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Psychological Predictors of Community Violence Exposure in Ethnic Minority Male Adolescents

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LOYOLA UNIVERSITY CHICAGO

PSYCHOLOGICAL PREDICTORS OF COMMUNITY VIOLENCE EXPOSURE IN

ETHNIC MINORITY MALE ADOLESCENTS

A THESIS SUBMITTED TO

THE FACULTY OF THE GRADUATE SCHOOL

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MASTER OF ARTS

PROGRAM IN CLINICAL PSYCHOLOGY

BY

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

Violence in the United States has been recently characterized as a national crisis, and witnessing or being a victim of violence can have cascading negative health and economic effects at the individual and systemic level (Listenbee et al., 2012; Davis, 2014). Urban, minority males are disproportionately impacted by the violence epidemic, making them especially susceptible to these deleterious outcomes (Zimmerman & Messner, 2013; Voisin, 2007). Further, research has demonstrated that justice-involved youth have disproportionately high levels of trauma exposure in comparison to community samples (e.g. Dirkhising et al., 2013). Despite the high rates of ECV in these populations, a recent report on efforts to address youth violence in the United States found that the majority of strategies utilized were ineffective and inadequate; indeed, the use of law enforcement officials and the criminal justice system were the most frequently utilized strategies in the prevention of youth violence (Weiss, 2008). Additionally, the majority of strategies are reactive, rather than focusing on proactively preventing violence from occurring in the first place (Weiss, 2008).

Research has suggested that increased risk factors do not always necessarily result in being exposed to community violence exposure, and person-based analyses have demonstrated significant variability in rates of community violence exposure (ECV) experienced by youth in underserved communities (Papachristos, 2009; Gaylord-Harden,

1

Dickson, & Pierre, 2015). Due to this, it is important to examine the utility of additional, individual-level psychological and behavioral factors in predicting ECV, as these factors may be more malleable, making them useful for identifying youth that may be at higher risk and providing suitable targets for prevention.

Ecologically framed models have identified that, although community violence exposure is multiply determined, children's individual behaviors and cognitions are significant contributors in the prediction of ECV (Salzinger et al., 2006). Although the majority of research to date has focused on the role of externalizing factors such as aggression and delinquency in the prediction of ECV (e.g. Borowsky & Ireland, 2004; Lambert et al., 2005), some research has suggested that depressive symptoms may play a unique role in this relationship and may actually exacerbate the risk of ECV (Lambert et al., 2005; Lambert, Nylund-Gibson, Copeland-Linder, & Ialongo, 2010). This relationship could possibly be explained by the fact that depression may be viewed as a sign of weakness that makes youth an ideal target for violence (Finkelhor & Asdigian, 1996), or it could be more attributed to an increase in risky behavior due to a lack of regard or hope for the future (Bell & Jenkins, 1993).

Given the urgent need to prevent community violence exposure among youth in urban communities, the overall purpose of the current study is to examine the role of depressive symptoms in the prediction of future community violence exposure. The current study extends beyond existing empirical research by utilizing competing longitudinal models to examine the unique utility of depressive symptoms in predicting future community violence exposure. Specifically, the current study seeks to examine

how different domains of depression may uniquely predict increased future exposure to community violence, above and beyond prior exposure. Additionally, the role of risky behaviors is examined as a potential mediator in this relationship.

The following sections of the current proposal will review the literature on the following topics: 1) ECV during adolescence, 2) ECV in low-income, ethnic minority male adolescents, 3) intervention-informing research on ECV, 4) demographic/system level factors that are risk factors for ECV, 5) psychological factors that predict ECV, 6) the role of depression as a predictor of ECV, 7) depressive symptoms that predict ECV, 8) risky and delinquent behaviors as a mediator to ECV.

CHAPTER TWO

LITERATURE REVIEW

Exposure to Community Violence During Adolescence

Exposure to community violence (ECV) is defined as the direct victimization, witnessing, or hearing about violent acts in a neighborhood or community (Cooley, Turner, & Beidel, 1995). ECV generally excludes other types of violence such as domestic abuse, bullying, and media violence (Kennedy & Ceballo, 2014). The majority of research on community violence has assessed witnessing violence and violent victimization separately and differentiates between these two types of exposure (Kennedy & Ceballo, 2014). Witnessing is defined as viewing or hearing about an act of violence, which can include loss of property, injury, or death, of family members, peers, or other members of the community (Listenbee et al., 2012; Fowler et al., 2009). Community violence victimization refers to being the target of an intentionally harmful act committed by another individual such as being robbed, assaulted, or shot (Fowler et al., 2009).

Youth are disproportionately impacted by violence in the United States, as research demonstrates that adolescents ages 12-24 are significantly more likely than individuals in any other age group to be exposed to or be the victim of violence (Finkelhor, Rutner, Ormrod, Hamby & Kracke, 2009). ECV is estimated to affect two out of every three children in the United States, with nearly 70% of adolescents reporting

being the victim of a violent crime in a nationally representative survey (Listenbee et al., 2012; Finkelhor, Turner, Shattuck, Hamby, & Kracke, 2013). ECV has been identified as one of the most significant public health epidemics facing American youth today and has been labeled as a national crisis (Osofsky, 1999; Listenbee et al., 2012).

Exposure to Community Violence in Low-Income, Ethnic Minority Male Adolescents

Compared to youth from other communities, youth from low-income, urban communities are at even greater risk for community violence exposure (Voisin, 2007; Sauners, Kilpatrick, & Resnick, 2000). Structural neighborhood factors such as concentrated disadvantage and a lack of youth services significantly increase the likelihood of violence exposure (Zimmerman & Messner, 2013), making urban youth especially susceptible. It is estimated that between 50%-96% of urban youth from low-income communities are exposed to neighborhood violence in their lifetime (Stein, Jaycox, Kataoka, Rhodes, & Vestal, 2003).

Even when controlling for higher levels of neighborhood disadvantage and household income, ethnic minority youth still experience overwhelmingly higher rates of violence exposure than white youth (Zimmerman & Messner, 2013; Crouch et al., 2000). Specifically, the odds of Hispanic and Black youth being exposed to violence are 74% and 112% higher than their white counterparts (Zimmerman & Messner, 2013). Further, approximately 74% of youth of color in urban communities report witnessing a shooting and 56% report witnessing a stabbing (Paxton, Robinson, Shah & Schoeny, 2004), and youth of color are twice as likely to witness a shooting or a stabbing as White youth in the same school system (Schwab-Stone et al., 1995).

When examining specific racial groups, research suggests that there is an inconsistency in the literature regarding differences in levels of community violence exposure between African American and Latino youth. Some research has demonstrated higher rates of ECV among African American youth compared to Latino youth (e.g. Crouch et al., 2000; Finkelhor, Turner, Hamby, & Ormrod, 2011), while other research shows that Latino youth are exposed to more violence than African American youth (e.g. Rasmussen, Aber, & Bhana, 2004). Further, some research has found no significant differences between the two racial groups (e.g. Aisenberg, Ayon, & Orzco-Figueroa, 2008; Buckner, Beardslee, & Bassuk, 2004). Among juvenile offenders specifically, Latino youth report more traumatic neglect or loss and witnessing of community violence (Ford et al., 2008), and were more likely than African American and White offenders to have PTSD, and African American offenders were more likely than White offenders to have PTSD (Teplin et al., 2012).

Males experience overwhelmingly higher rates of community violence exposure than females. Research demonstrates that the odds of witnessing violence are 51% higher for male youth than female youth (Zimmerman & Messner, 2013), and when examining data on the incidence of shooting victimization among urban high school students, being male was the single most significant predictor of being the victim of a shooting (Chandler, Levitt, & List, 2011).

Similarly, within youth of color in urban communities, male adolescents are much more likely to witness community violence than female adolescents (Elsaesser & Voisin, 2014; Lambert, Boyd, Cammack & Ialongo, 2012). Studies show estimates ranging from 50% to 96% of ethnic minority male adolescents witnessing violence in their communities and

one-third experiencing direct victimization (e.g., beaten, stabbed or shot at) (Farrell &

Bruce, 1997; Fehon, Grilo, & Lipschitz, 2001; Gorman-Smith, Henry, & Tolan, 2004;

Springer & Padgett, 2000). Further, urban youth experience repeated exposure, with 75%

exposed to 4 or more different violent events during adolescence (Miller et al., 1999).

Repeated exposure heightens the risk of injury and death, and 78% of male youth of color

have been physically attacked during adolescence, often more than once (Gaylord-

Harden, Cunningham & Zelencik, 2011).

Among youth involved in the juvenile justice system, rates of community violence

exposure are even higher. Research has demonstrated that at least three in four youths in

the juvenile justice system have been exposed to traumatic victimization (Abram et al.,

2004; Ko et al., 2008). Additionally, many justice-involved youth have been involved in

the family court system as a result of previous victimization (Barth, 1996). In addition,

approximately 75% of justice-involved males endorse witnessing community violence,

and 59.3% of males endorse victimization (Abram et al., 2004). Although youth who

have been incarcerated are an important population to study due to the unique challenges

they face, it is also important to study justice-involved youth who have not been

incarcerated in jail or prison, as the majority of youth who receive a guilty adjudication

are placed on formal probation and released back into the community and only 26% are

placed in a residential facility (Sickmund, Melissa, & Puzzanchera, 2014). Therefore,

youth who have felony convictions but are subsequently released back into the

community are a unique and important population to study.

Given that ethnic minority male adolescents from urban communities that are

involved in the criminal justice system are disproportionately exposed to higher levels of

community violence, they are also at a greater risk of experiencing numerous negative outcomes associated with violence exposure. In particular, the literature has overwhelmingly demonstrated that ECV is associated with a myriad of negative psychological outcomes in youth including posttraumatic stress symptoms (Fowler et al., 2009), externalizing symptoms such as aggression (Flannery et al., 2001) and delinquency (Rosenthal, 2000), and internalizing symptoms such as depression (Scarpa, 2003) and suicidal thoughts (Lambert et al., 2005). ECV has also been linked to decreased physical health outcomes, including a higher likelihood of children reporting somatic complaints such as appetite problems, sleeping problems, headaches, and stomachaches (Bailey et al., 2005), an increased likelihood of asthma morbidity even when controlling for other extraneous social and demographic factors (Wright et al., 2004; Walker et al., 2008), as well as an increase in health risk behaviors such as drug use and risky sex (Berenson, Constance, & Wiemann, 2001). As a public health crisis, ECV also places a significant financial burden on many of the nation's public systems that serve youth such as education, medical care, child welfare, legal and social services, and juvenile justice (Listenbee et al., 2012; David-Ferdon & Simon, 2014). Considering the increased exposure to community violence among urban, low-income, adolescent males coupled with the wide range of deleterious outcomes, studying ECV in this population is especially critical.

Intervention-Informing Research on ECV

In response to the high prevalence and detrimental impact of community violence exposure, a wealth of protective factors have been identified to buffer these negative outcomes after a youth has experienced ECV. For example, factors such as the use of

avoidant coping (Edlynn, Gaylord-Harden, Richards, & Miller, 2008), high family functioning (Gorman-Smith, Henry, & Tolan, 2004), parental supervision and monitoring (Burton & Jarrett, 2000), social support (Hammack et al., 2004; Paxton, Robinson, Shah, & Schoeny, 2004), youth emotion regulation skills (Kliewer et al., 2004) and close family relationships (Ozer, Lavi, Douglas, & Wolf, 2015) have all been demonstrated to help youth experience better outcomes after they have been exposed to community violence, and in turn these findings have informed intervention efforts with violence-exposed youth.

There is no doubt that it is important to examine the variations in developmental trajectories that follow exposure to community violence and the potential moderating factors that may serve as protective in this context, as these factors may be useful in mitigating the impact of maladaptive psychological outcomes after the occurrence of ECV. Unfortunately, despite years of intervention research and implementation, data on violence trends from the National Survey of Children's Exposure to Violence demonstrated that there was no significant overall change in levels of youth violence exposure for victimization or witnessing between the years 2008 to 2011 (Child Trends, 2013). This sobering statistic highlights a need to focus on primary prevention efforts, or ways to *prevent* youth from being exposed to community violence exposure in the first place. Indeed, in a commentary on the implications of a special journal issue dedicated to the epidemic of community violence exposure, Luthar and Goldstein (2004) concluded that the primary focus of prevention efforts should be simply to reduce the occurrence of exposure to community violence.

The prevention of exposure to community violence will require the application of models from the public health field in order to approach the epidemic from a prevention framework. Adapted from a disease prevention perspective, the public health model is a systematic strategy for combatting an epidemic that is commonly adapted for use within the behavioral health field. This model employs a three-level categorization approach focusing on the timing of prevention efforts and highlighting the comprehensive need for action at each unique risk level (Walker & Shinn, 2001; Prothrow-Stith, 1995; CDC, 2004; WHO, 2006). In the tertiary level of prevention, long-term efforts focus on individuals who have already been chronically exposed to violence and are designed to mitigate the lasting negative impact of violence and prevent recurrence (CDC, 2004; WHO, 2006). Secondary preventions respond immediately after the problem occurs with the goal of slowing the negative effects of exposure to prevent long-term problems and encouraging coping strategies to prevent recurrence. In contrast, primary prevention involves preventing a problem from emerging in the first place by altering behaviors that can lead to violence exposure (Walker & Shinn, 2002; WHO, 2006).

The aforementioned literature on factors that may moderate the relationship between ECV and negative outcomes serves to ultimately inform secondary and tertiary prevention efforts, which target youth who have already been exposed to community violence. A commonly employed strategy in public health involves shifting the focus "upstream." This concept is best described by using a metaphor in which an individual keeps seeing people floating down a river at risk of drowning. After continuing to try and pull people out of the river and save them one at a time, the individual decides to walk

upstream and figure out what is causing them to fall in the river (Todres, 2011).

Upstream intervention involves changing the focus from "postvention" responses after a

situation has occurred to identifying why the situation has occurred in the first place.

Employing the primary prevention approach of the public health model and focusing

"upstream" provides an opportunity to shift the paradigm from trying to mitigate the

negative impact of violence exposure after it has occurred to preventing exposure

altogether.

Despite the growing body of literature documenting the negative effects of

community violence exposure, there is a relative paucity of research examining specific

factors that precede exposure and thus may serve to predict future ECV. In a call for a

multilevel, public health response to the crisis of community violence, Fowler and

Braciszewski (2009) identified that programs targeting youth at high risk for being

exposed to community violence would be beneficial, yet represent a notable gap in

intervention research and practice. Identifying early, predictive factors that place youth at

increased risk for violence exposure may serve to inform targeted, preventative

interventions and provide a unique opportunity to intervene before youth are chronically

exposed to community violence and become at risk for a host of maladaptive outcomes.

For this reason, the current study focuses on identifying and examining factors that may

serve to predict higher levels of ECV. The majority of the small body of work on factors

that predict higher levels of ECV has focused on demographic and system-level factors

such as economic disadvantage, or externalizing behaviors, such as delinquent behavior.

Demographic/System Level Risk Factors for ECV

A multitude of demographic factors have been explored that may serve to put youth at an increased risk for community violence exposure. Research has demonstrated that males are more likely than females, (Fitzpatrick & Boldizar, 1993; Lambert et al., 2005), ethnic minority youth are more likely than White youth (O'Donnell, Schwab-Stone, & Muyeed, 2002), and older youth are more likely than younger youth (Weist et al., 2001) to be exposed to ECV. Further, individuals residing in economically disadvantaged (O'Donnell, Schwab-Stone, & Muyeed, 2002), high crime neighborhoods (Selner-O'Hagan, Kindlon, Buka, Raudenbush, Earls, 1998; Bell & Jenkins, 1993; Weist, Acosta, Youngstorm, 2001), who are exposed to more stressful life events (Weist, Acost, & Youngstrom, 2001), who engage in substance use at an early age (Fagan, 1993), or who come from single parent homes (Bell & Jenkins, 1993) are more likely to be exposed to community violence.

Although these well-established demographic risk factors for ECV have provided a critical contribution to the literature and are important in creating risk profiles, they just serve to identify youth who *may* be at increased risk for exposure. Notably, there still remains large variability among community violence exposure even within these high-risk groups, and research overwhelmingly demonstrates that some youth witness less violence than others, despite sharing similar demographic risk factors. One study of African American adolescents ages 11-15 used person-centered analyses to classify youth into three violence exposure groups and found that 40% of the youth fell in a moderate victimization class, 23% in a low exposure class, and 37% in a high exposure class (Gaylord-Harden, Dickson, & Pierre, 2015). In a similar analysis of a sample of

predominantly low-income, ethnic minority, middle school youth residing in an urban

setting, a latent class analysis revealed that 36% of these youth reported witnessing any

community violence exposure in the past year, and only 6% had been a victim of violence

(Copeland-Linder, Lambert, & Ialongo, 2010). Similar trends have emerged with

community victimization in a sample of low-income African American male adolescents,

with only 8% of the sample falling in the high victimization group (Gaylord-Harden,

Zakaryan, Bernard, & Pekoc, 2015). The identification of variability in these studies is

consistent with recent sociological research demonstrating that violence in urban

communities is concentrated in a single, small social network (Papachristos, Braga, &

Hureau, 2012; Papachristos, Wildeman, & Roberto, 2014).

Due to the large variability in individual experiences of violence exposure even

among youth who share similar risky demographic factors, it is important to examine the

utility of additional, individual-level psychological and behavioral factors in predicting

ECV, as these factors may be more malleable than demographic factors, making them

useful for identifying youth that may be at higher risk and providing suitable targets for

prevention.

Psychological Factors that Predict ECV

Ecologically framed models have identified that although community violence

exposure is multiply determined, children's individual behaviors and cognitions are

significant contributors in the prediction of ECV (Salzinger et al., 2006). The research

has further supported this theory in demonstrating that youth with externalizing

behaviors, such as aggression, experience higher levels of future ECV (Borowsky &

Ireland, 2004; Lambert et al., 2005). In addition, youth who demonstrate conduct

problems (Salzinger et al., 2006), engage in more delinquent behaviors (Lambert et al., 2005), have been previously arrested (Weiss et al., 2001), or are gang affiliated (Taylor, Peterson, Esbensen, & Freng, 2007) are at increased risk for future community violence exposure.

Although the findings from the research on the role of externalizing behaviors in predicting violence exposure are largely consistent, one study suggests that the relationship between externalizing behaviors and violence exposure may be more complex than previously assumed. Specifically, a longitudinal study examining a sample of 320 underserved middle school boys found that when controlling for levels of prior community violence exposure, aggressive behavior was not predictive of future witnessing of ECV for boys with low depressive symptoms, but boys who reported high levels of depression were more likely to experience future witnessing of ECV regardless of levels of deviant peer affiliation or parental monitoring (Lambert et al., 2005). The pattern of findings in this study suggests that depressive symptoms may in fact *exacerbate* the risk for witnessing community violence exposure. Similarly, person-based analyses of African American youth have found that when examining differences between latent class analysis profiles of low and high violence exposure groups, impulsivity, as expected, was a distinguishing factor between the two groups. However, depression emerged as the second distinguishing factors between the two groups, with youth in the high exposure class exhibiting significantly more depressive symptoms than youth in the low exposure class (Lambert, Nylund-Gibson, Copeland-Linder, & Ialongo, 2010). Although the predictive utility of externalizing behaviors has been examined in the literature, these findings provide evidence of the unique role that internalizing factors,

such as depression, may play in contributing to the prediction of community violence exposure in youth.

The Role of Depression as a Predictor of ECV

Research suggests that internalizing symptoms are highly comorbid with a myriad of externalizing behaviors such as aggression, violence, and delinquency (Angold and Costello, 1993; Tolan and Henry, 1996). Taken in consideration with the fact that these behaviors are also highly comorbid with community violence exposure (Buka, Stichick, Birdthistle, & Earls, 2001), it is possible that internalizing symptoms may play a significant role in the prediction of community violence exposure. Although no known studies to date have specifically examined depressive symptoms as a determinant of ECV, some research to date has examined the role of depressive symptoms in the prediction of peer victimization. A meta-analysis of 18 studies concluded that there is a significant bidirectional relationship between depressive symptoms and future peer victimization, in which internalizing symptoms are equally as strong causes as well as consequences of peer victimization (Reinjtjes, Kamphuis, Prinzie, & Telch, 2010). In one longitudinal study of 8 to 14 year old youth, depression predicted future physical peer victimization, however the reciprocal relationship was not true (e.g. peer victimization predicting future depression; Tran, Cole & Weiss, 2012). Although it is important to note that this was a primarily European-American sample of youth, these results further suggest that depressive symptoms specifically may play a critical role in the prediction of exposure and victimization.

Depression in Male Adolescents

A consistent finding in the literature is the significant increase in rates of depression from childhood to adolescence (Cicchetti & Toth, 1998), marking adolescence as a key developmental period to examine the developmental vulnerability and ecological risk of males. Over 50% of adolescent males report experiencing at least one and one-third experiencing multiple episodes of depressive symptoms at high levels during adolescence (Kim, Capaldi, & Stoolmiller, 2003). Research on differences in prevalence rates across ethnic groups has been inconclusive, with some studies finding that youth of color show higher rates of depression (Cole, Martin, Peeke, Henderson, & Harwell, 1998; Steele et al., 2006), other studies or reviews showing lower rates of depression in youth of color (Dornbusch, Mont-Reynand, Ritter, Chen & Steinberg, 1991; Nettles & Pleck, 1994), and some studies showing gender-dependent differences (Kistner, David, & White, 2003). However, depression is strongly linked to economic disadvantage and stress exposure (e.g., Kessler et al., 1994), placing some male adolescents of color at elevated risk due to the disproportionate number of these youth experiencing economic disadvantage and associated stressors (DeNavas-Walt & Proctor, 2015). Despite elevated risk in high-risk communities, there is a gap in the consideration of the predictive utility of depression in male adolescents of color from these communities (Costello, Swendsen, Rose, & Dierker, 2008). In particular, there is limited understanding of the how depressive symptoms among adolescent males may be related to developmental ecological features in high risk communities, such as community violence.

Depression as a Construct.

Depression is a broad construct that encompasses a multitude of diagnoses, manifestations, and symptom clusters. Distinctions have been made between clinical depression and depressed mood, with clinical depression meeting the criteria for categorical diagnoses in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2013). Depressed mood is characterized by subthreshold symptoms of negative affect (Petersen et al., 1993). Although clinical depression may be more debilitating than depressed mood, evidence from community samples supports the chronicity and impairment associated with depressed mood in youth (e.g., Nolen-Hoeksema, Girgus, & Seligman, 1992).

More nuanced examinations of the construct identify three main components of depression that all play a unique role in the expression of the disorder. Specifically, contemporary theories of depression consist of cognitive, affective, and biological components (Beck, 2011). The affective component of depression relates specifically to dysphoric mood, as evidenced by sadness and decreased interest in regular activities (Derogatis & Melisaratos, 1983). The biological component of depression entails the expression of psychological symptoms in a physical manner (Lipowski, 1988). This somatization of symptoms can present in forms such as nausea or feelings of numbness (Derogatis & Melisaratos, 1983). Finally, cognitive symptoms of depression are exhibited by dysfunctional attitudes and negative attribution styles (Beck, 2011). In order to critically examine the proposed prospective relationship between depression and community violence exposure in male youth of color, all three components of depression should be examined.

Depressive Symptoms that Predict ECV

Depressogenic Cognitions.

Although there is a paucity of research examining the relationship between depression and ECV specifically, some studies suggest that depressogenic cognitions may be related to community violence exposure in youth. One commonly researched depressogenic cognition is the concept of hopelessness for the future. Hope is defined as a goal-directed cognitive process (Snyder et al., 1991) and hope for the future has been well established in the literature as both a developmentally adaptive process (e.g. Nurmi, 1989) and a protective factor that may buffer against the negative effects of violence exposure (Cedeno, Elias, Kelly, & Chu, 2010; So, Gaylord-Harden, Voisin, & Scott, 2015; Stoddard, Zimmerman, & Bauermeister, 2012). Alternatively, hopelessness toward the future comprises negative expectations for the future and low expectations that desired outcomes will occur (Joiner & Wagner, 1995). Hopelessness for the future may be especially relevant to examine in the context of community violence exposure, as research has demonstrated that youth who feel hopeless about their future are significantly more likely to engage in multiple domains of delinquent, reckless, risky, and violent behavior (Bolland, 2003; Bolland et al., 2001; DuRant, Cadenhead, Pendergrast, Slavens, & Linder, 1994; Allwood, Baetz, DeMaro, & Bell, 2012). Hopelessness is also correlated with community violence exposure in cross-sectional studies (e.g. Ceballo, Ramirez, Hearn, & Maltese, 2003). Despite this, no known studies have specifically examined the predictive utility of hopelessness toward the future in understanding pathways to community violence exposure. Bell & Jenkins (1993) present an intriguing question when summarizing their work on ECV in the city of Chicago: At what point

does a lack of hope for the future evolve into nihilistic views of the world, and what are the resulting implications for engagement in risk taking behaviors and exposure to violence? One study of 2,468 low-income, African American adolescents ages 9-19 found that feelings of hopelessness for the future were associated with engagement in multiple risk behaviors such as substance use, sexuality, violence perpetration, and accidental injury (Bolland, 2003). Another study of urban adolescents ages 9-19 found that hopelessness about the future significantly predicted violent behaviors (Bolland et al., 2001). Indeed, youth who do not have hope for their future may not be concerned with the consequences of engaging in violent or risky behavior (Stoddard, Zimmerman, & Bauermeister, 2012), which may in turn place them at increased risk for exposure to community violence, as research has confirmed that engagement in risky and delinquent behaviors places youth at increased risk for violent victimization in their communities (Jensen & Brownfield, 1986; Lauritsen, Laub, & Sampson, 1992).

Depressed Affect.

The research has overwhelmingly demonstrated that youth who are exposed to violence are at increased risk for the development of depressive symptoms (Knox, Funk, Elliot, & Bush, 2000; Vermeiren et al., 2003; Hagan & Foster, 2001), and exposure to community violence uniquely predicts increases in depressive symptoms over time, even when controlling for prior symptomatology (Gorman-Smith & Tolan, 1998). Although few studies have examined this relationship in the reverse, some research suggests that depressed mood and affect may predict violence exposure in youth. Research on daily mood states has suggested that dysphoric feeling states may place youth at increased risk for exposure to violence (Sweeney, Goldner, & Richards, 2011). Specifically, in a study

of 175 low-income, African American youth, those who reported feeling more sad, unfriendly, and disrespected, as well as more variability in those daily feelings (i.e. dysregulation of emotions) were more likely to experience community violence exposure (Sweeney, Goldner, & Richards, 2011). The authors speculate that this relationship may be explained by youth's tendency to place themselves in scenarios characterized by high violence and greater levels of interpersonal risk in response to their inability to regulate these intense dysphoric feelings (Sweeney, Goldner, & Richards, 2011).

Depressed mood may also increase the risk for violent victimization. Some researchers have theorized that exhibiting a depressive affect may suggest weakness, and subsequently increase vulnerability to victimization among youth (Cooley-Strickland et al., 2009; Reynolds et al., 2001; Attar et al., 1994). Similar results have been found in the criminology literature, in which theories of target attractiveness posit that specific characteristics place individuals at increased risk for victimization (Miethe & Meier, 1994; Finkelhor &Asdigian, 1996). One nationally representative sample of 2,000 youth between the ages of 10 and 16 found that high psychological distress made a unique contribution in the prediction of future violent victimization by someone not in the family (Finkelhor & Asdigian, 1996). Psychological distress in this study was operationalized by a variable composed of sleep difficulties, feelings of guilt and hopelessness, irritability, and difficulties in emotion regulation that was highly correlated with depression and self-esteem. A proposed explanation for these findings is that youth with these characteristics may be less likely to deter or defend themselves against victimization and are therefore a more convenient target due to their vulnerability (Finkelhor & Asdigian, 1996). Based on

the demonstrated relationship between depressive affect and increased violence exposure, these symptoms are important to further examine in a predictive model.

Somatic Symptoms.

Research suggests that somatization might be particularly common among African American and Latino individuals, especially in the context of oppression (Kirmayer & Young, 1998). Some possible explanations for this cultural difference are that somatization might be a more culturally sanctioned expression of psychological distress among cultures where stigma surrounding mental illness is high (Bagayogo, Interian, & Escobar, 2013). It is also possible that somatization is a defensive strategy, as more common expressions of internalizing symptoms (e.g. crying) may be interpreted as a sign of weakness in certain communities, as aforementioned (e.g. Attar et al., 1994). For minority youth, rates of somatic symptoms may be masking internalized distress and indicative of underlying rates of depression that are just being reported differently. Research among low-income, urban youth specifically has found that somatic complaints were the most commonly reported type of internalizing problems and these youth are more likely to score in the clinical range on somatic complaints than the general population (Grant et al., 2004; Reynolds et al., 2001). Assessing somatic symptoms may provide a more comprehensive picture of the true prevalence of depressive symptoms among male adolescents of color from urban communities.

Given the high incidence of somatization presenting in this population, it is important to consider these symptoms in the prediction of community violence exposure. One study of 1,520 urban, low-income youth ages 11-16 found that somatic complaints were more likely to co-occur with aggressive symptoms than should be expected in the

general population based on normative data (Grant et al., 2004). Given that aggressive behaviors are also highly correlated with community violence exposure (e.g. Borowsky & Ireland, 2004), somatic symptoms may be an important indicator of this relationship. In addition, some studies have demonstrated that somatic symptoms are correlated with both witnessing and being a victim of community violence in samples of African American youth ages 6-13 (Bailey, Delaney-Black, Hannigan, Ager, Sokol, & Covington, 2005; Hart, Hodgkinson, Belcher, Hyman, & Cooley-Strickland, 2013). Despite these correlational studies, little is understood about the direction of this relationship as no known studies have examined the unique utility of somatic symptoms in the prediction of community violence exposure. Because high rates of somatization among urban minority youth may also underscore high rates of depression, these symptoms should be considered in the prediction of ECV for male youth of color.

Risky and Delinquent Behavior as a Mediator

Given the aforementioned literature, it is hypothesized that depression, as defined by affective, somatic, and cognitive symptoms, will have a direct effect on community violence exposure. Specifically, a direct effect is defined as the sensitivity of the dependent variable (ECV) to changes in the independent variable (depression) while holding other variables in the model constant (Pearl, 2005). Although it is possible that depression might have a direct link to community violence exposure, there may also be an indirect effect of depression on ECV. Indirect effects occur when a predictor has an effect on a dependent variable through one other intervening variable, or mediator (Preacher & Hayes, 2008). One possible intervening variable for depression and ECV in male youth of color may be delinquent behaviors. Specifically, engagement in risky and

delinquent behaviors may mediate the relationship between depression and community violence exposure.

For the proposed relationship between the mediator (delinquent behavior) and the outcome (ECV), the literature has overwhelmingly demonstrated that engagement in risky and delinquent behaviors is predictive of increased ECV. For example, one study of a sample of underserved youth ranging in age from 7 to 12 found that teacher reported externalizing behaviors uniquely predicted higher levels of witnessing community violence and victimization a year later even when controlling for relevant demographic factors, previous maltreatment and violence exposure status (Lynch & Cicchetti, 1998). Similar studies have examined the role of delinquency in the prediction of violence exposure, particularly victimization. One study of youth ages 11 to 17 found that youth who engaged in delinquent behaviors such as theft, vandalism, or assault were 2-3 times more likely to be the victim of a future violent assault (Lauritsen, Laub, & Sampson, 1992). It has been hypothesized that an ecological-transactional model may help to explain this phenomenon such that youth who demonstrate externalizing symptoms may be engaging in more dangerous and risk-taking behaviors, which subsequently exposes them to more community violence (Lynch & Cicchetti, 1998; Lynch, 2003).

For the proposed relationship between the independent variable (depression) and the mediator (delinquent behavior), research has also suggested that depression may have an effect on the engagement in risky behaviors. Specifically, studies of adolescents ages 11-17 have found that early depressive symptoms increased risk for future delinquent behaviors and these results were present based both on self-reported behaviors and a more objective measurement of court adjudication for juvenile delinquency (Kofler,

McCart, Zajac, Ruggiero, & Saunders, 2011; Mallett, Stoddard, & Seck, 2009). The reverse relationship (i.e., delinquency predicting future depression) does not prove to be as strong and depression had a more significant impact on future delinquency for urban males ages 13-17 (Beyers & Loeber, 2003). Indeed, some researchers theorize that youth engagement in externalizing and aggressive behaviors may be a method of coping with distress related to depression, which can in turn increase exposure to violence (Lambert, Nylund-Gibson, Copeland-Linder, & Ialongo, 2010).

The Current Study

The research has overwhelmingly demonstrated that urban males of color from low-income urban communities are disproportionately impacted by community violence exposure in the United States (Voisin, 2007). Although substantial strides have been made in determining factors that may buffer the negative outcomes following community violence exposure, it is important to examine factors that may prevent ECV from occurring in the first place in order to better inform prevention efforts. Although demographic factors have been identified that put youth at increased risk for community violence exposure, person-based analyses have demonstrated that there is still significant variability in levels of violence exposure, even among these high risk populations (O'Donnell, Schwab-Stone, & Muyeed, 2002; Gaylord-Harden, Dickson, & Pierre, 2015). For this reason, examining individual, psychological, factors that may serve a predictive role is especially important. Although the literature on externalizing behaviors is more established, research suggests that depressive symptoms specifically may be particularly relevant in the prediction of ECV. Depressive symptoms are highest during adolescence (Cicchetti & Toth, 1998), marking adolescence as a key developmental

period to examine the role of depression as a determinant of violence exposure in male adolescents of color. Despite this, no known study to date has examined the longitudinal relationship between depressive symptoms and future community violence exposure.

Therefore, the primary objective of the current study is to understand the role of various components of internalizing symptomatology in contributing to the prediction of future ECV and identifying the mechanisms of this relationship. Specifically, whether there is a direct or indirect effect of internalizing symptoms on future ECV. Some research suggests that depressive symptoms could make an individual appear weak, which in turn increases their likelihood of being victimized (Sweeting, Young, West, & Der, 2006; Meier & Meithe, 1993) and subsequently witness or be the victim of community violence exposure. On the other hand, some theorists suggest that feelings of hopelessness and worthlessness may lead youth to engage in more reckless and risky behavior due to a lack of self-worth or caring about their future and what happens to them (Bolland, 2003), which in turn may increase their risk for exposure to community violence.

The current study will examine competing longitudinal models in an attempt to accurately characterize the relationship between depressive symptoms and community violence exposure in youth. Six-month time points will be utilized in order to best understand the transactional relationship between these variables. Examining factors that may serve to distinguish which youth are at increased risk for ECV may serve as an important step in the prevention of community violence exposure. Specifically, individual, psychological factors may be malleable aspects of intervention that can be targeted early on in an attempt to *prevent* community violence exposure from occurring

in the first place. Model 1 (see Figure 1) will test whether depression symptoms have a direct effect on future community violence exposure above and beyond the effect of prior levels of ECV. Model 2 (see Figure 2) will test whether depression symptoms have an indirect effect on community violence exposure and whether this relationship is mediated by the engagement in delinquent and risky behaviors.

Figure 1. Hypothesized relationship between Time 1 depression and Time 3 community violence exposure
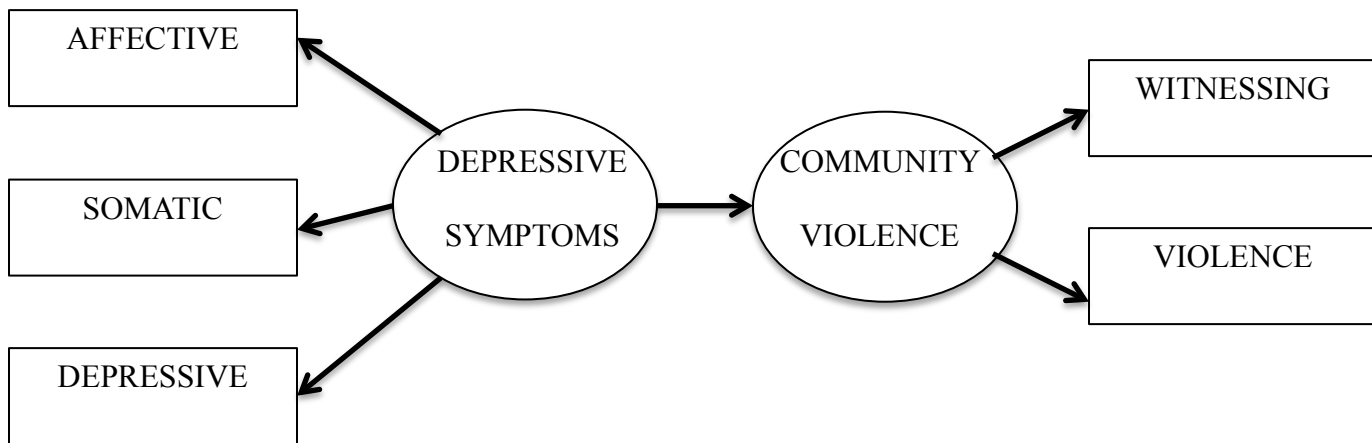
Figure 2. Hypothesized relationship between Time 1 depression, Time 2 risky behavior, and Time 3 community violence exposure
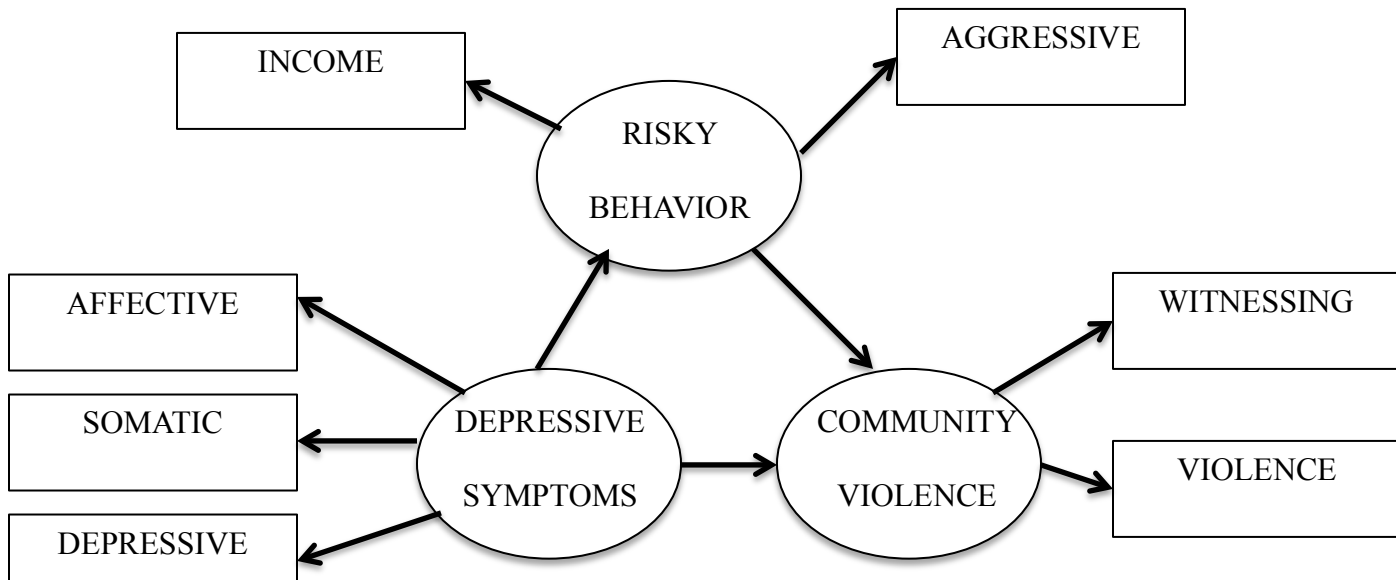
Research Questions and Hypotheses

The current study examined the following hypotheses:

Hypothesis 1: Depression is a latent construct composed of three factors: depressive affect, somatization symptoms, and depressive cognitions.

Hypothesis 2: In Model 1 (Figure 1), higher depression at time 1 would predict higher levels of community violence exposure at time 3, controlling for community violence exposure at time 1 (and relevant demographic variables).

Hypothesis 3: In Model 2 (Figure 2), the relationship between depression at time 1 and community violence exposure at time 3 would be mediated by engagement in risky behaviors at time 2, controlling for community violence exposure at time 1 and risky behaviors at time 1. Specifically, higher depression at time 1 would predict more delinquent behavior at time 2, which in turn, would predict more ECV at time 3.

CHAPTER THREE

METHODS

Participants

Data for the current study were derived from The Pathways to Desistance Study (Schubert et al., 2004), a larger longitudinal study of adolescents who had committed a serious criminal offense in Philadelphia and Phoenix. This multi-site study intended to follow juvenile offenders as they moved through the juvenile justice system and into adulthood while evaluating developmental and psychosocial factors that may contribute to engagement in antisocial behaviors. Youth were eligible for the study if they were between the ages of 14 and 17 and had been found guilty of a serious criminal offense. Court records were reviewed to determine eligibility for enrollment. Enrollment of male drug offenders was intentionally limited and only comprised 15% of participants in order to prevent over-representation of this population. Initial study recruitment occurred between November, 2000 and January, 2003 and 67% of approached youth were consented and participated in the study.

The study recruited a total of 1,354 youth but the current analyses are restricted to include male offenders only, as the overall sample only contained a small percentage of females (13.6%). Additionally, all youth who had been incarcerated at some point during the study were excluded from analyses. This is due to the unique psychological characteristics and increased prevalence of mental illness among incarcerated youth

compared to non-incarcerated youth (e.g. Fazel, Doll, & Langstrom, 2008; Atkins

et al., 1999). Of those youth who had never been incarcerated during the duration of the

first year of the study, European American youth were excluded. Research has

demonstrated higher rates of violence exposure among African American and Hispanic

youth, even when controlling for socioeconomic status, suggesting that minority youth

may possess unique, individual level risk factors when compared to European American

youth, underscoring the importance of examining this phenomenon in this population

uniquely (Crouch, Hanson, Saunders, Kilpatrick, & Resnick, 2000). Only the baseline, 6

month, and 12 month time points were utilized in the current analyses to restrict the focus

to adolescents specifically. Youth were included in the study if they had complete data at

all three time points. The current study utilized a sample of 184 youth. This subset of

participants self-identified as 39.7% African American, 52.7% Hispanic, and 7.6% other.

Youth ranged in age from 14 to 18 at the time of baseline data collection ($M = 15.92$, SD

$= 1.19$), 14 to 19 at the 6 month timepoint ($M = 16.47$ $SD = 1.20$) and 15-19 at the 12

month data collection ($M = 16.93$, $SD = 1.19$).

Procedure

Parental consent was obtained for all youth under 18 years of age and youth

assent was provided for all participating youth over 18 at the baseline assessment.

Interviews took place either at a justice facility, the home of the participant, or in a public

place. Trained interviewers collected data through computer-assisted interviews in which

they read each item aloud to the participant. Additional information was obtained from

collateral informants (parents or peers) and official record information (e.g. arrest

records). After the initial interview, follow-up assessments were conducted every 6

months for 3 years, then for 3 subsequent annual interviews spanning a total of 84 months post baseline. Additional information about study methods and recruitment can be found in Schubert et al., (2004). Attrition rates were low, with 92% of the sample having full data at the 12-month time point.

<div align="center">**Measures**</div>

Demographics.

A variety of demographic information from the Pathways data will be used, including information regarding family structure, age, ethnicity, and gender of the participant, and household composition. In addition, youth reported on the proportion of time they spent living in the community versus a security facility such as a jail or prison in the recall period (i.e. the 6 months since the prior data collection). This variable was used to select youth who had never been incarcerated during the study period.

Exposure to Violence.

Exposure to community violence will be assessed using an adaptive version of the Exposure to Violence Inventory (ETV, Selner-O'Hagan, Kindlon, Buka, Raudenush, & Earls, 1998). Questions assess whether or not youth have experienced varying violent incidents. Six questions assess victimization (such as "Have you ever been chased where you thought you might be seriously hurt"), and seven items evaluate experiences of witnessing violence (e.g. "Have you ever seen someone else being raped, an attempt made to rape someone or any other type of sexual attack"). A total victimization and total witnessing scale were computed that represents the count of items endorsed. Cronbach's alpha in the study was adequate at the three utilized time points ($\alpha = .67, .75, .74$, respectively).

Depressed Affect and Somatization.

Depressive and somatization symptoms will be assessed using the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983). The BSI is a 53-item questionnaire that assesses participant experiences of being bothered by psychological symptoms on a five-point scale ranging from 0 (not at all) to 4 (extremely). The questionnaire is comprised of nine subscales, and the depression and somatization subscales were utilized in the current study. The Depression subscale contains 6 items assessing depressive symptoms such as "Feeling blue" and "Feeling no interest in things." Conbach's alpha in the study was good at all three time points (α = .81; .79; .82, respectively). The somatization subscale was also used, which contains 7 items such as "Feeling weak in parts of your body" and "Nausea or upset stomach." Cronbach's alpha for the somatization scale was acceptable at all three timepoints (α = .81, .79, .83, respectively). The current study utilizes the mean score of the individual items that comprise each scale.

Future Perceptions.

Perceptions and hope for the future will be measured using an adapted version of the Perceptions of Chances for Success Measure (Menard & Elliot, 1996). The 14 question measure assesses both aspirations and expectations for the future in relations to work, family and the law. Higher scores indicate greater optimism toward future opportunities for success. Three scores are computed, one for aspirations for the future (e.g. "how *important* is it for you to have a good job or career"), one for expectations for the future (e.g. how *likely* are you to graduate from college"), and the extent to which the expectations fall short of the aspirations. The current study utilized the expectations for

the future subscale and internal consistency in the sample was adequate (α = .84, .85, .87).

Hope for the future will also be assessed using the Motivation to Succeed measure adapted from Eccles et al. (1998). This measure contains 6 items that assess the youth's perception of opportunities available to them with items such as "There is not as much opportunity to succeed as kids from other neighborhoods" and "My chances of getting ahead/being successful are not very good." Higher scores represent more optimism for future success. An additional 2 items assess how far the youth would like to go in school and how far they think they will go to school. Internal consistency in the sample was acceptable. For baseline, Cronbach's α = .65 for 6 month α = .67, and for 12 month α = .71.

Risky Behaviors.

Risky and delinquent behaviors will be assessed using the Self-Reported Offending measure (SRO; Huizinga, Esbensen, & Weiher, 1991). This 24-item measure assesses adolescent's account of their involvement in illegal and antisocial activities with questions such as "carried a gun" or "drove drunk or high." Given that 2 of the items were introduced into the study after the first data collection had already been conducted, only 22 of the items were used in the current study. Although participants gave information both on whether or not they had engaged in the behavior and how frequently, the total variety of offenses endorsed will be utilized in the current study, given that research has demonstrated variety scales are a more reliable and valid way to measure offending than self-reported frequency (Sweeten, 2012).

CHAPTER FOUR

RESULTS

Preliminary Analyses

Preliminary analyses were conducted in order to determine whether any of the variables of interest differed by age or race/ethnicity. The results of one-way ANOVAs revealed that somatization symptoms at time 1 (F [2, 159] = 4.233, p =.016) differed by race/ethnicity such that youth who identified as an other racial group reported higher levels of somatization than black youth (MD = -.369). Levels of witnessed violence at time 3 (F [2,181] = 4.066, p = .019) also differed significantly such that black youth witnessed more violence than Hispanic youth (MD = .580), and levels of violence victimization at time 3 (F [2, 181] = 6.987, p = .001) differed significantly such that youth who identified as an other racial category were more likely to victimized than Black and Hispanic youth (MD= -.605, MD =-.570). Additionally, the results of bivariate correlations indicated that levels of T1 ECV, T1 risky and delinquent behavior and T1 depressive affect differed significantly by age such that older youth reported higher levels of these variables (r = .253, p = .001; r = .196, p = .008; and r = .222, p = .004, respectively). Race/ethnicity and age were entered into the models as control variables in the subsequent analyses.

In order to assess whether the items on the Perceptions of Chances for Success Measure and the Motivation to Succeed Measure were similarly representing the

33

construct of depressogenic cognitions, a one-factor measurement model was tested using Confirmatory Factor Analysis in Mplus version 7.11. Seven items from the Perceptions of Chances for Success Measure and six items from the Motivation to Succeed Measure were tested together in the hypothesized one-factor model. Results demonstrated poor model fit (χ^2 (65) = 224.458, p < .001; CFI = 0.633; TLI = 0.560; RMSEA = 0.115; SRMR = 0.106). Examination of the standardized model results revealed that all 6 items on the Motivation to Succeed Measure were a poor fit to the model (p values ranging from .09 to .63), whereas the 7 items on the Perceptions of Chances for Success Measure demonstrated acceptable model fit (p values ranging from <.001 to .03). Given this, a second one-factor measurement model was run after removing the 6 Motivation to Succeed Items. Results demonstrated acceptable model fit for the items on the Perceptions of Chances for Success Measure (χ^2 (14) =35.321, p = .001; CFI = 0.923; TLI = 0.885; RMSEA = 0.09; SRMR = 0.057) and these 7 items were retained to represent depressogenic cognitions for the remaining analyses.

Descriptive Analyses

Means, standard deviations, and bivariate correlations among study variables are presented in Table 1. Notably, results indicated that T1 depressogenic cognitions were not significantly correlated with T1 depressive affect or T1 somatic symptoms. Additionally, while T1 somatic symptoms were significantly correlated with T3 ECV, depressive affect and depressogenic cognitions were not significantly correlated with T3 ECV. Finally, T1 and T2 risky/delinquent behavior were highly correlated with T1 and T3 ECV.

Table 1. Bivariate correlations of the study variables and descriptive statistics (n = 184).

	1	2	3	4	5	6	7
1. T1 Somatic Symptoms							
2. T1 Depressive Affect	.541**						
3. T1 Depressogenic Cognitions	-.048	-.068					
4. T1 Risky Behavior	.188*	.262**	-.210**				
5. T1 ECV	.350**	.395**	-.068	.580**			
6. T2 Risky Behavior	.158*	.158*	-.147*	.504**	.355**		
7. T3 ECV	.175*	.080	-.138	.202**	.340**	.310**	
Mean	.256	.308	4.466	.252	4.53	.050	1.08
SD	.492	.495	.523	.180	2.78	.092	1.69

*p < .05; **p < .001

Hypothesis 1

In order to test Hypothesis 1, which states that depression is a latent construct composed of the three indicator variables depressive affect, somatization symptoms, and depressogenic cognitions, a one-factor measurement model was tested for depressive symptoms using confirmatory factor analysis (CFA) with Mplus Version 7.11 (Muthen & Muthen, 2010). The three constructs (depressive affect, somatic symptoms, and depressogenic cognitions) were added into the model. A maximum likelihood estimate was used and all parameters were freely estimated. Multiple fit indices were examined. First, the likelihood ratio test, or χ^2 index which assesses the level of discrepancy between

the sample and fitted covariance matrices (Hu & Bentler, 1999). Additionally, the comparative Fit Index (CFI) was examined which is a measure of comparative or incremental fit that takes sample size into account (Hu & Bentler, 1999; Hooper, Couglan, & Mullen, 2008). Finally the standardized root mean square residual (SRMR), which is a measure of a model's absolute fit (Hu & Bentler, 1999) and the RMSEA (Stieger & Lind, 1980), which is an index for fit that adjusts for model parsimony (MacCallum et al., 1996). Results indicated that the latent variable covariance matrix was not positive definite, which likely indicates a negative residual variance for a latent variable, a correlation greater or equal to one between two latent variables, or linear dependency among more than two latent variables. This pattern of results is often referred to as an improper solution or a Heywood case (Kolenikov & Bollen, 2012). Examination of the output revealed that depressive affect had a negative residual variance (-0.41, $p =$ .76), which was likely contributing to the not positive definite covariance matrix.

There is no single cause for a Heywood case, but a multitude of possible reasons this might occur include non-normal data, model misspecification, or a small sample size (Kolenikov & Bollen, 2012; Bollen, 1987). In order to address the possibility of non-normal data, the univariate normality of the data was examined and no significant outliers were identified. Skeweness and Kurtosis were also examined, and results indicated that T1 depressive affect was significantly positively skewed (Skewness = 2.26, SE = .190) and leptokurtic (Kurtosis = 5.862, SE = .378), which could have been a possible reason for the Heywood case. Regarding sample size, supplementary analyses were conducted utilizing the full sample (including youth who had been incarcerated at some point throughout the study) and this still resulted in a Heywood Case. Regarding model

misspecification, the automatically fixed indicator of the latent variable was

considered, and three possible solutions were attempted in follow-up models, including

constraining the variance of the latent factor at 1 and freeing all factor loadings, selecting

another variable as the referent factor loading and fixing the variable at 1, and

constraining the residual variance of the Heywood Case at 0. These solutions continued

to result in a Heywood Case, but given that none of the other diagnostic analyses

produced a solution, it is likely that another type of model misspecification is driving the

error. Despite the presence of the Heywood case, the remainder of analyses was

conducted in order to complete the testing of hypotheses.

Hypothesis 2

In order to test Hypothesis 2, which stated that higher depression at time 1 would

predict higher levels of community violence exposure at time 3 while controlling for

ECV at time 1 and relevant demographic variables, Structural Equation Modeling (SEM)

was conducted (See Figure 1). A full latent variable model was conducted in Mplus

Version 7.11 (Muthen & Muthen, 2010). A maximum likelihood estimation was use. The

correlations between the covariates (race/ethnicity and age) were fixed at 0 and all other

variables were freely estimated. The same fit indices were used as Hypothesis 1 including

the likelihood ratio test, the comparative fit index, the standardized root mean square

residual, and the root mean square error of approximation. Results indicated poor model

fit (χ^2 (19, N=184) = 52.39, $p < .001$; CFI = 0.901; RMSEA = 0.098; SRMR = 0.055).

The poor model fit is likely due to the aforementioned Heywood case. In addition, the

paths leading from the hypothesized independent factors in the model to the hypothesized

dependent factors in the model were examined to ensure that they were in a direction

consistent with the hypothesized relationship. Results indicated that the latent

independent variable did not have a significant direct relationship to the dependent latent

variable (R^2 = -0.179, p = 0.271). For this reason, the direct model was rejected as the

best fit to the data.

<div align="center">**Hypothesis 3**</div>

In order to test Hypothesis 3, which predicted that the relationship between

depression at time 1 and ECV at time 3 would be mediated by engagement in risky

behaviors at time 2, while controlling for time 1 ECV, time 1 risky behavior, and relevant

demographic factors, Structural Equation Modeling (SEM) with bootstrapping (Shrout &

Bolger, 2002) was utilized (See Figure 2). Results indicated poor model fit (χ^2 (57, N =

184) = 205.63, p < .001; CFI = 0.779; RMSEA = 0.119; SRMR = 0.116). Bootstrapping

techniques were used to test the significance of the indirect effects and results indicated a

significant indirect effect given that the confidence interval does not contain zero (95%

CI = 0.010-0.29 based on 1,000 bootstrapped samples). Given the poor model fit, the

model was rejected.

<div align="center">**Alternative Method**</div>

The direct and mediation models in Hypotheses 2 and 3 were additionally tested

using regression analysis in SPSS Version 22.0. In order to test the direct model,

hierarchical linear regression was used. Table 2 presents the full results of the model.

Results indicated that when controlling for age, ethnicity, and Time 1 ECV, Time 1

depressive cognitions significantly predicted Time 3 ECV (t [161] = -2.123, p = .035)

such that lower levels of hope for the future predicted higher levels of future ECV.

Table 2. Hierarchical linear regression predicting Time 3 community violence exposure.

Model		b	SE	β	t	p
1	T3 ECV[a]					
	Intercept	.834	1.798		.464	NS
	Age	-.037	.111	-.026	-.330	NS
	Ethnicity	-.038	.205	-.014	-.187	NS
	T1 ECV	.210	.047	.348	4.469	**
2	T3 ECV[b]					
	Intercept	2.074	2.042		1.016	NS
	Age	.054	.114	.038	.470	NS
	Ethnicity	-.123	.210	-.045	-.587	NS
	T1 ECV	.201	.051	.333	3.925	**
	T1 Somatic Symptoms	.543	.319	.158	1.700	NS
	T1 Affective Symptoms	-.613	.320	-.178	-1.918	NS
	T1 Depressive Cognitions	-.529	.248	-.160	-2.123	*

[a]$R^2 = .117$, $\Delta R^2 = .117$; [b]$R^2 = .162$, $\Delta R^2 = .046$; *$p < .05$; **$p < .001$

Notably, the findings in the regression model for depressive affect were not as expected, such that there was a marginally significant *negative* relationship between T1

depressive affect and T3 ECV (β = -.613, p = .057) despite the fact that the bivariate

correlation between T1 depressive affect and T3 ECV was positive (r[162] = .080, p =

.308). This reversal in signs between the bivariate correlations and the regressive

coefficients is suggestive of a negative or net suppression effect (Conger, 1974;

Darlington, 1968). Suppression occurs when a second predictor contributes to the

regression equation indirectly by accounting for error variance in the first predictor. By

removing error variance, it enhances the ability of the first predictor to explain criterion

variance. Specifically, the suppressor variable controls for (suppresses) the irrelevant

variance in the other predictor variables (variance it shares with the predictor), thereby

causing the regression coefficient of the other predictor to be larger than it is when the

suppressor is not in the model (Cohen, Cohen, West & Aiken, 2003; Conger, 1974). If the

final beta weight of the suppressor variable is of opposite sign from its correlation with

the criterion, as in the case of depressive affect in the current sample, it is a net or

negative suppressor (Conger, 1974; Darlington, 1968). In this situation, the other

predictor's beta weight exceeds its correlation with the criterion (Cohen et al., 2003). In

other words, the sign of the suppressor variable changes in its prediction of the outcome

in the opposite direction, and the predictive validity of another variable in the model

increases. In the current sample, it appeared that three possible suppressor situations may

be occurring in the prediction of T3 ECV: 1) T1 depressive affect and somatization, 2)

depressive affect and depressogenic cognitions, and 3) the control variable of T1 ECV

depressive affect. Sobel tests were conducted using the unstandardized coefficients and

results indicated that there was a significant net suppression effect for T1 depressive

affect on T1 ECV in the prediction of T3 ECV ($z = 3.323$, $p = 0.001$). Table 3 presents

the results of the regression equation that demonstrated a significant suppressor effect.

Table 3. Suppressor effect in the prediction of T3 ECV

Equation		b	SE	β	t	p
1	T1 ECV	.206	.042	.340	4.877	**
2	T1 ECV	.226	.050	.366	4.529	**
	Depressive Affect	-.225	.282	-.064	-.796	NS

**$p < .001$

In order to test for mediation effects, three separate mediation models were

conducted using hierarchical linear regression: one for T1 depressogenic cognitions as a

predictor, one for T1 depressive affect as a predictor, and one for T1 somatic symptoms

as a predictor. Results indicated that, when controlling for age and race/ethnicity, T1

ECV, and T1 risky and delinquent behavior, T2 risky and delinquent behavior did not

significantly mediate the relationship between T1 depressogenic cognitions (Sobel = -

0.573, p = 0.56), T1 depressive affect (Sobel = 0.001532, p = 0.99) or T1 somatic

symptoms (Sobel =0.396, p = 0.69) in the prediction of T3 ECV. See Table 4. In

addition, the PROCESS macro for SPSS (Hayes, 2015) was also used. Again, three

individual models were tested using the mediation command. Results controlled for T1

ECV, T1 risky behavior, age, and race/ethnicity and used a bias-corrected bootstrapped

confidence interval for the indirect effect based on the result of 10,000 bootstraps. Given

that the confidence intervals contained 0, results indicated that Time 1 affective

symptoms (Indirect effect = -.0001; SE = .0918; LLCI = -.1973; ULCI = .1822), Time

1 somatic symptoms (Indirect effect = .0260; SE = .1080; LLCI = -.1370; ULCI = .3029),

and Time 1 depressogenic cognitions (Indirect effect = 0.0386; SE = .0577; LLCI = -

.2002; ULCI = .0362) did not have a significant indirect effect on Time 3 ECV through

T2 risky behavior.

Table 4. Mediation analyses

		b	SE	β	Adjusted R^2
Step 1					
Outcome	T3 ECV	-	-	-	-
Predictor	T1 Depressive Affect	-.211	.291	-.060	.092
Step 2					
Outcome	T2 Risky/Delinquent Behavior	-	-	-	-
Predictor	T1 Depressive Affect	.00002	.015	.000	.239
Step 3					
Outcome	T3 ECV	-	-	-	-
Mediator	T2 Risky/Delinquent Behavior	4.890	1.553	.267*	-
Predictor	T1 Depressive Affect	-.210	.283	-.060	.141
Step 1		b	SE	β	Adjusted R^2
Outcome	T3 ECV	-	-	-	-
Predictor	T1 Depressogenic Cognitions	-.396	.234	-.123	.107
Step 2					
Outcome	T2 Risky/Delinquent Behavior	-	-	-	-
Predictor	T1 Depressogenic Cognitions	-.007	.012	-.040	.246
Step 3					
Outcome	T3 ECV	-	-	-	-
Mediator	T2 Risky/Delinquent Behavior	4.548	1.459	.248*	-
Predictor	T1 Depressogenic Cognitions	-.364	.228	-.113	.148
Step 1		b	SE	β	Adjusted R^2
Outcome	T3 ECV	-	-	-	-
Predictor	T1 Somatic Symptoms	.235	.288	.068	.092
Step 2					
Outcome	T2 Risky/Delinquent Behavior	-	-	-	-

Predictor	T1 Somatic Symptoms	.006	.015	.030	.242
Step 3					
Outcome	T3 ECV	-	-	-	-
Mediator	T2 Risky/Delinquent Behavior	4.501	1.531	.251*	-
Predictor	T1 Somatic Symptoms	.209	.281	.061	.135

*p< .05; **p<.001. Note: All models control for age, ethnicity, T1 ECV, and T1 risky/delinquent behavior

CHAPTER FIVE

DISCUSSION

The purpose of the current study was to understand the role of various
components of depressive symptomatology in contributing to the prediction of future
community violence exposure in ethnic minority male adolescent offenders and
identifying the mechanisms of this relationship. Hypothesis 1 posited that a latent
construct of depression would be comprised of depressive affect, somatization symptoms,
and depressogenic cognitions. Due to the presence of a negative error variance for
depressive affect, this hypothesis was unable to be examined in the current sample.
Hypothesis 2 predicted a direct relationship between depression and ECV in that higher
depression at time 1 would predict higher levels of community violence exposure at time
3 while controlling for relevant demographic variables and time 1 ECV. Inconsistent with
predictions, there was not a significant direct relationship between the latent variable of
depression and future ECV when controlling for prior ECV in this sample. However,
when examining the relationship between depression and ECV separately for the three
manifest variables that make up depression, results indicated that higher levels of
depressogenic cognitions significantly predicted more community violence exposure over
time, above and beyond demographic variables, somatic symptoms, affective symptoms,
and prior levels of ECV. Finally, Hypothesis 3 predicted an indirect relationship such that
higher depression at time 1 would predict more delinquent behavior at time 2, which in

43

turn would predict more ECV at time 3. Inconsistent with predictions, there was not a significant indirect relationship between the latent variable of depression and future ECV through delinquent and risky behaviors in the current sample.

Hypothesis 1: Examining the Construct of Depression

The latent construct of depressive symptoms as comprised of somatic, affective, and cognitive symptoms was unable to be examined in this sample due to the fact that the latent variable covariance matrix was not positive definite, which is known as an improper solution or a Heywood case (Kolenikov & Bollen, 2012). Given that the current analyses focused only on justice-involved youth who had not been incarcerated at any point throughout the length of the study, the sample size was significantly reduced from the full sample of the study. Given that small sample size is a possible contributing factor to a Heywood Case, supplementary analyses were conducted in the full sample and similar results suggest that the Heywood Case is likely not due to a sample size issue but a measurement or model misspecification. Given that the depressive affect and somatization scale were both drawn from subscales of the same measure (The Brief Symptom Inventory; Derogatis & Melisaratos, 1983), this increased likelihood of shared variance could have resulted in a measurement error.

The fact that males were asked to self-report on their symptoms of depression using a traditional measure of depression may also have contributed to measurement error, as research has demonstrated that asking males to report on traditional symptoms of depression could lead to the underreporting of depressive symptoms (Martin et al., 2013). Some research has suggested that existing measures of depression show less concurrent validity for men than for women (e.g. Berard, Boermeester, Hartman, & Rust, 1997).

This may be attributed to the concept of "male depression" (Bech, 2001; Kilmartin, 2005), which has been proposed in the literature and posits that typical symptoms of depression in men may be masked by less typical symptoms (e.g. irritability, risk taking behavior, substance abuse) that are not often considered in standard depression inventories and some patterns of criminal behavior may be reflective of a dissociative and action-oriented approach to coping with symptoms of depression (Kilmartin, 2005). Further, these patterns of responding may be especially pronounced among men who hold a fear of threatening their male identity or the stigma of being "unmale" (Leimkuhler & Paulus, 2007). Given that low-resource, urban, adolescent males often adapt hypermasculine attitudes as a reactive coping strategy to their environment (Spencer, Fegley, Harpalani, & Seaton, 2004), coupled with the fact that this is a sample of justice-involved youth, this may be especially relevant for youth in this study.

Hypothesis 2: Direct Relationship Between Depression and ECV

In support of Hypothesis 2, results demonstrated that depressogenic cognitions, specifically hopelessness towards the future, uniquely predicted future ECV above and beyond previous ECV and demographic factors. These results are consistent with some existing research. Although no known studies to date have examined the longitudinal relationship between depressogenic cognitions and future ECV, hopelessness for the future has been correlated with community violence exposure in cross-sectional studies (e.g. Ceballo, Ramirez, Hearn, & Maltese, 2003). Additionally, studies have demonstrated that hopelessness for the future is associated with engagement in multiple risk behaviors, violence perpetration, and accidental injury (Bolland, 2003), all of which are likely correlated with community violence exposure and/or victimization. It has also

been suggested that youth who do not have a positive view of their future may not be concerned with the consequences of their behavior (Stoddard, Zimmerman, & Bauermeister, 2012).

In this sample specifically, given that these youth were recently involved in the criminal justice system, some youth may have an especially negative view of their futures if they are first time offenders and now have a felony conviction on their record. These feelings of hopelessness may be especially prominent following contact with the criminal justice system and may predict behaviors that increase their risk for violence exposure. Specifically, research has demonstrated that, in Latino youth on probation, hope for the future is inversely correlated with criminal recidivism (Twyford & Sharkey, 2014). Further, when discussing future orientation, it is relevant to consider the literature on possible selves (Markus & Murius, 1986), which suggests that youth must project themselves into the future and create ideas about what they might become. For youth who have recently been convicted of a felony, their range of possible selves may be limited, resulting in less concern with the future and a higher likelihood to engage in impulsive behaviors that appear to benefit them in the present (Oyserman & Saltz, 1993; Baumann & Odum, 2012). Without feelings of hope for the future, youth may be less likely to avoid risky places or involvement with risky peers. Thus, high levels of hopelessness for the future may indeed place youth at risk for increased violence exposure.

As previously noted, the present study also revealed a complex relationship between T1 depressive affect and T1 community violence exposure such that T1 depressive affect alone was positively correlated with T3 ECV, but when T1 ECV was entered into the regression model, T1 depressive affect was negatively associated with T3

ECV. Sobel testing confirmed that this reversal in outcomes was indicative of significant negative suppression, which is a statistical effect that can occur when there is a strong relationship among predictor variables. Suppression is more likely to occur when there is a strong association between the predictor variables (Gaylord-Harden, Cunningham, Grant, & Holmbeck, 2010), in this case T1 depressive affect and T1 ECV. Conceptually, research has overwhelmingly demonstrated that youth who are exposed to violence are at increased risk for the development of depressive symptoms (Knox, Funk, Elliot, & Bush, 2000; Vermeiren et al., 2003; Hagan & Foster, 2001), and exposure to community violence uniquely predicts increases in depressive symptoms over time, even when controlling for prior symptomatology (Gorman-Smith & Tolan, 1998). Some research has also suggested that youth who are depressed are more likely to be victimized due to increased vulnerability and perceived attractiveness as a target (Cooley-Strickland et al., 2009; Reynolds et al., 2001; Attar et al., 1994; Miethe & Meier, 1994; Finkelhor &Asdigian, 1996). Further, research has demonstrated that, although victimization is often correlated with delinquency, this relationship is especially strong for males with trait depression (Manasse & Ganem, 2009). In other words, in this sample of justice-involved youth, the relationship between depressive affect and violence victimization may be especially pronounced.

However, the suppression effect noted in the current findings suggests that time 1 ECV and time 1 depressive affect are not just correlated, but that they also share a common feature. While only speculative, the shared underlying factor of low self-regard and low self-esteem among violent victimization and depressed affect may also be contributing to the common variance of these two constructs. It has been suggested that

environments full of high-stress adversity and subsequent feelings of ineffectiveness in coping with violence in the community may contribute to poor self-esteem (Lynch & Cicchetti, 1998). Growing up in these environments and being exposed to high levels of violence may lead to feelings of learned helplessness (Lynch & Cicchetti, 1998) and lead youth to feel unsure about themselves and their relationships with others (Lynch, 2003). Low self-esteem and learned helplessness are also significant components of depression (Orth, Robins, & Roberts, 2008; Seligman et al., 1984; Nolen-Hoeksema, Seligman, & Girgus, 1986). As understanding negative suppression effects can enhance the understanding of the relationships between the underlying constructs (Gaylord-Harden et al., 2010), future research should further explore the relationship between ECV and concurrent depression.

Hypothesis 3: Delinquent Behavior as a Mediator

Past research has demonstrated that hopelessness for the future is predictive of risky and delinquent behavior (e.g. Bolland, 2003). In addition, engagement in violent behavior is highly predictive of ECV (e.g. Lauritsen, Laub, & Sampson, 1992). However, no known studies to date have examined this relationship with community violence witnessing and victimization as an outcome. Inconsistent with what the literature would suggest, the current study did not find that risky and delinquent behaviors mediated the relationship between depression and ECV.

Given that this study focused on only recruiting a unique sample of youth who had just been charged with a felony, it is possible that these youth are making an increased effort to not be re-arrested within 6 months following their first arrest due to court hearings, probation, parole officers, or simply the desire to decrease delinquent behavior

following an arrest. The study utilized a timeframe of only 12 months in order to ensure

that the majority of youth in the study could still be considered late adolescents at Time

3. However, a longer time frame may have captured delinquent behaviors that were not

impacted by a recent arrest. Another explanation for the nonsignificant findings may be

the ages of participants at time 1, which ranged from 15 – 17 years of age. There may be

differences between the 15 and 17 year olds in the likelihood of delinquent behavior over

time. Specifically, research has demonstrated that while antisocial behavior tends to

begin in early adolescence, there is a marked decrease in this behavior around late

adolescence (Moffitt, 1993), so that some of the older youth in this study may have

exhibited a developmentally typical decrease in delinquent and risky behavior that is

exacerbated by the fact that they were recently involved in the juvenile justice system.

The lack of significant findings for this hypothesis could also be explained

methodologically. First, although self-report measures of delinquency and crime have

demonstrated acceptable reliability and validity for use in research (Thornberry & Krohn,

2000), specific examination of criterion validity of these measures suggests that there is

often a significant amount of either concealing or difficulty recalling past criminal

behavior and considerable underreporting is common (Thornberry & Krohn, 2000).

Further, some studies have demonstrated that, when examining objective record

information in concordance with self-report of delinquent and criminal behavior, African

American youth specifically self-report fewer offenses than are present in their criminal

histories (Hindelang, Hirschi, & Weis, 1981; Huizinga & Elliott, 1986). Given that this is

a sample comprised entirely of youth of color, this phenomenon could be occurring in

this population as well. In addition, although data in this study were collected using

computer-assisted interviews that maximized the privacy of responses and participants were assured of confidentiality and encouraged to report honestly (Schubert et al., 2004), each question was also read allowed by a research assistant, and some research suggests that there is a significant increase in the reporting of socially-accepted behaviors in interview-assisted methods (Vivo et al., 2016).

Further, the measure of risky and delinquent behavior in this sample is a self-report measure that asks youth about a significant range of behaviors. For example, "Killed someone" and "Shoplifted" are both items on the measure (Huizinga, Esbensen, & Weihar, 1991). Although asking about a wide range of behaviors tends to improve the psychometric properties of a self-report measure of delinquency (Thornberry & Krohn, 2000), it also presents some issues in differentiating distinct profiles of behavior. Given the wide span of behaviors that the measure is assessing, youth may receive a similar total score but be exhibiting vastly different profiles of engagement in risk and delinquency. In other words, two youth may score similarly on the measure, but one youth may be engaging in behaviors that are more high risk and more likely to expose the youth to community violence exposure. Future studies should utilize person-based analyses to better understand the varying trajectories of delinquency in the prediction of ECV.

Limitations and Strengths

The current study is not without limitations. First, findings from this study were based on a unique, high-risk sample of ethnic minority males involved in the criminal justice system and residing in an urban setting and may not be generalizable to other populations of youth or minority youth from other socioeconomic backgrounds.

However, nearly one third of youth are arrested at least once before they are 23

(excluding minor traffic violations; Brame, Turner, Paternoster, & Bushway, 2012), and

given the even higher prevalence of criminal justice involvement among urban, low-

income, ethnic minority youth due to factors such as concentrated economic disadvantage

and racial bias in policing and the courts, these results are still relevant for a large

percentage of urban youth (Stark, 1987). Despite this, given that the current study only

focused on males, future studies should examine the relationship between these variables

on females specifically in order to examine how these constructs operate uniquely for

these populations.

Additionally, all measures in the current study were self-report measures.

Although research has demonstrated that youth's self-report of violence exposure (e.g.

Cooley-Strickland et al., 2009) and internalizing symptoms (e.g. Abela & Hankin, 2011)

have demonstrated adequate reliability, there is still a possibility of shared method

variance. Future studies should incorporate other methods of data collection such as court

records or collateral reports to ensure a broader perspective on the variables. In addition,

the use of a binary scale to measure violence exposure may limit the understanding of the

frequency of violence exposure experienced by the youth.

In light of the limitations, the current study expands upon the current literature by

utilizing a longitudinal sample spanning three time points, allowing for a more intricate

examination of psychological symptoms and the transactional relationship between the

variables. Additionally, this is the first known study to shift the focus of ECV upstream

by examining psychological factors that predict future exposure to community violence

and may be targetable for intervention at the level of the individual. This study also

expands upon previous research by unpacking the broad construct of depression into the individual components of affect, somatic symptoms, and depressogenic cognitions in order to better understand this relationship. Further, the current study examines a unique sample of youth involved with the criminal justice system who have recently been charged with a felony. Given that research has demonstrated that violence exposure is strongly predictive of criminal, delinquent and risky behavior (e.g. Lauritsen, Laub, & Sampson, 1992), preventing future ECV in this population may also have important implications for future involvement in the criminal justice system and recidivism rates.

Implications and Future Directions

Given the finding that the presence of depressogenic cognitions or low hope and expectations for the future uniquely predicts an increased risk for violence exposure one year later regardless of age, race/ethnicity, or prior levels of ECV, this may be an important target for intervention in this high risk sample. Interventions that target families may be especially important, as some research has suggested that when African American parents take their youth outside of their high crime communities and expose them to alternative living conditions and possible realities, this may foster a sense of hope for the future in these youth (Voisin, Berringer, Takahashi, Kuhnen, & Burr, in press). Further, family involvement is critical as supportive parental relationships have been demonstrated to help underserved youth improve school self-efficacy and hope for the future (McCoy & Bowen, 2015; McCabe & Barnett, 2000) and antipoverty work-based programs targeting the parents of low-income youth have been demonstrated to impact youth orientation for the future up to 8 years later (Purtell & McLoyd, 2013). Additionally, focusing on the concept of multifinality may highlight for youth that

developmental trajectories are often discontinuous and malleable, and may help facilitate

more hope for the future (Park-Taylor & Vargas, 2012). One intervention, the Penn

Resiliency Program (Cardemil et al., 2002), which was tailored for low-income minority

children has demonstrated significant promise for reducing hopeless thoughts up to 1 year

later in Latino youth. The intervention helps youth process negative life events through

incorporating components of cognitive behavioral therapy and meaning making using

strategies such as generating lists of possible explanations for such events and

determining the most plausible explanation (Cardemil, Reivich, Beevers, Seligman, &

James, 2007). Future research should continue to inform such interventions that aim to

increase hope and expectations for the future for ethnic minority youth in underserved

communities, as these may be critical in reducing levels of community violence exposure

in youth.

APPENDIX A

SURVEY QUESTIONNAIRES

Exposure to Violence

Witness	Y	N
1. Have you seen someone else get chased when you thought they could really get hurt?		
2. Have you seen someone else get hit, slapped, punched, or beaten up? (This does not include when they were playing or fooling around).		
3. Have you seen someone else get attacked with a weapon, such as a knife or bat? (This does not include getting shot or shot at).		
4. Have you seen someone else get shot? (This does not include seeing someone shot with a BB gun or any type of toy gun).		
5. Have you seen someone else get shot at, but not actually wounded?		
6. Other than what you have already told me, have you heard gunfire nearby? (This does not include hearing gunfire while hunting or at a shooting range).		
7. Have you seen someone else get killed as a result of violence, such as being shot, stabbed, or beaten to death?		

Victim	Y	N
8. Have you been chased when you thought that you could really get hurt?		
9. Have you been hit, slapped, punched, or beaten up?		
10. Have you been attacked with a weapon, such as a knife or bat? (Again, this does not include getting shot or shot at).		
11. Have you been shot? (Again, this does not include being shot with a BB gun or any type of toy gun).		
12. Have you been shot at, but not actually wounded?		
13. Have you been sexually assaulted, molested, or raped?		

Depressed Affect and Somatization: The Brief Symptom Inventory

How often have you been bothered in the last week by…	Not at all (0)	A little bit (1)	Moderately (2)	Quite a bit (3)	Extremely (4)
Somatization					
1. Faintness or dizziness	0	1	2	3	4
2. Pains in heart or chest	0	1	2	3	4
3. Nausea or upset stomach	0	1	2	3	4
4. Trouble getting your breath	0	1	2	3	4
5. Hot or cold spells	0	1	2	3	4
6. Numbness or tingling in parts of your body	0	1	2	3	4
7. Feeling weak in parts of your body	0	1	2	3	4
Depression					
1. Thoughts about ending your life	0	1	2	3	4
2. Feeling lonely	0	1	2	3	4
3. Feeling blue	0	1	2	3	4
4. Feeling no interest in things	0	1	2	3	4
5. Feeling hopeless about the future	0	1	2	3	4
6. Feelings of worthlessness	0	1	2	3	4

Future Perceptions: Perceptions of Chances for Success

How important is it for you to…	Not at all important (1)	Not too important (2)	Somewhat important (3)	Pretty important (4)	Very important (5)
1. Have a good job or career	1	2	3	4	5
2. Graduate from college	1	2	3	4	5
3. Earn a good living	1	2	3	4	5
4. Provide a good home for your family	1	2	3	4	5
5. Have a good marriage	1	2	3	4	5
6. Have a good relationship with your children	1	2	3	4	5
7 Stay out of trouble with the law	1	2	3	4	5

What do you think your chances are to…	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)
1. Have a good job or career	1	2	3	4	5
2. Graduate from college	1	2	3	4	5
3. Earn a good living	1	2	3	4	5
4. Provide a good home for your family	1	2	3	4	5
5. Have a good marriage	1	2	3	4	5
6. Have a good relationship with your children	1	2	3	4	5
7. Stay out of trouble with the law	1	2	3	4	5

Future Perceptions: Motivation to Succeed

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
1. In my neighborhood, it's pretty easy for a young person to get a good-paying, honest job	1	2	3	4	5
2. Most of my friends will graduate from high school	1	2	3	4	5
3. In my neighborhood, it's hard to make money without doing something illegal	1	2	3	4	5
4. College is too expensive for most of the people in my neighborhood	1	2	3	4	5
5. I'll never have as much opportunity to succeed as kids from other neighborhoods	1	2	3	4	5
6. My chances of getting ahead and being successful are not very good	1	2	3	4	5

Risky behaviors. Self-Reported Offending

[During recall period] have you….	Yes	No
1. Destroyed or damaged property that did not belong to you		
2. Purposely set fire to a house, building, car or vacant lot		
3. Entered or broke into a building (home or business) to steal something		
4. Stolen something from a store (shoplifted)		
5. Bought, received, sold something you knew was stolen		
6. Used checks or credit cards illegally		
7. Stolen a car or motorcycle to keep or sell		
8. Sold marijuana		
9. Sold other illegal drugs (cocaine, crack, heroin)		
10. Carjacked someone		
11. Driven while you were drunk or high		
12. Been paid by someone for having sexual relations with them		
13. Forced someone to have sex with you		
14. Killed someone		
15. Shot someone (where the bullet hit the victim)		
16. Shot AT someone (where you pulled the trigger)		
17. Taken something from another person by force, using a weapon		
18. Taken something from another person by force, without a weapon		
19. Beaten up or physically attacked somebody so badly that they probably need a doctor		
20. Been in a fight		
21. Beaten up, threatened, or physically attacked someone as part of a gang		
22. Carried a gun		

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