participation contrary to best clinical practice. This process resulted in excluding potential participants whose clinical distress, language barriers, or personal resources were identified through clinical supervision as being significant enough to be excluded from participation. After clinical decisions were made counselors were instructed to make arrangements for the potential participants to participate at a later date if they so chose.

### **Instrumentation**



As noted previously, three assessments and an informed consent were utilized in the adolescent battery and two assessments and an informed consent were utilized in the parental/guardian battery. The adolescent battery of assessments consisted of the Informed Consent form, the Screen of Adolescent Violence Exposure (SAVE), the Defining Issues Test II (DIT-II) and the Achenbach Youth Self-Report Inventory (YSR). The parent/guardian battery consisted of an Informed Consent form, the DIT-II, and the Clinical Assessment of Behavior (CAB). The informed consent was secured from all participants to ensure proper ethical procedures are followed and participants' rights were safeguarded. The Screen for Adolescent Violence Exposure (SAVE) provided a self report of adolescent exposure to violence. The Defining Issues Test (DIT-II) provided information on the moral developmental levels of the participants. The Achenbach Youth Self-Report Inventory (YSR) and the Clinical Assessment of Behavior (CAB) provided information on the adolescent and adult reports of participants' behavioral symptomology respectively.

### **Informed Consent**

The Informed Consent form (Appendix A & B) outlined the study's purpose, described the expectations of each participant, and described how the results of the study were to be utilized. Each participant was informed of his or her right to refuse to participate, and that refusal would not impact their services at NHFCC. The informed consent further addressed participant confidentiality and informed participants that individual identities would not be disclosed to the researcher and, thus, not included in any of the findings. Finally, it described how participants could receive a copy of the findings after they had been compiled.

### **The Screen for Adolescent Violence Exposure (SAVE)**

The Screen for Adolescent Violence Exposure (SAVE), developed by Hastings and Kelley in 1997, is a scale developed to provide a socially valid and clinically sensitive measure of violent events experienced by adolescents in the school, at home, and in the community. The authors note several crucial elements considered in the scale's development including ease in administration, suitability for poor readers, and measurement of the stressor criterion associated with PTSD. The SAVE was normed on adolescents ages 11-18 and has demonstrated acceptable reliability and validity for that population.

The authors developed the measure through three studies that refined the scale's factor structure through exploratory and confirmatory factor analysis. They identified three factors: traumatic violence (relating to severe victimization experiences, 12 items), less severe violence (witnessing of or being informed of less severe interpersonal violence, 14 items), and severe physical/verbal abuse (actual or threatened violent harm directed at the participant, six items). These subscales have demonstrated subscale alphas ranging from .58 to .91 and inter-correlations between subscales ranging from .19 to .93 (Hastings and Kelley, 1997). The factors of the SAVE differ from those of previous assessments in that they do not distinguish between witnessing and experiencing violence.

All of the items on the SAVE ask about real life events. Items include statements such as "I have seen someone carry a gun," "I hear gunshots," and "I have heard about someone getting shot." These items are further categorized by the context in which the exposure occurs; either "at my school," "in my home," or "in my neighborhood." Each

item is then endorsed for frequency of exposure; 0 = Never, 1 = Hardly Ever, 2 = Sometimes, 3 = Almost Always, and 4 = Always. These scores are then totaled to provide composite scores of violence exposure.

The SAVE provides scores of total violence exposure, family and community violence exposure, physical aggression at home and in the community, indirect family and community violence exposure, and traumatic family and community violence exposure. The total violence exposure score is the composite of the three sub-scales of exposure at school, at home, and in the neighborhood. The scores for the total violence exposure score range from zero (reporting never being exposed to violence), to 384 (reporting always being exposed to each question about violence at school, at home, and in the neighborhood). The potential scores for exposure in the family sub-scale range from zero, reporting never being exposed, to 128, reporting always being exposed to each question about violence. Potential scores for exposure to violence in the community, defined as exposure in the neighborhood and at school but not at home, range from zero to 256.

The sub-scales of physical aggression at home and in the community consist of 6 items and provide scores ranging from zero to six and zero to 12 respectively; with zero indicating never being exposed to traumatic violence and six or 12 indicating always being exposed to the type of physical violence addressed in each question. The sub-scales of indirect exposure are made up of 14 items, and the scores for indirect exposure at home range from zero to 14 and the scores for indirect exposure in the community range from zero to 28. The sub-scales of traumatic exposure to violence at home and in

the community are made up of nine items and the scores range from zero to 9 for traumatic exposure at home and zero to 18 for traumatic exposure in the community.

The SAVE has demonstrated adequate reliability and validity. Good internal consistency has been reported, with Cronbach's alpha ratings of .90 to .94, and evidence of temporal reliability and validity through test-retest coefficients ranging from .53 to .92 (Hastings & Kelley, 1997). This data suggests that the SAVE would offer reliable scores across the sample.

This instrument is particularly useful because it has an empirically supported factor structure of exposure to total violence in the community. Further, it has been normed on adolescent populations and offers an assessment of the PTSD spectrum in youth exposed to community violence. However, it is not without its limitations. Unfortunately, there is no normative data on the SAVE, and as such, the scores cannot be compared to a national sample. The SAVE was also developed almost exclusively with African-American samples and needs further testing to demonstrate its utility with a multi-cultural population (Hastings and Kelley, 1997). Despite its limitations, the available literature suggests that the instrument has sufficient support for use in research on youth exposure to community violence, and as such, it would seem to be appropriate for use in this study.

### **Defining Issues Test-II**

The Defining Issues Test (DIT) is a paper and pencil measure designed by James Rest (Rest et al., 1999) to assess moral judgment. The DIT presents hypothetical moral dilemmas to participants and requires them to make a decision about what they would do when presented with this dilemma. The DIT acts as a device for activating moral

schemas and for assessing those schemas in terms of moral judgments (Rest et al., 1999). This is accomplished by presenting each participant with five hypothetical dilemmas followed by twelve statements that the participants are asked to rank in order of importance. These rankings are done on a likert scale format ranging from “no importance” to “great importance”. Once the twelve items have been ranked, participants are asked to choose which four items they feel are most important in coming to a decision about the dilemma presented.

The DIT was revised in 1999 to its current form, the DIT-II. The revised version of the DIT provides more clarity, brevity, and stronger validity criteria (Rest et al., 1999) while maintaining its general format. The revised test has been shown to correlate positively with other developmental scales such as Loevinger’s Ego Development scale and Perry’s Intellectual Development scale (1999), and has robust data supporting its reliability and validity. Internal consistency for the DIT-II averages Cronbach’s alphas in the high .70s (1999).

The DIT-II produces an M score, a Principled Reasoning score, an N2 score, and a composite score. The M score includes meaningless items, and is designed to control for respondent guessing and attempts to “fake high” scores of development. If too many meaningless items occur, the participant’s responses are considered invalid (Rest et al., 1999). The Principled Reasoning score (P-score) measures the percentage of moral development reflected in respondents’ decisions about a dilemma. The P-score is often expressed as a percentage and ranges from zero to 95. Test-retest correlation averages range from .71 to .82 for the P score (principled moral thinking). The N2 score offers a nuanced score of moral reasoning that assesses the participant’s attempts to distinguish

conventional and post-conventional moral reasoning. The N2 score is strongly correlated with the P score (ranging from .8 to .9).

### **Achenbach Youth Self-Report Inventory**

Achenbach's Youth-Self Report (YSR) inventory was designed to provide a standardized, reliable, and valid approach to measure children's psychopathology. It was originally developed, along with the Child Behavior Checklist (CBCL) and the Teacher Report Form (McConaughy & Achenbach 1994), as part of a triad of assessments that formed the Child Behavior Checklist Profile. Each of the assessments was also developed to be utilized individually, and the YSR has been one of the most widely utilized self-report scales over the last half century by researchers studying youth and adolescent emotional and behavioral symptomology (Ivanova et al., 2007).

The YSR consists of 104 items written in the first person for youth to complete by signifying if the items are not true, sometimes or somewhat true, very true, or often true. The YSR was normed on clinically referred youth aged 11-18 (Ivanova et al., 2007), and is designed to measure symptoms that have occurred in the six months prior to testing. Items are separated into two broad-banded categories of externalizing and internalizing behaviors. These categories are further divided into eight narrow-banded scales: Withdrawn/Depressed, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, and Aggressive Behavior. Second-order factor analysis has shown that the first three scales form the broad band category labeled Internalizing behaviors and the last two form the second broad-band category labeled Externalizing behaviors (ADM user guide).

Good reliability and validity for the YSR have been demonstrated. Achenbach and Edelbrock (1979) report a one week test re-test reliability of .91 for externalizing factors and .82 for internalizing factors. Stability in self-rating over a six month period has also been demonstrated for ages 12-17 ( $r=.69$ ,  $p<.01$ ). Song, Singh, and Singer (1994) demonstrated good criterion related validity with 13 percent of the average variance explained. The total score on the YSR has also been demonstrated to significantly correlate with maternal ratings on the CBCL at time of assessment and in a six month follow up (Achenbach & Edelbrock, 1979). The YSR also has demonstrated convergence with scores on the Minnesota Multiphasic Personality Inventory clinical scales (Belter, Foster, & Imm, 1996).

Song et al.'s (1994) confirmatory factor analysis of a clinical sample of 308 youth from 10-19 posed a significant challenge to the reliability and validity of the narrow-banded scales, but supported the broad band scales for internalizing and externalizing behavior, demonstrating good internal consistency and reliability (Cronbach's alpha  $>.85$  and test re-test reliability coefficient of .80). The generalizability of the scales across cultures has also been demonstrated to have strong statistical support. Ivanova et al. (2007) tested the fit of the factors on over 30,000 youth from 23 societies. They found that the taxonomic constructs were a good fit across each society, and suggested that the instrument is valid for use with diverse populations.

Accuracy of self-reports is often a concern, as youth self-reports do not always correlate to parent and teacher informants. Achenbach, McConaughy, and Howell's (1987) meta-analysis of co-informants only found weak correlations between child and adult informants. Despite this discrepancy, Achenbach (1991) suggested that differences

are likely due to children's inability to provide an account of or understand their experiences in the same way adult respondents do. In order to provide a more comprehensive picture, parental reports of behaviors were also included and measured on the Clinical Assessment of Behavior.

### **Clinical Assessment of Behavior**

The Clinical Assessment of Behavior (CAB) was designed by Bracken and Keith (2004) to measure both adaptive and problematic behaviors of children and adolescents from ages two to 18 years. The CAB is available in parent (CAB-P), parent-extended (CAB-PX), and teacher (CAB-T) rating forms. The parent version (CAB-P) is a short and easily administered tool that was utilized in this study to provide parental reports of the behavioral characteristics exhibited by youth participants. The CAB-P is a 70-item instrument that asks parents to rate "how often has your child has engaged in the behavior lately," (Bracken & Keith, 2004, p. 1) on a likert-type scale from one (always or very frequently) to five (never).

There CAB produces clinical scales assessing internalizing and externalizing behaviors, social skills, overall competence, and a combined behavioral index. It also provides a clinical cluster of sub-scales assessing anxiety, depression, anger, aggression, bullying, conduct problems, attention deficit/hyperactivity, and autism spectrum behaviors. It further assesses adaptive functioning on scales of learning disabilities, mental retardation, executive functioning, and gifted and talented. Any score on the CAB less than or equal to 59 is considered within the normal range, 60-69 is identified as mild clinical risk, 70 to 79 is significant clinical risk, and 80 or over is classified as of very significant clinical risk.



The CAB has been found to be valid across a wide range of geographic and racial/ethnic backgrounds, and has demonstrated adequate reliability and validity (Beran, 2006). Internal consistency for the CAB, as measured by Cronbach's alpha, ranges from .92 to .99. Test-retest reliability ranges from .89 to .95 across the scales with the highest reliability occurring for the total scaled score. Content validity and the scale structure have also been supported through a factor analysis and principle components analysis (Bracken & Keith, 2004). Criterion-related validity was established through comparison with the Behavior Assessment System for Children and the Devereux Scales of Mental Disorders, with corresponding scales found to be highly correlated and supported by a number of clinical studies (Beran, 2006).

### **Research Design**

This research was designed as a correlational study aimed at accomplishing two tasks. *First, it conducted path analyses to test the fit of two models suggesting that moral development mediates the relationship between community violence exposure and externalizing and internalizing symptomology.* The first model proposes that adolescent moral development mediates the relationship between adolescent exposure to community violence and their externalizing and internalizing symptomology as assessed in self-reports. The second model proposes that parental moral development mediates the relationship between adolescent exposure to community violence and their externalizing and internalizing symptomology as assessed in self-reports. The results of the analysis of these models were hypothesized to reveal a significant fit.

The study also examined the relationship between adolescent self-reports of community violence exposure, parental and adolescent moral development, and parent

and adolescent reports of behavioral symptomology. Correlational analyses of these relationships were performed to confirm the findings of previous research regarding the relationship between these factors and to better understand the interaction among these factors. It was hypothesized that higher levels of community violence exposure would have an inverse relationship to adolescent and parental moral development and to adolescent and parental reports of behavioral symptomology. It was further hypothesized that the data would support previous research suggesting the existence of an inverse relationship between stages of moral development and internalizing and externalizing symptomology and a relationship between community violence exposure and internalizing and externalizing symptomology (Stams et al., 2004; Taylor & Baker, 2007; Salzinger et al., 2008; Cooley-Quille et al., 2001).

### **Research Questions**

The study was intended to address the following primary research questions:

1. Does moral development mediate the relationship between exposure to community violence and externalizing and internalizing behaviors in adolescents aged 11 to 18?
2. Is there a significant relationship between moral development, CVE, and behavioral symptomology?

In addressing the primary research question, five descriptive questions were also considered:

1. Does the moral development of adolescents mediate the relationship between their exposure to community violence and their rates of externalizing and internalizing behaviors?

2. Does the moral development of parents mediate the relationship between their children's exposure to community violence exposure and their children's externalizing and internalizing behaviors?
3. What is the relationship between parental and adolescent moral developmental levels and exposure to violence?
4. What is the relationship between moral developmental levels and parental reports and adolescent self-reports of behavioral symptomology?
5. What is the relationship between exposure to community violence and behavioral symptomology?

### **Hypotheses**

The main or primary research question for the study was as follows: Moral development will mediate the relationship between community violence exposure and externalizing and internalizing symptomology and a statistically significant relationship between the factors of moral development, community violence exposure, and behavioral symptomology exists. Related to the main hypothesis were five directional hypotheses.

1. Adolescent moral development as measured by the Defining Issues Test (DIT-II) has a significant mediating role in the relationship between exposure to community violence as measured by the Screen for Adolescent Violence Exposure (SAVE) and externalizing and internalizing behaviors as measured by the Achenbach Youth Self-Report Inventory (YSR)
2. Parental moral development as measured by the Defining Issues Test (DIT-II) has a significant mediating role in the relationship between exposure to community violence as measured by the Screen for Adolescent Violence

Exposure (SAVE) and externalizing and internalizing behaviors as measured by the Clinical Assessment of Behavior (CAB)

3. There is a significant positive relationship between the construct of community violence exposure as measured by the Screen for Adolescent Violence Exposure (SAVE) and internalizing and externalizing symptomology as measured by the Achenbach Youth Self-Report Inventory (YSR) and the Clinical Assessment of Behavior (CAB)
4. There is a significant negative relationship between the construct of community violence exposure as measured by the Screen for Adolescent Violence Exposure (SAVE) and moral development as measured by the Defining Issues Test II (DIT-II)
5. There is a significant negative relationship between youth moral development as measured by the Defining Issues Test II (DIT-II) and youth externalizing and internalizing symptomology as measured by the Achenbach Youth Self-Report Inventory (YSR) and the Clinical Assessment of Behavior (CAB)

### **Data Analysis**

Mean scores were obtained from the DIT-II, the SAVE, the YSR, and the CAB.

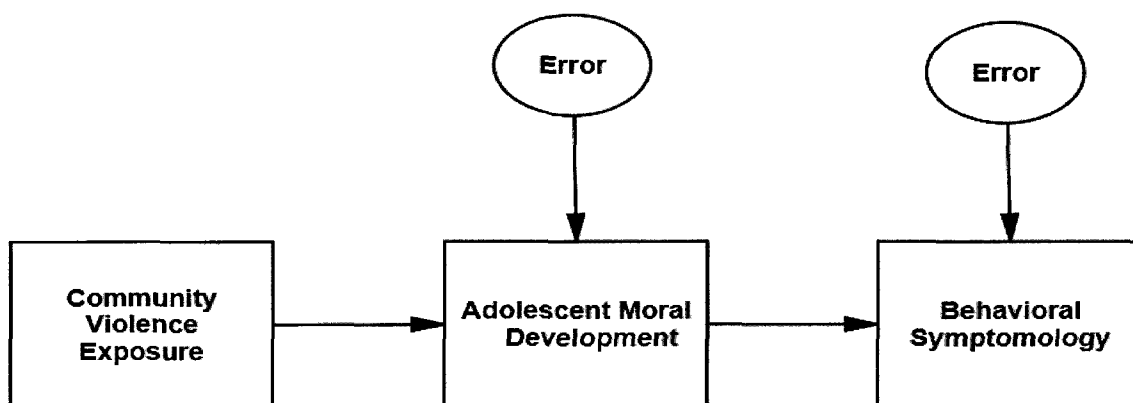
A path analysis was performed to determine the fit of the data to the proposed model that adolescent moral developmental levels mediate the relationship between community violence exposure and negative symptomology. A significance level of  $p < .05$  was utilized. A path analysis was also performed to determine the fit of assessment data to the proposed model that parental moral development mediates the relationship between community violence exposure and negative symptomology. Finally, it was also intended

that the path analysis would function as a multiple regression, providing the relationship and influence between all variables in each path. The path analyses are represented in Figure 3.1 below.

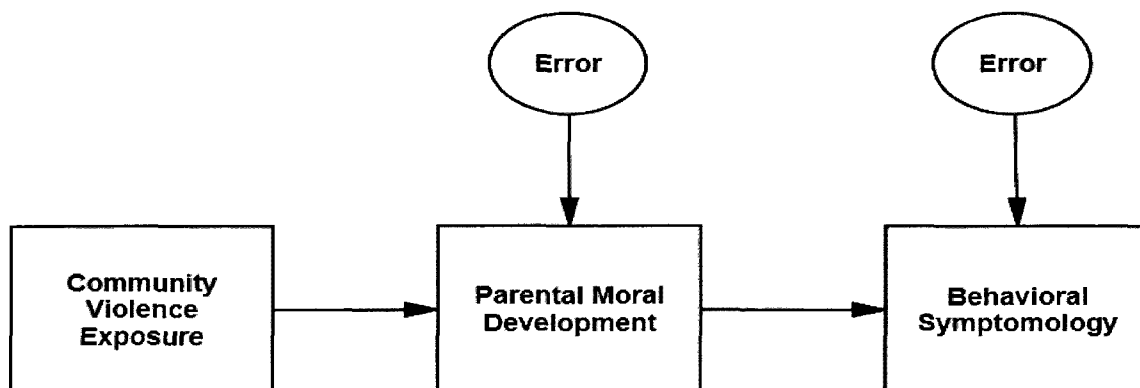
FIGURE 3.1: Proposed Paths of the Mediating Role of Moral Development

### Hypothesized Paths

#### Hypothesis 1: Adolescent Moral Development as a Mediator



#### Hypothesis 2: Parental Moral Development as a Mediator



### **Ethical Considerations**

This research was approved by the institutional review board at the College of William & Mary prior to implementation. As noted previously, all participants were informed of their right to refuse to participate in this study and to withdraw at any time without penalty, and all signed an informed consent that assured their prior knowledge and protected their confidentiality. This study did not involve an intervention, and as such, did not require any desensitization or debriefing with regard to intervention impact. All participants were also engaged in family counseling at the New Horizons Family Counseling Center and counselors were supported and encouraged to address any issues that arose as a result of the research process.

### **Limitations**

This study is limited by the size of the sample. Utilizing 21 families provides a large enough sample to obtain statistically significant correlational data, but it does not offer a robust sample, and, as a result the power of the study is limited. The sample size is also minimally sufficient to effectively measure significant paths, in that the 25 and 21 paths measured fall short of the 100 - 150 recommended when conducting a path analysis (Grimm & Yarnold, 2000).

The sampling methodology is also a limitation of the study. This study utilized a clinical population already enrolled in family counseling, and as such, the data can only be generalized to other clinical populations. The use of a convenience sample rather than a true random sample further limited the degree to which the findings can be generalized to the named population. Finally, despite the good reliability and validity of the, SAVE, CAB, and YSR, each assessment relies upon self or parental report of behavior. Self-

reports measures have been criticized as being more susceptible to individual errors, however, the nature of the study has led most if not all of the research on CVE to proceed with instruments that measure the individual's perception of exposure to violence.

### **Chapter Summary**

This chapter presented the population and sample of the study, data collection procedures, reliability and validity of each instrument utilized, the research questions and hypotheses, and presented the data analysis procedures. The chapter further presented ethical considerations and the potential limitations of the study. The results of the study are presented in Chapter Four.

## **CHAPTER FOUR: ANALYSIS OF RESULTS**

As presented in Chapter One and Two, the literature supports continued investigation into the relationship between exposure to violence, moral development, and adolescent behavioral symptomology. This research investigated the relationship between the three constructs as well as the mediating role of moral development in the relationship between exposure to violence in the community and negative behavioral symptomology. This chapter presents the results of the investigation of five hypotheses. Hypotheses One and Two examine the statistical probability of two proposed paths explaining the mediating role of moral development (FIGURE 3.1). Hypotheses Three, Four, and Five examine the relationship between community violence exposure (CVE), moral development, and behavioral symptomology. The chapter reviews the results in four sections; (a) the sampling procedures of the data utilized, (b) the descriptive data collected, (c) the path analyses examining the fit of the proposed models, (d) the data analysis reviewing the correlations among the variables tested.

### **Sampling Procedures**

The sample for this study was drawn from families receiving services at the New Horizons Family Counseling Center in Williamsburg, Virginia that: (a) had an adolescent family member and (b) had completed no more than three family therapy sessions. Recruitment consisted of extending a verbal request to participate, having the family review and sign an informed consent, and establishing a time to complete the assessments. Detailed sampling procedures were reviewed in chapter three and a detailed assessment administration procedure is outlined in Appendix C. Participation in the



study required that the parents/guardians complete two assessments; an assessment of moral development, the Defining Issues Test (DIT-II), and an assessment of parental report of adolescent behavior, the Clinical Assessment of Behaviors (CAB).

Participation for the adolescents required completion of three assessments; an assessment of violence exposure, the Screen for Adolescent Violence Exposure (SAVE), an assessment of moral development, the DIT-II, and an assessment of adolescent self-report of behavior, the Achenbach Youth Self Report of behaviors (YSR). The data collection process occurred from July 2010 through January 2011.

### **Descriptive Data Results**

#### **Demographics**

In the seven months of recruitment, data were collected from 21 families. Several families had more than one adolescent member participate, resulting in a final sample that included 46 total participants, including 25 adolescents and 21 parents. All parents fully completed the measures of moral development and their children's behavioral symptomology; thus, all the scores were included in the analysis. All adolescents completed all measures with the exception of one who failed to fully complete the measure of moral development. However, because this individual was one of two adolescents from the same family, the family's mediating data could still be included in the analysis.

Descriptive data and measures of central tendency indicated that the mean age of the 21 parents was 44.43 with ages ranging from 32-66 years. For the 25 adolescent participants, the mean age was 14.96 years with a range of 12 to 18 years. The adolescent sample consisted of 11 European Americans, nine African Americans, and

one adolescent who identified as “other”. The parents also had nine African-American participants, 11 European American participants, and one who identified as “other”.

The sample as a whole was almost evenly distributed according to gender, with 20 male participants ranging in age from 12-66 with a mean age of 18.4 years and 26 female participants ranging in age from 14 to 59 with a mean age of 36.1 years. In the adolescent sample, the gender distribution was skewed heavily toward males, with 18 of the 25 adolescents being males ranging in age from 12 to 18 years with a mean age of 14.7 years, and only seven female adolescents ranging in age from 14-17 years with a mean age of 15.7 years. Conversely, the parent sample was heavily skewed toward females with 19 of the 21 parents being females ranging in age from 32 to 59 years with a mean age of 43.6 and only two parents being males, aged 38 and 66 years with a mean age of 52 years. The racial and gender make-up of the sample is depicted in Table 4.1.

Table 4.1: *Descriptive Statistics: Racial, Gender, and Age*

<b>Race</b>	<b>Male</b>	<b>Mean Age</b>	<b>Female</b>	<b>Mean Age</b>	<b>Total</b>
<i>Adolescents</i>					
African American	10	14.8	4	16	14
European American	8	14.5	2	16	10
Other	0	0	1	14	1
Adolescent Total	18	14.7	7	15.7	25
<i>Parents</i>					
African American	2	52.0	7	44.4	9
European American	0	0	11	43.1	11
Other	0	0	1	44.0	1
Parent Total	2	52.0	19	43.6	21
<b>Participant Total</b>	<b>20</b>	<b>18.4</b>	<b>26</b>	<b>36.1</b>	<b>46</b>

### **Community Violence Exposure**

Rates of exposure to violence in the community were measured for each adolescent participant using the Screen for Adolescent Violence Exposure (SAVE). Scores were provided for the total exposure to violence, exposure to violence only in the community (defined as exposure in the neighborhood and at school), exposure to violence only in the home, exposure to traumatic violence in the home and in the community, exposure to physical aggression in the home and the community, and, finally, exposure to indirect violence in the home and in the community. As presented in Chapter Three, possible scores for the total violence exposure score range from zero, reporting never being exposed to violence, to 384, reporting always being exposed to each type of violence at school, at home, and in the community. Possible scores for exposure to violence in the home range from zero to 128. Possible scores for exposure to violence in the community (defined as exposure not experienced at school or at home) range from zero to 256.

The mean total SAVE scores for exposure to violence among the 25 adolescent participants was 33.28; scores ranged from zero to 100, with a standard deviation of 27.99. The specific mean, range, and standard deviation of each participant's exposure to family violence, community violence, traumatic violence, and indirect violence are represented in Table 4.2. There are no normative data for comparison of these SAVE scores; however the mean total violence score (33.28) is on the lower end of the potential range of scores. This suggests that on average, the sample reported being exposed to some violence in the community but not very consistently.

The standard deviation of the scores (SD=27.99) suggests a large variability in the reports and provides a distribution of data that ranges from little to no exposure to violence to exposure to multiple types of violence consistently at school, in the neighborhood, and at home. On the lower end, one participant reported never having been exposed to violence in the community. On the higher end, participants reported hearing sometimes about “someone getting killed” or “shot” at school, always “hearing gun shots” at home and in the neighborhood, and sometimes seeing “someone attacked with a knife” in the neighborhood. Mean scores of family violence exposure, traumatic violence exposure, physical aggression, and indirect violence exposure all point to a sample that had been exposed to violence in the community but not frequently or consistently.

Table 4.2

*Descriptive Statistics: Exposure to Violence in the Community*

<b>Variable</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Range</b>
Totvio	33.28	27.99	100
Comvio	25.76	22.50	83
famvio	7.08	7.34	25
Travioh	.44	1.00	4
Travioc	1.64	3.71	16
Phyaggh	2.28	2.82	9
Phyaggc	3.84	5.65	22
Indvioh	4.24	4.76	18
Indvioc	19.88	16.42	55

*Note.* n=25

## **Moral Development**

The moral development of each participant was assessed using the Defining Issues Test II (DIT-II). As discussed in Chapter Three, the P-SCORE is a quantified measure of principled thinking, ranging from one to 100. Forty-five participants completed the DIT-II with a mean score of 22.9 ranging from zero to 54. Among the 24 adolescents in the sample, the mean score was 17.8, and ranged from zero to 40. Among the parents the mean score was 28.7 and ranged from six to 54. Normative data for the DIT-I suggest mean P-SCORE's of 21.9, 31.8, and 42.3 for Junior High, Senior High, and College aged students respectively (Rest, Robbins, & Davison, 1978). Data generated from 10,870 completed DIT-II's illustrate a mean P-score of 41.1 (SD=15.77) for adult respondents who had attained or were working on a Masters degree (Bebeau, Maeda, & Tichy-Reese; 2003 as cited in Cannon, 2008). The high correlation between the DIT-I and II suggests that the P-SCORE's for the adolescents were below the average P-SCORE of those in Junior High. The mean P-SCORE for the parent/guardian group was below that of the normative data for senior high school students.

Surprisingly the parent/guardians did not demonstrate consistently higher P-SCOREs than those of their children, and in one case, the adolescent's moral development score (P = 36) was noticeably higher than the parent (P = 10). In another, the parent and adolescent scores were equal (P = 40). These findings are surprising given that longitudinal studies tend to show significant upwards trends in P-scores over time and moral development theory highlights the necessity of significant life experiences and education to promote increased principled reasoning (Rest, 1978). The descriptive results

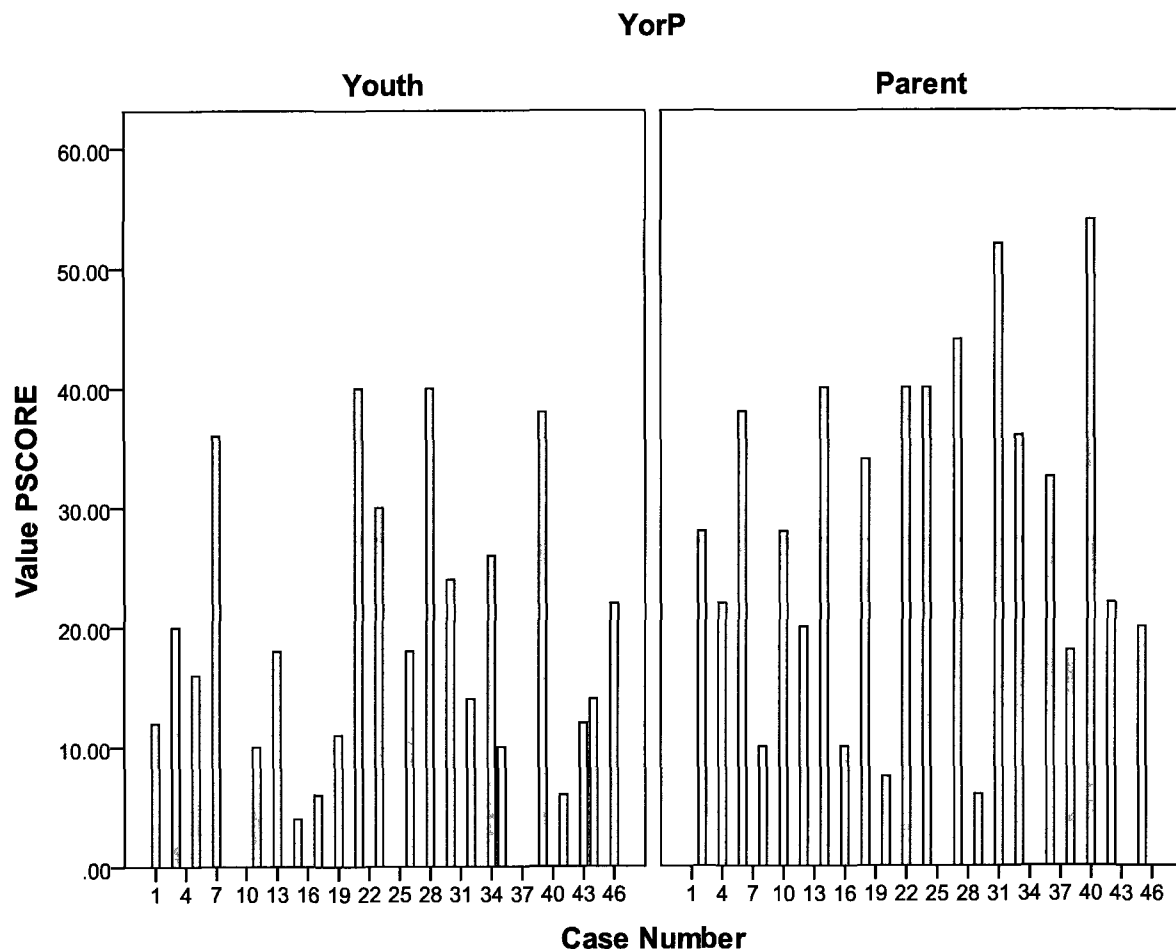
for the DIT-II scores are presented in Table 4.3, and the DIT-II scores of for adolescents are compared to those of their parents Figure 4.1.

Table 4.3

*Descriptive Statistics: Moral Development*

<b>Family #</b>	<b>Youth(s) P- SCORE</b>	<b>Parent P- SCORE</b>	<b>Family #</b>	<b>Youth(s) P- SCORE</b>	<b>Parent P- SCORE</b>
1	12	28	14	30	40
2	20	22	16	18	44
3	16	38	17	40	6
4	36	10	18	24	52
5	0	28	19	14 & 26	36
6	10	20	20	10	32.5
7	18	40	21	0	18
8	4	10	23	38	54
11	6	34	24	6 & 12	22
12	7.5	22	25	14 & 22	20
13	40	40			
<hr/>					
Note.					
Mean:	17.8	28.7			
n=45	n=24	n=21			

Figure 4.1

*Youth and Parent Moral Development***Behavioral Symptomology**

Behavioral symptomology was recorded from 25 adolescents on the Youth Self Report (YSR). The YSR provides eight behavioral sub-scales, a measure of internalizing and externalizing behaviors, a score of total problems, three competence scales, eight clinical measures, and a positive quality scale. The mean score on the internalizing behaviors was 57.75 (out of a possible 100) and the mean score on the externalizing behaviors was 56.67 (out of a possible 100). Normative data from a recent study on

2,522 adolescents in Sweden show a mean score on the internalizing scale for boys between 13-18 to be 9.49 and a mean score of for girls 13.66. On the Externalizing scales mean scores were 13.77 for boys and 13.24 for girls (Broberg et al., 2001). The scores for these adolescents were much higher as might be expected with a clinical sample. The mean score, standard deviation, and range of the 23 behavioral indices are represented in Table 4.4.

For this sample the mean scores of each sub-scale were considered to be in the “normal” range and not indicative of clinical symptomology (ADM User Guide). For both internalizing and externalizing scales ten of the twenty-five participants had scores in the clinical range; several participants reported scores in the clinical range of both, leaving fifteen of the twenty-five participants (sixty percent) who self-reported a clinical range of externalizing or internalizing symptoms. The standard deviation of the scores was 11.88 and 11.87 for internalizing and externalizing behaviors respectively. These scores suggest a distribution of scores that have a slightly platykurtic distribution; or the scores cluster around the mean less than the probability of them doing so in a normal distribution (Kiess, 2002).

Conversely the majority of the sub-scales were constrained in their variance as evidenced by the leptokurtic distribution in all sub-scales except for total problems, activities, total communication, and affective disorders. Of particular note was the constrained variance in the clinical scales of ADHD (SD=5.98), anxiety disorders (SD=6.45), and obsessive compulsive disorders (SD=7.05). Overall this sample’s self-report of clinical symptomology is greater than normative populations presented above but still within the normal range. The sample does contain mean clinical symptoms that



consistently approach the clinical range and sixty percent of the sample self-reported a clinical range of either externalizing or internalizing symptoms.

The parental report of behavioral symptomology was also recorded using the Clinical Assessment of Behavior (CAB). The CAB provides a clinical scale of externalizing and internalizing behaviors, two adaptive scales of social skills and competence, and behavioral index, a clinical cluster with 10 sub-scales, and two adaptive clusters measuring executive functioning and mental retardation. The mean score on the internalizing sub-scale was 58.96 and the mean score on the externalizing sub-scale was 54.88. Scores on the CAB less than or equal to 59 are considered within the normal range, with scores of 60-69 identified as mild clinical risk, and scores of 70 to 79 identified as significant clinical risk, and scores of 80 or over identified as very significant clinical risk. The mean score, standard deviation, and range on the 15 indices on the CAB are also presented in Table 4.4.

The mean parental reports of all scores were within the normal range. Fifteen parental reports of internalizing behaviors were within the clinical range; with thirteen identified as mild clinical risk and two identified as very significant clinical risk. Ten parental reports of externalizing behaviors were within the clinical range; with nine identified as mild clinical risk and one as a very significant clinical risk. Seventeen of the twenty-one parents reported either clinical levels of externalizing or internalizing behaviors (eighty-one percent); and eight parents reported clinical levels of symptoms on both. Each of the mean scores on the CAB have standard deviations above ten; suggesting that the scores all have platykurtic distributions.

Table 4.4

*Descriptive Statistics: Behavioral Symptomology*

<b>Independent Variables</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Range</b>	<b>Independent Variables</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Range</b>
<i>Youth Self Report (YSR)</i>				<i>Youth Self Report (YSR)</i>			
AnxDep	58.67	8.60	28	Activities	45.63	11.31	40
WithDep	60.17	10.04	33	SocialCom	43.04	8.99	35
Somatic	58.08	7.60	23	Tot_Com	42.33	10.54	47
Social	60.33	7.93	28	AffDisord	60.38	10.83	36
Thought	58.50	9.45	32	AnxDisord	56.79	6.45	20
Attention	59.58	9.18	32	Somaticpr	56.42	7.35	20
Rule-Break	58.58	7.44	27	ADHD	57.79	5.98	18
Aggression	58.75	9.28	28	Opposite	59.46	9.25	23
Internal	57.75	11.88	47	Conduct	59.42	8.12	26
External	56.67	11.87	46	OCD	58.08	7.05	23
TotProb	58.75	11.26	40	PTSD	60.00	8.43	32
Note:n=25				PosQual	52.13	10.01	42
<i>Parent Rated Symptomology (CAB)</i>				<i>Parent Rated Symptomology (CAB)</i>			
INT	58.96	17.55	90	AGG	52.79	17.49	87
EXT	54.88	16.97	87	BUL	53.96	16.80	87
SOC	40.25	13.09	64	CP	56.79	17.22	78
COM	39.17	13.02	61	ADH	54.46	16.45	77
CBI	57.08	16.36	87	ASB	55.96	16.95	87
ANX	56.46	16.59	80	LD	56.79	16.59	84
DEP	58.42	16.42	81	MR	55.96	15.93	77
ANG	53.29	16.94	82	EF	39.83	13.73	66

### Data Analyses

This section reviews the five research hypotheses and presents their respective findings. The analysis of the data was conducted utilizing the Statistical Package for the Social Sciences program (SPSS 19.0) and the Analysis of Moment Structures (AMOS). As noted in Chapter Three, a path analysis was utilized to examine the first two hypotheses. Path analysis looks at the fit of a proposed model or the consistency between a theoretical model being tested and the actual data. Path analysis diagram models indicate the magnitude of the direct effect of one variable on another. As presented in Chapter Three, path models are presented in narrative and diagram formats. An index of definitions of all acronyms and path analysis measures of fit utilized in the study is presented in Table 4.5. An index of definitions for all acronyms used to represent the analyzed variables for each instrument is presented in Table 4.6.

Table 4.5

#### *Path Analyses Fit Measures*

<b>Fit Index</b>	<b>Acronym/Definition</b>	<b>Interpretation</b>
Chi-Square	$X^2$ / Extent to which the Overall Model (structural and measurement) predict the observed covariance	In general, if the ration between the $X^2$ and $Df$ is less than 2 the model is a good fit (Kiess, 2002)
Degrees of Freedom	$Df$	The number of scores free to vary when calculating a statistic
Probability Level	P	If the probability of the $x^2$ is non-significant then the model is a good fit

---

Root Mean Square Error of Approximation	RMSEA	Estimates the lack of fit compared to the saturated model. RMSEA of .05 or less indicates a good fit and .08 or less indicates and adequate fit.
HOELTER Statistic	HOELTER	If the sample is larger than this number you would reject the Null hypothesis.

Table 4.6

*Index of Research Variables*

<b>Variable Acronym</b>	<b>Construct Represented</b>	<b>Variable Acronym</b>	<b>Construct Represented</b>	<b>Variable Acronym</b>	<b>Construct Represented</b>
<i>Youth Self Report Key (YSR)</i>					
AnxDep	Anxious Depression	Internal	Internalized Behaviors	AnxDisord	Anxiety Problems
WithDep	Withdrawn Depression	External	Externalizing Behaviors	Somaticpr	Somatic Problems
Somatic	Somatic Complaints	TotProb	Total Problems	ADHD	ADHD Problems
SocialP	Social Problems	Activities	Activites	Opposit	Oppositional/Defiant Problems
Thought	Thought Problems	SocialCom	Social Competence	Conduct	Conduct Problems
Attention	Attention Problems	School	Academic Performance	OCD	Obsessive Compulsive Problems
Rule-Break	Rule-Breaking Behavior	Tot_Com	Total Competence	PTSD	Post-Traumatic Stress Problems
Aggression	Aggressive Behavior	AffDisord	Affective Problems	PosQual	Positive Qualities

*Clinical Assessment of Behavior Key*

<i>(CAB)</i>					
EXT	Externalizing Behavior	ANG	Anger	LD	Learning Disability
INT	Internalizing Behaviors	AGG	Aggression	MR	Mental Retardation
SOC	Social Skills	BUL	Bullying	EF	Executive Function
COM	Competence	CP	Conduct Problems	GAT	Gifted and Talented
ANX	Anxiety	ADH	Attention-Deficit/ Hyperactivity		
DEP	Depression	ASB	Autism Spectrum		
<i>Defining Issues Test Key (DIT II)</i>					
PSCORE	Score of Moral Development				
<i>Screen for Adolescent Violence Exposure Key (SAVE)</i>					
Totvio	Total Violence Exposure	Travioh	Traumatic Violence Exposure at Home	phyaggc	Physical aggression exposure in the community
Comvio	Community Violence Exposure	Travioc	Traumatic Violence Exposure in the Community	invioh	Indirect violence exposure at home
Famvio	Family Violence Exposure	Phyaggh	Physical Aggression Exposure at Home	indvioc	Indirect Violence Exposure in the community

### **Analyses of the Proposed Models**

Hypothesis 1 and 2 proposed models where moral development assumes a mediating role between violence exposure and behavioral symptomology. This section of the chapter will present the findings of the fit of these models. Due to the multiple behavioral sub-scores assessed, each hypothesis required multiple path analyses; 23 to assess the models fit with the behavioral scores on the YSR and 15 to assess the models fit with the behavioral scores on the CAB. Given the large number of analyses, the graphical depictions of paths' fits are presented in Appendices E and F.

**Hypothesis One.** Adolescent moral development as measured by the Defining Issues Test (DIT-II) has a significant mediating role in the relationship between exposure to community violence as measured by the Screen for Adolescent Violence Exposure (SAVE) and externalizing and internalizing behaviors as measured by the Achenbach Youth Self-Report Inventory (YSR).

The path proposed for this hypothesis is depicted in Figure 3.1, the path analyses modeling the data for Hypothesis One along all measures of behavioral symptomology is presented in Appendices D1-D23, and the fit indices for the path diagrams are presented in Table 4.5. These fit indices reveal a number of non-significant Chi-Squares indicating that some of the models did fit the data. Specifically, anxious depression, withdrawn depression, somatic complaints, social competence, attention, internalizing behaviors, activities, social problems, total communication, affective disorders, anxiety disorders, Attention-Deficit Disorder, Obsessive Compulsive Disorder, and Post-Traumatic Stress Disorder sub-scales all did not have significant Chi-Square scores ( $X^2 < 2.00$ ) and, thus, a causal path was indicated. Conversely, thought problems, rule breaking behaviors,

aggressive behaviors, externalizing behaviors, total problems, somatic problems, oppositional/defiant behaviors, and conduct problems all produced a significant Chi-Square ( $X^2 > 2.00$ ); and, thus, no causal relationship is indicated. In general, it appears that a causal path exists between adolescents' exposure to violence, their level of moral development, and internalizing symptomology but not between their exposure to violence, their level of moral development and externalizing symptomology.

Upon closer examination the data analysis is not so easily interpreted. For all paths analyzed, the statistical program (AMOS) was not able to provide standardized estimates of the relationships. These estimates would help explain the relationship and influence of each variable upon each other and provide a standardized statistic to compare these relationships. This unanticipated output suggests that the statistical program is not able to produce a clear or complete output with the data provided; calling into question the Chi-Square scores. To better understand this incomplete output several other statistical procedures were performed.

A path analysis was performed on the path of total violence exposure (totvio) to behavioral symptomology to determine the viability of the data (Figure 4.2). Path analyses conducted between total violence exposure (totvio) and behavioral symptomology all were able to be fully run by the statistical program; providing the standardized estimates that were not able to be produced in the full path analyses. These analyses depict a positive relationship and influence of the measure of CVE on behavioral symptomology; suggesting that as CVE increases so does behavioral symptomology. This provides data that these variables are interacting as the literature in

Chapter One and Two suggest they should. These expected outcomes of the reduced path analyses do not explain the unanticipated output.

The correlational data (reviewed in detail later in the chapter and presented in Table 4.9, 4.10, and 4.11) depict the relationships among the variables. The measure of moral development does not significantly correlate to violence exposure ( $p > .05$ ). This non-significant correlation could potentially impact the path analysis as the initial relationship in the path is not significant. The measure of moral development does correlate to age ( $r = -.443, p < .05$ ), social competence ( $r = -.524, p < .05$ ), and oppositional defiant behavior ( $r = -.415, p < .05$ ); suggesting that the moral developmental scores are not behaving completely erratically. The correlation between CVE and behavioral symptomology is consistently positive and statistically significant with all externalizing behaviors ( $p < .05$ ). These results show that when the variable of moral development (P-SCORE) is included as a mediator between CVE and behavioral symptomology the relationship is disrupted. The results provide some insight into the data but do not, in and of themselves, explain the unanticipated output.

The HOELTER statistic (Table 4.7) produced in the path analysis adds a meaningful supplemental index to understand the results. This statistic presents the recommended largest sample size that should be used to accept the Chi-Square (AMOS user guide). For these proposed paths the statistic suggests the critical N required ranged from four to four hundred and nine. Given that there were only 24 sets of data available, the N utilized was often dramatically lower than the HOELTER statistic recommends. The vast discrepancy recalls the stated limitation of the study that any analysis of the data is greatly limited by the small sample size. For this hypothesis the small sample size



appears to contribute to these abstruse results; specifically the inability of the statistical program to calculate standardized estimates.

The data presented highlights a statistical output that is unable to calculate a standardized estimate for any of the paths analyzed. This unanticipated output does not appear to be the result of any of the variables producing data that is contrary to the expected outcomes reviewed in Chapter Two. The non-significant correlation between moral development and CVE could contribute to the output. The most likely contributor to the atypical output appears to be explained by the HOELTER statistic that reveals a sample size that is much lower than recommended to accept the hypothesis. A more detailed interpretation of the findings is considered in the next chapter.

Table 4.7

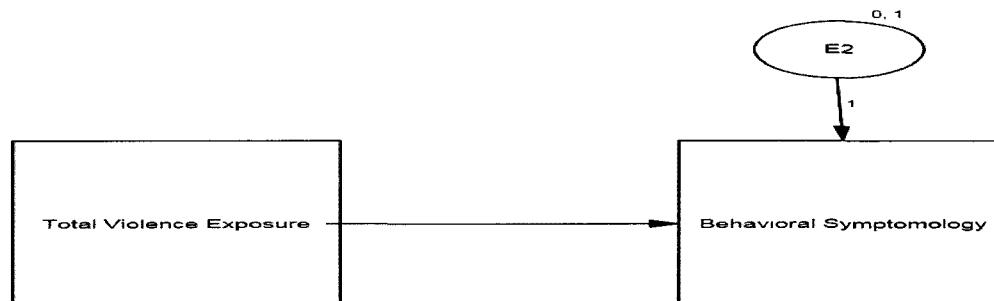
*Hypothesis One: Path Analyses Fit Indices*

<b>Behavioral Sub-Scale</b>	<b>Chi-Square</b>	<b>Degrees of Freedom</b>	<b>Probability Level</b>	<b>RMSEA</b>	<b>HOELTER Default Model</b>
Anx-Dep	.608	1	.436*	.000	140
With-Dep	.784	1	.376*	.000	108
Somatic	2.165	1	.141*	.230	40
SocialP	2.133	1	.144*	.227	40
Thought	9.221	1	.002	.611	10
Attention	.614	1	.433*	.000	138
RuleBreak	12.341	1	.000	.718	7
Aggression	8.141	1	.004	.570	11
Internal	.642	1	.423*	.000	132
External	9.939	1	.002	.637	9

TotProb	5.629	1	.018	.459	16
Activities	2.392	1	.122*	.252	36
SocialCom	.248	1	.618*	.000	356
Tot_Com	.612	1	.434*	.000	139
AffDisord	2.408	1	.121*	.253	36
AnxDisord	.336	1	.562*	.000	264
Somaticpr	4.897	1	.027	.421	18
ADHD	.726	1	.394*	.000	117
Opposite	10.067	1	.002	.642	9
Conduct	14.866	1	.000	.794	6
OCD	1.402	1	.236*	.135	61
PTSD	2.460	1	.117*	.258	35
PosQual	1.054	1	.305*	.050	81

*Note.*  $n=24$ ,  
 $*p>.05*$

**FIGURE 4.2: CVE and Behavioral Symptomology**



**Hypothesis Two.** Parental moral development as measured by the Defining Issues Test (DIT-II) has a significant mediating role in the relationship between exposure to community violence as measured by the Screen for Adolescent Violence Exposure (SAVE) and externalizing and internalizing behaviors as measured by the Clinical Assessment of Behavior (CAB).

The path proposed for this hypothesis is depicted in Figure 3.1, and the graphical depiction of the path analyses conducted to test this hypothesis are presented in Appendices E1 through E17. The fit indices for the path diagrams are presented in Table 4.8. These indices reveal that internalizing behaviors, social skills, competence, executive functioning, and gifted and talented subscales all had non-significant Chi-Squares; suggesting a causal path. Externalizing behaviors, the CAB behavioral index, anxiety, depression, anger, aggression, bullying, conduct problems, attention-deficit/hyperactivity, autism spectrum behaviors, learning disability, and mental retardation all had significant Chi-squares; suggesting that the hypothesized model is not a fit for these indices. These findings suggest that a causal path exists between adolescents' CVE exposure, their parents' level of moral development, and internalizing behavioral symptomology, but that such a path does not exist for externalizing behavioral symptomology. It is noteworthy that the causal path supporting the model of parental moral development mediating the relationship of CVE to internalizing symptomology is not as strong as it is in the previous hypothesis.

The paths analyzed in these hypotheses were also unable to calculate the standardized estimates. This again suggests that the statistical output cannot be interpreted easily and the data was not able to be analyzed completely by the statistical

program. For this hypothesis the number of participants in each path analysis is even lower and as such the number of participants is more likely to have negatively impacted the ability of the statistical program to successfully analyze the data.

Table 4.8

*Hypothesis Two: Path Analysis Fit Indices*

<b>Behavioral Sub-Scale</b>	<b>Chi-Square</b>	<b>Degrees of Freedom</b>	<b>Probability Level</b>	<b>RMSEA</b>	<b>HOELTER Default Model</b>
INT	2.273	1	.132*	.168	77
EXT	7.169	1	.007	.370	25
SOC	.394	1	.530*	.000	439
COM	.420	1	.517*	.000	412
CBI	5.565	1	.018	.318	32
ANX	4.348	1	.037	.273	40
DEP	3.059	1	.080*	.214	57
ANG	5.086	1	.024	.301	34
AGG	5.333	1	.021	.310	33
BUL	5.525	1	.019	.317	32
CP	5.708	1	.017	.323	31
ADH	7.677	1	.006	.385	23
ASB	6.967	1	.008	.364	25
LD	5.942	1	.015	.331	30
MR	5.779	1	.016	.326	30
EF	.846	1	.358*	.000	205
GAT	.702	1	.402*	.000	247

*Note.*  $n=21$ ,  
\* $p>.05$ \*

**Hypothesis Three.** There is a significant positive relationship between the construct of community violence exposure as measured by the Screen for Adolescent Violence Exposure (SAVE) and internalizing and externalizing symptomology as measured by the Achenbach Youth Self-Report Inventory (YSR) and the Clinical Assessment of Behavior (CAB).

This analysis tested the proposed hypothesis that there was a significant positive relationship between the construct of community violence exposure as measured by the Screen for Adolescent Violence Exposure (SAVE) and internalizing and externalizing symptomology as measured by the Achenbach Youth Self-Report Inventory (YSR) and the Clinical Assessment of Behavior (CAB). A Pearson product-moment correlation analysis (two-tailed) was conducted to examine the relationship between total reported exposure to violence in the community and the youth self report of behavioral symptomology as measured by the YSR. Another Pearson correlation was conducted to determine the relationship between total youth exposure to community violence and the parental report of behavioral symptomology as measured by the CAB.

Externalized behaviors ( $r=.631$ ,  $p=.001$ ), thought problems ( $r=.584$ ,  $p=.003$ ), rule breaking behaviors ( $r=.628$ ,  $p=.001$ ), aggressive behaviors ( $r=.586$ ,  $p=.003$ ), total problems ( $r=.504$ ,  $p=.012$ ), oppositional behaviors ( $r=.628$ ,  $p=.001$ ), and conduct problems ( $r=.714$ ,  $p=.000$ ) were found to be significantly correlated at the .05 level with total violence exposure. Somatic problems also had a noteworthy correlation ( $r=.404$ ,  $p=.05$ ). This data suggests that both self reported externalizing behaviors and externalizing clinical symptomology increase as exposure to violence increases.

Somewhat surprisingly, this data did not support previous findings that internalizing behaviors correlated to CVE. The data also did not support the hypothesis that parent reports of behavioral symptomology were correlated with total community violence exposure. These findings are presented in Table 4.9.

Table 4.9

*Hypothesis Three: Correlational Analyses of CVE and Behavioral Symptomology*

<b>Independent Variables</b>	<b>Total Violence Exposure (totvio) Pearson-Correlation</b>	<b>Significance (Two-Tailed)</b>	<b>Independent Variables</b>	<b>Pearson-Correlation</b>	<b>Significance (Two-Tailed)</b>
<i>Youth Self Report (YSR)</i>					
AnxDep	.184	.389	Activities	.285	.117
WithDep	.196	.358	SocialCom	.181	.398
Somatic	.288	.172	Tot_Com	.190	.373
Social	.331	.114	AffDisord	.351	.093
Thought	.584*	.003	AnxDisord	.143	.506
Attention	.207	.332	Somaticpr	.404	.050
Rule-Break	.672*	.000	ADHD	.208	.330
Aggression	.586*	.003	Opposite	.628**	.001
Internal	.194	.363	Conduct	.704**	.000
External	.631*	.001	OCD	.284	.178
TotProb	.504*	.012	PTSD	.357	.087
Note:n=25			PosQual	-.221	.300
<i>Parent Rated Symptomology (CAB)</i>					
INT	.080	.729	AGG	.284	.212

EXT	.358	.111	BUL	.256	.263
SOC	-.303	.182	CP	.349	.121
COM	-.355	.114	ADH	.376	.093
CBI	.278	.223	ASB	.345	.126
ANX	.239	.298	LD	.359	.110
DEP	.180	.435	MR	.307	.176
ANG	.258	.258	EF	-.427	.054
			GAT	-.431	.051

*Notes.* n=21

\*\**. P<0.01 (2-tailed).*

\**. P<0.05 (2-tailed).*

**Hypothesis Four.** There is a significant negative relationship between the construct of community violence exposure as measured by the Screen for Adolescent Violence Exposure (SAVE) and moral development as measured by the Defining Issues Test II (DIT-II).

This hypothesis utilized a Pearson Correlation to test the proposed hypothesis that there was a significant relationship between the construct of community violence exposure as measured by the SAVE and moral development as measured by the Defining Issues Test II (DIT-II). This was accomplished by conducting a Pearson product-moment correlation between the total violence exposure score on the SAVE and youth moral development scores on the DIT and then running another correlational test between the total scores on the SAVE and the parental moral developmental scores on the DIT.

There were no significant negative correlations found between youth moral development and violence exposure. There were also no significant negative correlations

between parental moral development and youth violence exposure. This is, perhaps due to the fact that moral development is bound by age and the variability in the sample of adolescent moral development was not very large. Of note are the negative correlations between exposure to violence and moral development, suggesting that there may be an inverse relationship, although not significant, between exposure to violence and moral development. These data are presented in Table 4.10.

Table 4.10

*Hypothesis Four: Correlational Analysis of Violence Exposure and Moral Development*

<b>Independent Variables: Violence Exposure (SAVE)</b>	<b>Moral Development Youth Pearson Correlation</b> <i>(DIT-II)</i>	<b>Significance (Two-Tailed)</b>	<b>Moral Development Parental Pearson Correlation</b> <i>(DIT-II)</i>	<b>Significance (Two-Tailed)</b>
Totvio	-.207	.331	-.211	.359
Comvio	-.191	.372	-.205	.373
Famvio	-.200	.349	-.118	.611
Travioh	-.178	.404	-.056	.809
Travioc	-.300	.154	-.052	.823
Phyaggh	-.105	.625	-.112	.629
Phyaggc	-.238	.263	-.366	.102
Indvioh	-.182	.394	-.099	.670
Indvioc	-.255	.230	-.136	.556

Note.n=25



**Hypothesis Five.** There is a significant negative relationship between youth moral development as measured by the Defining Issues Test II (DIT-II) and youth externalizing and internalizing symptomology as measured by the Achenbach Youth Self-Report Inventory (YSR) and the Clinical Assessment of Behavior (CAB).

The final step in this section analyzed data to address the proposed hypothesis that there was a significant relationship between parent and youth moral development as measured by the DIT-II and youth externalizing and internalizing symptomology as measured by the YSR and the CAB. This was accomplished through two Pearson Product-Moment Correlations. The first set of correlations examined the relationship between youth moral development scores as measured by the DIT and youth report of behavioral symptomology as measured by the YSR and the second tested the relationship between parental moral development and parental reports of child behavioral symptomology as measured by the CAB.

Pearson correlational analysis of the relationship between the Youth P-SCORE and behavioral symptomology revealed that aggressive behaviors ( $r=-.433$ ,  $p=.039$ ), social competence ( $r=-.440$ ,  $p=.035$ ), and oppositional behaviors ( $r=-.456$ ,  $p=.029$ ) subscale scores were significantly negatively correlated. This data suggests some significant correlation between externalizing symptoms as measured by youth self-report, although the externalizing scale as a whole was not significantly correlated with moral development. None of the internalizing measures were significantly correlated. The correlational analysis of the relationship between parental P-SCORE's and behavioral symptomology as measured by the parental report on the CAB revealed no data supporting the relationship between moral development and either externalizing or

internalizing behavioral symptomology. These correlational findings reflect the literature presented in Chapter Two suggesting a significant relationship between moral development and externalizing behaviors and the need for a better understanding of the relationship between moral development internalizing behaviors.

Table 4.11

*Hypothesis Five: Correlational Analyses of Moral Development and Behavioral Symptomology*

<b>Independent Variables</b>	<b>Moral Development (DIT-II) Pearson-Correlation</b>	<b>Significance (Two-Tailed)</b>	<b>Independent Variables</b>	<b>Pearson-Correlation</b>	<b>Significance (Two-Tailed)</b>
<i>Youth Self Report (YSR)</i>					
AnxDep	-.086	.698	Activities	.081	.713
WithDep	-.046	.836	SocialCom	-.440*	.035
Somatic	.050	.822	Tot_Com	-.149	.496
Social	-.158	.471	AffDisord	-.179	.413
Thought	-.080	.718	AnxDisord	-.112	.610
Attention	-.192	.379	Somaticpr	.121	.582
Rule-Break	-.218	.317	ADHD	-.133	.546
Aggression	-.433*	.039	Opposite	-.456*	.029
Internal	-.118	.591	Conduct	-.244	.261
External	-.323	.133	OCD	-.195	.374
TotProb	-.238	.274	PTSD	-.195	.372
Note:n=25			PosQual	.044	.842
<i>Parent Rated Symptomology (CAB)</i>					
INT	.392	.079	AGG	.359	.110

EXT	.364	.105	BUL	.378	.091
SOC	-.371	.090	CP	.182	.429
COM	-.261	.254	ADH	.393	.078
CBI	.378	.091	ASB	.366	.102
ANX	.345	.126	LD	.238	.298
DEP	.275	.228	MR	.308	.174
ANG	.411	.064	EF	-.260	.255
			GAT	-.248	.279

Notes. n=21

\*\*. P< 0.01 (2-tailed).

\*. P< 0.05 (2-tailed).

### Chapter Summary

This chapter presented the results of the data analyses procedures of the study; including descriptive statistics, path analyses, and correlational analyses. The data provided suggests that Hypotheses One and Two have limited statistical support; with Hypothesis One providing the clearest data supporting the role of moral development in mediating the relationship between CVE and internalizing symptomology. Hypothesis Three and Five have statistical support while Hypothesis Four did not have any statistical support. The next chapter will review the results in detail, interpret the data, and discuss the potential implications as well as potential limitations of the data.

## CHAPTER 5: DISCUSSION AND CONCLUSIONS

This chapter begins with a brief review of the supporting literature and the research design. The research hypotheses and the results are then reviewed and the findings interpreted. These results are also compared to the research presented in Chapter Two and explanations are provided for both congruent and incongruent findings. Next, reviews of several findings that were not anticipated in the study are presented. Finally, the contributions and limitations of the study and suggestions of future research are offered.

Over the last two decades there has been a tremendous amount of research on the impact of community violence exposure (CVE). This study is rooted in literature demonstrating the destructive impact CVE has on adolescents and adolescent development. The research is clear and consistent in correlating CVE to a frightening array of negative outcomes for adolescents that range from aggressive behaviors to Post-Traumatic Stress Disorder (PTSD) symptoms. The adolescent life-cycle is particularly prone to maladaptive developmental trajectories, and the deleterious impact of CVE on healthy development is clearly stated in the literature (Margolin & Gordis, 2004).

Fortunately, not all who grow up in the shadow of CVE develop maladaptive symptomology. In order to better understand this, researchers have focused on the factors that mediate the relationship between CVE and negative behavioral symptomology. The literature provides some support for the role of family factors, social systems, and individual coping in mediating the relationship between CVE and symptomology; however, none of these factors by themselves appear to fully buffer

against the impact of CVE. This has led to a consistent call to continue to pursue a clearer understanding of what factors do, in fact, mediate the relationship. One factor that has some support in the literature is the construct of moral development.

This research explored the influence of moral development on the impact of CVE for adolescents growing up while exposed to community violence. It hypothesized that adolescent moral development mediates the relationship between CVE and behavioral symptomology. It further hypothesized that parent/guardian moral development also mediates the relationship between CVE and behavioral symptomology. Finally, the study hypothesized that there would be a positive correlation between CVE and behavioral symptomology, a negative correlation between CVE and moral development, and a negative correlation between moral development and behavioral symptomology.

The study tested five specific hypotheses by using data collected from adolescents and parent/guardians of 21 families recruited from the New Horizons Family Counseling Center. The adolescent family members completed four assessments: (a) an informed consent (Appendix A), (b) a measure of community violence exposure [the Screen for Adolescent Violence Exposure (SAVE)], a measure of moral development [the Defining Issues Test-II (DIT-II)], and a measure of behavioral symptomology [the Achenbach Youth Self-Report of Behaviors (YSR)]. The parent/guardian family members completed three assessments: (a) an informed consent (Appendix B), a measure of moral development (DIT-II), and a measure of youth behavioral symptomology [the Clinical Assessment of Behavior (CAB)].

Following the data collection, descriptive statistics were recorded and analyzed. Path analyses were applied to test the first two hypotheses, and a Pearson-product

moment correlation was applied to test the last three hypotheses. An alpha level of .05 was utilized in all the correlational data analyses. The results were then presented in narrative and graphical formats. A discussion of these results follows.

## **Discussion**

### **Hypothesis One**

Adolescent moral development as measured by the Defining Issues Test (DIT-II) has a significant mediating role in the relationship between exposure to community violence as measured by the Screen for Adolescent Violence Exposure (SAVE) and externalizing and internalizing behaviors as measured by the Achenbach Youth Self-Report Inventory (YSR)

### **Hypothesis Two**

Parental moral development as measured by the Defining Issues Test (DIT-II) has a significant mediating role in the relationship between exposure to community violence as measured by the Screen for Adolescent Violence Exposure (SAVE) and externalizing and internalizing behaviors as measured by the Clinical Assessment of Behavior (CAB).

As reported in Chapter Four, there were statistically significant findings partially supporting both Hypotheses One and Two. Unfortunately, these findings have to be interpreted with caution, because the data did not lend itself to a completely successful path analysis. This was evidenced by the inability of the analysis to determine standardized estimates of the influence among the variables for any of the paths analyzed.

Several post-hoc statistical procedures were conducted in order to explain this unanticipated outcome. A limited path analysis (Figure 4.2) was conducted that examined the initial path of CVE to moral development. This path analysis was

successful, and was able to produce standardized estimates of the influence of the variables. This result suggests that CVE and moral development scores were functional and that the incomplete output was not a result of a flaw in the initial path.

The correlational data was also reviewed to help explain the failure of the statistical program to fully analyze the data. The correlations revealed that there was not a significant correlation between the measures of CVE and moral development; however, the data was negatively correlated as the literature suggests it should be. The relationships among the other variables were in line with previous research, in that there were positive relationships between CVE and behavioral symptomology and negative relationships between moral development and behavioral symptomology.

The abstruse statistical output is, perhaps, best explained by the low number of participants. For the first hypothesis there were 24 paths analyzed, and for the second there were 21 paths analyzed. The HOELTER statistics presented in Chapter Four shed light on this limitation by demonstrating the significant disparity in the number of paths analyzed and the number of paths recommended to yield significant results; for some analyses, the number recommended exceeded 300 paths. It seems that the number of participants may simply have been too low for the statistical analysis to provide a complete picture of the mediating impact of either adolescent or parent/guardian moral development.

Unfortunately, this means that any interpretation of the statistical analysis of the mediating role of moral development, statistically significant or not, can at best be presented as the product of an incomplete analysis. In particular, the Chi-Square scores that support the significant mediating role of moral development in the relationship

between CVE and internalizing cannot be considered as definitive support for that finding. However, it should also be noted that because the first two hypotheses were exploratory; the results do merit discussion, offer some insight on the potential mediating role of moral development, and pave the way for future research.

**Mediating Internalizing Behaviors.** The results of the path analyses testing Hypothesis One provide support, albeit inconclusive, for the role of moral development in mediating the relationship between CVE and internalizing behavioral symptomology. On the Achenbach Youth Self Report of behaviors (YSR), internalizing behaviors consist of three sub-scales; anxious-depression, withdrawn depression, and somatic complaints. The path analyses revealed that there was a significant fit for all three proposed models; meaning that the data supports the mediating role of moral development for all three subscales of internalizing behaviors. The YSR also provides several clinical scales of internalizing behaviors. The data supports the proposed hypothesis that moral development mediates the relationship between affective disorders, anxiety disorders, obsessive compulsive disorder (OCD), and PTSD. These results suggest that adolescent moral development is a statistically significant buffer against the development of internalizing behaviors in adolescents exposed to community violence.

The results of the path analyses testing Hypothesis Two also supported the fit of the proposed model that parent/guardian moral development mediates the relationship between CVE and internalizing behaviors in adolescents. The Clinical Assessment of Behavior (CAB) provides an internalizing behavior clinical scale and two subscales of anxiety and depression. The path analysis found that internalizing behavior as a whole and the subscale of depression mediate the relationship at a statistically significant level.



The subscale of anxiety did not mediate the relationship to a statistically significant level. Although this data was not as strong in its support for moral development as a mediator, it does add another layer of data that supports that parent/guardians moral development also mediates the relationship.

This study generally supports the notion that moral development has a significant role in the development of internalizing symptoms such as anxiety, depression, and PTSD symptomology. This extends the research on the protective factors for youth in violent communities and highlights the importance of individual development in thriving in the face of violence. It also suggests that clinical interventions that promote moral development, such as the Deliberate Psychological Educational interventions presented in Chapter Two, may be integral for youth in violent communities.

The research on the “intuitive connection” (Kuther & Wallace, 2003, p. 180) between CVE and moral development had theorized a connection but, heretofore, had not produced any empirical evidence to support this connection. This study provides data that suggests that moral development is a statistically significant mediator between CVE and internalizing symptomology. These findings are, perhaps, even more relevant because of the small sample size and the resulting lack of power of the study. Significant findings in a study with a small relationship may suggest that the findings would be even stronger in a larger sample.

**Mediating Externalizing Behaviors.** The findings did not support the proposed path suggesting that moral development mediates the relationship between CVE and externalizing behaviors for either Hypothesis One or Two. The clear refutation of this aspect of the directional hypothesis is especially intriguing, given the good fit with

internalizing symptoms that was described above. The distinction in the data between the role of moral development in mediating externalizing and internalizing symptomology appears to have several potential explanations: (a) that moral development does not serve as a mediator for externalizing behaviors, (b) that there were significant flaws in the methodology that led to these results, or (c) that the relationship between CVE and externalizing behaviors is strong enough that the addition of moral development simply does not add any significant information.

The explanation that moral development simply does not mediate the relationship is one that must be considered; it is possible that moral development only mediates internalizing behaviors. This finding may be congruent with both Rosario et al. (2008) and Kliewer et al.'s (2004) finding that youth coping behaviors were more strongly related to their internal lives than their external behaviors. Kliewer and colleagues concluded that individual coping was a sufficient mediator of internalizing symptoms but did not significantly mediate externalizing behaviors such as aggression. The construct of moral development is a more robust construct that encapsulates more than coping; however, Kliewer's conclusions may point to a limited role of internal processes, even those as central to interaction with the environment as moral development, in being able to impact the development of externalizing symptoms.

The literature previously has not discussed the potentiality of developmental factors buffering against internalizing and not externalizing behaviors. The theoretical work of Sparks (1994) contends that moral development would play a significant role in determining CVE's total impact on adolescents, but not in determining a specific impact. This study advances that contention by revealing a distinction between the impact of

moral development on mediating internalizing and externalizing behaviors. Rather than ruling out the mediating role of moral development and externalizing behaviors at this point, further study into that relationship is recommended.

The methodology of a study is always a potential factor in the results. The number of participants appears to be a major contributor in this study to the lack of significance in the paths analyzing externalizing behaviors. The small sample may have generated insufficient power to achieve significant results, and the impact of moral development as a mediator for externalizing behaviors simply may not have been strong enough to be detected.

The self-report nature of the instruments and the potential social desirability confound could also have led to skewed raw scores of both exposure to violence and behavioral symptomology. Gall, Gall, & Borg (2007) suggest not using self-report measures if social desirability is a risk. This study was not overly concerned about social desirability in adolescent reporting of CVE; choosing to utilize a self-report measure (the SAVE) because the study was interested in youth perceptions of exposure to violence, not in objective rates of exposure. The study relied upon multiple measures of behavioral symptomology (parent and adolescent report) to help control for the potential confound of social desirability in the YSR and CAB scores.

Another aspect of the methodology that could have contributed to these findings is the instrument used to assess of moral development, the DIT-II. The principled reasoning score utilized from the DIT-II, may not have been the aspect of moral development that has the greatest impact on the development of externalizing symptoms. Rest's (1999) four component model suggests that moral judgment is only one aspect of

moral development; adding moral motivation, moral character, and moral sensitivity.

The concept of moral sensitivity may provide a clearer picture of the mediating role of morality on the development of externalizing behaviors.

Moral sensitivity generally refers to the ability of the individual to recognize that a moral dilemma exists. In practice, moral sensitivity pertains to the ability of individuals to regulate their emotional reactions and then examine a perceived moral dilemma from multiple perspectives before undergoing the moral reasoning process (Morton et al., 2006). Adolescents exposed to CVE with increased levels of moral sensitivity would not only recognize that repeating the violent acts that they have been exposed to constituted a moral dilemma; they might also be more likely to consider the impact externalizing behaviors such as aggression can have on others. Consequently, the construct of moral sensitivity could play an integral role in externalizing behaviors.

The construct of moral sensitivity also has noteworthy parallels to the normalizing pathway in Ng-Mak et al.'s (2004) pathologic adaptation model. As presented in Chapter Two, youth exposed to violence are theorized to either become distressed by CVE or become desensitized to violence and normalize violent behaviors. Adolescents who become desensitized to violence via the normalizing pathway would be less likely to recognize that repeating violence constituted a moral dilemma. Given that Boxer et al. (2008) have provided empirical support for the normalizing pathway's connection to externalizing behaviors, it stands to reason that moral sensitivity may play an integral role in the development of externalizing behaviors in adolescents exposed to CVE. Future research may benefit from considering the component of moral sensitivity when

examining the mediating role of moral development on the relationship between CVE and externalizing behaviors.

The measure of violence exposure may have also contributed to the disparity within the results between externalizing and internalizing behaviors. When the subscales of the measure of violence exposure were analyzed in the proposed path, one subscale, traumatic violence, did significantly mediate the relationship ( $X^2=1.022$ ,  $p=.312$ ,  $RMSEA=.031$ ). It should be noted that traumatic exposure to violence in the home was only reported by five families in the study, thus providing a small data sample on which to interpret the mediating role of moral development. These findings invite speculation that a closer examination of the specific type of exposure may have yielded different results. Specifically, it is suggested that a more robust study with a larger sample size is needed to shed more convincing light on the specific impact of traumatic exposure to violence in the home on moral development.

Another potential explanation stems from a closer look into the results. The data set suggests that CVE has a strong negative influence on externalizing behaviors (Appendix D & E). Accordingly, the analysis of the limited path (Figure 4.2) of CVE and behavioral symptomology revealed that it was a good fit. When moral development was added to this path (Hypothesis One & Two) goodness of fit no longer occurred. Regression statistics suggest that the relationship between CVE and externalizing behaviors was strong enough that the addition of the moral development score did not reveal significantly more about the data and, as such, did not provide any significant results. This finding may be explained by the small sample size and gives reason to replicate the study in the future with a larger sample.

An alternate explanation might be that because the introduction of moral development into the limited path of CVE and externalizing behaviors (Figure 4.2) no longer results in a significant relationship; it is in fact having a mediating effect. CVE has shown to have a significant negative influence on externalizing behaviors ( $R^2=.27$ ), on rule-breaking behaviors ( $R^2=.18$ ), on aggressive behaviors ( $R^2=.19$ ), on oppositional/defiant clinical scales ( $R^2=.20$ ), and the conduct disorder clinical scale ( $R^2=.21$ ). When the construct of moral development was added to the path there was no longer a significant path. This suggests that moral development may have some influence in the relationship between CVE and externalizing behaviors and, thus, may be an area worthy of continued inquiry.

In summary, the findings do not conclusively support the hypothesized mediating role of moral development in the relationship between CVE and externalizing behaviors. The clear division between the role of moral development as a mediator for externalizing and internalizing behaviors fuels speculation about the utility of the principled reasoning score in assessing externalizing behaviors. It is further speculated that moral development may be working as a mediator in this sample but the study had a lack of power to detect the mediating role.

**Mediating positive behaviors.** A supplemental finding in the analysis of the first two hypotheses was that moral development beneficially mediates the relationship between CVE and a number of positive behaviors. Specifically, moral development was found to mediate between CVE and social competence, total communication, attention, activities participated in, and positive qualities as measured by the YSR. It also mediated

the relationship between CVE and communication, social skills, executive functioning, and gifted and talented scores on the CAB.

These findings do not directly relate to the hypotheses, however, they do suggest that moral development serves a beneficial role in promoting behaviors that may protect individuals from exposure to violence. Social skills, social competence, communication skills, and increased intellectual capabilities play an important role in assisting youth in navigating potentially violent situations and in finding alternative healthy ways to address situations within relationships instead of demonstrating externalizing behaviors such as aggression or developing internalizing behaviors such as anxiety or depression (Rosario et al., 2008). These behaviors are also key skills necessary to promote healthy interaction within families. The research presented in Chapter Two highlighted the role of the family context as a mediator; this data suggests that increased moral development may contribute to the effectiveness of other contextual factors in mediating the deleterious impact of CVE.

**Path Analysis Summary.** These results for the first two hypotheses are congruent with the theoretical work of Kuther (1999), Kuther & Wallace (2003), Sparks (1994), and Burdett-Schiavone (2009) suggesting that morality and moral development are inextricably linked with CVE. Inasmuch as there is no empirical research examining the impact of moral development on CVE, this data may be the first to offer some empirical support for the specific nature of the relationship. The data suggest that adolescents and their parent/guardian's moral development play a significant mediating role in the development of internalizing behaviors. It is inconclusive in its support for the role of moral development in mediating externalizing behaviors; however, it leaves open

the possibility that future studies with a larger sample size would provide more conclusive results.

On the whole, the current findings do not allow for conclusive statements about either of the first two hypotheses, and as such, neither of the directional hypotheses were supported. However, the congruence of the findings with existing conceptual and correlational research, along with the consistency of the findings across multiple measurement sources suggests that these hypotheses are worthy of future investigation with a larger sample. The finding that moral development may play a key role in mediating the development of positive behaviors is seen as an unexpected benefit of the study, and further investigation with a broader sample is recommended.

### **Hypothesis Three**

There is a significant positive relationship between the construct of community violence exposure as measured by the Screen for Adolescent Violence Exposure (SAVE) and internalizing and externalizing symptomology as measured by the Achenbach Youth Self-Report Inventory (YSR) and the Clinical Assessment of Behavior (CAB).

The relationship between CVE and youth self-reports of externalizing symptomology was clearly supported in the data. The scale of externalizing behaviors and both the rule-breaking and aggression subscales that make up the externalizing behavior scale, were correlated at the .005 level, suggesting a strong correlation. The clinical scales of Oppositional Behavior and Conduct Disorder that correspond to externalizing behaviors were also significantly correlated to CVE at the .005 level. These findings clearly support the hypothesized relationship between CVE and externalizing behaviors. The strong correlation between CVE and externalizing behaviors is also



congruent with the research of Miller et al. (1999), Lynch & Cicchetti (1998), and McMahon et al. (2009) and others, and adds support to the already strong body of literature that supports this relationship.

The current findings did not reveal a statistically significant relationship between CVE youth self-report of internalizing behaviors. These findings also did not support a relationship between CVE and parent/guardian reports of either externalizing or internalizing behaviors. The absence of a significant relationship between CVE and internalizing behaviors is puzzling, given that the finding is contradicted by a wide body of research. Cooley-Quille et al. (2001), Rosario et al. (2007), Wilson & Rosenthal (2003), and a host of others all provide evidence that support such a relationship.

The clear division between the relationship between CVE and externalizing and internalizing behaviors in this sample is worth noting. None of the existing research reviewed in preparation for the current study found such a dramatic difference of the impact of CVE on the two potential outcomes; although that research did find some variability in the relationship across samples. The contrast of the current findings with those of previous research suggests that the current findings may be unique to this particular sample.

As with the first two hypotheses the sample size is an obvious suspect in the unanticipated finding for Hypothesis Three. For the youth self-report of behaviors the 25 participants approximated but did not achieve the informal goal of 30 participants that are needed for enough statistical power to achieve significance. For the parental reports, the sample was even smaller at 21 participants. The smaller than desired samples may help explain the findings that contradict a consistent finding in the literature that there is a

relationship between CVE and internalizing symptoms. Future research may need to be done with a larger clinical sample to ensure that CVE is, indeed, correlated with internalizing behaviors in clinical populations as it is in the general public.

The need for a larger sample was further illustrated in a review of the behavioral symptomology scores. The raw scores of internalizing behavior and externalizing behavior on the YSR and CAB were similar (57.75 and 56.67, 58.96 and 54.88 respectively), and they both contained a similar standard deviation of scores (11.88 and 11.87, 17.55 and 16.97 respectively). The apparent similarity in the variability of the data sets might suggest that as the scores were sufficient to yield significance with externalizing behaviors the sample was also sufficient to yield significance with internalizing behaviors; however, as these findings are not supported by the literature presented in Chapter Two, it is suggested that larger sample sizes would yield different results.

As noted previously, the parental reports of behavioral symptomology had no correlations to CVE. This was surprising, given that several previous studies that involved parental reports found significant positive interactions among the named variables. As discussed in Chapter Two, Miller et al. (1999) and Lynch & Cicchetti (1998) utilized parent and teacher reports of behavioral symptomology respectively and found a significant relationship between CVE and behavioral symptomology. This points to the salience of the hypothesized relationship and at least suggests the current findings warrant further study.

One encouraging aspect of the findings of the current study was that all of the correlations between CVE and behavioral symptomology, though not significant, were

positive, with the exception of positive qualities on the YSR and CAB. In this sample, CVE was positively correlated to behavioral symptomology and negatively correlated to positive qualities; as the literature suggested it should be. This provides promising empirical indication that for this sample increased exposure to community violence is correlated to increased behavioral symptomology and decreased positive qualities according to self and parental reports.

On the whole, the findings did not support the hypothesis that there is a statistically significant positive relationship between CVE and behavioral symptomology. The findings did depict a significant relationship between CVE and all adolescent reported measures of externalizing behavior; however, they did not provide support for a positive relationship with any measure of internalizing behaviors. They also did not provide support for the hypothesized relationship between CVE and parent/guardian reports of behavioral symptoms. These findings directly contrast with previous research, and are, perhaps, best understood as being a product of the small sample size. The sample size is a clear potential confounding variable, and the findings will need to be replicated with a larger sample before any firm conclusions can be drawn as to their reliability. The positive non-significant correlations between CVE and all the indicators of negative behavioral symptomology suggest that the data does reflect the general relationship between the constructs and a study with greater power might replicate the findings in the presented literature.

#### **Hypothesis Four**

There is a significant negative relationship between the construct of community violence exposure as measured by the Screen For Adolescent Violence Exposure (SAVE) and moral development as measured by the Defining Issues Test II (DIT-II).

The relationship between CVE and moral development yielded no significant results, and as such, the hypothesis was not accepted. Although there was no previous empirical data supporting this hypothesis; the research literature had suggested that the correlation was “intuitive” (Kuther & Wallace, 2003, p.180). As presented in Chapter Two, Burdett-Schiavone (2009), Sparks (1994), Kuther (1999), and Kuther & Wallace (2003) all have provided conceptual support for the relationship between CVE and moral development, and their work laid the foundation for this research effort. Unfortunately, the results of this research could not add any empirical evidence to support the hypothesis.

Though not significant, the correlations between all scores of violence exposure and moral development were negative as anticipated. This finding is promising, and the negative trend in the relationship does provide some support for continued investigation into the hypothesized relationship. Further research verifying this hypothesized relationship would be useful to elucidate the connection between moral development and CVE and provide empirical support for the conceptual literature.

As in the previous hypotheses, there were several methodological limitations to the study that warrant discussion. The sample size again limits the statistical utility of the data, and may explain the lack of significant findings. Twenty-five sets of data were analyzed, smaller than the desired sample of 30 plus. The measures of CVE and moral

development may also have been limited by the assessment instruments. The variance in the moral developmental scores of the adolescents may have been constrained due to the very nature of moral development. Moral development is dependent on significant life and age experiences that can promote development. In adolescents, moral development typically is at stage two or three, and such, a small sample may not have provided enough variance in development to detect a significant relationship. This points to the need for future research utilizing a larger sample to investigate the relationship between moral development and CVE within a specific age group.

The hypothesized negative relationship between CVE and moral development was not supported by the data in the current study. Given that there is no other empirical evidence in the literature supporting this relationship; the possibility must be considered that there is not a significant relationship between these two variables. However, as noted previously, this conclusion is contradicted by conceptual data that supports that there is an intuitive connection between CVE and moral development. The limitations of the data analysis, notably the sample size, must be taken into consideration before drawing conclusions about this hypothesis on the basis of the current findings. Inasmuch as the hypothesized relationship was negative (though non-significant) for all measures of symptomology; the findings lend inconclusive evidence of such a relationship and continued exploration is warranted.

### **Hypothesis Five**

There is a significant negative relationship between youth moral development as measured by the Defining Issues Test II (DIT-II) and adolescent externalizing and

internalizing symptomology as measured by the Achenbach Youth Self-Report Inventory (YSR) and the Clinical Assessment of Behavior (CAB).

This hypothesis was rooted in the literature presented in Chapter Two that correlated moral development stage with behavior. Overall, the relationship between moral development and parent and youth reports of behavioral symptomology failed to achieve significance, and as such, the hypothesis was not supported. The findings did reveal several significant correlations that merit discussion; specifically the adolescent self-reports of behavioral symptomology did show several significant correlations among the sub-scores.

Significant negative correlations were found between moral development and the Aggression sub-scale and the Oppositional/Defiant clinical scale that lend indirect support to the hypothesized relationship between moral development and externalizing behaviors. These findings correspond with the literature presented in Chapter Two, in which significant correlations were found between Stage Two moral development, a typical stage of development for adolescents, and externalizing behaviors such as delinquent behavior (Stams et al., 2006).

The findings offer no empirical support for the relationship between moral development and internalizing behaviors. The literature presented in Chapter Two offered some support for that relationship; however, it was acknowledged that the sparse supporting research resulted in a tenuous relationship that is in need of further investigation. In view of the sample size and other methodological limitations of the current study, the findings would seem to endorse that conclusion.

The analysis of Hypothesis Five did result in several additional correlational findings of interest; specifically a somewhat perplexing significant negative correlation between moral development and the social competence scale. As discussed in Chapter Two, as development increases, so does the complexity with which an individual interacts with the environment. As a result, the competence of an individual to interact with the social environment might be expected to increase as moral development increases. The current findings revealed a decrease. The failure to find the anticipated correlation could be explained by the fact that increased moral development is more likely to make individuals evaluate their own social competence more harshly, because they are more aware of the increased possibilities in social interaction. Kohlberg, the architect of moral development schemas, cautioned that higher is not necessarily happier; and in this case, the negative correlation may be explained by a decreased satisfaction in social interaction, and consequent negative self-report of social competence. This interpretation could explain the seemingly counter-intuitive finding.

In summary, the hypothesis that there is a negative relationship between moral development and behavioral symptomology was not fully supported. The significant correlations between moral development and aggression and oppositional/defiant clinical scales provide some support for the notion that moral development is correlated to externalizing behaviors. This correlation has been supported in the literature, and it is proposed that replicating the study with a larger sample size will yield a significant negative correlation with all measures of externalizing behaviors. The relationship between moral development and internalizing behaviors does not enjoy strong support

within the literature, and the failure to establish the relationship in this study calls the relationship between the two variables into question.

### **Hypotheses Discussion Summary**

These findings as a whole partially support the first two hypotheses; that is they offer promising but inconclusive support the path of moral development as a mediator between CVE and internalizing behaviors. The findings further indicate that youth self-reports of externalizing behaviors may be positively correlated with community violence exposure; providing partial support for Hypothesis Three. They also partially support Hypothesis Five; in that youth moral development was negatively correlated with Aggression and Oppositional/Defiant behaviors. Finally, the findings did not support Hypothesis Four, in that adolescent moral development was not correlated with CVE.

### **Contributions of the Study**

This study offered several findings that are of particular relevance for those in the counseling field. The first is the continued support for the relationship between CVE and externalizing behaviors. The mental health field frequently addresses adolescent externalizing behaviors, such as aggression, through behavioral techniques used in traditional anger management programs. The counseling field's commitment to social justice encourages practitioners to go beyond a limited understanding of the clinical presentation of behaviors and to strive to intervene in a culturally competent and informed manner. This study helps promote an increased understanding of the impact of violence exposure on adolescent externalizing behaviors and, as a result, paves the way for more empathetic interventions that acknowledge the importance of the cultural context on adolescent behaviors.



The findings also provide some supporting evidence that increasing moral development can decrease externalizing behaviors. This evidence helps inform clinical interventions by suggesting that promoting moral development may be an integral piece in addressing externalizing behaviors. Innovative programs such as Aggression Replacement Training have already demonstrated some success with this, and with continued supporting research, the inclusion of moral development may offer an important addition to clinical practice with adolescents displaying externalizing behaviors (Glick & Goldstein, 1987).

The finding with the greatest utility for the counseling field is the tentative endorsement of the mediating role of moral development on the relationship between CVE and internalizing behaviors. While this finding cannot be presented without noting the limitations presented above, it has the potential to greatly impact the mental health field's conceptualization and response to internalizing behaviors in adolescents. Clear evidence that moral development mediates the relationship between CVE and internalizing behaviors would direct interventions away from the symptoms of exposure such as PTSD, depression, and anxiety; and direct them towards interventions that seek to promote developmental competencies and overall health. This has broad implications for counselors, and opens the door for continued investigations into the clinical utility of promoting development for adolescents rather than treating symptoms.

### **Limitations of the Study**

Despite its contributions, this study has a number of intrinsic limitations in its research design, sampling, and assessment instruments. Some of these have been

mentioned in previous discussion; however, all will be examined carefully in following sections in an effort to assist in the development of future research in this area.

### **Research Design**

As previously discussed, the study was limited by the size of the sample. The sample size was thought to be a notable contributor to the unanticipated findings in all of the Hypotheses. The 21 families in the sample did provide a minimally sufficient sample to obtain statistically significant correlational data, as the informal goal for participants in a correlational design is 30 plus participants. These 21 families did not offer a robust sample, and as a result, the power of the study to detect correlations was limited. The sample size did not prove to be minimally sufficient to effectively measure the proposed paths in Hypothesis One and Two. The 25 and 21 respective paths measured fell short of the 100 - 150 that are recommended when conducting a path analysis, and as a result, the statistical analysis resulted in an incomplete output (Grimm & Yarnold, 2000). This led not only in data that had limited power to measure the proposed paths, but also to findings that were, at best, only able to provide preliminary data to describe the proposed role of moral development in mediating the proposed relationships.

The small sample was utilized because of several exigent factors: the difficulty in obtaining access to a population of adolescents and their parents, the exploratory nature of several of the hypotheses, and the rigorous nature of the assessment batteries. These factors led the researcher to proceed with 21 families as the included sample. The sample was undoubtedly smaller than the initial modest goal of 30 to 40 participants. After months of locating a usable population and seven months of data collection, it was the

decision of the researcher and committee to proceed with this sample size with the recognition that it would greatly limit the power of the study.

Another inherent limitation of the study was that its correlational methodology did not allow for inferences about causality (Gall, Gall, & Borg, 2007). The path analysis does provide a glimpse of the influence of the variables upon each other, but true causality cannot be confirmed without a true experimental design. The design of the current study allowed conjecture about the linear relationship between the variables examined, but it does not rule out the possibility that the desired correlations found were the result of extraneous variables. This caution is especially relevant for investigations into broad categories such as CVE, moral development, and behavior; wherein, the systemic factors that could potentially impact adolescent behaviors are countless and cannot be underestimated.

### **Sampling**

The generalizability of this study is limited by the sampling procedures used. The first limitation of the sampling was its reliance on clinical populations of adolescents and their parents/guardians which limited the generalizability of the sample to other clinical populations. There are also several unique characteristics of this clinical sample that may have limited its generalizability even further. Each family in the clinical sample had at least one family member referred to counseling because of distress identifiable by a school counselor. The distress also was deemed appropriate to be treated in an outpatient setting and the families had to be capable of attending counseling for at least two sessions. It may be that behavioral symptomology that was undetected by the school

counselor, such as aggression or anxiety or depression occurring at home but not impacting school performance may not have been represented in this sample.

A second limitation of the sampling procedures was the over representation of male adolescents and female parent/guardian participants in the study. Seventy-two percent of the adolescents were male and 90 percent of the parent/guardians were female. While this may not be an atypical presentation for counseling, it does limit the generalizability to populations that have majority male clients parented by females.

A third potential limitation of the sampling procedures was that the study was not able to collect data on those who elected to participate and those who did not. This did not allow for a comparison of participants versus non-participants. This is a noteworthy problem, as volunteers have been noted to generally be better educated, more intelligent, have higher social class status, and are more likely to be female (Gall, Gall, & Borg, 2007). As these factors have been shown to directly impact moral development, this sampling bias could also have impacted the moral development scores; providing a skewed sample (Rest, Narvaez, Thoma, & Bebeau; 2000).

A fourth limitation of the sampling arises from the use of a convenience sample (a sample selected because of the ease of access) rather than a true random sample (a sample in which all members of the target population have an equal chance of being included) (Gall, Gall, & Borg, 2007). This convenience sample is further limited by the aforementioned fact that it included a largely clinical sample and not a sample that was purposefully selected from those exposed to high levels of CVE. The majority of the related research studies utilized samples that were at high risk of CVE, and the use of a sample that was not purposefully high risk may have resulted in decreased significance

within all hypothesized relationships. On the whole, the sample for the current study reported what appeared to be a somewhat limited level of exposure to violence compared to the samples in previous studies.

A final limitation was the potential influence of the unique demographics of the sample. The sample was comprised of participants from four geographical areas with diverse characteristics; two of the areas are predominately lower SES, heavily minority, inner-city communities, the third an affluent suburban community, and the last a rural and predominately Caucasian community. While the literature presented in Chapter Two states that demographics do not protect against the impact of exposure there are presumably vast differences in cultural norms of behavior. This is particularly relevant as the study relied on parental and self reports of problem behaviors. For example, variations in cultural norms of behavioral expression may have led the parents from inner-city communities to rate externalizing behaviors such as aggression differently than parents of adolescents from suburban communities. This study would have benefited from an analysis of the variance in reports of behavioral symptomology across geographical area; unfortunately those demographic data were not included to protect the anonymity of the participants.

### **Instrumentation**

The instruments utilized in this study all had strong reliability and validity; however, there were several limitations of the instruments. First, the SAVE not only did not provide any normative data, but its factor structure was developed using samples of inner-city African American youth (Hastings & Kelley, 1997). This sample in the current study included youth from five distinct school districts including high crime areas with a

heavy minority presence but also youth from low crime areas that are predominately Caucasian. In addition, the sample for this study was comprised of fifty-six percent African American adolescents and forty percent Caucasian adolescents. No data on the socio-economic status of each participant was collected. The apparent variability of the current sample from the sample upon which the measurement instrument was normed must be considered as a potential limitation of the study.

Another limitation of the instrumentation was the length of the assessment batteries. Although the administering clinicians were allowed to collect the data over two sessions if needed, the total time to complete the assessments was estimated at an hour and a half. The DIT-II by itself requires considerable effort and energy, and usually requires 30 to 45 minutes to complete. The length and focus required to accurately complete the assessments may be on the upper end of the capabilities of many adolescents. For a clinical population of adolescents and parents coping with mental health issues, the challenge of the long assessment batteries may have been multiplied by attention issues or life stressors that impacted the ability of the participants to diligently complete the assessments.

The limitation of long assessments may have been compounded by the social desirability phenomenon. The issue of social desirability, that is, “the tendency to present oneself in a favorable light” (Gall, Gall, & Borg, 2007; p. 218), could have led the participants to self-report either higher or lower levels of violence exposure or behavioral symptomology. Adolescents may have felt the desire to not report behaviors if they felt they would be looked upon negatively, or they may have desired to over report them if they wanted their behaviors or life experiences to appear more dramatic. Parents likewise

may have not wanted increased symptomology to reflect poorly on them or their parenting, or they may have been invested in their children's symptoms and exaggerated them.

The validity of the SAVE across demographics, the length of the assessments, and the potential social desirability sets could all have unduly impacted the results.

Unfortunately, the DIT-II does not have a shorter form and there was no alternative instrumentation or methodology available to acquire all the measures in a more concise manner. Although there appeared to be little alternative to the length of the assessment battery it is a noteworthy limitation of the study.

A final limitation of the instrumentation is the narrow focus of the measure of moral development. The DIT-II only provides a score of principled reasoning and an N-2 score. The N-2 score was not utilized in the current analysis, as its function is to provide a more nuanced score of the shift from conventional to post-conventional reasoning, and this study was interested in a broader range of moral development (Rest, 1999). The decision to use the principled reasoning score may have limited the results of the study in two ways. First, the study may have been limited by the focus on moral reasoning and not on the other components of morality. Rest's (1999) Four Component Model outlines moral motivation, moral character, and moral sensitivity as the other components of moral development. The concept of moral sensitivity is particularly intriguing to this study as noted previously. There is, as yet, no empirical measure with which to measure moral sensitivity or the other components of the Four Component Model.

Second, the principled reasoning score also is highly correlated to age and life experience (Rest, 1994). This resulted in moral developmental scores that had limited

variability. With such small sample sizes, the variability in the sample is crucial to the development of a study with enough power to establish significant findings. The lack of such variability and the inability of the instrument to parse out different aspects of morality are noted as potential limitations.

The preceding review of the limitations of the study suggests that there were notable flaws in the current research design. Despite this, the study was still able to produce some worthwhile results that were supported by previous research. Developing the means to overcome the current limitations may lead to significant meaningful results.

### **Suggestion for Future Research**

The findings of this study offer continuing evidence that moral development may play a role in mediating the relationship between CVE and behavioral symptomology, particularly for internalizing behaviors. This study should be replicated with an increased sample size to further investigate these findings. A larger sample size would provide a better representation of the population, may increase the variance within the sample, and, primarily, would allow all the data to be thoroughly analyzed. The larger sample size may also help clarify the division between internalizing and externalizing behaviors evidenced throughout the study.

A longitudinal study is also suggested to further clarify the relationship between youth moral development and chronic violence exposure. A longitudinal study may help provide a clearer picture of the unique role of CVE on moral development throughout the life-span; specifically, it may identify any critical developmental moments that are particularly vulnerable to CVE. Identifying these critical developmental moments would provide useful information and inform clinical interventions.



Another area of research that may help shed light on the role of moral development and adolescents exposed to community violence is a continued look into the importance of parental moral development. Parental moral development is hypothesized to be fundamental in effective parenting constructs such as empathy, lack of role reversal, and disapproval of corporal punishment (Richardson, Foster, & McAdams; 1998). In the face of the significant stressor of violent communities, the impact of CVE on parental moral development is also worthy of investigation. Before the current study, parental moral development had not been included in research on the impact of CVE on adolescents, and a better understanding of this relationship may help shed light on the family context and its ability to mediate the relationship between CVE and behavioral symptomology in youth.

Finally, it is suggested that the mediating role of other developmental domains be investigated. The mediating influence of Loevinger's domain of Ego Development (Loevinger, 1998) and Hunt's domain of Conceptual Development (1971) on CVE and symptomology would be an interesting investigation that might further help explain the role of cognitive complexity for youth attempting to thrive in the face of chronic violence exposure. Specific developmental tasks and skills also should be further investigated; specifically, the impact of CVE on empathy appears to be a fertile area of investigation that might add support for the relationship between CVE and moral development and Ng-Mak et al.'s (2004) theorized pathologic adaptation model.

### **Summary of the Study**

This study's findings suggest that there may be a causal path in which the moral development of adolescents and their parents mediates the relationship between CVE and

the adolescents' internalizing behaviors. This is an important finding as it bolsters the suggestions in the literature presented in Chapter Two that moral development is an integral construct in thriving in violent communities. It further helps focus future research on the potentiality of mediating the development of behavioral symptomology and violence exposure; not simply addressing the symptoms as they develop.

The study further adds data to support the research demonstrating a clear correlation between externalizing behaviors and CVE in clinical populations. Future research is needed to clarify the relationship between CVE and internalizing behaviors in a clinical sample. Inasmuch as the literature is abundantly clear that there is a strong relationship between the two constructs in a non-clinical sample, this finding is probably best explained by the small sample size; however, a continued investigation into this relationship is warranted.

Prior to this investigation there was no empirical evidence correlating CVE to moral development. This study does not offer any data to suggest that there is a significant relationship between the two. The limitations of the small sample size and the consistently negative correlations do leave open the possibility that a significant relationship may exist.

In summary, this study offered an intriguing look into the role of moral development on the alarming relationship between CVE and the development of harmful symptoms. It provided evidence that moral development may indeed play a role in mediating the relationship and, as a result, promoting moral development may serve as an integral intervention for this population. It also bolstered the evidence of the relationship between CVE and externalizing behaviors. Finally, this research highlights the

potentiality of moral development as a fundamental competency for youth growing up in violent communities and identifies it as fertile ground for continued research.

## Appendix A

### Informed Consent (Youth Version)

I (print name here) \_\_\_\_\_, am willing to participate in a research project with the purpose of examining the impact of exposure to violence in the community on youth between the ages of eleven to eighteen. I understand that this study is being conducted by John A. Dewell, a doctoral candidate in counseling education at the College of William & Mary.

As a participant in this study, I am aware that I will be asked to complete several research instruments. The research instruments are: the Screen for Adolescent Violence Exposure (SAVE), the Defining Issues Test (DIT-II), and the Youth Self Report Inventory.

I am aware that my participation is voluntary and that I may withdraw from this study at any time without penalty. The assessments will be confidential and identifiable only by a code that my counselor will assign. No identifying information will be reported in the study results. If I wish to discontinue participation in the study I am aware that family counseling services will continue to be made available to me. I also understand that a copy of the results of the study will be given to me upon my request. I am further aware that I may report any dissatisfaction with any aspect of the research project to the Chair of the Protection of Human Subjects Committee.

By participating in this study, I understand that there are no obvious risks to my physical or mental health.

#### Confidentiality Statement

As a participant in this study, I am aware that all records will be kept confidential and my name will not be associated with any of the results of this study.

If I have any questions that arise in connection with my participation in this study, I should contact Dr. Charles McAdams, the chair of Mr. Dewell's Doctoral Committee at (757) 221-2338 or [crmcad@wm.edu](mailto:crmcad@wm.edu). I understand that I may report any problems or dissatisfaction to Dr Thomas Ward chair of the School of Education Internal Review Committee at (757) 221-2358 or [tjward@wm.edu](mailto:tjward@wm.edu). **The investigator in this study may be reached by contacting John Dewell, (757) 221-2363, or [jadewell@email.wm.edu](mailto:jadewell@email.wm.edu).**

\_\_\_\_\_  
**Participants Signature**

\_\_\_\_\_  
**Date**

## Appendix B

### Informed Consent (Adult Version)

I (print name here) \_\_\_\_\_, am willing to participate in a research project with the purpose of examining the impact of exposure to violence in the community on youth between the ages of eleven to eighteen. I understand that this study is being conducted by John A. Dewell, a doctoral candidate in counseling education at the College of William & Mary.

As a participant in this study, I am aware that I will be asked to complete several research instruments. The research instruments are: the Defining Issues Test (DIT-II), and the Clinical Assessment of Behavior (CAB-P).

I am aware that my participation in voluntary and that I may withdraw from this study at any time without penalty. The assessments will be confidential and identifiable only by a code that my counselor will assign. No identifying information will be reported in the study results. If I wish to discontinue participation in the study I am aware that family counseling services will continue to be made available to me. I also understand that a copy of the results of the study will be given to me upon my request. I am further aware that I may report any dissatisfaction with any aspect of the research project to the Chair of the Protection of Human Subjects Committee.

By participating in this study, I understand that there are no obvious risks to my physical or mental health.

#### Confidentiality Statement

As a participant in this study, I am aware that all records will be kept confidential and my name will not be associated with any of the results of this study.

If I have any questions that arise in connection with my participation in this study, I should contact Dr. Charles McAdams, the chair of Mr. Dewell's Doctoral Committee at (757) 221-2338 or [crmcad@wm.edu](mailto:crmcad@wm.edu). I understand that I may report any problems or dissatisfaction to Dr Thomas Ward chair of the School of Education Internal Review Committee at (757) 221-2358 or [tjward@wm.edu](mailto:tjward@wm.edu). **The investigator in this study may be reached by contacting John Dewell, (757) 221-2363, or [jadewell@email.wm.edu](mailto:jadewell@email.wm.edu).**

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**Participants Signature**

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**Date**

### **Appendix C: Assessment Administration Procedures**

1. Obtain consent for assessments (this is included in the initial session paperwork)
2. Obtain informed consent for this study from youth in the family between the ages of 11-18 and their guardians (Attachment A-youth and B-adult)
3. Schedule an extra hour on your regularly scheduled appointment time to complete assessments with the family. This will involve the youth in the family between the ages of 11-18 and their guardians filling out an assessment battery.
4. Schedule a room to complete assessments (counseling sessions should have priority)

#### ***When ready to administer the assessments:***

5. Give the youth assessments to the youth and the adult assessments to their guardians
6. Go over the informed consent and the directions for each assessment as clearly and briefly as possible.
7. Inform them you can help with the comprehension of the questions (i.e. read them for them or restate directions) but cannot help them answer it; they are to answer it as best as they can. Remind them that these assessments want to know their views not what someone else might think.
8. Inform them that they have to answer all of the questions in the assessments.

#### ***After they have completed the assessments:***

9. Make sure that the assessments are all filled out completely (i.e. each item has an answer marked). Assessments missing data are not complete and I will ask them to fill it out again.

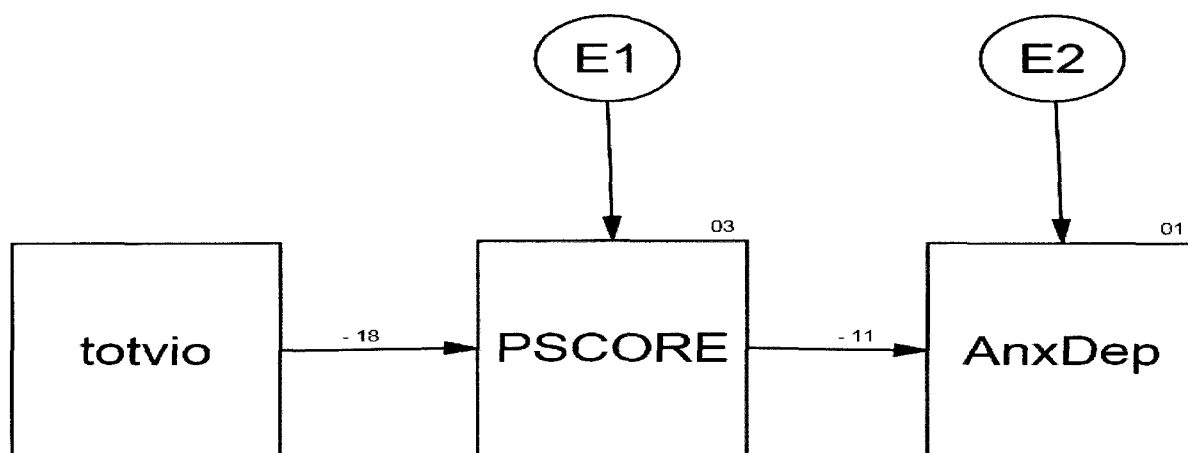
10. After you have the completed assessments thank them and give them their incentive (a gift certificate to complete a family activity)
11. Ask them if they would like a copy of the results (Reminder: their own scores will not be known only the results of the study as a whole).
12. If they would like the results please mark the assessment packet accordingly.

### Appendix D: Analyzing Hypothesis 1

Path Analyses depicting the fit of models suggesting youth moral development mediates the relationship between violence exposure and behavioral symptomology

#### D-1: Anxious Depression:

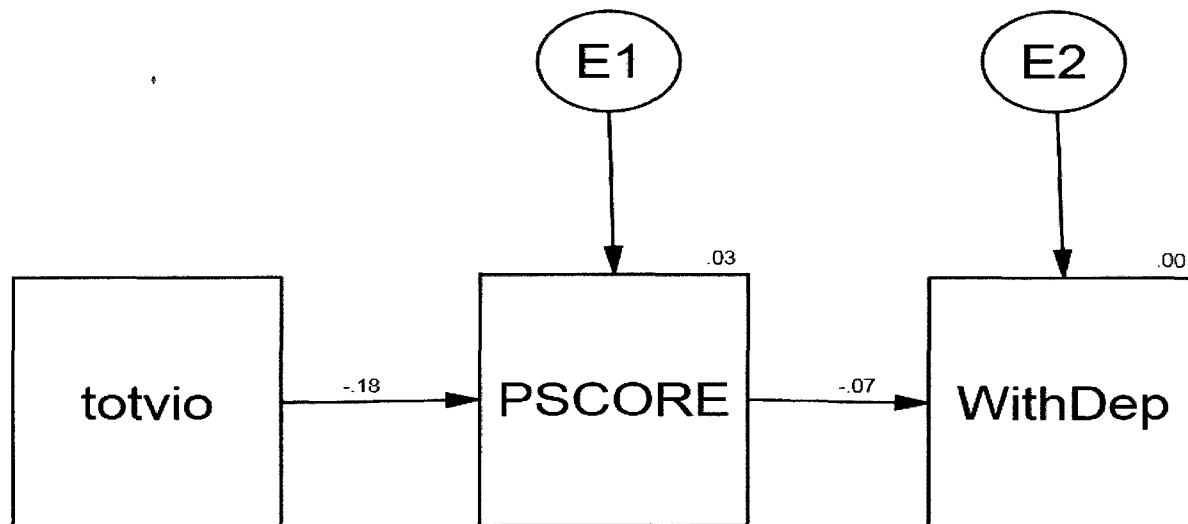
Fit of the Model: Chi-square = .661	Degrees of Freedom: $df = 1$	Probability level P = .416	Fit of the Independent Model RMSEA=.000
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .11$





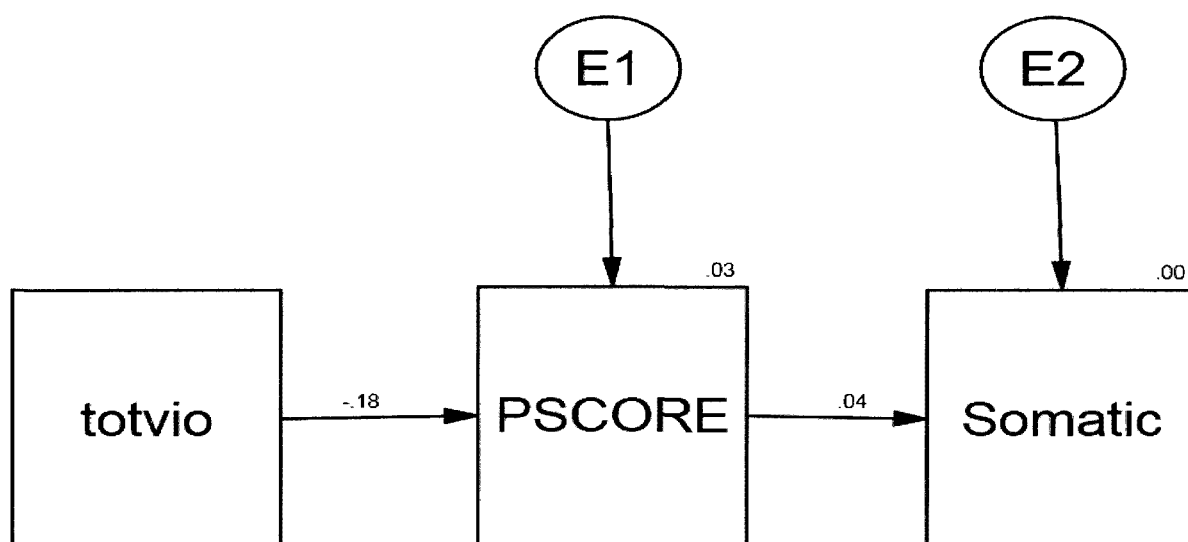
**D-2: Withdrawn Depression**

Fit of the Model: Chi-square = .846	Degrees of Freedom: $df = 1$	Probability level $P = .358$	Fit of the Independent Model RMSEA=.000
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = -.07$



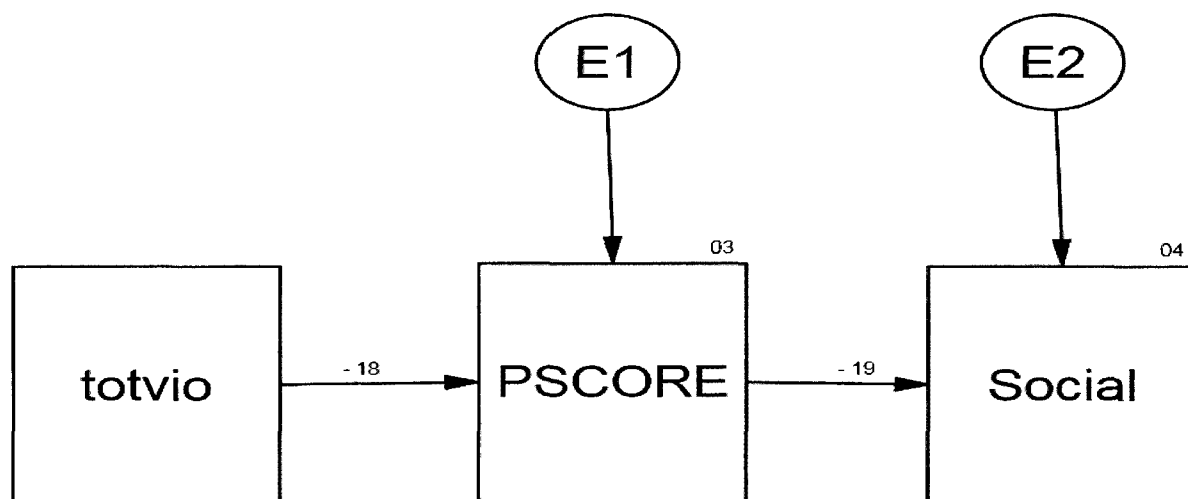
**D3: Somatic Complaints**

Fit of the Model: Chi-square = 2.304	Degrees of Freedom: $df = 1$	Probability level $P = .129$	Fit of the Independent Model RMSEA=.170
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = .04$



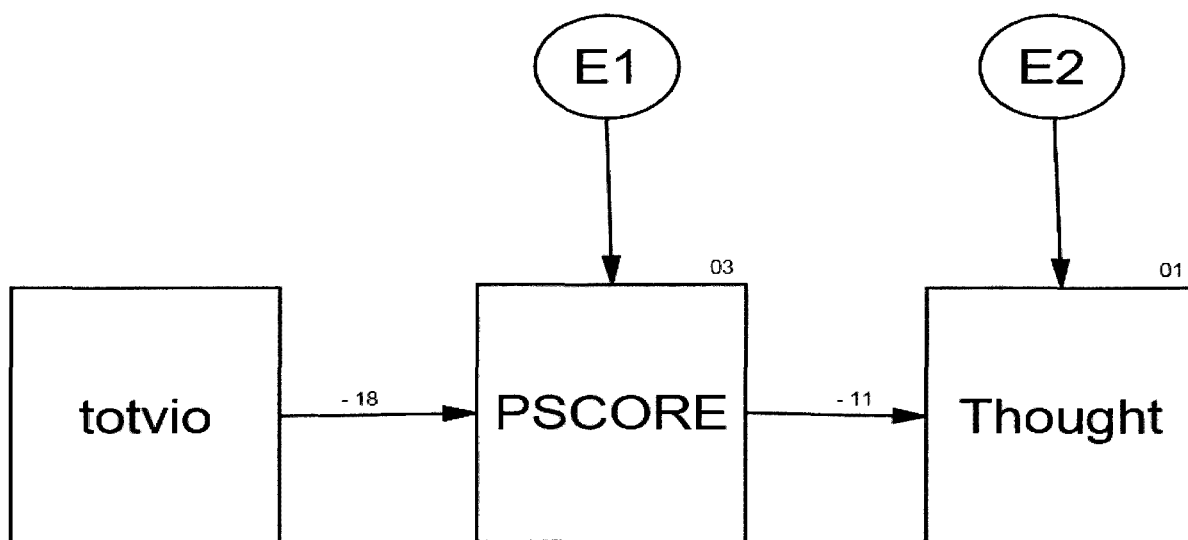
**D-4: Social Problems**

Fit of the Model: Chi-square = 2.291	Degrees of Freedom: $df = 1$	Probability level $P = .130$	Fit of the Independent Model RMSEA=.169
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .19$



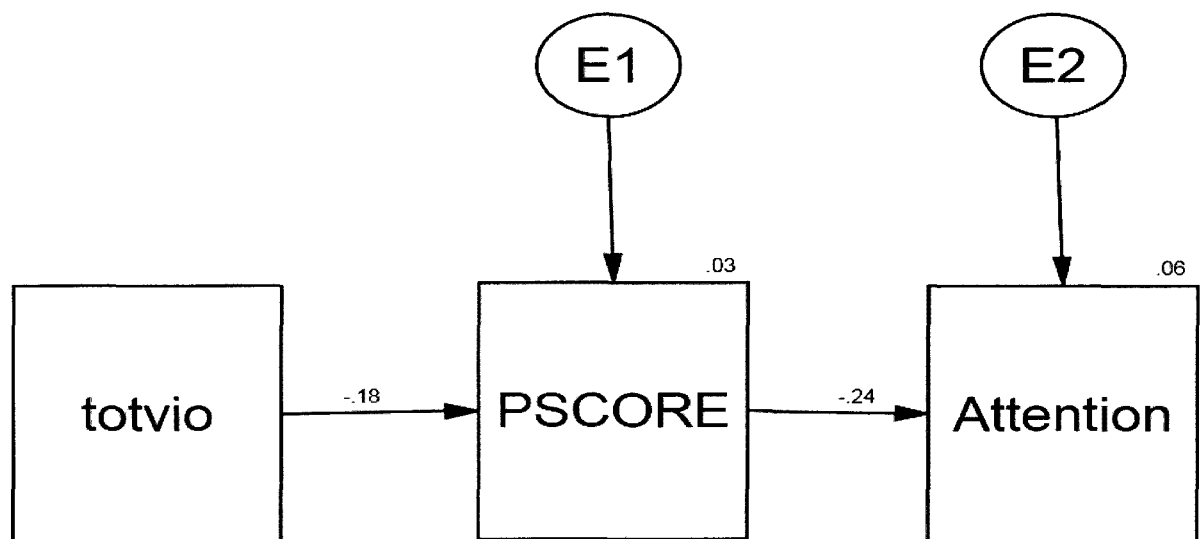
**D-5 :Thought Problems**

Fit of the Model: Chi-square = 9.658	Degrees of Freedom: $df = 1$	Probability level P = .002	Fit of the Independent Model RMSEA= .439
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = -.11$



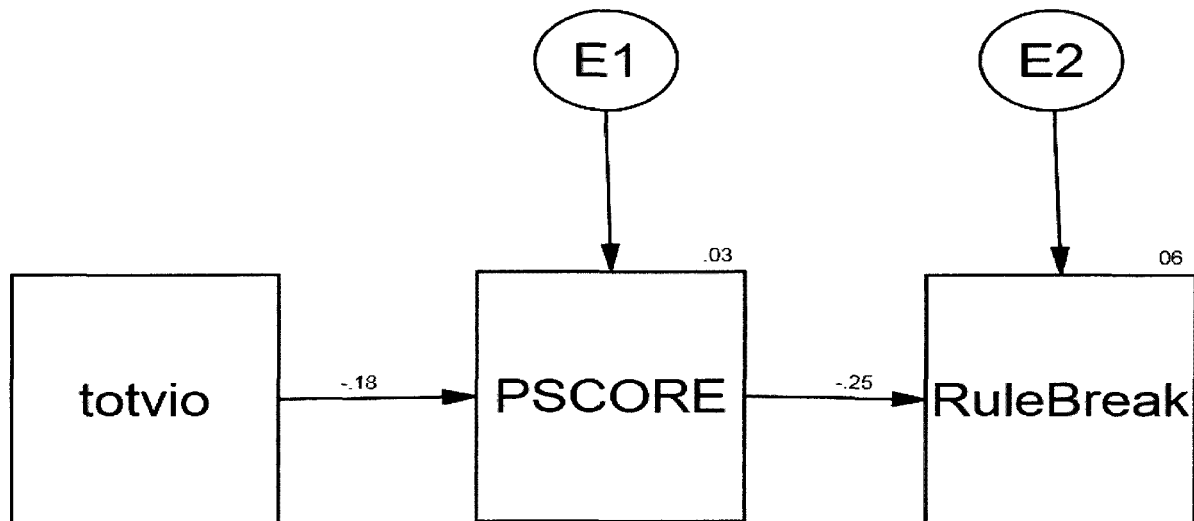
**D-6 : Attention**

Fit of the Model: Chi-square = .660	Degrees of Freedom: $df = 1$	Probability level $P = .416$	Fit of the Independent Model RMSEA=.000
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .24$



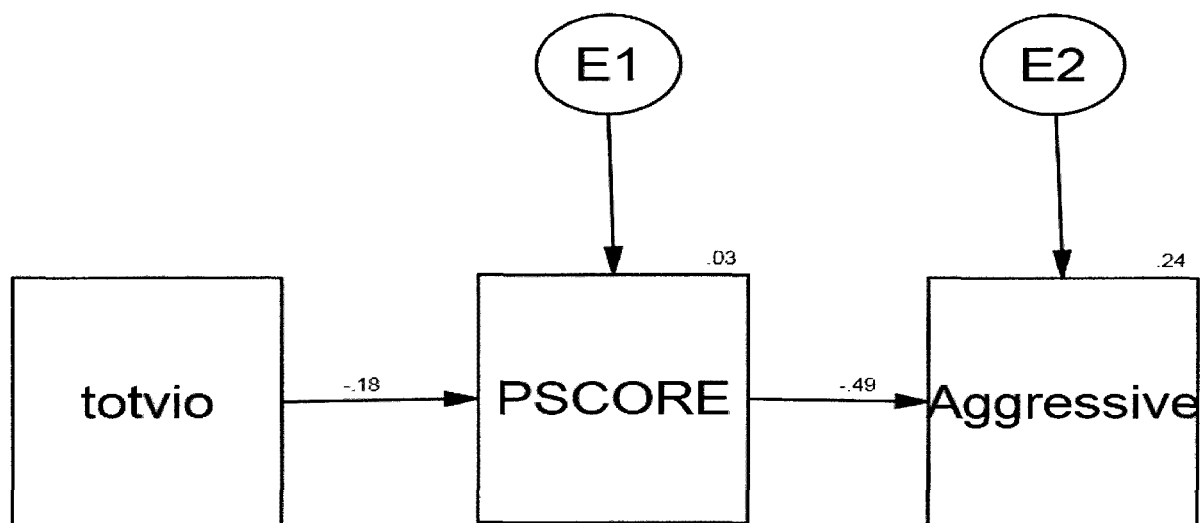
**D-7 : Rule Breaking Behaviors**

Fit of the Model: Chi-square = 13.908	Degrees of Freedom: $df = 1$	Probability level $P = .000$	Fit of the Independent Model RMSEA=.518
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .25$



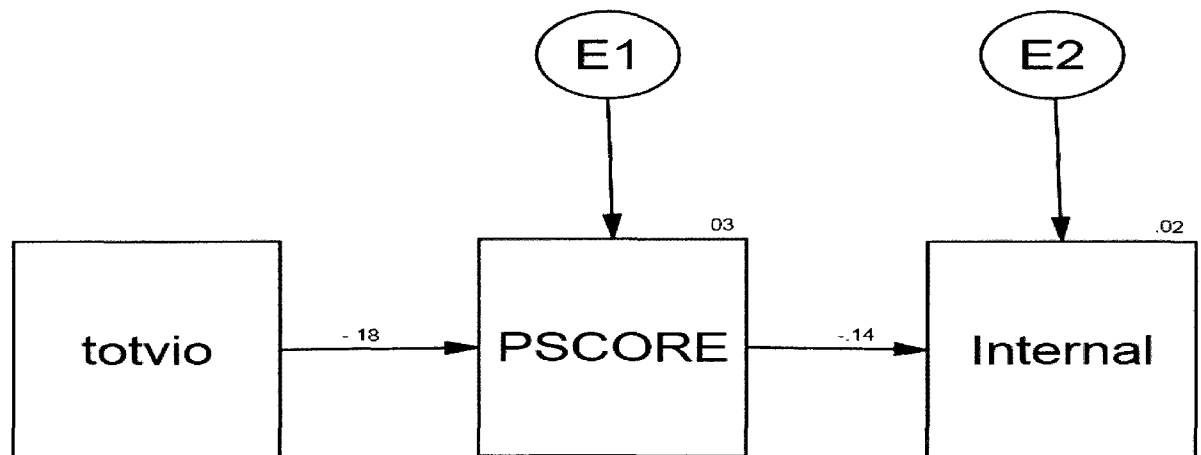
**D-8: Aggression:**

Fit of the Model: Chi-square = 8.606	Degrees of Freedom: $df = 1$	Probability level $P = .003$	Fit of the Independent Model RMSEA = .411
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = .49$



**D-9 : Internalized Behaviors**

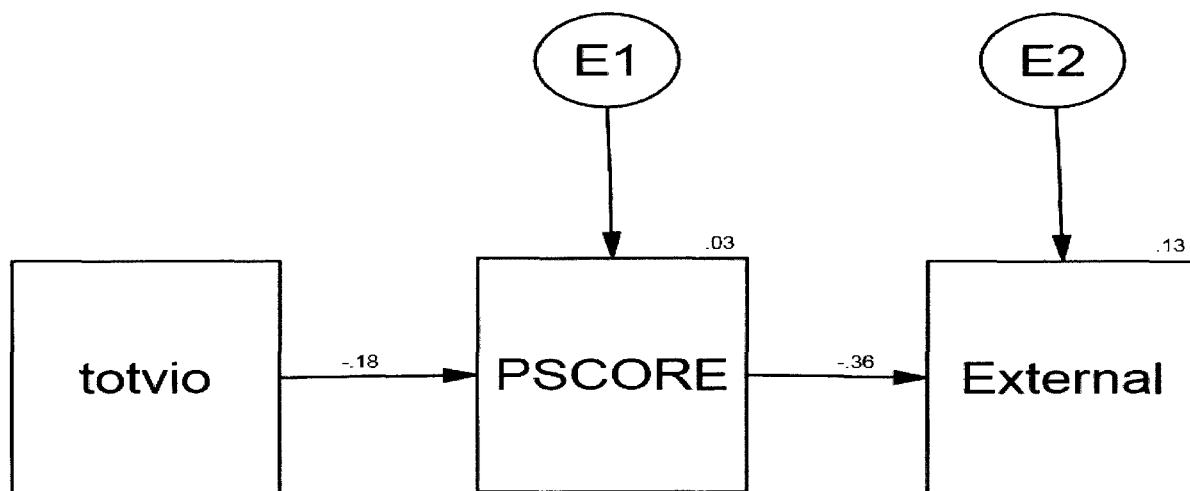
Fit of the Model: Chi-square = .704	Degrees of Freedom: $df = 1$	Probability level $P = .402$	Fit of the Independent Model RMSEA= .000
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = -.14$





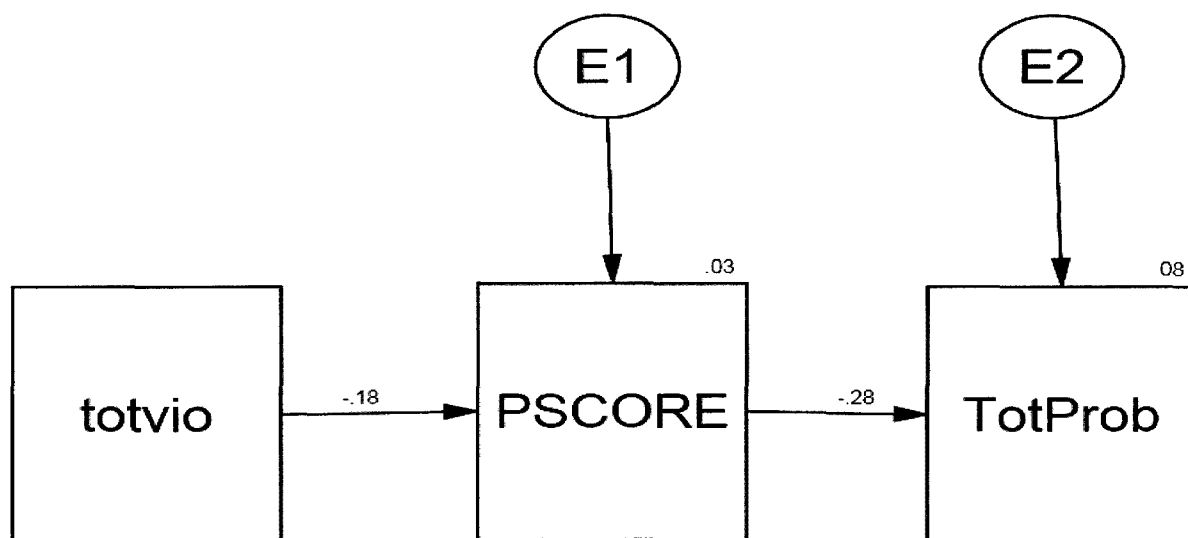
**D-10 : Externalizing Behaviors**

Fit of the Model: Chi-square =10.649	Degrees of Freedom: $df = 1$	Probability level $P = .001$	Fit of the Independent Model RMSEA= .463
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = -.36$



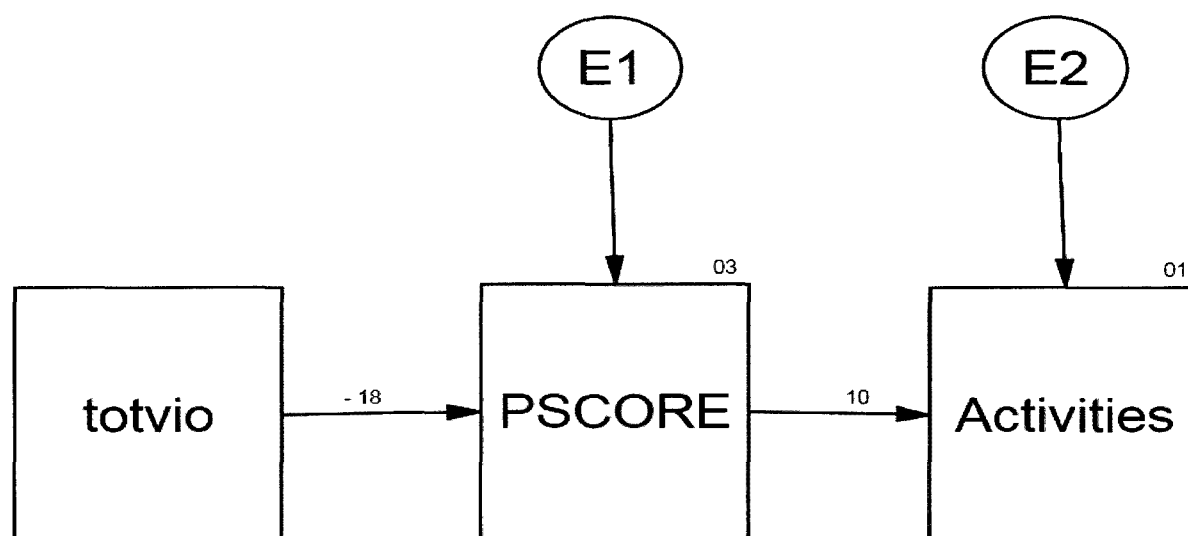
**D-11 : Total Problems**

Fit of the Model: Chi-square = 5.967	Degrees of Freedom: $df = 1$	Probability level $P = .015$	Fit of the Independent Model RMSEA= .332
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .28$



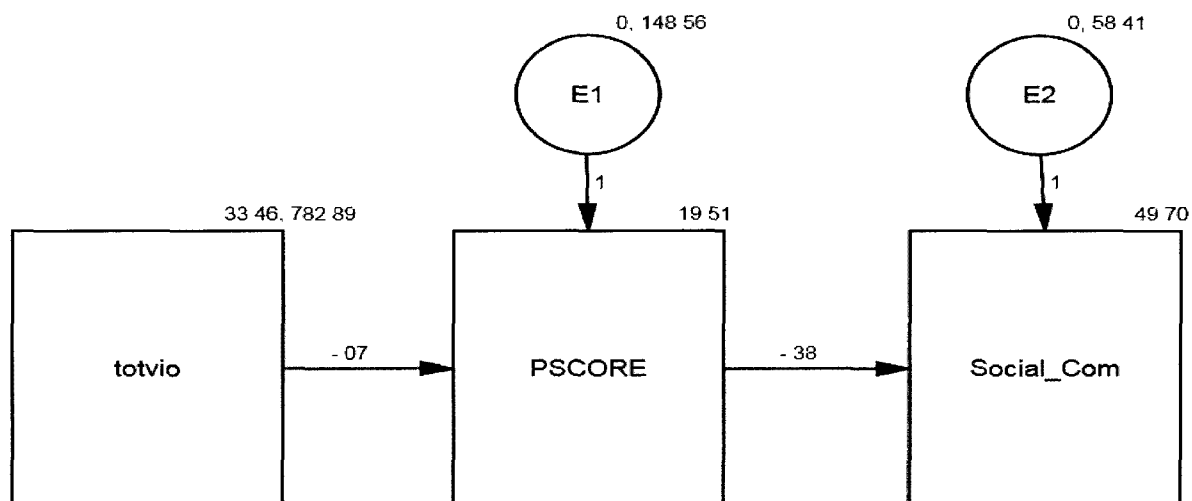
**D-12 : Activities**

Fit of the Model: Chi-square = 2.460	Degrees of Freedom: $df = 1$	Probability level $P = .117$	Fit of the Independent Model RMSEA=.180
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .10$



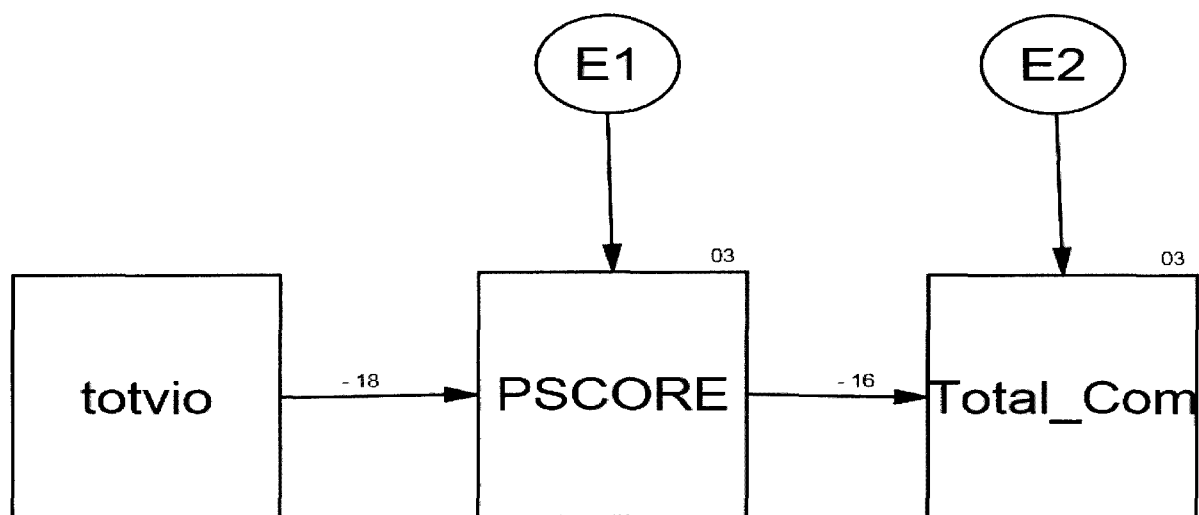
**D-13 : Social Competence**

Fit of the Model: Chi-square = .248	Degrees of Freedom: $df = 1$	Probability level $P = .618$	Fit of the Independent Model RMSEA= .000
Influence of Violence on Moral Development	$R^2 = -.07$	Influence of moral development on behavioral scale	$R^2 = -.38$



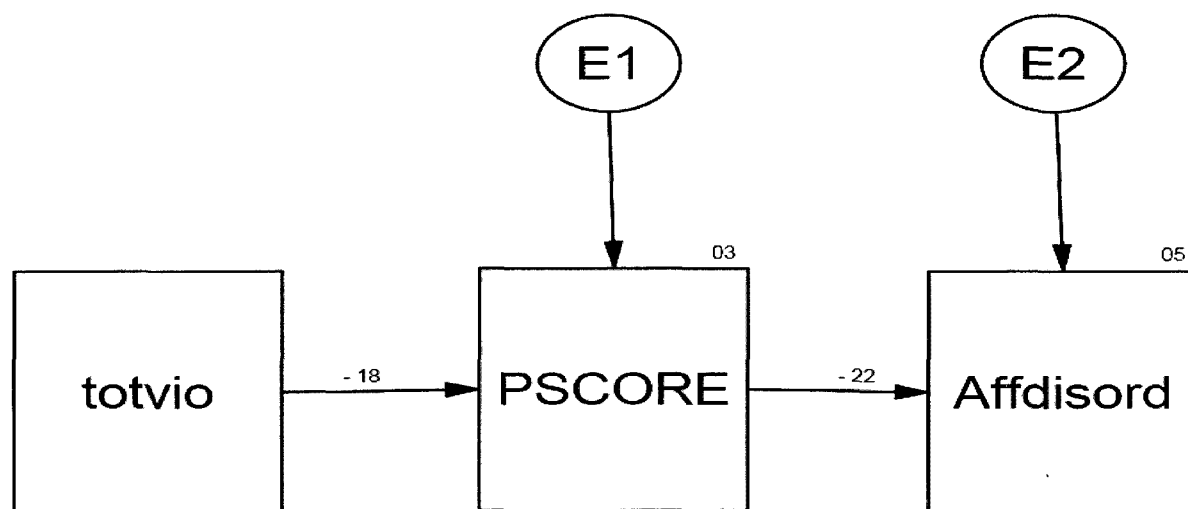
**D14 : Total Communication**

Fit of the Model: Chi-square = .643	Degrees of Freedom: $df = 1$	Probability level P = .423	Fit of the Independent Model RMSEA=.000
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .16$



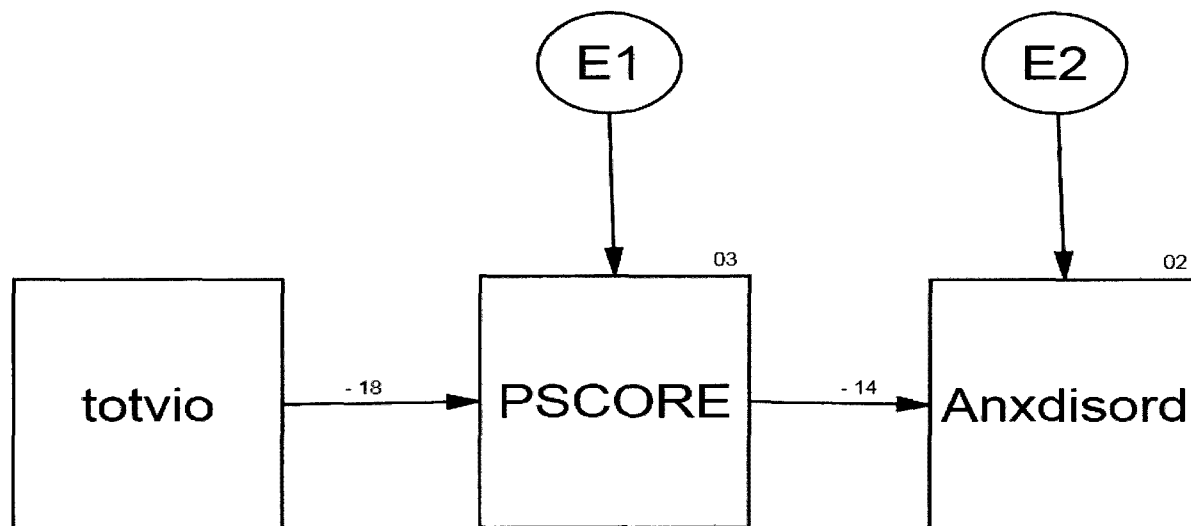
**D15 : Affective Disorders**

Fit of the Model: Chi-square =2.569	Degrees of Freedom: $df = 1$	Probability level $P = .110$	Fit of the Independent Model RMSEA= .186
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .22$



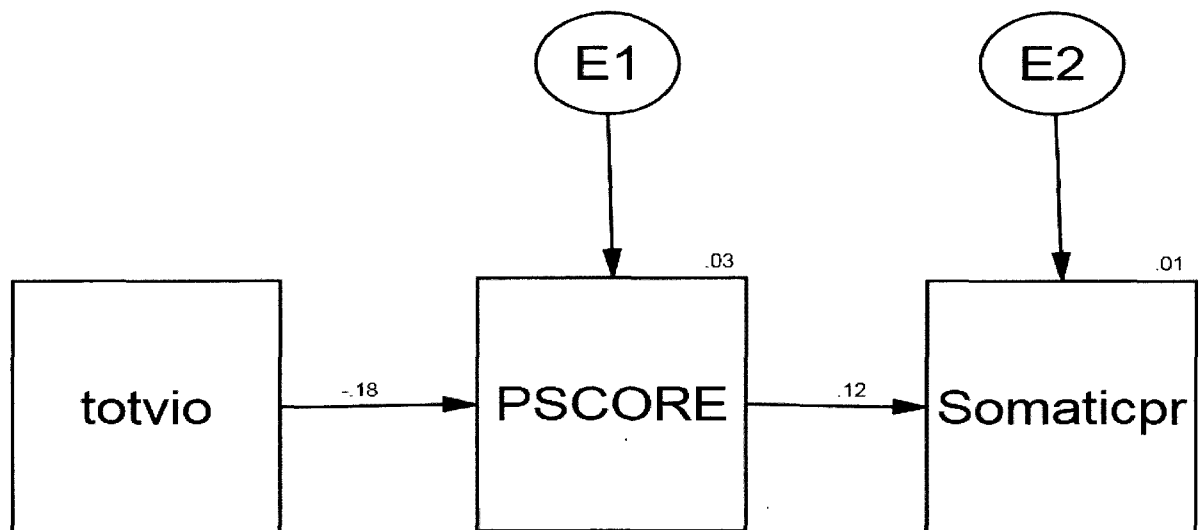
**D16 : Anxiety Disorders**

Fit of the Model: Chi-square = .330	Degrees of Freedom: $df = 1$	Probability level $P = .556$	Fit of the Independent Model RMSEA= .000
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .14$



**D17 : Somatic problems**

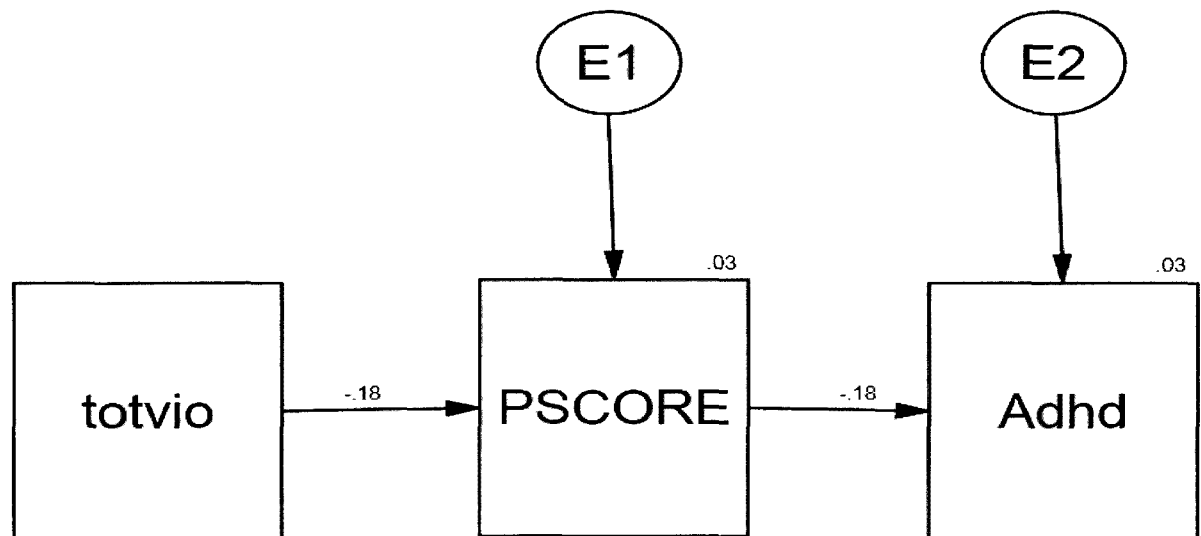
Fit of the Model: Chi-square = 5.134	Degrees of Freedom: $df = 1$	Probability level P = .023	Fit of the Independent Model RMSEA= .303
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .12$





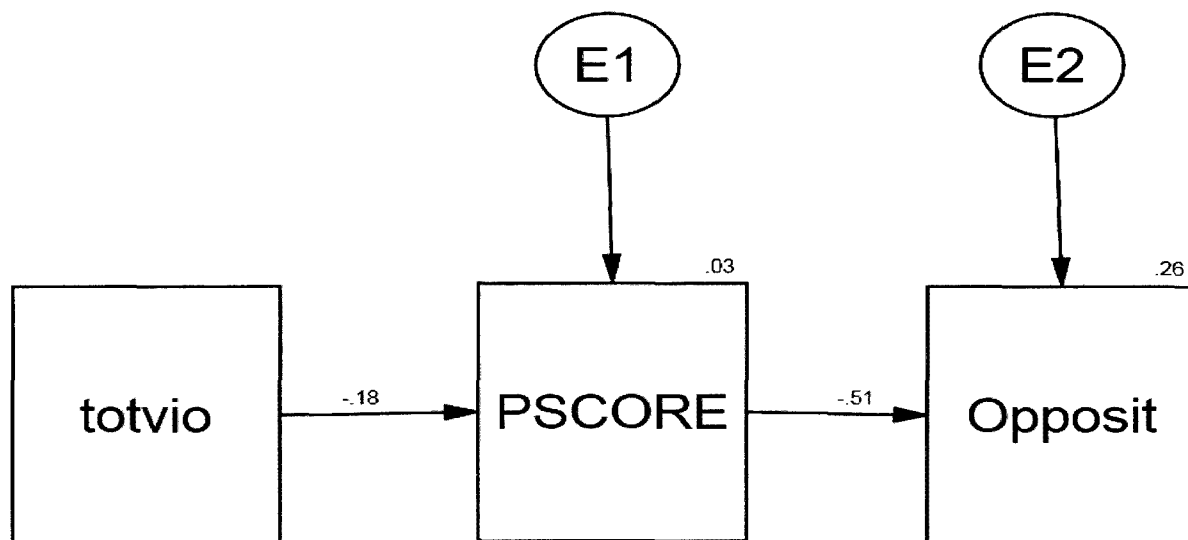
**D18 : Attention Deficit/Hyperactivity Disorders**

Fit of the Model: Chi-square = .757	Degrees of Freedom: $df = 1$	Probability level P = .384	Fit of the Independent Model RMSEA= .000
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .18$



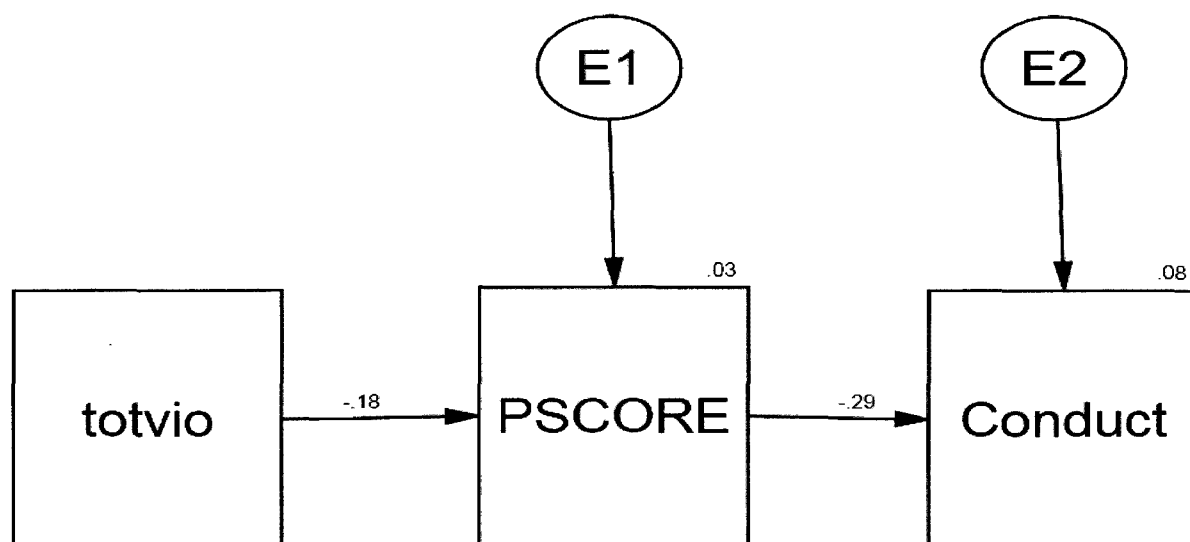
**D19 : Oppositional/Defiant Disorders**

Fit of the Model: Chi-square =10.639	Degrees of Freedom: $df = 1$	Probability level P = .001	Fit of the Independent Model RMSEA= .463
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .51$



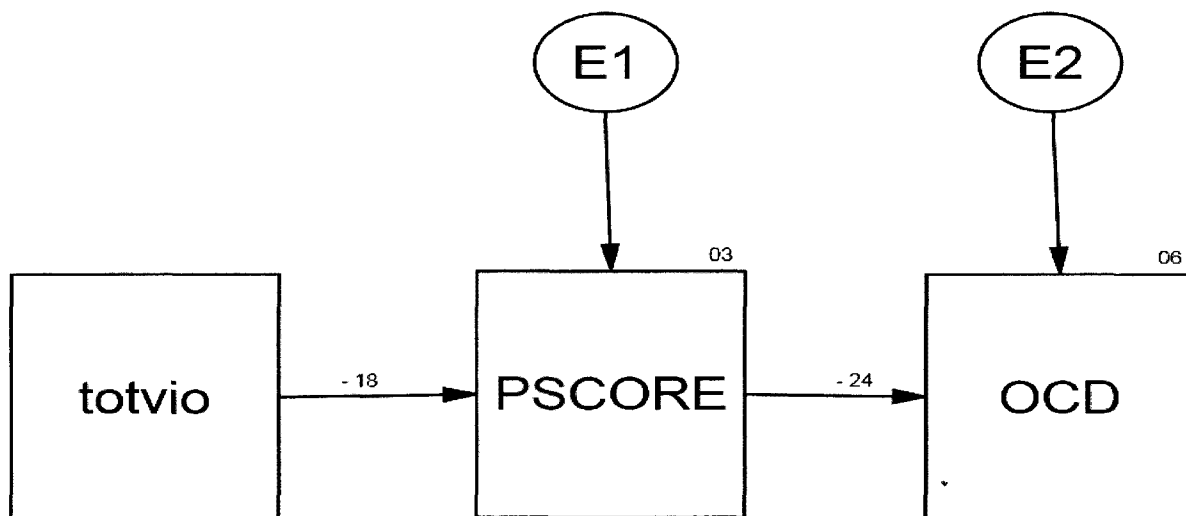
**D20: Conduct Disorders**

Fit of the Model: Chi-square = 15.576	Degrees of Freedom: $df = 1$	Probability level P = .000	Fit of the Independent Model RMSEA = .569
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = -.29$



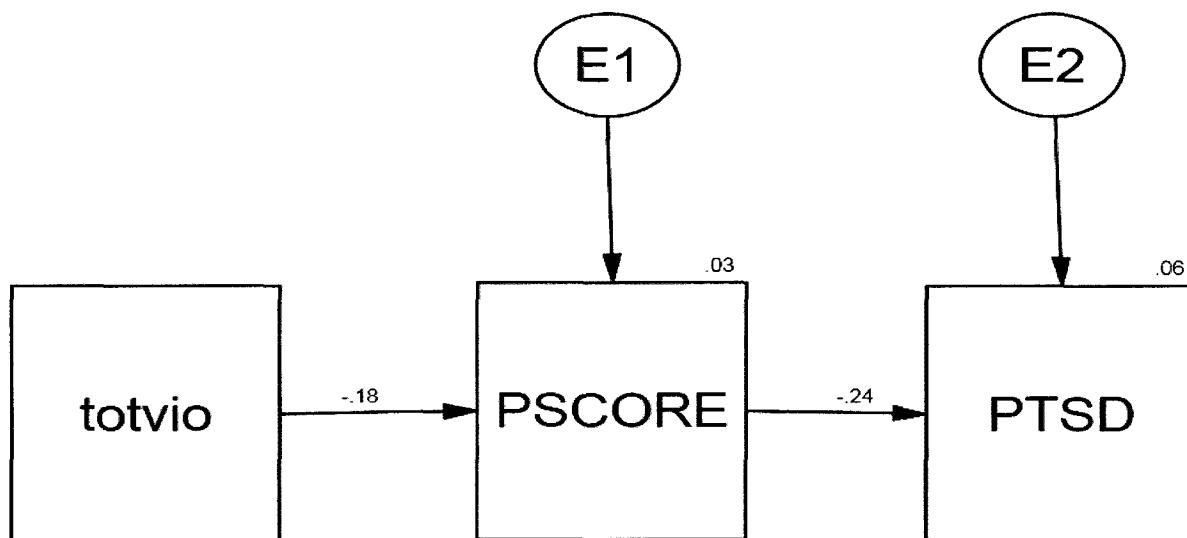
**D21: Obsessive Compulsive Disorders**

Fit of the Model: Chi-square = 1.487	Degrees of Freedom: $df = 1$	Probability level $P = .223$	Fit of the Independent Model RMSEA=.104
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .24$



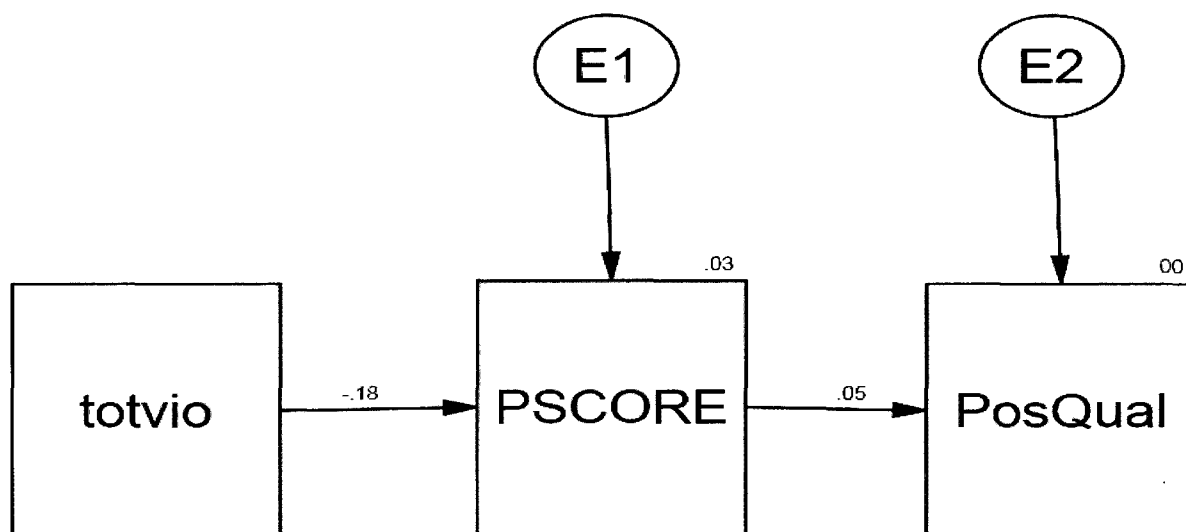
**D22: Post-Traumatic Stress Disorders**

Fit of the Model: Chi-square = 2.621	Degrees of Freedom: $df = 1$	Probability level P = .105	Fit of the Independent Model RMSEA=.190
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .24$



**D23 : Positive Qualities**

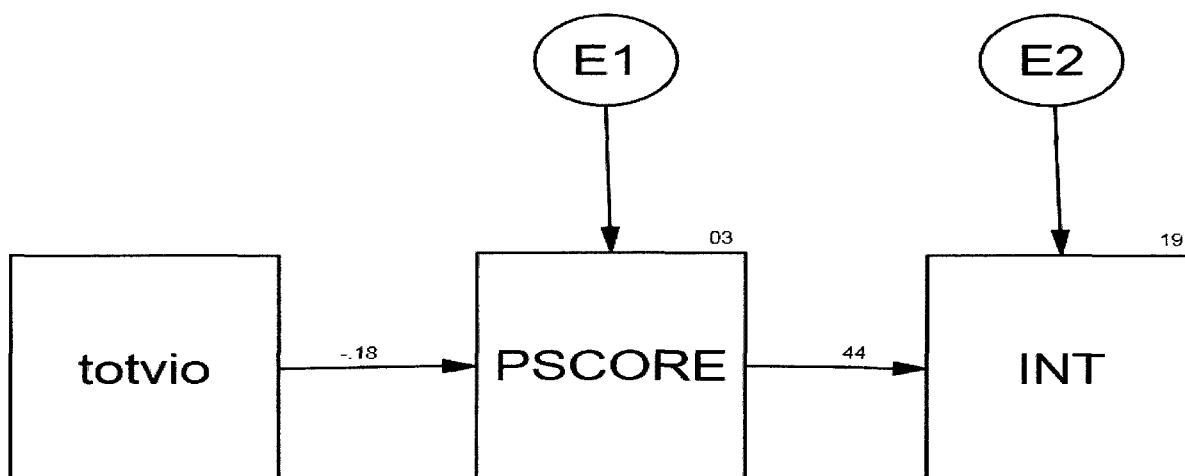
Fit of the Model: Chi-square = 1.129	Degrees of Freedom: $df = 1$	Probability level P = .288	Fit of the Independent Model RMSEA= .054
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .05$



**Appendix E: Analyzing Hypothesis 2**  
**Parental moral development as a mediator of youth violence and behavioral symptomology**

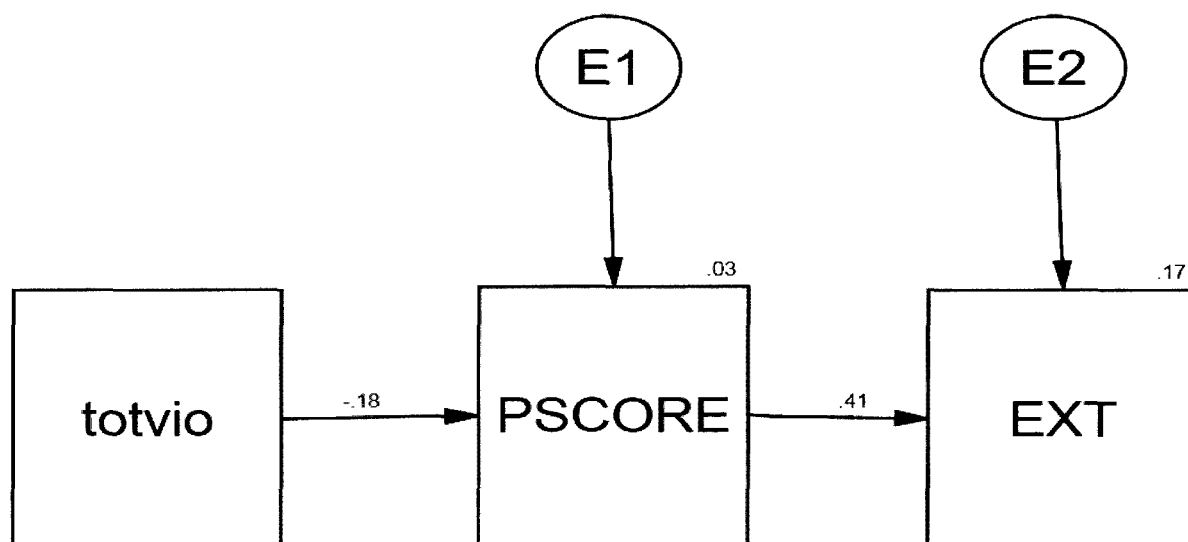
**E1: Internalizing Behaviors**

Fit of the Model: Chi-square = 2.273	Degrees of Freedom: $df = 1$	Probability level P = .132	Fit of the Independent Model RMSEA = .168
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .44$



**E2 : Externalizing Behaviors**

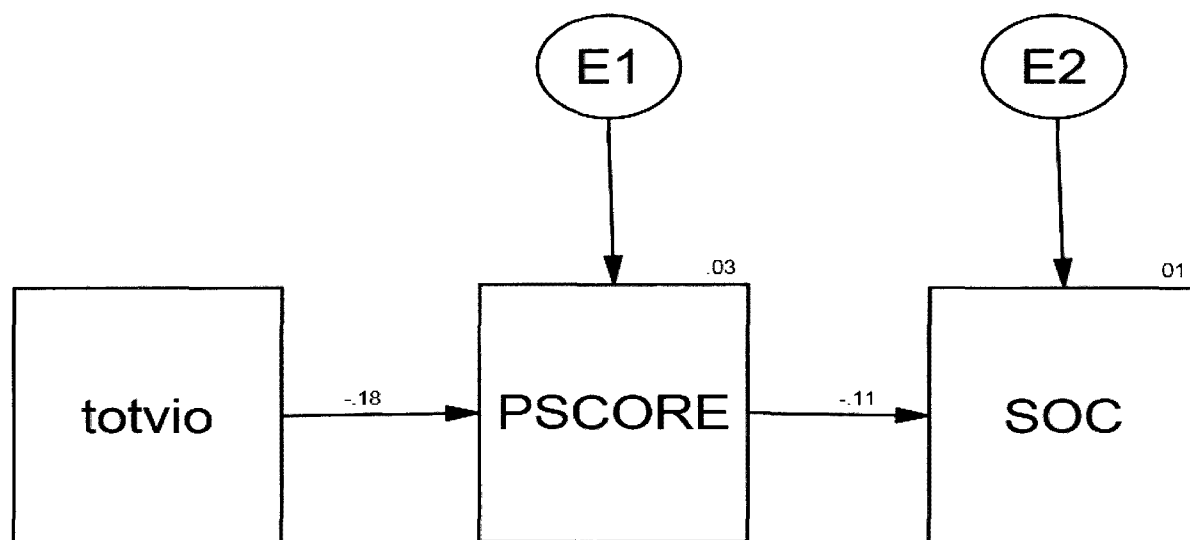
Fit of the Model: Chi-square = 7.169	Degrees of Freedom: $df = 1$	Probability level $P = .007$	Fit of the Independent Model RMSEA= .370
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = .41$





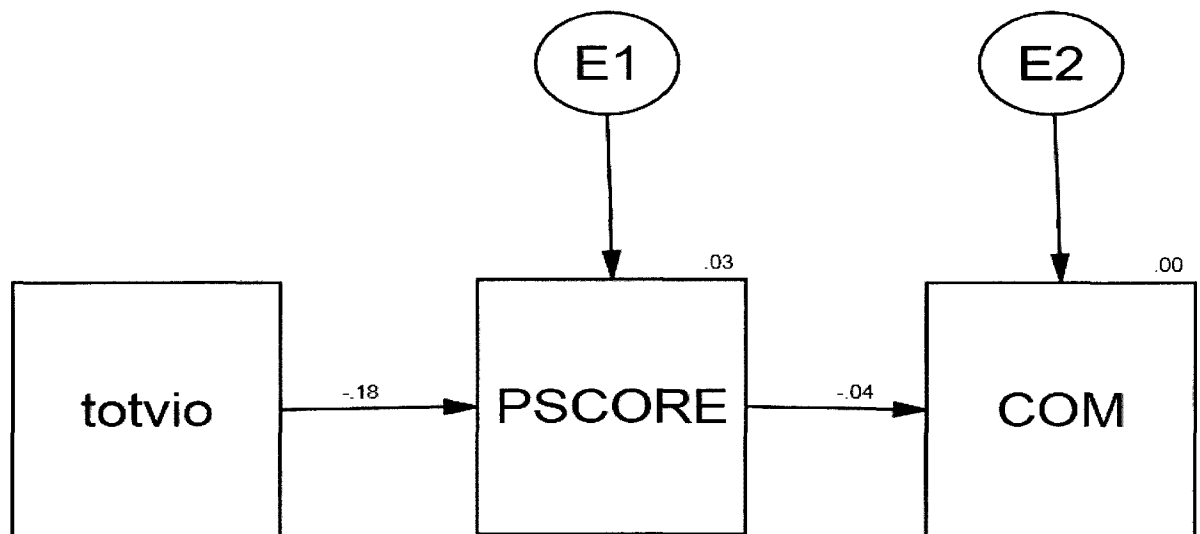
**E3: Social Skills**

Fit of the Model: Chi-square = .394	Degrees of Freedom: $df = 1$	Probability level $P = .530$	Fit of the Independent Model RMSEA=.000
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .11$



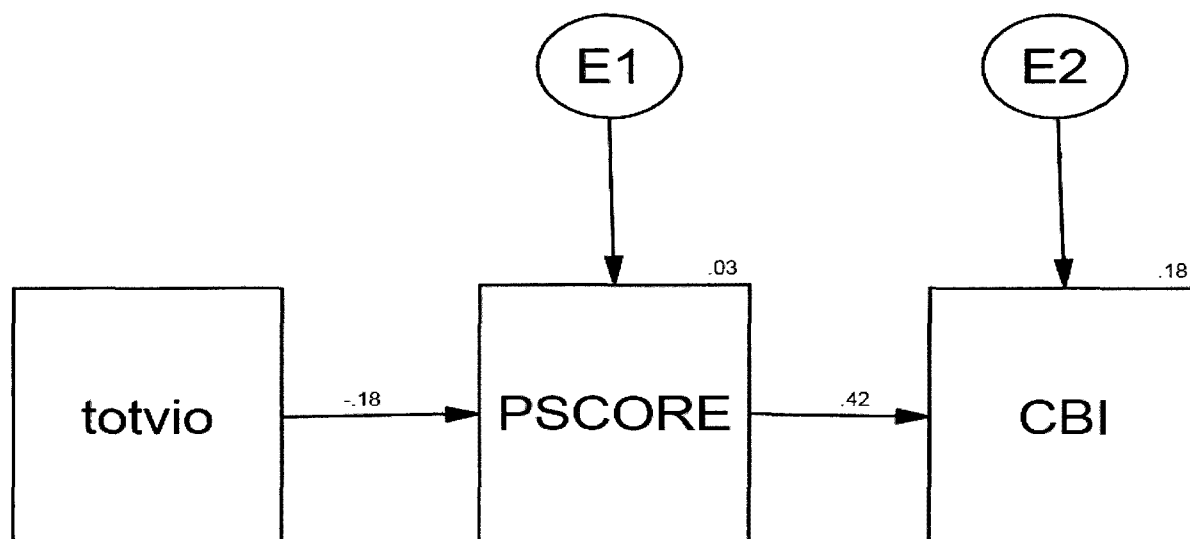
**E4 : Competence**

Fit of the Model: Chi-square = .420	Degrees of Freedom: $df = 1$	Probability level $P = .517$	Fit of the Independent Model RMSEA= .000
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = -.04$



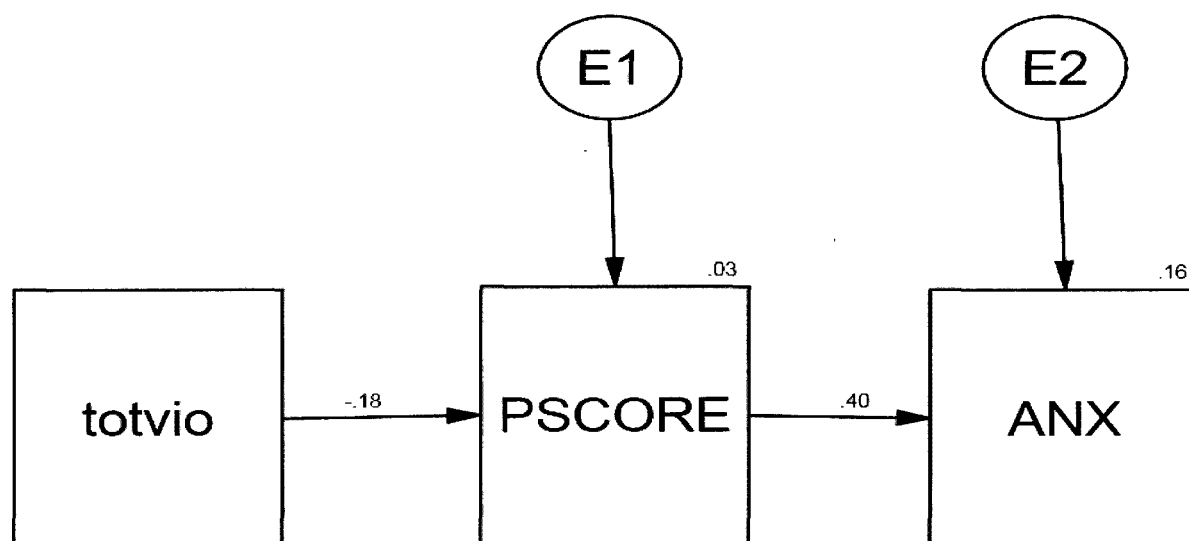
**E5 : CAB Behavioral Index**

Fit of the Model: Chi-square = 5.565	Degrees of Freedom: $df = 1$	Probability level P = .018	Fit of the Independent Model RMSEA=.318
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .42$



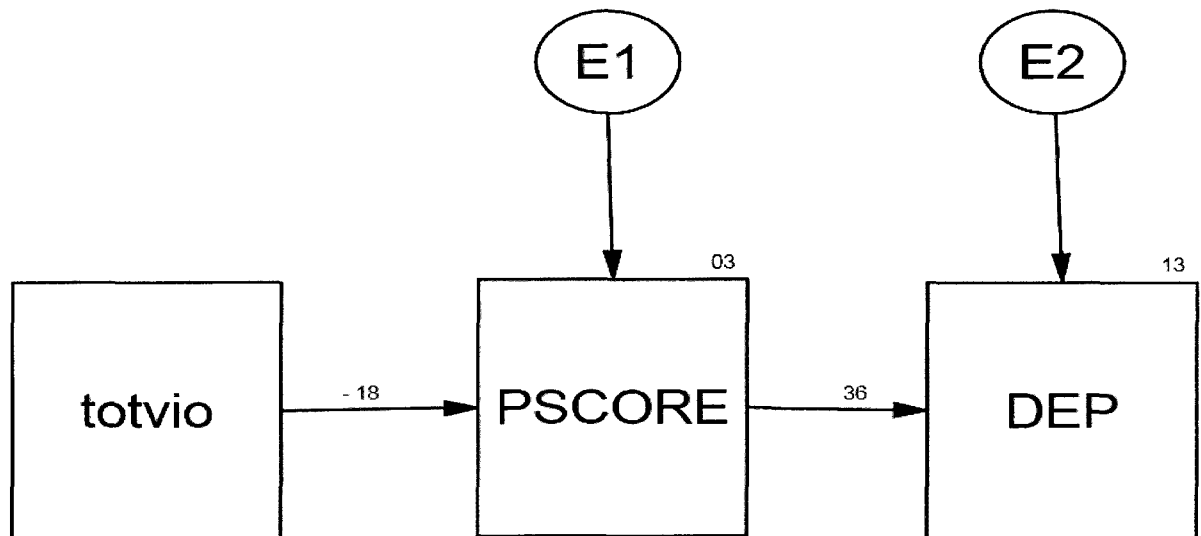
**E6 : Anxiety**

Fit of the Model: Chi-square = 4.348	Degrees of Freedom: $df = 1$	Probability level $P = .037$	Fit of the Independent Model RMSEA=.273
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .40$



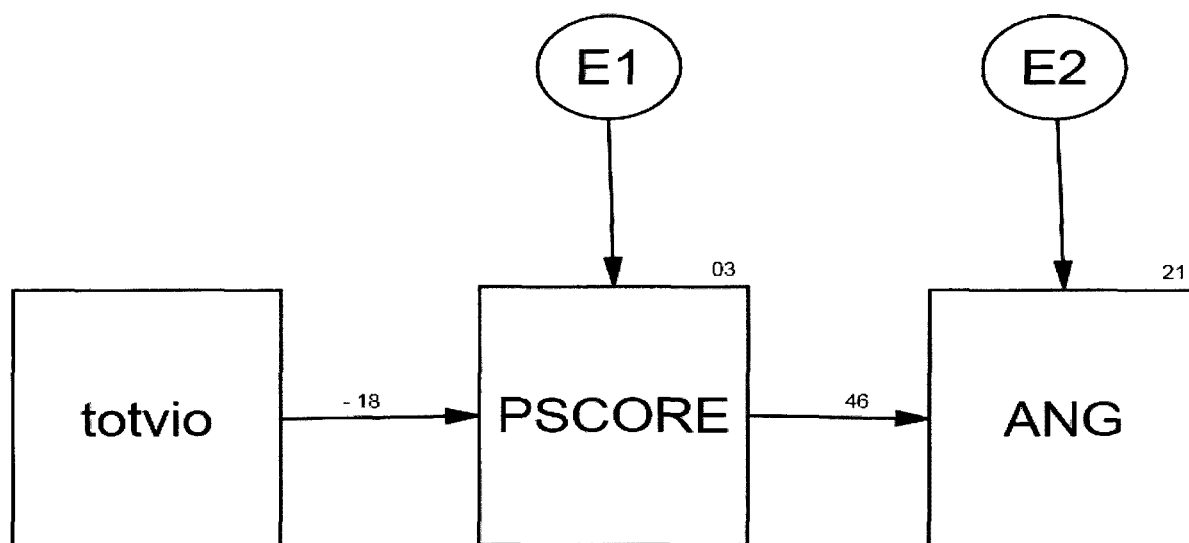
**E7 : Depression**

Fit of the Model: Chi-square = 3.059	Degrees of Freedom: $df = 1$	Probability level P = .080	Fit of the Independent Model RMSEA= .214
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .36$



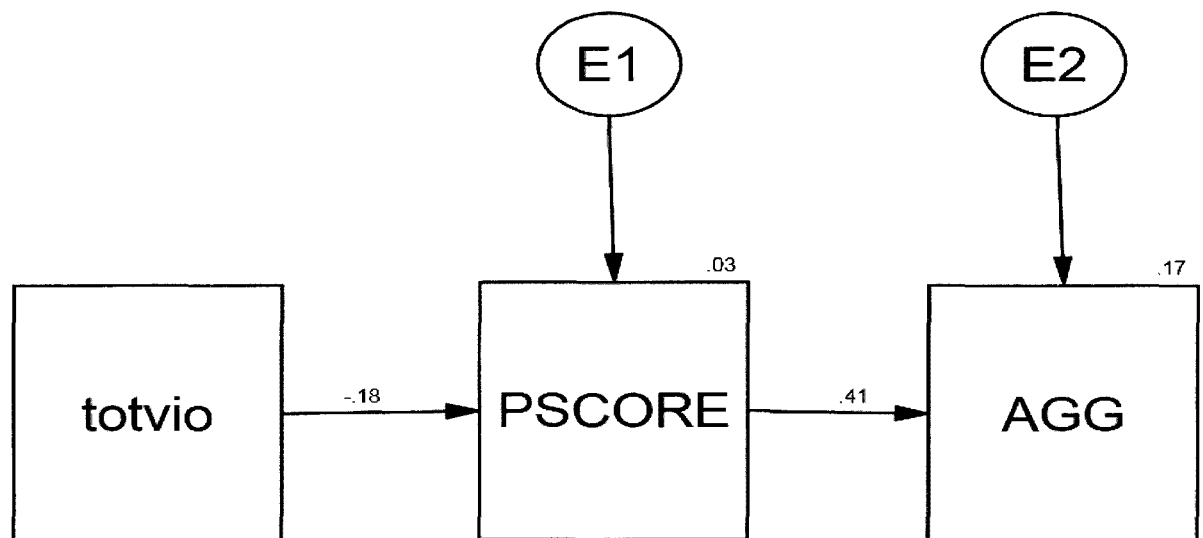
**E8 : Anger**

Fit of the Model: Chi-square = 5.086	Degrees of Freedom: $df = 1$	Probability level $P = .024$	Fit of the Independent Model RMSEA= .301
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .46$



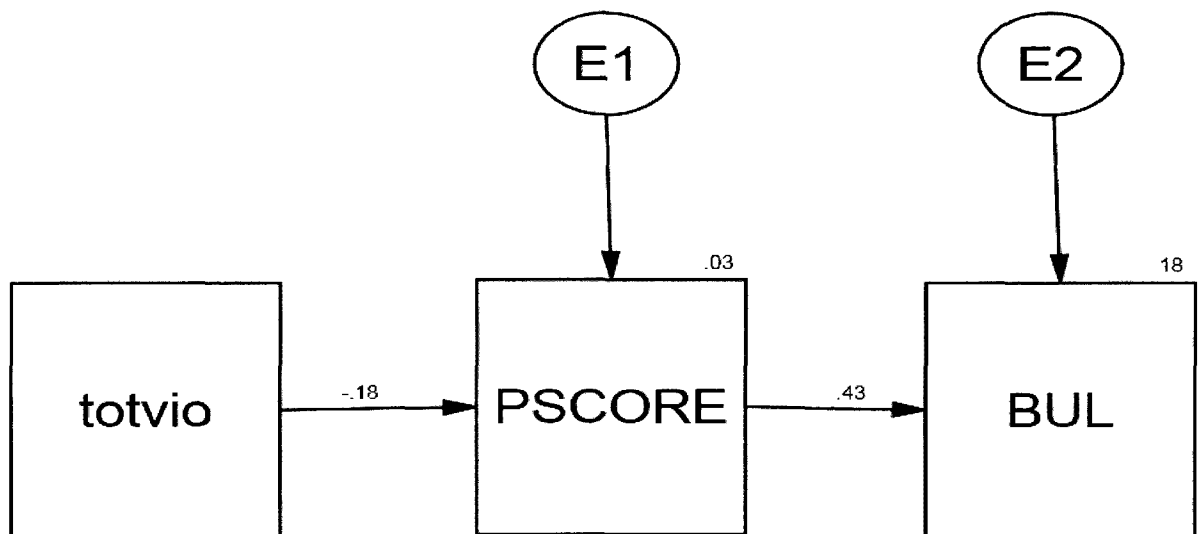
**E9 : Aggression**

Fit of the Model: Chi-square = 5.333	Degrees of Freedom: $df = 1$	Probability level P = .021	Fit of the Independent Model RMSEA= .310
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = .41$



**E10 : Bullying**

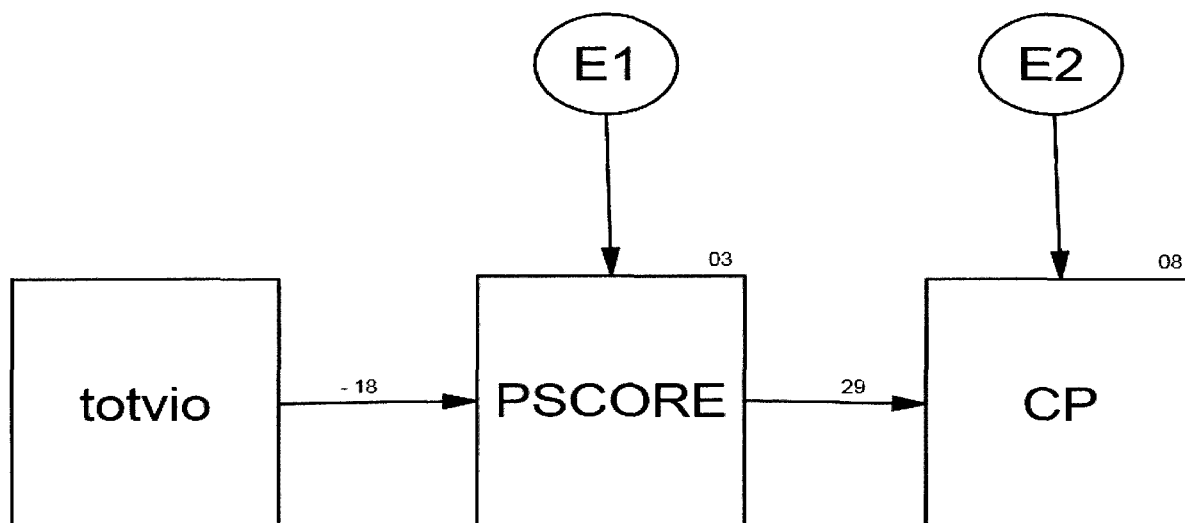
Fit of the Model: Chi-square = 5.535	Degrees of Freedom: $df = 1$	Probability level $P = .019$	Fit of the Independent Model RMSEA= .317
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = .43$





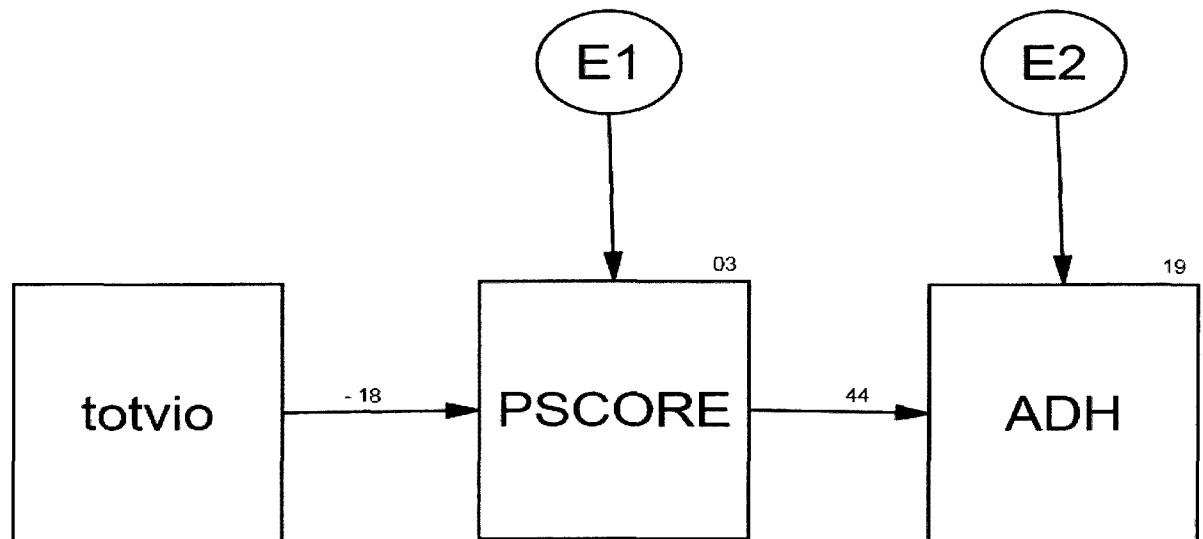
**E11 : Conduct Problems**

Fit of the Model: Chi-square = 5.708	Degrees of Freedom: $df = 1$	Probability level $P = .017$	Fit of the Independent Model RMSEA= .3233
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = .29$



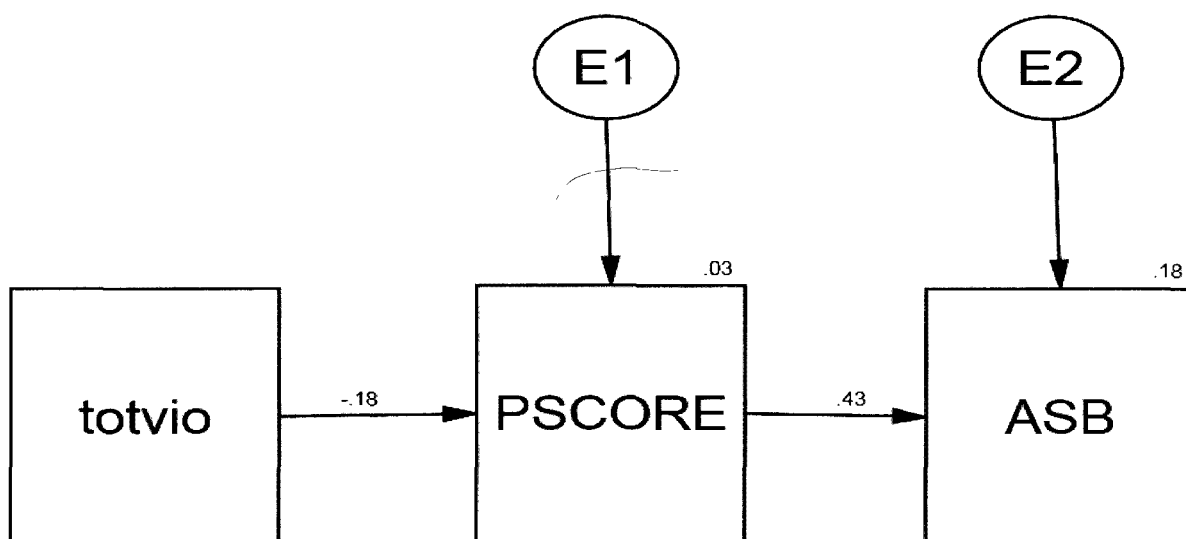
**E12 : Attention/Deficit Hyperactivity Disorders**

Fit of the Model: Chi-square = 7.677	Degrees of Freedom: $df = 1$	Probability level P = .006	Fit of the Independent Model RMSEA= .385
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .44$



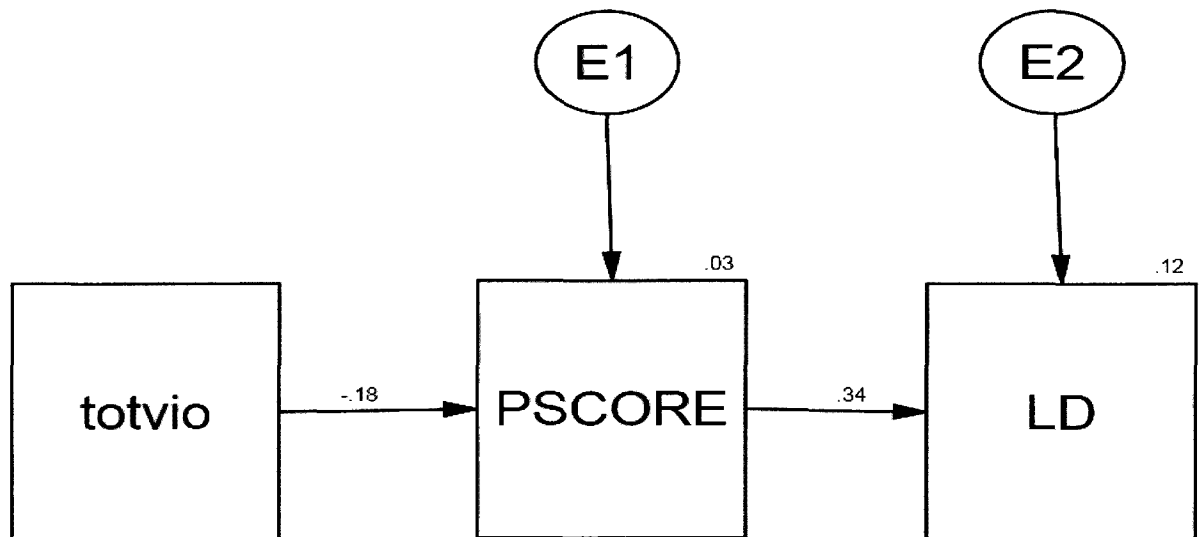
**E13 : Autism Spectrum Behaviors**

Fit of the Model: Chi-square = 6.967	Degrees of Freedom: $df = 1$	Probability level $P = .008$	Fit of the Independent Model RMSEA= .364
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .43$



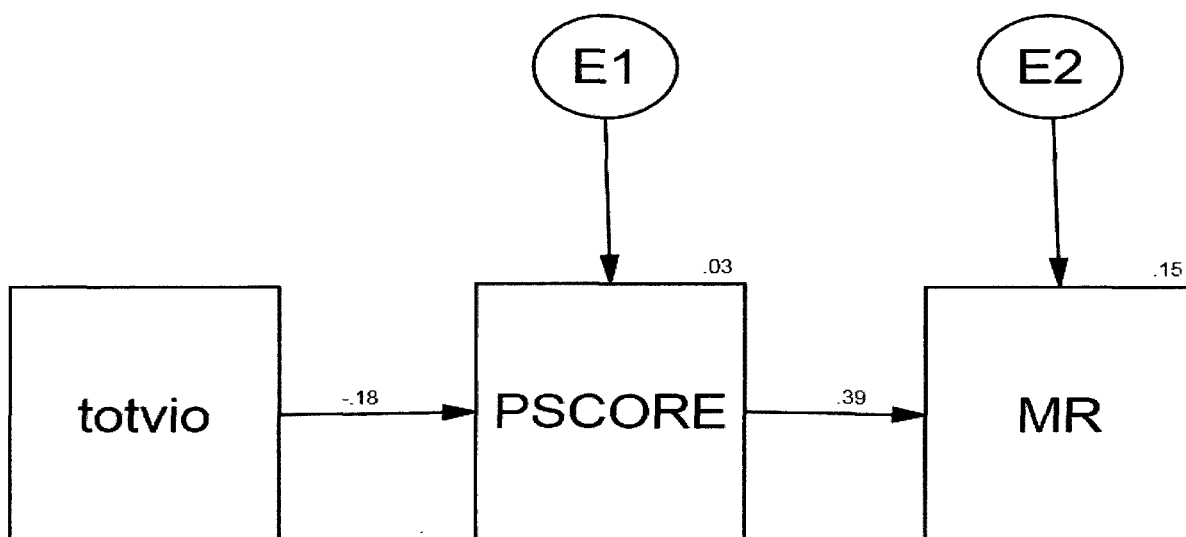
**E14 : Learning Disabled**

Fit of the Model: Chi-square = 5.942	Degrees of Freedom: $df = 1$	Probability level $P = .015$	Fit of the Independent Model RMSEA= .331
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = .34$



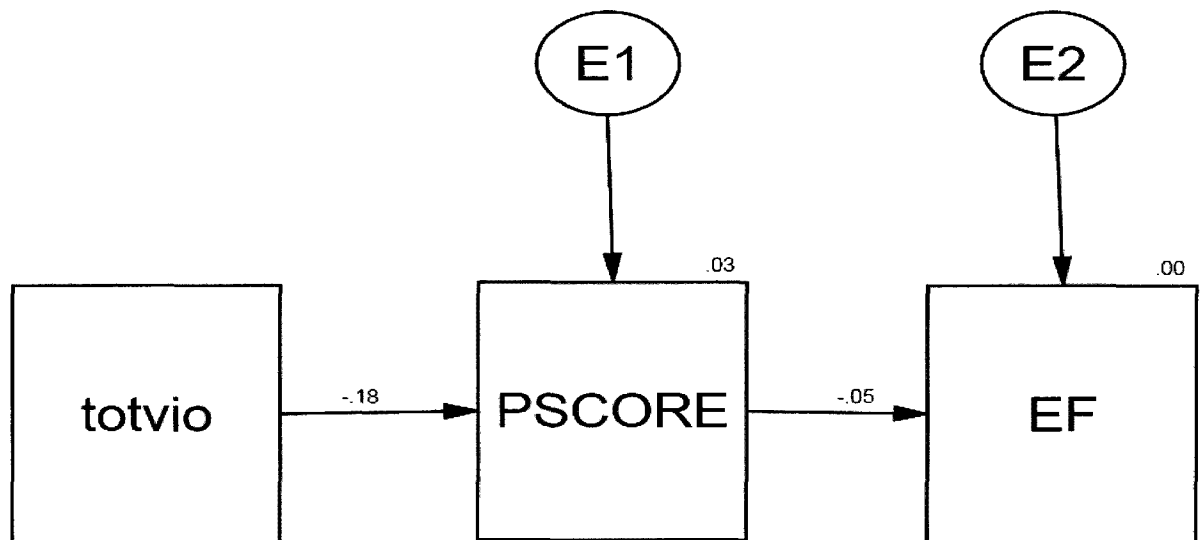
**E15 : Mental Retardation**

Fit of the Model: Chi-square = 5.779	Degrees of Freedom: $df = 1$	Probability level $P = .016$	Fit of the Independent Model RMSEA = .326
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = .39$



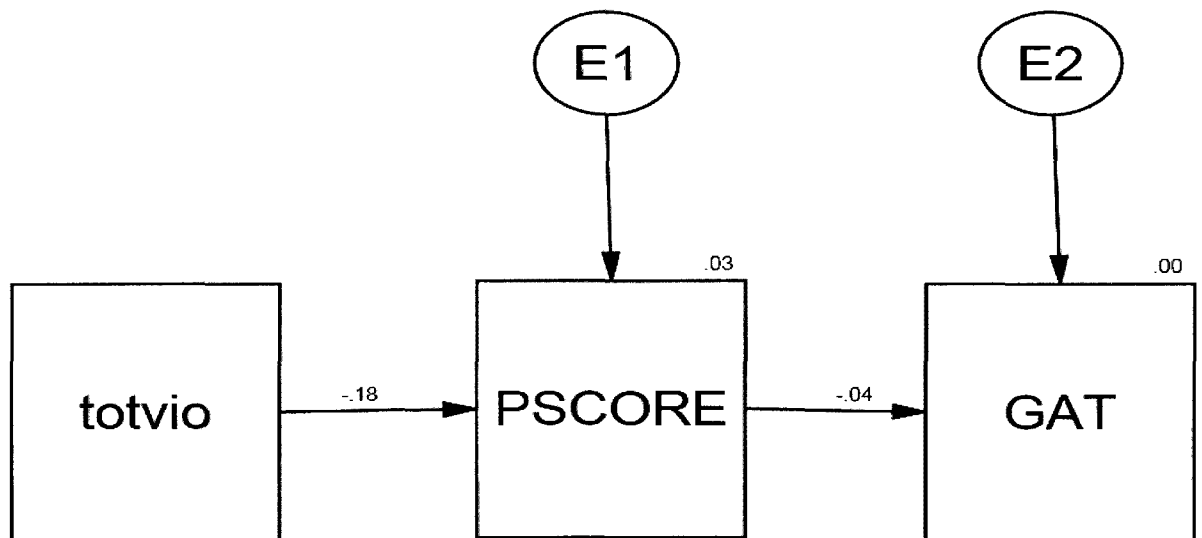
**E16 : Executive Functioning**

Fit of the Model: Chi-square = .846	Degrees of Freedom: $df = 1$	Probability level $P = .358$	Fit of the Independent Model RMSEA= .000
Influence of Violence on Moral Development	$R^2 = .18$	Influence of moral development on behavioral scale	$R^2 = .05$



**E17 : Gifted and Talented**

Fit of the Model: Chi-square = .702	Degrees of Freedom: $df = 1$	Probability level $P = .402$	Fit of the Independent Model RMSEA= .000
Influence of Violence on Moral Development	$R^2 = -.18$	Influence of moral development on behavioral scale	$R^2 = -.04$



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