UNDERSTANDING THE PATHWAYS TO YOUTH INVOLVEMENT IN THE JUVENILE JUSTICE SYSTEM: A LONGITUDINAL INVESTIGATION OF POOR, INNER-CITY AFRICAN AMERICAN ADOLESCENTS

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UNDERSTANDING THE PATHWAYS TO YOUTH INVOLVEMENT IN THE JUVENILE JUSTICE SYSTEM: A LONGITUDINAL INVESTIGATION OF POOR, INNER-CITY AFRICAN AMERICAN ADOLESCENTS

DISSERTATION

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the College of Agriculture, Food, and Environment at the University of Kentucky

by

Charlene Harris
Lexington, Kentucky

Director: Dr. Alexander T. Vazsonyi, Professor of Family Sciences
Lexington, Kentucky
2015

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ABSTRACT OF DISSERTATION

UNDERSTANDING THE PATHWAYS TO YOUTH INVOLVEMENT IN THE JUVENILE JUSTICE SYSTEM: A LONGITUDINAL INVESTIGATION OF POOR, INNER-CITY AFRICAN AMERICAN ADOLESCENTS

It is widely recognized that African American youth are disproportionately represented in the juvenile justice system in comparison to other ethnic/racial groups, and this has generated a large body of research into the etiology and prevention of crime in this population. Although there has been considerable research attention to identifying and reducing the disproportionate contact among African American youth within the juvenile justice system, it is still unclear what factors contribute to their involvement in the criminal justice system. Accordingly, the dissertation tests whether self-reports of behaviors in early adolescence are predictive official offending behaviors in late adolescence, as measured by juvenile court data in a sample of poor, inner-city African American youth. To do so, the study uses data from a multiple-cohort longitudinal sample (N = 11,838, 49% females) of poor, inner-city African American youth, part of the Mobile Youth Survey (MYS). The dissertation consists of three related studies, which are presented in three parts; following the defense each of these three manuscripts will be submitted for peer review and publication.

The first study investigated the consistency of youth self-reports in predicting youth involvement in the juvenile justice system, as measured by juvenile court records. Specifically, this study focused on the substantive and methodological question of whether youth self-report of violence and violent victimization during early adolescence (ages 10-12 years) longitudinally foretold official offending, based on juvenile court records. The results showed that self-reported behaviors (violent victimization and violence perpetration) were predictive of subsequent juvenile offending behaviors as measured by official records. Interestingly, self-reported weapon carrying in early adolescence was not indicative of subsequent official violent offending in adolescents at age 18. Alternatively, the effects of violence perpetration, violent victimization, and weapon carrying appeared unrelated to status offenses.

The second study tested the strength of the school to prison pipeline in the African American youth sample. Recent research as well as a number of educational as well as criminal justice policies and practices in the United States (e.g., zero-tolerance policies and school disciplinary codes) provided evidence that minority youth, in particular, are “pushed from the school and into prison.” Subsequently, this second study evaluated the strength of the school to prison pipeline framework, by testing whether the predictive strength of school disciplinary actions (expulsion and suspension) in early adolescence (ages 10-11) predicted subsequent offending at age 18, as indicated by juvenile court records; also testing the potentially ameliorating or exacerbating effects of the family environment (monitoring and permissiveness) on the link between school offenses and juvenile court records (moderation effects). The findings showed that school disciplinary actions (expulsion and suspension) in early adolescence was indicative of juvenile court
referrals in late adolescence. Similarly, parental permissiveness was predictive of juvenile court referrals. Interestingly, the results provided no evidence to support the moderating effects of both parenting measures (monitoring and permissiveness) on the link between school disciplinary actions and juvenile offending in the sample.

Finally, the third study examined the direct and indirect effects of self-reported behaviors on subsequent official offending. In particular, the study tested whether explosive anger among youth in early adolescence (age 10) predicted juvenile court contact, measured by juvenile court referrals and two measures of offending, measured by status offenses and, violent offenses in late adolescence (age 18). Direct effects of explosive anger on juvenile court referrals and offending behaviors were not significant. However, indirect effects showed that the effect of explosive anger on juvenile justice contact (measured by juvenile court referrals) through violent victimization, violence perpetration, and, weapon carrying was significant. Furthermore, the indirect effect of explosive anger on violent offenses through weapon carrying was significant in the model. These findings provided support for the mediating effects of explosive anger on juvenile justice contact through violent victimization, violence perpetration, and weapon carrying, as well as the mediating effects of explosive anger on violent offenses through weapon carrying. No indirect effects of explosive anger were found for status offenses.

KEYWORDS: adolescents, African American, juvenile justice, official data, self-reports

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UNDERSTANDING THE PATHWAYS TO YOUTH INVOLVEMENT IN THE JUVENILE JUSTICE SYSTEM: A LONGITUDINAL INVESTIGATION OF POOR, INNER-CITY AFRICAN AMERICAN AMERICAN ADOLESCENTS

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DEDICATION

For my family
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As for Dominique, you were a silent committee member. Your statistical knowledge has helped me throughout the past year. Thanks for having patience to answer my questions. Jakub, your statistical knowledge is also appreciated. Equally important in this journey, were my friends and colleagues, who provided me with words of encouragement and support throughout my program; this has not gone unnoticed. You all are my family away from home.
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Chapter 1: Introduction

The overrepresentation of African American youth in the juvenile justice system is a major issue of concern in the United States, more than in any other country because African American youth account for a total of 16% of the adolescent population yet make up nearly 40% of incarcerated youth (United States Department of Education, 2012). Due to the high rate of incarceration among African American youth, many studies have attempted to explain the disparate rates of African American youth contact with the juvenile justice system. Previous criminological studies have provided a variety of explanations for the disparity in African American youth contact with the juvenile justice system, including socioeconomic status, family structure as well as environmental or neighborhood characteristics (see Kakar, 2006). There is also convincing scholarship of both systematic, as well as non-systematic, discriminatory practices in the juvenile justice system which add to the disparate African American youth arrests and incarceration.

Despite existing research on the disproportionate minority contact,¹ the pathways to juvenile justice contact is not clearly understood in African American populations. Most of the literature focuses on predominantly European American samples, with limited empirical work conducted on African American samples. Additionally, research on African American youth has largely focused on high-risk samples living in largely northern urban areas of the United States and limits its generalizability to youth in rural or non-metropolitan areas. To add to this empirical knowledge, as well as to provide a context for understanding such factors as contextual effects, the present study utilized a multiple cohort sample of non-metro, impoverished African American adolescents living

¹ The overrepresentation of minority groups, such as African American youth in the juvenile justice system
in the Southern United States. The dissertation consists of three studies, presented in a format of three-related manuscripts. These studies were similar, in that each study utilized self-reports to predict official offending, measured by official juvenile court records. The three studies investigate the pathways leading to African American youth juvenile justice contact, with a consideration of violent victimization/perpetration, weapon carrying, parenting strategies, school disciplinary actions as well as poor emotional regulation, measured by explosive anger. Each of these three manuscripts will be submitted for peer-review and publication.

Chapter 2 introduces the first manuscript entitled, *The Efficacy of Early Adolescent Self-reported Violence in Predicting Status and Violent Offenses*. A number of criminological studies have examined the relationship between self-report and official data and provided conclusive evidence that youth self-reports are predictive of official offending records. To further elucidate this relationship, the study investigated whether self-reported violent victimization, violence perpetration, and, weapon carrying in early adolescence (10–12 years old) predicted offending measured by official court records of status offense or violent offenses by age 18. The study also tested whether there existed similarities or differences in the association between youth self-reported violent victimization, violence perpetration, and weapon carrying on official offending in males and females.

The second manuscript presented in Chapter 3 titled, *Do School Disciplinary Sanctions Predict Juvenile Justice Contact?* Previous studies have examined the direct relationship between school discipline and offending; however, this study extends on existing work by not only testing for direct effects of school disciplinary actions in early
adolescence (10–11 years) on juvenile justice contact, but by also testing whether effective/ineffective parenting strategies, operationalized by parental monitoring and parental permissiveness, ameliorates or exacerbates the effects by school discipline on official offending in late adolescence. In this sense, the current study investigated the associations between self-report measures of school discipline (suspension and expulsion) and parenting processes (monitoring and permissiveness) on official records (juvenile court records) by testing these associations in a mediation model.

Chapter 4 presents the third manuscript, *Does Early Adolescent Explosive Anger Foretell Late Adolescent Juvenile Justice Contact?* The study investigated the potential direct and indirect longitudinal influence of self-reported emotional regulation (explosive anger) in early adolescence (age 10) on later juvenile offending (measured by juvenile court referral, violent offending, and status offenses) at age 18. Overall, the combined focus of this dissertation is to understand whether negative emotional and environmental factors increase the risk for African American youth contact with the juvenile justice system.

Lastly Chapter 5 highlights the main results from each of the three manuscripts and implications for these findings. It is the expectations that each of the three studies provide a helpful look into identifying potential precursors to juvenile justice contact in a non-metropolitan, inner-city sample of African American adolescents.
Chapter 2: The Efficacy of Early Adolescent Self-reported Violence in Predicting Status and Violent Offenses

Most of what we know related to youth offending is based on self-reports from adolescents (Broidy et al., 2003; Canter, 1982; Crockett, Schulenberg & Petersen, 1987; Farrell, Kung & White, 2000; Williams & Dunlop, 1999), although a considerable number of studies have utilized both self-reports and official records to assess for offending behaviors and produced mixed findings. Previous studies have found moderate to strong agreement between self-reports and official data. The findings from these studies suggest that youth with official records of police arrests also self-reported arrests.

Although these findings suggest agreement and congruence between self-reports and official records in predicting offending, the association remains poorly understood in minority populations in particular. In fact, few studies focused on ethnically or racially homogenous minority samples remain both rare in number as well as mixed in findings. Thus, in order to add to this knowledge base, this study assessed the predictive strength of the effects of three self-reported measures (violent victimization, violence perpetration, and weapon carrying) during early adolescence on subsequent criminal offending measured by official juvenile court records during late adolescence. Although other studies have found agreement between self-reports and official data, little information is known about the predictive strength of self-reported behaviors on two different types of juvenile crimes. Thus, this study examines the self-reported behaviors that predict official offending, measured by status offenses and violent offenses. Furthermore, most of the empirical work has been conducted on non-representative community samples, with a limited number of assessment points. Thus, the current study employs a homogenous,
non-metropolitan, sample of low-income, inner-city African American youth followed over 14 years.

**Self-Reports and Official Records**

Empirical studies on both self-report and official measures of criminal behaviors have been documented extensively in both cross-sectional (e.g., Brame et al., 2004; Hindelang, Hirschi & Weis, 1979; Junger, 1989) and longitudinal studies (e.g., Dubow, Huesmann, Boxer & Smith, 2014; Pollock, Menard, Elliot & Huizina, 2015; Piquero, Schubert & Brame, 2014) over the past few decades. For the most part, these studies demonstrate a moderate and consistent association between self-reported offending and official sources of offenses. In fact, studies examining the potential association between self-reports and official data show a widespread variation in the methodology and lack of consistency, which make comparisons between studies extremely difficult.

Much of the early criminological research focused on the validity or the extent of agreement between self-reports and official data of criminal behaviors. Perhaps one of the most comprehensive assessments of self-reported and official data was conducted by Hindelang and his colleagues (1979) in a youth sample. Their study was quite extensive consisting of multiple self-reported assessments for 69-item self-report index, consisting of criminal behaviors (e.g., delinquency, drug use, offenses) and contact with police. Their findings indicated strong agreement between self-reported criminal behaviors and official contacts. In fact, they found that youth officially involved in the criminal justice system reported higher involvement in criminal behaviors based on self-reports. Similarly, using data from the National Youth Survey (NYS), an extensive investigation by Huizinga and Elliott (1986) assessed for agreement between self-reports and official
records of arrest. Altogether, these studies examined the validity between self-reports and official measures of criminal behaviors and noted a high degree of congruence or agreement between the association between self-reports and official data, thus largely validating the use of self-report methodology.

More recently, evidence from a community sample of Caucasian males followed from age 8 to 48 by Dubow et al., (2014) found moderate to high agreement between self-reports of offending and official records of arrests. In investigating the correspondence between self-reports and official records of offending across the three developmental periods (adolescence, early adulthood, and middle adulthood), Dubow et al. (2014) found that self-reports of trouble with the law and official arrests increased with age from adolescence (69%) to early adulthood (82%), but decreased in middle adulthood (70%). These findings were particularly noteworthy because the participants were not a high-risk sample, but rather a predominantly, middle-class Caucasian sample. Nonetheless, these findings were consistent with a number of previous studies (e.g., Piquero & Brame, 2008; Sampson & Laub, 2003).

Although previous studies have compared what amounts to the validity of self-reports vis-à-vis official measures of offending, little attention has been given to high-risk youth samples, which is surprising considering the importance of understanding the life-course development of high-risk offenders. Exceptions include work by Piquero and colleagues (2014) who found moderate agreement between self-reported arrests and official records of arrests over a 7-year time frame. Using a sample of 1,354 serious youthful offenders collected as part of the Pathways to Desistance Study, Piquero et al. (2014) conclude that agreement between self-reports of arrests and official data was fairly
consistent across race and gender. Similar findings from a high-risk youth sample of 330 adolescents by Babinski, Hartsough & Lambert (2001) and followed into adulthood showed moderate to strong agreement between self-reported arrests and official arrest records for multiple offenses. Even though these two studies showed agreement between self-reports of arrests and official arrest records; some researchers argue that the investigation of such relationships among high risk or serious offenders is ineffective, given that the main goal of such studies is to determine the factors that predict juvenile offending. These findings are similar to prior research in general population samples of adolescents (Hindelang et al., 1979), but contradicted findings by Farrington et al., (1996) who observed race differences in offending data. In particular, Farrington et al. (1996) found that African American offending males reported higher rates of arrest (65%) than their European American male counterparts (53%), although the overall relationships between self-reported offenses and official offenses were largely consistent across racial groups.

While the vast amount of the criminological literature focuses on the agreement between self-report and official records of arrest, as a validity issue, few studies have identified potential etiological precursors to criminal offending. For example, a number of studies have identified multiple risk factors for offending behaviors among youth. These include violent victimization, violence perpetration, and weapon carrying (e.g., Spano & Bolland, 2013). Evidence from victimization studies has identified that maltreated or neglected children have a higher risk for offending in adolescence (Forrest, Edwards & Vassallo, 2014; Kirk, 2006; Rivera & Widom, 1990; Smith & Thornberry, 1995). Similarly, a study on the effects of victimization on subsequent contact with the
juvenile justice system indicated that maltreatment or neglect in childhood increased the
likelihood of imprisonment by about 59% during adolescence (Widom, 1992). At the
same time, the study also documented that contact with the juvenile justice system was
30% higher among youth reporting maltreatment during childhood. Other longitudinal
studies found similar evidence for strong developmental effects of victimization on
subsequent violent offending. For instance, Kelley, Thornberry, and Smith (1997) noted
that 70% of child victims of abuse reported engaging in violent behavior as teenagers
compared to 56% of non-abused children.

Furthermore, empirical findings from victimization studies suggest that repeated
victimization experiences or (re)victimization in childhood increased the risk for
subsequent offending in youth, although a study by Hosser, Raddatz and Windzio (2007)
found evidence that being repeatedly victimized, in fact, slightly reduced the risk of
offending in a sample of youthful offenders. These studies provide a contextual
framework for understanding the etiology of criminal offending. Although these studies
provide evidence of individual differences, still little is known about self-reported
etiological precursors of official offending among youth. However, other studies have
assessed the relationship between self-reports and official offending using multiple
measures of offenses. For instance, using longitudinal data from the Seattle Social
Development Project among youth ages 11 and 17, Jolliffe et al. (2003) tested both the
predictive strength of self-reported delinquency for eight types of offenses, including
drug use, aggression, and property offenses and found strong associations between self-
reports and official offending. Jolliffe et al. (2003) also noted that validity tests were
highest for drug offenses.
Similarly, we know from previous studies that weapon carrying and violence perpetration provide conflicting evidence on subsequent criminal offending, which make effective conclusions difficult. One explanation for such contradictory findings is the fact that research conducted on high risk, low-income youth provides evidence that weapon carrying is related to protection because of the high rates of violent crimes in such neighborhoods (Spano et al., 2009), and thus not necessarily foreshadowing of subsequent official offenses. In the same sense, work by Cao, Cullen & Link (1997) noted that individuals living in high crime neighborhoods were more likely to respond to violent victimization by acquiring firearms for protection. Despite the high rates of violent victimization, violence perpetration, and weapon carrying in high-poverty neighborhoods, research on the long-term impact of developmentally early violence perpetration on subsequent offending is especially limited, particularly in homogenous African American adolescent samples. Thus, one of the important questions remains about whether and how self-reports of violence perpetration foretell official offending behaviors across the life course and whether these effects vary across contexts (i.e., neighborhoods). Indeed more longitudinal work is needed to evaluate the effects of violence perpetration on offending, especially among inner-city populations.

In sum, little is known about the extent to which self-reported precursors predict official offending. Thus, one main goal of the current study was to test whether early experiences are predictive of future juvenile justice contact. Next, given that previous studies were largely based on general youth samples of non-European adolescent samples, this limits the understanding of these effects in minority and high-risk populations. Thus, the present study extends prior research by attempting to assess key
developmental risk factors or precursors of subsequent criminal behaviors in a homogeneous sample of African American youth. In particular, this study asks the question, whether self-reports of violent victimization, violence perpetration, or weapon carrying in impoverished, high risk, inner-city neighborhoods during early adolescence foretell future official offending by age 18.

**The Current Investigation**

The main aim of the current investigation was to assess whether adolescents’ self-reported behaviors of violent victimization, violence perpetration, and weapon carrying predicted subsequent criminal offending measured by official juvenile court data (both status and violent offending). This study used both self-reported and official data to measure collected as part of the Mobile Youth Survey (MYS). The self-reported data are part of a longitudinal multi-cohort sample of African American adolescents followed for 14 years (1998-2011) from two cities, Mobile and Prichard, in Alabama. The official data consists of juvenile court data which includes all recorded incidents or offenses of study participants in the juvenile justice system in Mobile County, Alabama during the 1999 to 2013 period. To determine whether self-reported data were associated with official court data, the current study focused on adolescent self-reports between the ages of 10 to 12 years (collected between 1998 and 2001) and followed them through age 18 (data collected between 2002 and 2009; see Figure 1).

**Research Questions and Hypotheses**

The present study examined the relationship between self-reported and official data using three key questions based on adolescent self-reports and official juvenile court data. The first question tests whether there is an association between self-reported violent victimization and future offending behaviors (status and violent offenses) among youth.
Based on this question, it is hypothesized that youth self-reports of prior victimization (between ages 10-12) will be strongly associated with official reports of offending behaviors (measured by status offenses and violent offenses) at age 18. Though findings are mixed, prior studies have established a positive relationship between early victimization and subsequent violent offending. The second research question examines whether youth self-reports of violent behaviors (i.e., violence perpetration) increased the likelihood of subsequent reports of offending behaviors (status offenses and violent offenses). Finally, the third question examines whether adolescents’ self-reports of weapon carrying foretells future offending (status offenses and violent offenses). Given that most of the empirical evidence on the extent to which self-reported data predict offending in adolescent samples has been conducted on males almost exclusively, this current study, as a new contribution also tests these effects in females.

**Methods**

**Sample and Procedures**

*Self-reported Data*

Data were collected as part of the Mobile Youth Survey (MYS), a fourteen-year, multi-cohort, longitudinal study of African American adolescents living in high-poverty neighborhoods; data were collected annually between 1998 and 2011 (Bolland, 2003; Bolland et al., 2007; Church et al., 2012; Spano, Vazsonyi & Bolland, 2009). The study examines life-course trajectories of a variety of behaviors in adolescents, including risk behaviors (e.g. violence, alcohol use, drug use) and family factors such as family structure and individual perceptions (e.g., self-worth, future orientation and support from neighborhood) over time. Participants were recruited from their homes in public housing
and non-public housing in the city of Mobile as well as in the neighboring town of Prichard, Alabama, with participation from across 48 targeted neighborhoods. To accomplish this, the researcher randomly selected half of the public housing units with adolescents, based on housing authority data, and randomly selected half of the residential units in non-public housing neighborhoods from a census of addresses developed while walking through the neighborhoods.

Data collection took place in small group settings at local neighborhood centers (i.e., churches, schools, or Boys and Girls Clubs). Each participant received an incentive of $10 prior to 2005 and $15 in subsequent years (Bolland, 2004). In addition, to maintain the study sample, respondents were followed into new neighborhoods; nevertheless, there was considerable data loss over the 14 years of data collection. For this reason, the MYS utilized a longitudinal multiple-cohort design, where new participants were added each year (to address sample attrition) and followed over time. Thus, sample sizes vary in each cohort because of changes to the sample composition, both due to attrition as well as to new additions to the study sample.

Figure 2.1 shows the age range and the number of participants in the MYS data from 1998 through 2011. Although the MYS consists of 9 to 19-year-old adolescents, the present study focused on adolescents between the ages of 10 to 18 years. Additionally, the present study took advantage of the multi-cohort design to achieve a satisfactory sample size for this investigation by including the new participants who were added in each of the subsequent cohorts in the same age group. Thus, the sample included N = 2,052 participants (44% females; 56% males) who on average were 10.7 years of age at Time 1.
Figure 2.1. The distribution of participants by age in the MYS between 1998 and 2001

Official data

The official data were obtained from the juvenile court from a single jurisdiction (Mobile County) in the State of Alabama and consisted of reports from 1999 to 2013. The data included multiple incidences for youth who came into contact with the juvenile justice system more than once between 1999 and 2013. Each incidence was identified by participant identification number, referral year, with an accompanying date of referral,
date of petition, of offense, date of disposition, and court action date. It should be noted that all duplicate arrest reports were removed from the current analysis. The primary aim of the current study was to assess the pathways useful in understanding why youth come into contact with the juvenile justice system due to the committing an offense. The original sample selected included \( n = 2,052 \) adolescents between the ages of 10 to 12 years. Of these, \( n = 1,156 \) adolescents (56.3\%) had an official contact with the juvenile justice system between 2002 and 2009 (see Table 2.1).

Table 2.1. Sample of Adolescents from the Mobile Youth Study \((N = 2,052)\)

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**Measures**

*Demographic Characteristics*

**Age.** Adolescents were asked, “How old are you?” in the initial MYS survey. Participants’ ages ranged from 9 to 19 years of age (1 = 9 years through 11 = 19 years). The original study sample focused on participants between 10 to 12 years of age in the data; thus items were recoded and ranged from 10 to 12 years (1 = 10 years and 3 = 12 years).

**Sex.** Participants were asked to indicate their gender. Responses were given as 1 (male) or 2 (female).
**Family structure.** A single response item was used to assess adolescents’ family structure. Adolescents were asked, “Which of the following home situations best applies to you?” Responses included: 1 = parents married, 2 = parents separated or divorced, 3 = father deceased, 4 = mother deceased, 5 = both deceased, and 6 = other. For purposes of multivariate analyses, family structure was dichotomized into 1 = two parents and 0 = any other family situation.

*Self-reported measures*

**Violent victimization.** Violent victimization was measured using two items. Students were asked, “In the past year (12 months), did someone cut or stab you bad enough that you have to see a doctor?” and “In the past year (12 months), did someone shoot a gun at you?” The responses to these items ranged from 0 (No) to 2 (Yes, more than once). A single composite score of violent victimization was computed using responses from all 10 to 12 year olds from 1998 through 2001 (Time 1). The reliability coefficient for this scale was $\alpha = .48$.

**Violence perpetration.** Two items were used to assess self-report of violent behaviors. Students were asked, “In the past month, did you tell someone you were going to cut, stab or shoot them?” and “In the past month, did you pull a knife or a gun on someone else?” Responses to each of the items ranged from 0 (No) to 2 (Yes, more than once). The items were averaged to create a single measure ranging from 0–2 so that a higher score indicated higher perpetration of violent behaviors. A composite score of violence perpetration was computed for adolescents 10 to 12 years old (1998 through 2001) at Time 1. The reliability coefficient for this scale was $\alpha = .55$.

**Weapon carrying.** Two items were used to assess for adolescents’ weapon carrying. Respondents were asked, “In the past year, did you carry a knife or razor?” and
“In the past year, did you carry a gun?” The responses to these items ranged from 0 (No) to 2 (Yes, more than once). A mean score for each of the items was computed for participants 10 to 12 years old; a high score reflected increased likelihood of weapon carrying among youth. To facilitate analysis of self-reported weapon carrying across the first four years of data, a composite score of weapon carrying was computed at Time 1. The reliability coefficient for this scale was $\alpha = .59$.

**Official records**

**Offending behaviors.** Official records (retrieved from the district juvenile court records in Mobile County, Alabama) were linked to self-report data part of the main MYS data. The official juvenile court record included 93 different offense categories; however, because of a very small number of responses in some of the categories as well as low relevance in the current investigation, a number offenses were excluded. Thus, juvenile offenses were categorized into 17 main referral categories: (1) Alcohol offenses, (2) Arson, (3) Assault, (4) Burglary, (5) Children in Need of Supervision (CHINS) and/or beyond control,² (6) Criminal mischief, (7) Disorderly Conduct, (8) Domestic Violence, (9) Drugs/Possession of Controlled Substance, (10) Failure to obey police/fireman, (11) Firearm/weapon possession, (12) Harassment, (13) Loitering, (14) Motor-vehicular theft, (15) Receiving stolen property, (16) Robbery, and (17) Theft/Shoplifting. The study focused on two main outcome measures (status and violent offenses). Official violent offenses consisted of three items (i.e., assault, firearm/weapon possession, robbery) and status offenses consisted of two categories (1) CHINS/Beyond control and (2) alcohol.

² Child in Need of Supervision (CHINS) is one who has committed an act which, if that child were an adult, would not be considered a crime but is in need of care or rehabilitation, such as one who is habitually truant, disobedient to parents, or is a runaway.
offenses. Two dichotomous indicators for status and violent offenses were developed. The measures identified adolescents who were arrested for status and violent offenses and officially processed by the juvenile courts by age 18. The items for violent offenses were coded “1” for status offenses and violent offenses and “0” for non-status and non-violent offenses in the sample.

**Plan of Analysis**

Prior to the main analyses, descriptive and correlation analyses of the main study constructs were examined. Following these results, the investigation assessed the predictive strength of violence perpetration and victimization on future offending, using official juvenile court data. These were examined using a series of logistic regression models with odds ratio. To test whether the demographic variables (sex and family structure), as well as each of three predicting variables (violent victimization, violence perpetration, and weapon carrying) predicted youth offending behaviors, bivariate and multivariate logistic regression analyses were conducted. The analysis consisted of self-report data (violence perpetration, violent victimization and weapon carrying) in early adolescence (10 to 12 years) and official juvenile court data (status and violent offenses) in adolescents aged 18. Subsequent analysis was conducted to examine the association between self-reported measures on both status and violent offenses in males and females separately. All analyses were conducted using SPSS 22.

**Results**

*Self-reported Violent victimization, Violence perpetration and Weapon carrying*

Figure 2.2 shows the percentage for each of the self-reported indicators (i.e., violence perpetration, violent victimization, and weapon carrying) by sex. In all cases,
males reported higher rates of violent victimization, violent behaviors, and carrying a
weapon more than their female counterparts. This finding is comparable to previous
research findings which indicate that males are more likely than females to engage in and
report violent behaviors. However, in contrast to the existing literature, males reported
higher frequencies of violent victimization than females in the sample.

Table 2.2. Frequency of Offenses by Background Variables

<table>
<thead>
<tr>
<th></th>
<th>Status offending</th>
<th>Violent offending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-status</td>
<td>Status</td>
</tr>
<tr>
<td></td>
<td>offenses</td>
<td>offenses(^a)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>501</td>
<td>61</td>
</tr>
<tr>
<td>Females</td>
<td>383</td>
<td>89</td>
</tr>
<tr>
<td>Family structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both parents</td>
<td>89</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>767</td>
<td>133</td>
</tr>
</tbody>
</table>

\(^a\) Status offenses consisted of alcohol offenses and CHINS/beyond control \(^b\) Violent offenses consisted of consisted of assault, firearm possession, and robbery

Table 2.2 shows the frequency distribution of self-reports by offenses across
demographic characteristics (sex and family structure). Based on the distribution,
participants were less likely to live with both parents and were more likely male. The
frequency shows that violent offenses represented the largest group of offenders,
followed by status offenses. Overall, Table 2.2 shows that males were more likely to
commit either status or violent offenses than females in the given sample.
Bivariate Associations between Self-reports and Official records

Table 2.3 displays the correlations among demographic variables (sex and family structure), the self-reported measures (violent victimization, violence perpetration, and weapon carrying), and indicators of official offending (status offenses and violent offenses). Of the demographic variables, sex was significantly and positively correlated with each of the self-reported measures (violent victimization, violence perpetration, and weapon carrying). Relative to females, males were more likely to self-report violent victimization, violence perpetration, and weapon carrying. Further, the association between sex and official records showed that males were more likely to be arrested for status offenses. The correlations showed no significant relationship between sex and violent offenses. In contrast, family structure was negatively related to each of the self-reported measures (i.e., violent victimization, violence perpetration, and weapon carrying), but was only significantly associated with weapon carrying; thus youth living with two parents were less likely to report carrying a weapon than those living in other family situations. Both self-reported measures of violent victimization and violence perpetration was significantly associated with violent offenses. Violent victimization was negatively related to violent offenses; thus youth reports of prior victimization was associated with fewer violent offenses. However, violence perpetration was associated with increased violent offenses. Finally, all three self-reported measures seemed unrelated to status offending among adolescents in the sample.
status offenses (see Table 2.4; Model 1a and 1b). In fact, it appears that both background variables and early adolescent self-reports of violent victimization, violence perpetration, and weapon carrying in early adolescence appeared unrelated to official records of status offenses in late adolescence.

The results of the bivariate and multivariate logistic regression for violent offenses are presented in Table 2.4 (see Models 2a and 2b). The predictability of each of the three self-reported measures (violent victimization, violence perpetration, and weapon carrying) on violent offenses showed that adolescents who self-reported greater violent victimization, as compared to adolescents with fewer violent victimization, were almost twice as likely to commit violent offenses (OR = 1.745, \( p < .05 \), 95% CI [0.982, 3.101]). Consistent with previous work, self-reported violence perpetration in early adolescence increased the likelihood for violent offenses in late adolescence (OR = 1.657, \( p < .05 \), 95% CI [1.105, 2.484]). As was reported in the bivariate results, sex was not significant in the model, even after accounting for self-reported violent victimization, violence perpetration, and weapon carrying.

In a final step, due to the importance of sex in the analysis, the sample was disaggregated by sex and the analyses were repeated (see Table 2.5 and Table 2.6). Consistent with the findings, both self-reports of violent victimization and violence perpetration in early adolescence significantly predicted official violent offenses in late adolescence among males only. In fact, the odds ratios indicated that violence perpetration was slightly stronger in predicting official violent offenses (OR = 2.154, \( p \leq .01 \), CI = [1.110; 4.180]) than violent victimization (OR = 2.220, \( p \leq .01 \), CI = [1.331; 3.703]) in males, although no statistical test was conducted to compare the two.
Table 2.4: Bivariate and Multivariate Logistic Regression Models

<table>
<thead>
<tr>
<th>Model 1(a)</th>
<th>Model 2 (a)</th>
<th>Model 1(b)</th>
<th>Model 2 (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status Offenses Violent Offenses</strong></td>
<td><strong>Status Offenses Violent Offenses</strong></td>
<td><strong>Status Offenses Violent Offenses</strong></td>
<td><strong>Status Offenses Violent Offenses</strong></td>
</tr>
<tr>
<td><strong>Exp (b) (se) 95% CI</strong></td>
<td><strong>Exp (b) (se) 95% CI</strong></td>
<td><strong>Exp (b) (se) 95% CI</strong></td>
<td><strong>Exp (b) (se) 95% CI</strong></td>
</tr>
<tr>
<td>Sex (1 = Male)</td>
<td>Family Structure (1 = Both parents)</td>
<td>Violent victimization</td>
<td>Violence perpetration</td>
</tr>
<tr>
<td>0.732 (0.291)</td>
<td>1.773 (0.350)</td>
<td>0.992 (0.456)</td>
<td>0.992 (0.456)</td>
</tr>
<tr>
<td>0.0.732 (0.291)</td>
<td>0.773 (0.350)</td>
<td>1.992 (0.456)</td>
<td>1.992 (0.456)</td>
</tr>
</tbody>
</table>
| **Note:** All significant paths are bolded. The demographic variables (sex and family) and predictor measures (violent victimization, violence perpetration, and weapon carrying) were continuous for logistic regression analysis. **p ≤ .05; **p ≤ .01
### Table 2.5: Bivariate and Multivariate Logistic Regression Models in Males Only

#### Bivariate Logistic Regression

<table>
<thead>
<tr>
<th>Status</th>
<th>Offenses</th>
<th>Exp (b) (se)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Family Structure (1 = Both parents)</td>
<td>0.575 (.418)</td>
<td>[0.254; 1.306]</td>
</tr>
<tr>
<td></td>
<td>Violent victimization</td>
<td>2.154 (.338)*</td>
<td>[1.110; 4.180]</td>
</tr>
<tr>
<td></td>
<td>Violence perpetration</td>
<td>1.082 (.349)</td>
<td>[0.545; 2.145]</td>
</tr>
<tr>
<td></td>
<td>Weapon carrying</td>
<td>0.857 (.388)</td>
<td>[0.400; 1.835]</td>
</tr>
</tbody>
</table>

#### Multivariate Logistic Regression

<table>
<thead>
<tr>
<th>Status</th>
<th>Offenses</th>
<th>Exp (b) (se)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Family Structure (1 = Both parents)</td>
<td>0.622 (.423)</td>
<td>[0.272; 1.426]</td>
</tr>
<tr>
<td></td>
<td>Violent victimization</td>
<td>1.330 (.441)</td>
<td>[0.561; 3.155]</td>
</tr>
<tr>
<td></td>
<td>Violence perpetration</td>
<td>1.901 (.344)</td>
<td>[0.969; 3.728]</td>
</tr>
<tr>
<td></td>
<td>Weapon carrying</td>
<td>0.910 (.375)</td>
<td>[0.436; 1.899]</td>
</tr>
</tbody>
</table>

Note: All significant paths are bolded. The predictor measures (Violent victimization, Violence perpetration, and weapon carrying) were continuous for logistic regression analysis.

* p ≤ .05; ** p ≤ .01
Table 2.6. Bivariate and Multivariate Logistic Regression Models in Females Only

### Bivariate Logistic Regression Model

<table>
<thead>
<tr>
<th>Status</th>
<th>Offenses</th>
<th>Violent Offenses</th>
<th>Exp (b) (se)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 = Both parents)</td>
<td></td>
<td></td>
<td>0.916 (.467)</td>
<td>[0.367; 2.287]</td>
</tr>
<tr>
<td>Violent victimization</td>
<td></td>
<td></td>
<td>1.092 (.667)</td>
<td>[0.295; 4.038]</td>
</tr>
<tr>
<td>Violence perpetration</td>
<td></td>
<td></td>
<td>1.391 (.327)</td>
<td>[0.733; 2.639]</td>
</tr>
<tr>
<td>Weapon carrying</td>
<td></td>
<td></td>
<td>0.860 (.448)</td>
<td>[0.357; 2.068]</td>
</tr>
</tbody>
</table>

### Multivariate Logistic Regression Model

<table>
<thead>
<tr>
<th>Status</th>
<th>Offenses</th>
<th>Violent Offenses</th>
<th>Exp (b) (se)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 = Both parents)</td>
<td></td>
<td></td>
<td>0.933 (.468)</td>
<td>[0.373; 2.335]</td>
</tr>
<tr>
<td>Violent victimization</td>
<td></td>
<td></td>
<td>0.990 (.770)</td>
<td>[0.011; 8.674]</td>
</tr>
<tr>
<td>Violence perpetration</td>
<td></td>
<td></td>
<td>2.113 (.423)</td>
<td>[0.923; 4.839]</td>
</tr>
<tr>
<td>Weapon carrying</td>
<td></td>
<td></td>
<td>0.468 (.619)</td>
<td>[0.139; 1.577]</td>
</tr>
</tbody>
</table>

Note: All significant paths are bolded. The predictor measures (violent victimization, violence perpetration, and weapon carrying) were continuous for logistic regression analysis.
Discussion

The current investigation assessed the predictive strength of self-reported behaviors, namely violent victimization, violence perpetration, and weapon carrying during early adolescence on subsequent official offending, measured by juvenile court records of status and violent offenses during late adolescence. Prior studies have noted the importance of using self-reports and official data to predict offending over time; however, the majority of work has explicitly assessed self-reports and official data in cross-sectional samples, which can be problematic because this does not capture developmental changes in youth behaviors over time. As a consequence, the present study utilized self-reports and official longitudinal data based on a homogenous sample of African American residing in poverty in a non-metropolitan developmental context. It should be noted that the analyses were conducted on both aggregated (pooled) and disaggregated (males versus females) samples. Interestingly, there were notable differences in how self-reports of violent victimization, violence perpetration, and weapon carrying predicted status offenses and violent offenses among males and females; findings for each of these analyses are discussed next.

Among the three self-reported measures, only two, namely violent victimization and violence perpetration, were predictive of official violent offenses. This finding demonstrates that self-reports of violent victimization and violence perpetration during early adolescence are risk factors for violence-related offenses during late adolescence. This suggests that adolescents who experience violence, whether victimization (involuntary) or perpetration (voluntary) in early adolescence are more likely to commit violent offenses in late adolescence. This evidence is consistent with the developmental
studies of adolescents living in economically disadvantaged neighborhoods, which suggests that early violence predicts later violent behaviors (Cook & Laub, 2002). As a result, targeted interventions should pay special attention to youth at risk for either violent victimization or violent behavior during early adolescence, in an effort to break the long-term progression towards violent behaviors, as indicated by official records of violent offenses among poor youth living in an inner-city context.

Consistent with some research (Spano & Bolland, 2013), but inconsistent with other studies (Rudatsikira, Singh, Job & Knutsen, 2007), self-reports of weapon carrying among youth in early adolescence was not a significant predictor of official violence offenses in late adolescence. Although the association between weapon carrying and juvenile violence was not consistent with previous research, it is consistent with a significant body of literature, which suggest that inner-city youth are more likely to carry a weapon (gun or knife) themselves for protection. However, more research on this topic needs to be investigated in order to better understand the longitudinal association between weapon carrying and official records of violent offenses.

These present findings seem to be consistent with the criminological literature indicating that violent offending is more prevalent in males. This finding is noteworthy, given that the MYS data consists of male and female youth, and previous work mostly examined these effects in predominantly all-male offending samples (e.g., Piquero et al., 2014). Given that these findings were found in a mixed sample (males and females), they contribute to the limited knowledge of offending behaviors among females and the literature of African American females. However, with fewer status offenses in the official juvenile court data, this finding must be interpreted with caution, as it might
differ in a sample with more status offenses; thus, future studies should investigate this association.

While the strengths of this study are highlighted, no study is without limitations. First, this study used three self-reported measures (violent victimization, violence perpetration, and weapon carrying) among early adolescents to predict offending. Self-reported data are plagued by overreporting (report of more events or behaviors) and underreporting (report of fewer of experiences or behaviors) across cohorts. Second, a key limitation and threat to the study findings include the inability to track youth who left the State, and thus, could not be successfully followed. A third limitation is the fact that official data sometimes contributes to the discrepancies in the data as existing research has found that not all juvenile are referred to the juvenile justice system. For example, one study by Black & Reiss (1970) found that 15% of police contact with youth resulted in arrests and concluded that arrest decisions were largely based on the discretion of the arresting officer. Additionally, while the results provide insight into the utility of self-reports and official data in predicting offending, it is important to note that participants in the current study exclusively consisted of a homogenous, low-income African American sample living in a non-metro area. Thus findings cannot be broadly generalized to other African American adolescents living in larger metropolitan areas. Finally, this study only considers behaviors such as violent victimization, violence perpetration, and weapon carrying, which can be broadly understood in the context of social learning and does not take into account psychological factors, which may be associated with offending among adolescents.
Conclusions

Few studies have tested the predictive strength of self-reported behaviors during early adolescence on subsequent juvenile offending during middle or late adolescence. The current study assessed whether three key developmental risk factors, namely early adolescent self-reports of violent victimization, violence perpetration, foretell future official offending status (measured by juvenile court contact, status offenses, or violent offenses). Findings show that being a male adolescent (versus female) predicts entry into the juvenile justice system for violent offending. Interestingly, family structure was unrelated to measures of official offending. Given the potential protective role of families in the reduction of delinquent behaviors, it was unexpected that being from a single-parent home, for instance, did not increase the risk for contact with the juvenile justice system. To further elucidate this finding, it is important that future studies investigate these effects in the neighborhood context to determine whether African American samples vary across neighborhood contexts (rural versus urban). Moreover, findings showed that violent victimization, violence perpetration, as well as weapon carrying during early adolescence were predictive of official offending during late adolescence. This was particularly true for youth self-reports of prior violent victimization and violence perpetration on official violent offenses. The present study demonstrates that interventions aimed at the early identification and intervention during early adolescence can reduce the likelihood of official juvenile court contact during late adolescence.
Chapter 3: Do School Disciplinary Sanctions Predict Juvenile Justice Contact?

School disciplinary actions have been found to be consistently associated with negative adjustment and poor developmental outcomes in adolescents. For years, schools have adopted strategies that allow for the temporary or permanent dismissal of students who violate codes of conduct. The obligatory removal of students from school using school disciplinary action is considered one of the leading approaches for dealing with undesirable behaviors at schools. However, there is still some disagreement over the effectiveness of such punitive policies, as findings from prior work revealed that non-European American youth were more likely to be suspended than their European American counterparts (Skiba, Nardo, & Peterson, 2002). For example, empirical data suggests that nationally African American youth were 2.6 times as likely to be suspended as European American youth (Schiraldi & Ziedenberg, 2001; Wald & Losen, 2003).

Some researchers have compared the disproportionate suspension of African American youth to European American youth to the treatment of African American youth in the juvenile justice system (Nicholson-Crotty, Birchmeier & Valentine, 2009). Thus, efforts to understand the unbalanced representation of African American youth remains a major focus of concern, issue of public discourse, and thus research.

Indeed, much evidence suggests that youth involved in the juvenile justice system are more likely to have a history of problem behavior in school (Snyder & Sickmund, 2006). The importance of parenting practices (e.g., monitoring) on preventing or perhaps deterring subsequent problem behaviors in adolescents has also been well documented (Patterson, Crosby & Vuchinich, 1992; Sampson & Laub, 1994). In fact, prior studies have examined the role of parenting (monitoring and harshness) on school disciplinary
actions and noted that greater monitoring was linked to fewer school disciplinary actions in adolescents (e.g., Kilgore, Snyder & Lentz, 2000). On the other hand, adolescents who experience excessive punitive discipline by parents (harshness) were more likely to be forcibly removed from schools (suspension/expulsion) which increased their risk for contact with the juvenile justice system. Thus, the present study investigated two models. The first model tests the direct effects by school disciplinary actions (suspension and expulsion) on juvenile justice contact. Second, the study tests whether the links between school offenses and office juvenile court records are moderated (ameliorated or exacerbated) by parenting efforts, as operationalized by monitoring and permissiveness and disciplinary actions (expulsion and suspension) on juvenile justice contact was moderated by parenting effects (monitoring and permissiveness) in a longitudinal sample of African American adolescents.

**Theoretical Background**

A number of conceptual models have been used to explain the extent school discipline measures (suspension and expulsion) foretell later entry to the juvenile justice system. One important theoretical model, which also includes elements from attachment theory (Ainsworth, 1989; Bowlby, 1969) and social control theory (Agnew, 1985; Hirschi, 1969), is the “idle hands” hypothesis; it suggests that the more unsupervised time adolescents have during their day, the greater the likelihood for involvement in delinquent acts and subsequent contact with the juvenile justice system. This model draws on *Routine Activities Theory* by Cohen and Felson (1979). According to this routine activities perspective, “criminal acts require the convergence in space and time of likely offenders, suitable targets” (Cohen & Felson 1979, p. 589). In other words, where
individuals converge for everyday routine activities may impact whether they become perpetrators of criminal acts or targets of them, simply based on who they might associate with or what they do during their leisure time. They further note that “the absence of a capable guardian” increases the likelihood of criminal behaviors. Cohen and Felson’s reference to the guardian in the routine activities framework refers to adults or parents, in particular, based on social control or the social bond framework by Hirschi (1969); this assumes that individuals with weaker bonds or ties to parents are more prone to commit criminal acts. Routine activity theory assumes that criminal activities are not only dependent on motivated offenders and suitable targets, but importantly on the absence of capable guardians, as social controls contribute to deter criminal opportunities.

An additional conceptualization important to review for the current study is the school to prison pipeline. Over the past decade, a growing number of empirical studies have been framed by the school to prison pipeline framework to examine whether school disciplinary actions predict involvement in the juvenile justice system (Meiners, 2011; Nicholson-Crotty, Birchmeier & Valentine, 2009; Wald & Losen 2003). Evidence from research has consistently demonstrated that problems at school places some youth at risk for school removal (through suspension and expulsion) which, in turn, increases the risk that youth will come into contact with the juvenile justice system. For this reason, scholarship on school disciplinary actions and subsequent problem behaviors has employed the “school to prison pipeline” explanatory model as a means of describing this process. Although empirical findings demonstrate a strong association between school disciplinary actions and student contact with the juvenile justice system, most previous work has found that minority youth are simply more likely than their majority
counterparts to receive disciplinary actions in the school system which in turn increases the risk of contact with the juvenile justice system.

Because the current study exclusively focuses on inner-city African American youth, it could not test for disproportionate minority contact within both schools and the juvenile justice system using the “school to prison pipeline” conceptualization. Rather, consistent with the school to prison pipeline framework, the present study investigated the relationship between self-reported school disciplinary actions and juvenile offending from two potential frameworks. First, the present study tested whether school-related disciplinary actions (expulsions and suspension) based on adolescent self-reports predicted official offending behaviors, as assessed by juvenile court records. Second, based on attachment and social control theories (Ainsworth, 1989; Bowlby, 1979), it was expected that a strong attachment to parents or caregivers would buffer against offending behaviors. Thus, the present study also tested whether the links between school offenses and official juvenile court records were moderated by parenting efforts, as operationalized by both parental monitoring and permissiveness. This is particularly noteworthy as parenting behaviors among African American families have been found to be particularly salient due to the strong value placed on family relationships in African American communities (Larson et al., 2001).

**Literature Review**

The advent of zero-tolerance policies in the public schools throughout the United States has led to a dramatic increase in-school suspension and expulsion rates among students. Evidence suggests that school suspension and expulsion rates correlate with a variety of problem behaviors, including academic failure, truancy, and school dropout
rates (Edmonds-Cady & Hock, 2008; McCrystal et al., 2007; Raffaele-Mendez & Knoff, 2003). For example, a recent longitudinal study by Monahan, VanDerhei, Bechtold and Cauffman (2014) investigated the links between involuntary school absence (i.e., expulsion and suspension), as well as voluntary absence from school (truancy), and predicted potential contact with the juvenile justice system. The sample consisted only of serious juvenile offenders ($N = 1,354$) from two metropolitan areas. Monahan and colleagues (2014) compared the probability of youth arrest during the months of regular school attendance (i.e., the months the youth were in attendance) and found evidence, which supports that being suspended or expelled from school increased the likelihood of arrest among youth. Furthermore, they found these effects were stronger among youth who did not have a history of behavior problems or reported with fewer delinquent peers, when controlling for demographic characteristics (sex, race, age, history of problem behaviors). Overall, the study provided evidence that school disciplinary action is, in fact, a risk factor for youth involvement in the juvenile justice system; this provides support for the idea that school disciplinary actions may increase the likelihood of arrests for at-risk youth.

Another study by Forsyth and colleagues (2014) examined the relationships between school suspensions and expulsions and offending among $N = 685,839$ of serious and violent offenders from Louisiana schools. Student discipline infractions were divided into eight categories; namely disobedience, safety, substance abuse, vandalism, theft, violence, truancy and other/miscellaneous. Furthermore, suspensions were divided into six categories, which included in-school suspensions for minor infractions and out of school suspensions for more severe infractions. The findings showed that African
American youth were more likely to report having school discipline problems based on reports of school suspensions/and or expulsions. They also found that African American males accounted for about 75% of all felonies in comparison to other racial/ethnic groups in the sample.

It is important to note that most of the work provides evidence that minority youth are more likely to receive school punishment than any other youth (Skiba et al. 2002) which increases the likelihood of chronic offending among minorities in early adulthood. Thus, the present study examined how school disciplinary actions (expulsion and suspension) longitudinally predict official juvenile court referrals in a community sample of African American youth sample from Alabama. More specifically, it examined the longitudinal associations between school disciplinary reports and official offending based on data from the juvenile court.

The Current Investigation

The current study builds on and extends previous work in a number of ways. First, the present study models the developmental course for youth contact with the juvenile justice system, consistent with a school-to-prison pipeline approach. Although much of the juvenile justice literature has found empirical support for the association between school disciplinary actions (expulsion/suspension) and the risk for entry into the juvenile justice system, few studies have considered the ameliorating or potentiating influences of parents or peers in this model. Second, even though the association between expulsion and suspension on subsequent official offending has been documented, these inquiries consisted solely of students’ self-reported data, without the use of official juvenile records. Third, juvenile justice research often consists of adolescent samples with a
history of juvenile offenses which makes it difficult to assess for risk of entry to the juvenile justice system. In other words, much of the work in this area has focused on the links between school discipline problems and offending behaviors in samples of offenders, which does not permit an accurate estimate of the extent to which school actions increase the risk for contact with the juvenile justice system. The present current study focused on this question in a community sample of poor, inner-city African American youth. Given these aforementioned shortcomings, the present study investigated to what extent school disciplinary actions (based on adolescent self-reports) increased the risk of future offending. Further, prior research on the link between school disciplinary actions and offending consistently showed that higher levels of parental monitoring was related to lower levels of adolescent misconduct and delinquency (Lahey et al. 2008; Stouthamer-Loeber et al. 2002). Thus, the current study also examined the influences by effective (monitoring) and ineffective parenting (permissiveness) efforts on juvenile offending among youth. Finally, given that a number of previous works have noted differences in offending in males and females (Blitstein, Murray, Lytle, Birnbaum & Perry, 2005), but also ruling out spurious associations, the main study questions were also tested separately in male versus female youth.

Research Questions and Hypotheses

The current study tested for potential direct (Model A) and moderated direct (Model B) longitudinal effects of school disciplinary sanctions, measured by self-reports of expulsions and suspensions, and parenting processes (monitoring and permissiveness) on official juvenile court referrals (see Figure 3.1). Direct effects tested the utility of how self-reported school disciplinary sanctions and parenting processes (monitoring and
permissiveness) during early adolescence (10-11 years) longitudinally predicted official juvenile court referrals as well as offending behaviors (status and violent offenses) during late adolescence (17-18 years). It was expected that school disciplinary sanctions (suspensions or expulsions) in early adolescence would increase the risk for juvenile court referrals during late adolescence. Furthermore, it is anticipated that effective parenting, measured by monitoring would decrease the risk of subsequent juvenile court referrals and offending (status offenses and violent offenses). Alternatively, it is expected that ineffective parenting processes measured by permissiveness would predict subsequent juvenile court referrals and offending (status offenses and violent offenses).

In a second step, the study aimed to address whether the associations between school reports of sanctions and the official measures of juvenile offending were moderated by two measures of parenting processes (monitoring and permissiveness). Thus, it was expected that the relationship between school offenses (serious and non-serious) and juvenile offenses (serious and non-serious) would be significantly weaker among adolescents with higher parenting monitoring compared to those who experience lower parental monitoring. By contrast, it was expected that the relationship between school offenses (serious and non-serious) and offending would be considerably stronger among youth experiencing higher levels of parental permissiveness compared to those reporting lower parental permissiveness or lenient parenting styles.
Figure 3.1. Conceptualized models

Model A shows the direct effects of school discipline (suspensions and expulsions) and parenting processes (monitoring and permissiveness) predict offending. Model B illustrates the moderation model where the effects of school discipline on juvenile court referrals/offending are moderated by parenting processes (monitoring and permissiveness).
Methods

Sample and Procedures

The data are part of the Mobile Youth Survey (MYS), an ongoing longitudinal study of urban, African American adolescents living in high-poverty neighborhoods in the city of Mobile, as well as the neighboring town of Prichard, Alabama (Bolland, 2003; Bolland et al., 2007; Church et al., 2012; Spano, Vazsonyi & Bolland, 2009). According to the 2010 U.S. Census Bureau, African Americans make up about 50.6% of the population in Mobile and 85.8% of the population in the city of Prichard, in comparison to the 25% of total Alabama population. Data for the MYS survey were collected annually between 1998 and 2011 from a total of approximately N = 11,838 youth, between the ages of 9 and 19 years. The MYS uses a multiple cohort design, where new cohorts are added each year and tracked onwards life-course trajectories of a variety of behaviors in adolescents, including risk behaviors (e.g., violence, alcohol use, drug use), family factors such as family structure and individual perceptions (e.g. self-worth, future orientation and support from neighborhood) over time. The sample sizes varied at each cohort because of changes in the sample composition, both due to attrition as well as “new entries” into the study. Researchers informed each of the participants and their caregivers about the purpose of the study. Once consent was obtained, the survey was administered in groups of 20–30 participants. Each participant received an incentive of $10 prior to 2005 and $15 in subsequent years (Bolland, 2004).
Figure 3.2. The distribution of participants by age in the MYS between 1998 and 2001

**Measures**

*Demographic Characteristics*

**Age.** Adolescents were asked, “How old are you?” Responses ranged from 9 to 19 years of age; however, the original sample focused on participants between 10 to 12 years of age in the data; thus items were recoded and ranged from 10 to 11 years (1 = 10 years and 2 = 11 years).
Sex. Participants were asked to indicate their gender. Responses were given as 1 (male) or 2 (female).

School Discipline Measures (Self-reports)

School Expulsions. Adolescents were asked, “Have you ever been expelled from school in the past year?” Responses were 0 = No to 1 = Yes, I was suspended during the past year. A single dichotomous measure of school expulsions was developed using responses from all 10 to 11 year olds from 1998 through 2001 (Time 1).

School Suspensions. Suspensions were assessed using a single item which asked, “Have you ever been suspended from school in the past year?” Responses were 0 = No and 1= Yes, I was expelled in the past year? School suspensions was dichotomized using responses from all 10 to 11 year olds from 1998 through 2001 (Time 1).

Parental monitoring. Parental monitoring scale was assessed using a summative scale of three items developed by Lamborn, Mounts and Steinberg (1991). Adolescents were asked how much their parents knew about their whereabouts and activities. For example, items included, “Does your mother or father know who you hang out with?” and “Does your mother or father know exactly where you are most afternoons after school and during the weekends?” Responses were measured on a scale ranging from 1 (they don’t know) to 3(they know a lot). A mean of the three items were calculated, where a higher score indicated a greater parental monitoring.

Parental permissiveness. Parental permissiveness was assessed by using four questions developed by Lamborn et al. (1991). Respondents were asked whether they could stay out past their curfew. For example, respondents were asked, “Are you able to stay out as late as you want on school nights?” Responses were 0 = No and 1= Yes. A
mean scale of the four items were calculated where a higher score indicated higher levels of parental permissiveness.

Official records

Offending behaviors. Official juvenile court data were obtained from the juvenile court agency in Mobile County. There were multiple incidents (cases) between 1999 and 2013 for those who came into contact with the juvenile justice system more than once. It should be noted that all duplicate arrest reports were removed from the current analysis. Each incidence was identified by participant identification number, referral year, with an accompanying date of referral, date of petition, date of offense, date of disposition and court action date. Previous research has raised concerns on the reliance on local records because of arrests that may have occurred outside the home jurisdictions (see Huizinga & Elliott, 1986; Kirk, 2006).

Official records (retrieved from the district juvenile court records in Mobile County, Alabama) were linked to self-report data part of the main MYS data. The official juvenile court record included 93 different offense categories; however, because of a very small number of responses in some of the categories as well as low relevance in the current investigation, a number offenses were excluded. Thus, juvenile offenses were categorized into 18 main referral categories: (1) Alcohol offenses, (2) Arson, (3) Assault, (4) Burglary, (5) Children in Need of Supervision (CHINS) and/or beyond control, (6) Criminal mischief, (7) Disorderly Conduct, (8) Domestic Violence, (9) Drugs/Possession of Controlled Substance, (10) Failure to obey police/fireman, (11) Firearm possession,

\[\text{Child in Need of Supervision (CHINS) is one who has committed an act which, if that child were an adult, would not be considered a crime but is in need of care or rehabilitation, such as one who is habitually truant, disobedient to parents, or is a runaway.}\]
(12) Harassment, (13) Loitering, (14) Motor-vehicular theft, (15) Receiving stolen property, (16) Robbery, (17) Theft/Shoplifting, and (18) Failure to obey policeman/fireman. The study focused on three main outcome measures: juvenile court referrals, status offenses, and violent offenses. Juvenile court referrals consisted of all 18 offenses. For the purposes of the study, violent offenses consisted of three items (i.e., assault, firearm possession, robbery) and were coded “1” for violent offenses and all other offenses were coded “0” for non-violent offenses. Status offenses consisted of two main items: (1) CHINS/Beyond control and (2) alcohol offenses, which were coded “1” = status offenses, while all other offenses were coded “0” = non-status offenses. Overall, each measure identified adolescents who were arrested and officially processed by the juvenile courts between ages 17 and 18 years.

Table 3.1. Variable description and descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>N</th>
</tr>
</thead>
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<td><strong>Demographic variables</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (T1)</td>
<td>Age of respondent (1 = 10)</td>
<td>10.39</td>
<td>.49</td>
<td>10-11</td>
<td>1,545</td>
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<tr>
<td>Sex (T1)</td>
<td>Sex of respondent (1=Male)</td>
<td>.51</td>
<td>.50</td>
<td>0-1</td>
<td>1,536</td>
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<td>Family structure (T1)</td>
<td>Do you live with someone like a mother and someone like a father all of the time? (1 = yes)</td>
<td>.66</td>
<td>.47</td>
<td>0-1</td>
<td>1,036</td>
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<td><strong>Predictor variables</strong></td>
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<td>Expulsion (T1)</td>
<td>During the past year (12 months), were you expelled from school (1=Yes)</td>
<td>.11</td>
<td>.32</td>
<td>0-1</td>
<td>1,508</td>
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</table>

(Continued on next page)
Table 3.1
(Continued)

<table>
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<th>SD</th>
<th>Range</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspension (T1)</td>
<td>During the past year (12 months), were you suspended from school (1=Yes)</td>
<td>.31</td>
<td>.46</td>
<td>0-1</td>
<td>1,494</td>
</tr>
</tbody>
</table>
| Monitoring (T1)      | 1. How much does your mother or father really know about what you do most afternoons (after school) and during the day on weekends?  
                        2. How much does your mother or father try to find out how you spend your time?  
                        3. How much does your mother or father really know about how you spend your time? | 1.97| .46 | 0-2   | 1,543|
| Permissive (T1)      | 1. Are you allowed to stay out as late as you want on school nights?  
                        2. Are you allowed to stay out after dark on school nights?  
                        3. Are you allowed to stay out as late as you want on weekend nights?  
                        4. Are you allowed to stay out after dark on weekend nights? | .75 | .59 | 0-1   | 1,542|
| Juvenile court referral (T2) | Binary measure: “1” = Juvenile court referral and “0” = No juvenile court referrals | .58 | .49 | 0-1   | 892  |
                       | 1 Liquor offenses  
                       | 2 Arson  
                       | 3 Assault |

(Continued on next page)
Table 3.1 (Continued)

<table>
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<tr>
<th>Variables</th>
<th>Description</th>
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<th>SD</th>
<th>Range</th>
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</tr>
</thead>
<tbody>
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<td>Violent offenses (T2)</td>
<td>Binary measure: “1” = Violent offenses and “0” = No violent offenses</td>
<td>.10</td>
<td>.29</td>
<td>0-1</td>
<td>892</td>
</tr>
<tr>
<td></td>
<td>1 Assault</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Robbery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Firearm possession</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status offenses (T2)</td>
<td>Binary measure: “1” = Status offenses and “0” = No status offenses</td>
<td>.05</td>
<td>.22</td>
<td>0-1</td>
<td>892</td>
</tr>
<tr>
<td></td>
<td>1 Liquor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Children in Need of Supervision (CHINS)/Beyond Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Plan of Analysis

The present investigation assessed whether self-reported school disciplinary actions and parenting processes were predictive of official juvenile offending over time, but also the extent to which parenting processes conditioned these links between self-reported school disciplinary actions and official juvenile offending, measured by status offenses and violent offenses. Self-reports of school disciplinary actions (expulsion and suspension) and parenting processes (monitoring and permissiveness) were assessed at Time 1 (10-11 years of age), while official juvenile court referrals were measured at Time 2 (17-18 years of age). Youth self-reported data from the MYS were matched by identification number to the juvenile court data to create a single dataset. The self-reported measures were constructed from data collected in the first four waves (1998 - 2001) from youth between ages 10 to 11 (Time 1). The sample consisted of \( n = 1,545 \) youth. Following the merge, a total of \( n = 892 \) youth, representing approximately 58% of participants from the initial sample had a juvenile justice court record, between the ages of 17 to 18 years, while \( n = 694 \) respondents had no contact with the juvenile courts (see Table 3.2). As noted earlier, duplicate arrests were removed from the official court data since the study focused on adolescents having contact with the juvenile justice system at one point in time. A series of logistic regression models were completed in SPSS 22 to assess potential direct longitudinal effects by each of the predictors, that is, school disciplinary actions (expulsion and suspension) and parenting processes (monitoring and permissiveness) on official juvenile offending (measured by juvenile court referral, status offenses, and violent offenses). The analysis produced estimates for the hypothesized relationships between self-reported school disciplinary actions (expulsion and
suspension) as well as parenting processes (monitoring and permissiveness) at Time 1 and official data (juvenile court data) at Time 2 (see Model A in Figure 3.1).

Second, the present study also tested whether the effects of school disciplinary actions on official juvenile court referral and offending was moderated by parenting processes (monitoring and permissiveness) presented in Model B in Figure 3.1. Statistical analyses were conducted in SPSS using the PROCESS macro in SPSS (Hayes, 2012), due to its ability to estimate models with binary or dichotomous outcomes. The PROCESS macro is an improvement over traditional moderation techniques (Hayes, 2012) because it allows for the probing of interaction effects for significant effects. PROCESS also has the advantage for testing for conditional effects of continuous moderators using the Johnson-Neyman technique (see e.g., Bauer & Curran, 2005; Hayes & Matthes, 2009). The advantage of this approach is that it calculates “regions of significance” of the conditional (moderated) effects of the predictor and outcome measures in the model. Model B illustrates the moderated model, namely the extent to which the relationships between school disciplinary actions (suspension and expulsion) and official records (measured by juvenile justice contact, violent offenses and status offenses) were moderated by positive and negative parenting processes (monitoring and permissiveness).
Table 3.2. Participants in self-reported and official data

<table>
<thead>
<tr>
<th></th>
<th>Self-reported data (n =1,594)</th>
<th>No Juvenile court contact (n = 654)</th>
<th>Juvenile court contact (n = 892)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T1</td>
<td>T2</td>
<td>T3</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>217</td>
<td>229</td>
<td>159</td>
</tr>
<tr>
<td>Female</td>
<td>224</td>
<td>199</td>
<td>138</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 years</td>
<td>235</td>
<td>269</td>
<td>209</td>
</tr>
<tr>
<td>11 years</td>
<td>206</td>
<td>160</td>
<td>90</td>
</tr>
</tbody>
</table>
Results

Bivariate Associations between Self-reports and Official records

Table 3.2 shows bivariate correlations between background variables (sex and family structure), school disciplinary actions (expulsions and suspensions), parenting processes (monitoring and permissiveness), and offending (juvenile court referral, status offenses, and violent offenses). Sex was significantly and negatively associated with monitoring, as well as official juvenile court referrals and violent offenses in adolescents; a significant positive relationship was found between sex and a measure of parental monitoring. As expected, family structure was negatively related to school discipline (expulsion and suspension), whereas correlations between family structure and effective parenting (monitoring) revealed a positive association, which not surprisingly suggests that having two parents was associated with higher levels of supervision or monitoring by parents.

There were also significant associations between school disciplinary actions and moderators. Specifically, school disciplinary actions (expulsions and suspensions) were negatively associated with effective parenting (monitoring), again suggesting that students with high levels of parental monitoring were associated with fewer school conduct issues which were related to fewer school disciplinary actions, namely expulsions and suspensions. The correlations between school disciplinary actions (expulsions and suspensions) and ineffective parenting strategies (permissiveness) were positively related which indicates again that lax parenting increased the likelihood for school discipline. However, when it came to measures of parenting processes, a significant association was observed between poor parenting measure (permissiveness)
and juvenile court contact and violent offending, but unrelated to status offenses. The correlations between parental monitoring and each of the official offending measures (juvenile court referral, status offenses, and violent offenses) seemed unrelated in the sample.
### Table 3.3: Correlations of main study constructs

<table>
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<tr>
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<tbody>
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<td>1.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.12**</td>
<td>—</td>
<td>1.04</td>
<td>1.12**</td>
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<tr>
<td>2.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.12**</td>
<td>—</td>
<td>1.04</td>
<td>1.12**</td>
</tr>
<tr>
<td>3.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.12**</td>
<td>—</td>
<td>1.04</td>
<td>1.12**</td>
</tr>
<tr>
<td>4.</td>
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<td>—</td>
<td>—</td>
<td>—</td>
<td>1.12**</td>
<td>—</td>
<td>1.04</td>
<td>1.12**</td>
</tr>
<tr>
<td>5.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.12**</td>
<td>—</td>
<td>1.04</td>
<td>1.12**</td>
</tr>
<tr>
<td>6.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.12**</td>
<td>—</td>
<td>1.04</td>
<td>1.12**</td>
</tr>
<tr>
<td>7.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.12**</td>
<td>—</td>
<td>1.04</td>
<td>1.12**</td>
</tr>
<tr>
<td>8.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.12**</td>
<td>—</td>
<td>1.04</td>
<td>1.12**</td>
</tr>
<tr>
<td>9.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1.12**</td>
<td>—</td>
<td>1.04</td>
<td>1.12**</td>
</tr>
</tbody>
</table>

**Note:**
* $p \leq 0.05$; ** $p \leq 0.01$
Bivariate and Multivariate Logistic Regression Analyses

Table 3.3 shows the odds ratios for the bivariate and multivariate logistic regression analyses for the effects of school disciplinary actions (expulsion and suspension) and parenting measures (monitoring and permissiveness) on three measures of official offending (juvenile court referral or records, status offenses, and violent offenses). Odds ratios indicated the relative odds for each of the juvenile offending behaviors given the tested predictors (school disciplinary actions and parenting processes) in the model. Analyses were conducted separately for juvenile court referrals (contact), status offenses, and violent offenses. Bivariate logistic regression analyses showed that of the background variables (sex and family structure), sex was the only significant predictor of juvenile court referrals (OR = 1.26, p <.05, 95% CI [1.02; 1.55]) and violent offenses (OR = 2.49, p <.001, 95% CI [1.57; 3.94]). Self-reports of school disciplinary actions (expulsion and suspension) were predictive of juvenile court referrals. In fact, adolescents who self-reported expulsions and suspension were almost twice as likely to come into contact with the juvenile courts (OR = 1.84, p < .001, 95% CI [0.31, 0.63] and (OR = 1.94, p <.001. 95% CI [0.30, 0.48]) respectively. As for the predictive strength of parenting effects, by far, adolescents who reported greater parental permissiveness were twice as likely (OR = 2.49, p <.001, 95% CI = 1.60; 3.88] to be referred to the juvenile courts. None of the coefficients shown in Table 3.3 ; Model 2 (a) representing the relationships between the main study constructs and status offenses were significant, indicating that background factors, as well as school disciplinary actions and parenting measures, did not explain status offending in the sample.
Multivariate logistic regression models were tested to identify consistent predictors of official offending (juvenile court referral, violent offenses and status offenses), when also considering other ones at the same time. Findings show that the sex, as well as school disciplinary sanctions (expulsions and suspensions) and ineffective parenting processes (permissiveness) consistently predicted juvenile court referrals. More specifically, the results suggest even when controlling for the effects of background variables and the main study constructs, each construct, with the exception of family structure and parental monitoring was predictive of juvenile court referrals. Consistent with bivariate findings, sex continued to significantly predict violent offenses in the sample, while the effects of main study constructs (school disciplinary actions and parenting measures) appeared unrelated to status offenses.

Next, in order to disentangle the longitudinal effects of school disciplinary actions on official records of juvenile court referrals (contact), the sample was disaggregated by sex and the analyses were repeated (see Table 3.5 and Table 3.6). Follow-up analyses showed that there were some similarities but also some differences in the longitudinal links between parenting and school disciplinary actions and court referrals in males and females. Multivariate effects of background variables (sex and family structure) and main study constructs (school disciplinary actions and parenting processes) indicate that both males and females were twice as likely to be referred to the juvenile courts, indicating there were no differences in juvenile court referrals in males and females. Finally, the study also assessed for potential moderation effects by parenting processes (monitoring and permissiveness) on the school disciplinary actions-offending link and found no significant interaction effects across all models tested. Thus, based on this, it
seems that the effects of school discipline actions on offending is unrelated to positive or negative parenting processes in this sample.
### Table 3.4: Bivariate and Multivariate Logistic Regression Models

<table>
<thead>
<tr>
<th>Model 1(a)</th>
<th>Model 1(b)</th>
<th>Model 2(a)</th>
<th>Model 2(b)</th>
<th>Model 3(a)</th>
<th>Model 3(b)</th>
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<tr>
<td>Violent Offense</td>
<td>Status Offense</td>
<td>Referred Juvenile Court</td>
<td>Referred Juvenile Court</td>
<td>Referred Juvenile Court</td>
<td>Referred Juvenile Court</td>
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<td><strong>Permissiveness</strong></td>
<td><strong>Permissiveness</strong></td>
<td><strong>Permissiveness</strong></td>
<td><strong>Permissiveness</strong></td>
<td><strong>Permissiveness</strong></td>
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<td><strong>Monitoring</strong></td>
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<td><strong>Sex</strong></td>
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<td><strong>Regression</strong></td>
<td><strong>Regression</strong></td>
<td><strong>Regression</strong></td>
<td><strong>Regression</strong></td>
<td><strong>Regression</strong></td>
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<tr>
<td><strong>Multivariate Logistic Regression</strong></td>
<td><strong>Multivariate Logistic Regression</strong></td>
<td><strong>Multivariate Logistic Regression</strong></td>
<td><strong>Multivariate Logistic Regression</strong></td>
<td><strong>Multivariate Logistic Regression</strong></td>
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<td><strong>Bivariate Logistic Regression</strong></td>
<td><strong>Bivariate Logistic Regression</strong></td>
<td><strong>Bivariate Logistic Regression</strong></td>
<td><strong>Bivariate Logistic Regression</strong></td>
<td><strong>Bivariate Logistic Regression</strong></td>
</tr>
</tbody>
</table>

Note: All significant paths are bolded.
Table 3.5. Bivariate and Multivariate Logistic Regression Models by Males

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (a)</th>
<th>Model 2 (a)</th>
<th>Model 3 (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Exp (b) (se) 95% CI)</td>
<td>(Exp (b) (se) 95% CI)</td>
<td>(Exp (b) (se) 95% CI)</td>
</tr>
<tr>
<td>Juvenile Court Referral Status Offenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expulsion (Past year)</td>
<td>1.688 (.286) [0.963; 2.959]</td>
<td>1.103 (.586) [0.314; 3.878]</td>
<td>1.077 (.437) [0.333; 2.287]</td>
</tr>
<tr>
<td>Suspension (Past year)</td>
<td>2.824 (.202)** [1.901; 4.194]</td>
<td>0.566 (.466) [0.227; 1.411]</td>
<td>0.944 (.321) [0.489; 1.812]</td>
</tr>
<tr>
<td>Monitoring</td>
<td>0.682 (.223) [0.441; 1.057]</td>
<td>0.427 (.427) [0.227; 1.427]</td>
<td>0.944 (.321) [0.489; 1.812]</td>
</tr>
<tr>
<td>Permissiveness</td>
<td>1.777 (.395) [0.819; 3.858]</td>
<td>0.358 (.982) [0.052; 2.454]</td>
<td>0.628 (.628) [0.297; 1.362]</td>
</tr>
</tbody>
</table>

Note: All significant paths are bolded.  
* p ≤ .05; ** p ≤ .01; *** p ≤ .001
**Model 1 (a)**

<table>
<thead>
<tr>
<th>Status Offenses</th>
<th>Violent Offenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.070 (1.826)</td>
<td>1.225 (1.479)</td>
</tr>
<tr>
<td>(396; 2.438)</td>
<td>(95.6; 6.528)</td>
</tr>
<tr>
<td>95% CI</td>
<td>95% CI</td>
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</table>

**Model 2 (a)**

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<th>Violent Offenses</th>
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</thead>
<tbody>
<tr>
<td>2.200 (1.722)</td>
<td>1.699 (1.430)</td>
</tr>
<tr>
<td>(0.350; 1.471)</td>
<td>(0.646; 1.794)</td>
</tr>
<tr>
<td>95% CI</td>
<td>95% CI</td>
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</tbody>
</table>

**Model 3 (a)**

<table>
<thead>
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<th>Status Offenses</th>
<th>Violent Offenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.204 (1.721)</td>
<td>1.699 (1.430)</td>
</tr>
<tr>
<td>(0.350; 1.471)</td>
<td>(0.646; 1.794)</td>
</tr>
<tr>
<td>95% CI</td>
<td>95% CI</td>
</tr>
</tbody>
</table>

*Note: All significant paths are bolded.*

Table 3.6. Bivariate and Multivariate Logistic Regression Models by Females

<table>
<thead>
<tr>
<th>Status Offenses</th>
<th>Violent Offenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.204 (1.721)</td>
<td>1.699 (1.430)</td>
</tr>
<tr>
<td>(0.350; 1.471)</td>
<td>(0.646; 1.794)</td>
</tr>
<tr>
<td>95% CI</td>
<td>95% CI</td>
</tr>
</tbody>
</table>
Discussion

Studies of school discipline have consistently documented the overrepresentation of low-socioeconomic status students and found support for the association between school disciplinary actions and subsequent juvenile justice contact; however, few studies have examined these effects longitudinally. To build on previous work, the current studies assessed the longitudinal effects of school disciplinary actions (expulsion and suspension) on juvenile justice contact by testing the direct effects of school discipline on juvenile court referrals and offending behaviors (juvenile court referrals, status offenses, and violent offenses) as well as the potential moderating effects of effective and ineffective parenting processes (monitoring and permissiveness) on this link. These findings are subsequently discussed separately for male and female youth.

The results indicate that of the two school disciplinary actions, suspensions were consistently predictive of juvenile court referrals in males; in fact, the risk of juvenile court contact increased twofold for boys who reported suspensions. This is consistent finding in the literature; by far, adolescent boys are more likely to come into contact with the juvenile courts than their females counterparts (see Piquero et al., 2014). Interestingly, the findings provide partial support for the direct effects of school disciplinary actions on subsequent offending. Indeed, the findings suggest that school suspension predicted subsequent juvenile contact among adolescents in the sample, but appeared unrelated to either measures of official offending (status and violent offenses). A possible explanation might be related to the disproportionate rates of police contact in males and females. More specifically, when compared to males, some prior research has noted the overrepresentation of status offending among females (e.g., Feld, 2009;
Mallicoat, 2007). Relatedly, other studies have noted evidence of overall biases in juvenile court processing, where adolescent girls are less likely to be referred to the juvenile courts, which could lead to fewer cases of status offenses in females (see Frazier & Bishop, 1992).

Previous studies have noted positive associations between poor parenting processes and adolescent problem behaviors (Baumrind, 1991), which suggests that adequate parenting management (e.g., monitoring and knowledge) might buffer against problem behaviors. Interestingly, the current study found that parental monitoring failed to moderate the school discipline-official offending link. While this was an unexpected finding, the results were similar for parental permissiveness which also failed to moderate the link between school discipline and official offending. This implies that while parents are often seen as the cause of discipline problems in the school, this may not be the case for adolescents in this study. In fact, given that both parenting strategies did not moderate the school-discipline-offending link, it might be important to explore the nature or context of the school-related offenses. In addition, future research should also consider the extent to which other measures of parenting (effective and ineffective) moderate the longitudinal link between school discipline actions (expulsion and suspension) on juvenile justice contact and offending.

Conclusions

The current study tested some tenets of the school-to-prison pipeline framework by testing the longitudinal link between school discipline actions (expulsion and suspension) on juvenile justice contact and offending, as well as the potential moderating effect of parenting processes, measured by effective parenting (monitoring) and
ineffective parenting (permissiveness). Perhaps the most important finding from this investigation is the significant effect of self-reported suspensions during early adolescence was longitudinally predictive of subsequent juvenile court contact. Such a finding provides further support for the deleterious effects of harsh discipline policies, namely zero-tolerance policies on youth. Furthermore, it is important to note that the study was unable to assess for racial disparities in school disciplinary actions, because the sample consisted primary of African American youth. Nevertheless, the study uniquely tested the predictive strength of self-reported school disciplinary actions over time on juvenile offending and noted significant effects for school suspensions, in particular, on subsequent juvenile justice contact. Given the current findings, it is important for school administrators to support adolescents in their development during the second decade of life by reforming current zero-tolerance policies as they appear to exacerbate rather than eliminate the problem, if one takes a reformative stand on supporting adolescents in their development during the second decade of life.
Chapter 4: Does Early Adolescent Explosive Anger Foretell Late Adolescent Juvenile Justice Contact?

An increasing body of research has extensively investigated and established that offending is associated with individual factors, such as self-regulation (e.g., see Farrington, 2003; Loeber, Slot, & Stouthamer-Loeber, 2008). Much of the research has primarily focused on the direct effects of youth self-control or temperament, usually measured by self-control or impulsivity on criminal activities in adolescents. For instance, Moffit et al. (2011) found that youth with poor self-control during childhood were more likely to be involved in criminal behaviors. Howard, Kimonis, Muñoz and Frick (2012) found that poor self-regulation was associated with both deviance and offending. In fact, the research suggests that children who cannot regulate their emotions, as evident by poor self-control, are more likely to be less adjusted; thus, they tend to engage in criminal and analogous acts more often than those who have self-control. However, much of the literature focuses on the direct link between youth self-regulation and juvenile justice contact, with little attention for indirect effects of youth criminal behaviors. Thus, understanding the potential pathways to juvenile offending behaviors remains an important area of interest among criminological and developmental researchers.

The current study builds on the current literature by focusing on additional pathways for adolescent delinquency and offending. Specifically, this study seeks to fill this gap in the juvenile justice literature by testing both the direct and indirect effects of a measure of self-regulation (explosive anger) on youth juvenile justice contact and offending, measured by status offenses and violent offenses from a developmental
perspective using multiple waves of data. First, the study investigates whether the direct
effects of self-reported explosive anger in early adolescence (10 years) are predictive of
juvenile court contact as well as offending (status offenses and violent offenses) at age
18. Next, this study examines whether the indirect effect of explosive anger reported in
early adolescence (age 10) impact subsequent offending in late adolescence (age 18)
through reports of violent victimization, violence perpetration, and weapon carrying in
middle adolescence (age 14). We know from the literature very little work has
longitudinally followed poor, inner-city youth to more closely examine the relationship
between explosive anger and the development of such behaviors as violent victimization,
violece perpetration and weapon carrying as well as official offending behaviors. In this
sense, the current study seeks to increase the understanding of these effects in a non-
offending African American youth sample from low-income, inner-city neighborhoods in
Alabama.

**Literature Review**

The existing empirical evidence suggests that youth with low self-control are
more likely to engage in at-risk behaviors. These studies have examined offending using
the self-control framework proposed by Gottfredson and Hirschi (1990). According to
Gottfredson and Hirschi (1990) low self-control as a behavior pattern arises from
ineffective socialization early in life. This pattern, once established, is said to be quite
stable and is viewed as the primary individual-level factor explaining deviance and other
criminal behaviors. Several studies have found the expected relationship between low
self-control and offending (e.g., Pratt & Cullen, 2000; Shekarkhar & Gibson, 2011). The
importance of exploring the causal link between self-control development in early years,
and subsequent offending in later years is underscored by the fact that self-control, as a
trait established in early years, and influences subsequent behaviors across the lifespan. However, few studies have examined developmental changes over time in the link between explosive anger and juvenile justice contact as well as offending behaviors (status offenses and violent offenses). Even more so, there is limited knowledge of these effects on poor, inner-city African American youth followed over time. Additionally, the research indicates that African American youth come into contact with the juvenile justice system at a higher rate than any other minority group in the United States. Understanding this is of increasing importance, as is identifying the potential factors that might increase the risk for contact with the juvenile courts.

Accordingly, previous studies demonstrate that self-control is a prominent factor influencing youth involvement in criminal or delinquent activity. Although there is empirical work on the relationship between family factors and adolescent self-control development, few studies have focused on the pathways linking self-control to offending. For example, self-control theory assumes that risk behaviors develop as a consequence of poor or low self-control. Because of the potential negative developmental consequences associated with low self-control, it is possible that self-control, measured by explosive anger, may increase the risk for other negative behaviors in middle adolescence. There is evidence from previous studies, which suggests that youth with the low self-control act impulsively and physically, without considering others, which increases the risk for victimization (Piquero, MacDonald, Dobrin, Daigle, & Cullen, 2005). Schreck (1999) found that low self-control was related to self-reported victimization among college students. Schreck and his colleagues also identified a relationship between low self-control and violent victimization based on both juvenile and adult samples (Schreck,
Thus, individuals low in self-control are more likely to engage in activities that can lead to victimization as easily as criminal offending. However, it is important to note this work did not consider these effects developmentally.

Thus, the present study extends previous etiological work on adolescent offending by testing these relationships longitudinally. Specifically, the present study focused on understanding the potential pathways to adolescent offending behaviors by examining both direct as well as indirect pathways of explosive anger (through violent victimization, violence perpetration, and weapon carrying) on juvenile justice contact. Much existing research has relied exclusively on unsubstantiated reports of youth self-reported behaviors; however, the present study utilized both self-reported youth behaviors as well as official records of youth offending. Thus, the current study sought to build on the existing research by studying the direct and indirect associations between self-reports of explosive anger during early adolescence and official juvenile records, measured by juvenile court contact as well as offending behaviors (status offenses and violent offenses) in a sample of low-income, inner-city African American youth from neighborhoods located in south Alabama.

*Research Questions and Hypotheses*

The present study examined the direct as well as the indirect effect of explosive anger on official offending (juvenile justice contact, violent offending, and status offending) through additional pathways, namely violent victimization, violence perpetration, and weapon carrying in a longitudinal sample. In sum, the study explained how and whether explosive anger is predictive of subsequent juvenile court contact, but
also whether there are additional pathways, which link explosive anger to juvenile offending in adolescents. Based on the direct model, it is expected that explosive anger at Time 1, will positively predict each of the main study constructs, that is, violent victimization, violence perpetration, and weapon carrying) at Time 2 as well as offending behaviors (as measured by juvenile justice contact, violent offending, and status offending) at Time 3. Alternatively, the indirect model tested the link between explosive anger and juvenile court contact and juvenile offending through multiple pathways, namely, violent victimization, violence perpetration and weapon carrying. Thus, it is expected that the effects of explosive anger and juvenile court contact, as well as juvenile offending (measured by status offenses and violent offenses subsequent offending behaviors was mediated by violent victimization, violence perpetration and weapon carrying. Unlike previous research, this study uses a developmental framework for understanding pathways to juvenile justice contact. To assess for these effects, the present study measured self-reports of explosive anger among youth at 10, followed by self-reports of violent victimization, violence perpetration, and weapon carrying at age 14,
Figure 4.1. Conceptualized Model

Model A

Violent victimization

Explosive anger

Contact

Time 1
10 years old (1998-2001)

Time 2
14 years old (2002-2005)

Time 3
18 years old (2006-2009)

Model B

Violence perpetration

Explosive anger

Violent offenses

Time 1
10 years old (1998-2001)

Time 2
14 years old (2002-2005)

Time 3
18 years old (2006-2009)

Model C

Weapon carrying

Explosive anger

Status offenses

Time 1
10 years old (1998-2001)

Time 2
14 years old (2002-2005)

Time 3
18 years old (2006-2009)
The Current Investigation

The goal of this study was to test whether the effects of explosive anger on juvenile justice contact, and offending was mediated by each of the potential measures (violent victimization, violence perpetration, and weapon carrying) in a poor African American sample. The study examined these relationships in a series of competing mediated models (see Figure 1). In particular, the current study assessed both the direct and indirect effects of violent victimization on juvenile court offending, measured by juvenile court referrals and offending (status offenses and violent offenses) over time. Consistent with the theoretical implications of the self-control and social control framework, it is expected that low self-control (poor self-control) will increase the risk for violent victimization and perpetration, as well as weapon carrying which increases the risk for juvenile court offenses and offending among youth in the sample; on the other hand, greater or increased self-control decreases the risk for violent victimization, violence perpetration, and weapon carrying which is linked to criminal behaviors. Gottfredson and Hirschi’s (1990) General Theory of Crime assumed that criminal behavior is a function of low or absence of self-controls; indicating that differences in males and females are unlikely. Based on this assumption, it is expected that the aforementioned mediated theoretical associations will be equal in males and females in the sample.

Methods

Sample and Procedures

The data are part of the Mobile Youth Survey (MYS), an ongoing longitudinal study of urban, African American adolescents living in high-poverty neighborhoods in the city of Mobile, as well as the neighboring town of Prichard, Alabama (Bolland, 2003;
According to the 2010 U.S. Census Bureau, African Americans make up about 50.6% of the population in Mobile and 85.8% of the population in the city of Prichard, in comparison to the 25% of total Alabama population. Data for the MYS survey were collected annually between 1998 and 2011 from a total of approximately \( N = 11,838 \) youth, between the ages of 10 and 18 years. The MYS uses a multiple cohort design, where new cohorts are added each year and tracked onwards life-course trajectories of a variety of behaviors in adolescents, including risk behaviors (e.g., violence, alcohol use, drug use), family factors such as family structure and individual perceptions (e.g., self-worth, future orientation and support from neighborhood) over time. The sample sizes varied at each cohort because of changes in the sample composition, both due to attrition as well as “new entries” into the study. Researchers informed each of the participants and their caregivers about the purpose of the study. Once consent was obtained, the survey was administered in groups of 20–30 participants. Each participant received an incentive of $10 prior to 2005 and $15 in subsequent years (Bolland, 2004). For this purpose of the current investigation, data collected between 2005 and 2011.
Figure 4.2. The distribution of participants by age in the MYS between 1998 and 2001

Measures

Demographic Characteristics

Age. Adolescents were asked, “How old are you?” Responses ranged from 10 to 19 years of age (1 = 10 years through 11 = 19 years). The study focused on youth aged 10 years between 1998 and 2001 and followed them through aged 18 years.

Sex. Participants were asked to indicate their gender. Responses were given as 1 (male) or 2 (female).
*Predicting Variables*

**Explosive anger.** Adolescent’s explosive anger was measured using three items which assessed adolescents’ ability to control anger. For example, adolescents were asked, “When I get angry, I get into fights” and “When I get angry, I get crazy or loco.” The responses to the items were given on a 3-point type Likert scale which ranged from 1 (Often true for me) to 3 (Almost never true for me). These responses were reverse coded prior to creating a composite explosive anger measure, so that higher scores indicated higher levels of explosive and lower scores indicated a lower levels of explosive anger. The reliability coefficient for this scale was $\alpha = .52$.

*Mediating Variables*

**Violent victimization.** Violent victimization was measured using two items. Students were asked, “In the past year (12 months), did someone cut or stab you bad enough that you have to see a doctor?” and “In the past year (12 months), did someone shoot a gun at you?” The responses to these items ranged from 0 (No) to 2 (Yes, more than once). A composite score was computed, to create a measure of violent victimization at Time 2; a higher score reflected high levels of violent victimization. The reliability coefficient for this scale was $\alpha = .49$.

**Violence perpetration.** Two items were used to assess self-report of violent behaviors. Students were asked, “In the past month, did you tell someone you were going to cut, stab or shoot them?” and “In the past month, did you pull a knife or a gun on someone else?” Responses to each of the items ranged from 0 (No) to 2 (Yes, more than once). A mean of the scores were computed so that a higher score showed higher perpetration of violent behaviors. The reliability coefficient for this scale was $\alpha = .64$. 
Weapon carrying. Two items were used to assess for adolescents’ weapon carrying. Respondents were asked, “In the past year, did you carry a knife or razor?” and “In the past year, did you carry a gun?” The responses to these items ranged from 0 (No) to 2 (Yes, more than once). A mean score was computed at Time 2; a high score reflected increased likelihood of weapon carrying among youth. The reliability coefficient for this scale was $\alpha = .43$.

Official records

Offending behaviors. Official records (retrieved from the district juvenile court records in Mobile County, Alabama) were connected to each participant from the MYS data. There were multiple incidences (cases) between 1999 and 2013 for those who came into contact with the juvenile justice system more than once. It should be noted that all duplicate arrest reports were removed from the current analysis. Each incidence was identified by participant identification number, referral year, with an accompanying date of referral, date of petition, date of offense, date of disposition and court action date. Previous research has raised concerns on the reliance on local records because of arrests that may have occurred outside the home jurisdictions (see Huizinga & Elliott, 1986; Kirk, 2006). In order to accurately compare self-reports and official records, participants from the self-reported data were matched to the official data by identification numbers. Of the $n = 949$ respondents, 845 participants (89%) were referred to the juvenile court system, and 104 participants (11%) were not referred. Based on the original sample, adolescents referred to the juvenile courts were coded “1” for official juvenile justice contact and “0” for no juvenile justice contact. The official juvenile court record showed a total of 69 offenses, which were constructed into 20 referral categories. The following
categories were: (1) Liquor offenses, (2) Arson, (3) Assault, (4) Burglary, (5) Motor-vehicle theft, (6) Burglary, (7) Weapon (8) Children in Need of Supervision (CHINS)/Beyond Control, (9) Criminal Mischief, (10) Criminal Trespass (11) Disorderly Conduct (12) Domestic Violence (13) Failure to obey fireman/policeman (14) Harassment (15) Loitering (16) Menacing (17) Drugs/possession of controlled substance (18) Receiving stolen property (19) Robbery (20) Theft/shoplifting. The items for violent offenses were recoded into binary items. These items offenses consisted of three items (i.e., assault, firearm/weapon possession, robbery) and were coded “1” for violent offenses and all other offenses were coded “0” for non-violent offenses. Status offenses consisted of two main items: (1) CHINS/Beyond control and (2) alcohol offenses, which were coded “1” = status offenses, while all other offenses were coded “0” = non-status offenses. Overall, each measure identified adolescents who were arrested and officially processed by the juvenile courts between ages 17 and 18.

---

4 Child in Need of Supervision (CHINS) is one who has committed an act which, if that child were an adult, would not be considered a crime but is in need of care or rehabilitation, such as one who is habitually truant, disobedient to parents, or is a runaway.
Table 4.1. Variable description and descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
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<th>SD</th>
<th>Range</th>
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</thead>
<tbody>
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<td>Demographic variables</td>
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<tr>
<td>Age (T1)</td>
<td>Age of respondent (1 = 10)</td>
<td></td>
<td></td>
<td></td>
<td>949</td>
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<tr>
<td>Sex (T1)</td>
<td>Sex of respondent (1=Male)</td>
<td>.50</td>
<td>.50</td>
<td>0-1</td>
<td>944</td>
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<td>Family structure (T1)</td>
<td>Do you live with someone like a mother and someone like a father all of the time? (1 = yes)</td>
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<tr>
<td>Predictor variables</td>
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<td></td>
<td></td>
</tr>
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<td>Explosive anger (T1)</td>
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<td>.49</td>
<td>1-3</td>
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<td>.25</td>
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<td>Weapon carrying (T2)</td>
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<td>.33</td>
<td>0-2</td>
<td>772</td>
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Table 4.1 (Continued)

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<td>Juvenile court referral (T3)</td>
<td>Binary measure: “1” = Juvenile court referral and “0” = No juvenile court referrals</td>
<td>.54</td>
<td>.50</td>
<td>0-1</td>
<td>845</td>
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<tr>
<td></td>
<td>1 Liquor offenses</td>
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</tr>
<tr>
<td></td>
<td>2 Arson</td>
<td></td>
<td></td>
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<td></td>
<td>3 Assault</td>
<td></td>
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<td></td>
<td>4 Motor vehicle theft</td>
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<td></td>
<td>5 Burglary</td>
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<td></td>
<td>6 Firearm possession</td>
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<td></td>
<td>7 Children in Need of Supervision (CHINS)/Beyond Control</td>
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<tr>
<td></td>
<td>8 Criminal Mischief</td>
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<tr>
<td></td>
<td>9 Criminal Trespass</td>
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<tr>
<td></td>
<td>10 Disorderly Conduct</td>
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<td>11 Domestic Violence</td>
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<td></td>
<td>12 Failure to obey policeman/fireman</td>
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<tr>
<td></td>
<td>13 Harassment</td>
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<tr>
<td></td>
<td>14 Loitering</td>
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<tr>
<td></td>
<td>15 Menacing</td>
<td></td>
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<tr>
<td></td>
<td>16 Drugs/illegal substances</td>
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<td></td>
<td>17 Receiving stolen property</td>
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<tr>
<td></td>
<td>18 Robbery</td>
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<td></td>
<td>19 Theft/Shoplifting</td>
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<tr>
<td>Violent offenses (T3)</td>
<td>Binary measure: “1” = Violent offenses and “0” = No violent offenses</td>
<td>.30</td>
<td>.46</td>
<td>0-1</td>
<td>469</td>
</tr>
<tr>
<td></td>
<td>1 Assault</td>
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<td></td>
<td>2 Firearm possession</td>
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<tr>
<td></td>
<td>3 Robbery</td>
<td></td>
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</table>

(Continued on next page)
Table 4.1 (Continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status offenses (T3)</td>
<td>Binary measure: “1” = Status offenses and “0” = No status offenses</td>
<td>.10</td>
<td>.30</td>
<td>0-1</td>
<td>437</td>
</tr>
<tr>
<td></td>
<td>1 Liquor</td>
<td></td>
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<tr>
<td></td>
<td>2 Children in Need of Supervision (CHINS)/Beyond Control</td>
<td></td>
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</tbody>
</table>

Plan of Analysis

Statistical analyses were conducted with PROCESS macro in SPSS (Hayes, 2012) because of its ability to estimate models with binary or dichotomous outcomes. Most of the previously published work on mediation analyses has utilized the causal steps approach to analysis popularized by Baron and Kenny (1986); however, despite the popularity of this method among researchers, there is some criticism for its ability to effectively detect mediation effects in independent and dependent measures (Fritz & MacKinnon, 2007; Hayes, 2012; MacKinnon, Lockwood, Hoffman, West & Sheets, 2002). The PROCESS macro is an improvement over traditional mediation techniques (Hayes, 2012) because it provides simultaneous estimates for direct and indirect effects of mediated paths in a single analytic step while also accounting for the shared association between effects. PROCESS also provides useful procedures for probing model interactions based on bias-bootstrap confidence intervals for indirect effects (Hayes, 2012); where the significance of the indirect path is indicated when the confidence interval does not contain zero (p < .05). The bootstrapping procedure is useful...
for its accuracy in evaluating mediating effects (MacKinnon et al. 2004; Williams and MacKinnon 2008; Hayes 2013a, b). Based on previous work by Preacher and Hayes (2004, 2008) and Hayes (2009), the bias bootstrap confidence intervals provides a more accurate estimate of indirect effects than the Normal theory-based Sobel test, because it does not have the stringent requirement that the sample is normally distributed. Figure 1 illustrates the model testing whether the relationships between explosive anger and official offending (juvenile justice contact, violent offenses and status offenses) are mediated by each of the three measures (violent victimization, violence perpetration and weapon carrying).

**Results**

Prior to addressing the study aims, bivariate correlations between background variables and main study measures were calculated and included in Table 4.2. Bivariate correlations between background variables (sex and family structure) revealed a significant and positive association between sex and the predictor (explosive anger) and two of the mediators (violent victimization and weapon carrying), but the relationship between family structure and each of the main study constructs appeared unrelated, with the exception of juvenile court referrals. Correlations between sex and mediating measures provided evidence that the association between sex and violent victimization was stronger ($r = .24$, $p < .01$) than the effects sex and weapon carrying ($r = .14$, $p < .01$) which suggests that poor emotional regulation (explosive anger) is, in fact, more strongly related to violent victimization. As anticipated, explosive anger was significantly and positively related to each of the three mediating variables of violent victimization, violence perpetration, and weapon carrying, respectively. However, explosive anger was
only significantly associated with one of the dependent measures, namely, juvenile court referrals. As for the relationship between self-reports and official records, all three mediators (violent victimization, violence perpetration, and weapon carrying) were positively correlated to juvenile court referrals, while weapon carrying was positively associated with violent offenses in the sample.
Table 4.2: Correlations between background variables, self-reports and official records

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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</thead>
<tbody>
<tr>
<td>1. Sex</td>
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<tr>
<td>2. Family Structure</td>
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<td>3. Explosive anger (T1)</td>
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<td>4. Violent victimization (T2)</td>
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<td>5. Violence perpetration (T2)</td>
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<tr>
<td>6. Weapon carrying (T2)</td>
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<tr>
<td>7. Juvenile court referral (T3)</td>
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<tr>
<td>8. Status offenses (T3)</td>
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<tr>
<td>9. Violent offenses (T3)</td>
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</tbody>
</table>

10. $d_{**}$
Mediation Effects by Violent Victimization, Violence perpetration and Weapon Carrying on Official Offending

The present study investigated whether poor emotional regulation in early years, as measured by explosive anger, precipitates violent behaviors (measured by perpetration and victimization) and weapon carrying on subsequent juvenile offending. Specifically, the study tested whether each of the three measures (violent victimization, violence perpetration, and weapon carrying) mediated the relationship between explosive anger at Time 1 and official juvenile offending (contact, violent offenses, and status offenses) at Time 3 in a sample of African American youth. The unstandardized regression coefficients for direct and indirect effects are reported in Table 4.3. The study used a total 10,000 bootstrapping samples (resamples) to ascertain the confidence intervals and significance of the indirect effects (see Table 4.3). The results showed that the indirect effects of explosive anger on juvenile justice contact by all three measures, namely, violent victimization, violence perpetration and weapon carrying were significant, net the effects of sex in the models. However, this was in contrast to the results of the indirect effects of explosive anger on violent and status offending by all three mediators at Time 2 in the sample. Rather, findings indicated the indirect effects of explosive anger on violent offenses by weapon carrying was significant, which suggests that explosive anger indirectly influenced violent offending (measured by violent offenses) through its effect on weapon carrying. Further analysis of the influence of explosive anger by each of the mediators on offending provided no support for indirect effects in the sample.
### Table 4.3: Findings from Mediation Model Tests (Unstandardized coefficients)

<table>
<thead>
<tr>
<th>Dependent Measure (DV)</th>
<th>Independent Measure (IV)</th>
<th>b</th>
<th>SE</th>
<th>b</th>
<th>SE</th>
<th>b</th>
<th>SE</th>
<th>b</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juvenile court referral</td>
<td>Explosive anger</td>
<td>1.182</td>
<td>.152</td>
<td>.317</td>
<td>.138</td>
<td>.187</td>
<td>.087</td>
<td>** .05**</td>
<td>* .027</td>
</tr>
<tr>
<td>Violent offenses</td>
<td>Explosive anger</td>
<td>1.309</td>
<td>.271</td>
<td>.257</td>
<td>.174</td>
<td>.134</td>
<td>.075</td>
<td>** .003**</td>
<td>* .030</td>
</tr>
<tr>
<td>Status offenses</td>
<td>Explosive anger</td>
<td>-1.310</td>
<td>.372</td>
<td>-2.42</td>
<td>.144</td>
<td>-1.43</td>
<td>.654</td>
<td>*** .003**</td>
<td>* .008</td>
</tr>
</tbody>
</table>

Note: Bolded confidence intervals do not include zero, suggesting a significant indirect effect.
### Findings from Mediation Model Tests (Unstandardized coefficients)

#### Table 4.3 (continued)

<table>
<thead>
<tr>
<th>Independent Measure (IV)</th>
<th>Dependent Measure (DV)</th>
<th>95% CI</th>
<th>(total effect)</th>
<th>(direct effect)</th>
<th>(IV→M)</th>
<th>(M→DV)</th>
<th>Indirect (IV→M→DV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive anger</td>
<td>Juvenile court referral</td>
<td>1.20 (0.14 to 1.38)</td>
<td>0.14 (0.01 to 0.27)</td>
<td>1.02 (0.95 to 1.09)</td>
<td>1.02 (0.95 to 1.09)</td>
<td>0.07 (0.04 to 0.11)</td>
<td></td>
</tr>
<tr>
<td>Explosive anger</td>
<td>Violent offenses</td>
<td>1.20 (0.14 to 1.38)</td>
<td>0.14 (0.01 to 0.27)</td>
<td>1.02 (0.95 to 1.09)</td>
<td>1.02 (0.95 to 1.09)</td>
<td>0.07 (0.04 to 0.11)</td>
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<tr>
<td>Explosive anger</td>
<td>Status offenses</td>
<td>1.20 (0.14 to 1.38)</td>
<td>0.14 (0.01 to 0.27)</td>
<td>1.02 (0.95 to 1.09)</td>
<td>1.02 (0.95 to 1.09)</td>
<td>0.07 (0.04 to 0.11)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Bolded confidence intervals do not include zero, suggesting a significant indirect effect.

- *p < .05
- **p < .01
- ***p < .001

Controlling for sex (1=male) in mediation models.


**Discussion**

The current study makes a novel contribution, both conceptually and empirically to our understanding of the relationship between explosive anger and juvenile justice contact in adolescents. Because of the paucity of research on the underlying mechanisms that impact juvenile offending, the current study addressed this limitation by testing the direct link between self-reported explosive anger and subsequent juvenile justice contact, as well as the indirect link through self-reports of violent victimization, violence perpetration, and weapon carrying during middle adolescence using multiple waves of data from a sample of non-metro African American youth. The findings demonstrate that poor emotional regulation in early adolescence as measured by explosive anger significantly increased the risk for violent victimization, violence perpetration, and weapon carrying during middle adolescence. The results of the study are consistent with previous research that adolescents who exhibit poor emotional regulation, such as anger, are more likely to be victims of violence and perpetrators of violence (perpetration and weapon carrying). Also consistent with the literature, each of the three mediators (violent victimization, violence perpetration, and weapon carrying) was found to increase the risk for juvenile justice contact. The findings also showed that each of the three measures (violent victimization, violence perpetration, and weapon carrying) mediated the relationship between explosive anger during early adolescence and juvenile justice contact during late adolescence.

The study identified developmental pathways of how explosive anger predicted juvenile court contact during late adolescence. Interestingly, these effects were significant for all three of the mediators for juvenile justice contact in the sample. On the other hand,
the indirect effect of explosive anger on violent offenses was only significant through
weapon carrying as the effects through violent victimization and violence perpetration
remained non-significant. Given that the indirect effect of explosive anger through
violent victimization, violence offending, and weapon carrying on status offending were
not significant, it might be explained by be related to the fact that there were fewer cases
of status offenses.

The early age at which adolescents manifest explosive anger, demonstrates the
need for early-intervention programs for reducing aggression in children. It is important
to note that the sample in this study was homogeneous with respect to socioeconomic
status; all the adolescents lived in extreme poverty. In addition, the overwhelming
majority of the sample was African American; therefore, the differences in juvenile
justice contact cannot be attributed to ethnicity or socioeconomic status nor to
interactions of those variables with other variables.

There are several strengths in this study. In particular, the use of the longitudinal
study of non-metro, inner-city African American adolescents adds to the existing
literature on emotional regulation and juvenile offending by providing evidence to
support the mediating effect of each of three behaviors on the association between
emotional dysregulation (explosive anger) and juvenile offending in a homogenous,
impoverished African American sample. The effect of explosive anger seems largely
consistent, as evident by its effects on violent victimization, violence perpetration, and
weapon carrying. Finally, it is important to note the modest contribution
methodologically as the study utilized the recently developed PROCESS macro (Hayes,
2013) to test for mediation effects as well as the simultaneous estimation of both direct and indirect effects.

Several aspects of this study design may limit generalizability of the findings. One of the major limitations is the homogeneity of the sample. As the sample consisted of African American adolescents from one geographical region, generalizability to other African American youth populations is limited. Although generalizability is limited because of this, it is also a strength of the study as most longitudinal projects focused on minority youth were conducted in large metropolitan areas of the United States. Nevertheless, future studies should continue to examine the research questions in diverse African American samples.

Another major limitation to the study design is the fact that the study focused on data collected over an eleven-year period. A number of participants were lost due to attrition, thus new participants were added to each cohort to compensate for those participants lost in prior cohorts. Furthermore, this study is limited using self-reporting as a means to measure explosive anger, violent victimization, violence perpetration, and weapon carrying. The uses of self-reported data are plagued by overreporting (report of more events or behaviors) and underreporting (report of fewer of experiences or behaviors) across cohorts. Similarly, the use of official records is not without limitations. For example, the study uses official juvenile court records from one district in Alabama, which limits the capability to track youth who may have been arrested outside the state and thus, could not be successfully followed. An added limitation is the fact that official data sometimes contributes to the discrepancies in the data as existing research has found that not all juveniles are referred to the juvenile justice system. For instance, prior
research has shown that 15% of police contact with youth resulted in arrest (Black & Reiss, 1970), suggesting that official data may lead to false conclusions on the self-report and official data relationship.

Conclusions

The current investigation found that variations in juvenile offending can be explained by poor emotion regulation (explosive anger) in early adolescence and each of the three potential measures (violent victimization, violence perpetration, and weapon carrying) in middle adolescence in a longitudinal study of African American youth followed over an 11-year period. The findings provide new evidence about the potential mechanism in which poor emotion regulation (explosive anger) influences offending, indirectly through violent victimization, violence perpetration, and weapon carrying) though the effects were moderate. These results support the need for further research regarding the role of poor emotional regulation in early years and subsequent youth contact with the juvenile justice system. It should be noted that the study also attempted to explain the influence of explosive anger on status and violent offending in adolescents by violent victimization, violence perpetration, and weapon carrying. The results provided evidence that explosive anger predicted violent offenses through weapon carrying, but this was not the case for the effects of explosive anger by violent victimization and violence perception on violent offending. Thus, interventions addressing offending should focus on and target childhood emotional regulation, which operates through each of the potential measures (violent victimization, violence perpetration, and weapon carrying) in explaining variability in juvenile justice contact.
Chapter 5: Summary of Findings

It is widely recognized that African American youth are disproportionately represented in the juvenile justice system in comparison to other racial/ethnic groups, and this has generated a large body of research into the etiology and prevention of crime in this population. Although there has been considerable attention on identifying and reducing the disproportionate contact among African American youth with the juvenile justice system, it is still unclear what factors contribute to their involvement in it. More importantly, existing research on African American youth has focused on at-risk youth samples in metropolitan areas, with little attention for paid to those living in rural or non-metro cities. Furthermore, the majority of these studies have examined the effects in predominantly male-only samples. In sum, this dissertation aimed to enhance and broaden the knowledge base by examining juvenile justice contact in a sample of impoverished, non-metropolitan, inner-city African American youth.

The first manuscript assessed whether self-reported violent victimization, violence perpetration, as well as weapon carrying foretold subsequent official offending, measured by official juvenile court records during late adolescence. A salient finding from this study is the significant effect of self-reported violent victimization and violence perpetration in early adolescence on subsequent official violent offending in late adolescence. This particular finding is consistent with the literature which suggests that adolescent involvement in violent victimization and violence perpetration increases the risk for violence-related offenses, ones captured by the juvenile justice system, later in adolescence. While this finding was consistent with some previous other research, other findings were not. For instance, self-reports of weapon carrying was not predictive of
official offending in this sample. This was somewhat unexpected considering that prior studies have found evidence linking weapon carrying to violent behaviors. One explanation for this finding might be related to the existing research which suggests that inner-city youth carry weapons for protection or self-defense, which may explain why the effects of weapon carrying were not significant in foretelling juvenile justice contact. Furthermore, it is also important to note that this finding indicates that weapon carrying is in fact unrelated to subsequent delinquent or criminal behaviors.

Additionally, the observed findings suggest that male youth were more likely to come into contact with the juvenile justice system for violent offenses than their female counterparts. Notwithstanding more frequent contact, in males were at a greater risk for violent victimization and violent behaviors (violence perpetration and weapon carrying) than female adolescents. This finding has been found in previous research among inner city youth samples which indicate that male youth report witnessing more frequent and severe violent events than female youth (Singer et al. 1995; Jenkins & Bell 1994). However, there are some exceptions as other studies have noted no sex differences (Attar et al. 1994; Farrell & Bruce 1997; Uehara et al. 1996). Furthermore, it is important to point out that violent victimization and violence perpetration measures used in the present study captured only minor forms of violence, and thus did not include more serious behaviors; in turn, this might account for modest relationships between these behaviors and youth contact with the juvenile justice system. Thus, future work should consider alternative self-report measures of violent victimization, violence perpetration as well as weapon carrying and how these are important for subsequent official offending.
The second study tested the longitudinal links between school discipline and juvenile justice contact. Specifically, the study tested both the direct and indirect effects of self-reported school disciplinary actions (expulsion and suspension) in early adolescence on subsequent juvenile justice contact as well as official offending (status offenses and violent offenses) in late adolescence. Direct effects indicated that school discipline, measured by suspensions, was predictive of subsequent offending in both male and female adolescents, indicating the effects of out-of-school suspension on the student can be profound. In fact, it can be postulated that while suspension serves to protect school staff and other students from further verbal and/or physical abuse, by isolating the offending student, it in fact appears to increase the risk for juvenile contact for adolescents. While other studies have tested these effects, no other study has tested these effects longitudinally or both using self-reports and official records. Given the salience of school disciplinary actions on youth adjustment in late adolescence, it might be important to consider other alternatives to such reactive school discipline.

In addition to direct effects, the study also tested whether self-reported school-disciplinary actions on juvenile justice contact were moderated by effective parenting (monitoring) and ineffective parenting (permissiveness) in the sample. Most scholarship has emphasized the importance of effective parenting strategies in the reduction of negative adjustment outcomes. Interestingly, the findings suggest that adolescents who reported school discipline actions (suspension or expulsion) were more likely to report fewer parenting controls, which, in turn, positively predicted official offending. Interestingly, the analyses provided little to no evidence that these effects were moderated by either measure of parenting, positive or negative. It is therefore important
that future work consider these effects using other measures of parenting in order to
determine whether additional measures in fact do moderate this link.

Finally, the findings in the third study provided evidence that significant indirect
effects for the link between explosive anger on violent offending (measured by violent
offenses) was significant, thereby providing consistent evidence that aggressive behaviors
are important developmental precursors of juvenile criminal acts and juvenile justice
contacts (Broidy et al., 2003; Schaeffer et al., 2003). Furthermore, this finding is
consistent with multiple studies examining childhood aggression and future involvement
in the juvenile justice system (e.g., Farrington et al., 1989), although most of these studies
are based on offending youth. Not surprisingly, the effects of explosive anger on juvenile
justice contact was mediated by each of the tested three variables, violent victimization,
vioence perpetration, and weapon carrying was significant. Thus, the current findings
provide evidence that explosive anger in early adolescence increases the risk for violent
victimization and perpetration in middle adolescence which ultimately increases juvenile
justice contact. On the other hand, results regarding the mediation of explosive anger on
violent offenses by each of three mediators (violent victimization, violence perpetration,
and weapon carrying) indicate the pathway between explosive anger and violent
offending was mediated by weapon carrying, but not violent victimization and violence
perpetration. This suggests that the risk for violent offending in adolescents was greater
for adolescents carrying weapons in middle adolescence. This is not surprising
considering that other studies have found evidence that inner-city adolescents were more
likely to carry weapons themselves. In fact, the finding implies that adolescents who
carry weapons such as guns or knives for personal safety and self-protection are not only at a greater risk for violent offending in later adolescence.

In sum, the set of three studies contributes to the empirical knowledge base on multiple potential pathways of how African American youth are referred to or come into contact with the juvenile justice system. Quite surprisingly, of the youth followed from early adolescence in this sample, approximately 50% of them entered the juvenile justice system by age 18. Previous studies have noted a positive link between socioeconomic status and entry risk, where youth from relatively lower levels of SES were at a greater risk for juvenile justice contact than those from higher SES (Sampson & Lauritsen, 1994). The respondents in the current study were purposively selected from high-poverty neighborhoods in the cities of Mobile and Prichard, Alabama, with a poverty rate between 31.5% and 81.4% (median poverty rate of 57.2%; U.S. Census Bureau, 1999), and thus the effects of SES could not be studied, other than almost all study participants were poor. Although this implies that the findings from the study cannot be broadly generalized to all African American populations from other developmental contexts, it provides a helpful look into identifying potential precursors to juvenile justice contact in a non-metropolitan, inner-city sample of African American adolescents.
APPENDIX A

(List of Main Study Measures from the Mobile Youth Survey)

Explosive Anger

1. When I get angry, I get into fights.
2. When I get angry, I yell a lot.
3. When I get angry, I get crazy or loco.

Responses: $0 = \text{Almost never true}; 1 = \text{Sometimes true for me}; 2 = \text{Often true for me}$

Parental Monitoring

1. How much does your mother or father really know about where you go at night?
2. Do your mother or father try to find out how you spend your time?
3. How much does your mother or father really know about how you spend your time?

Responses: $1 = \text{They don’t know}; 2 = \text{They know a little}; 3 = \text{They know a lot}$

Parental Permissiveness

1. Are you allowed to stay out as late as you want on school nights?
2. Are you allowed to stay out after dark on school nights?
3. Are you allowed to stay out as late as you want on weekend nights?
4. Are you allowed to stay out after dark on weekend nights?

Responses: $0 = \text{No}; 1 = \text{Yes}$

School Expulsions

1. During the past 12 months, were you expelled from school?

Responses: $0 = \text{No}; 1 = \text{Yes}$

School Suspensions

1. During the past 12 months, were you suspended from school?

Responses: $0 = \text{No}; 1 = \text{Yes}$
Victimization

1. In the past year did someone shoot a gun at you?
2. In the past year did someone cut or stab you bad enough that you had to see a doctor?

Responses: 0 = No; 1 = Yes, just once; 2 = Yes, more than once

Violent Behaviors

1. In the past 90 days did you tell someone you were going to cut, stab, or shoot them?
2. In the past 90 days, did you pull a knife or gun on someone else?

Responses: 0 = No; 1 = Yes, just once; 2 = Yes, more than once

Weapon Carrying

1. In the past year, did you carry a knife or razor?
2. In the past year, did you carry a gun?

Responses: 0 = No; 1 = Yes, just once; 2 = Yes, more than once
References


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and the Growing Use of Suspensions. *Justice Policy Institute Policy Brief*.


U. S. Census Bureau (1999). State and county quickfacts: Mobile County, AL

http://quickfacts.census.gov/qfd/states/01000.html


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EDUCATION

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ACCEPTED BOOK CHAPTERS


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2008-2009 Social Work Intern (Clinical)
Good Samaritan Hospital, Behavioral Health
University of Kentucky, Lexington, Kentucky

**PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS**

<table>
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<th>Since,</th>
<th>Organization</th>
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<tr>
<td>2013</td>
<td>Society for the Research on Adolescence (SRA)</td>
</tr>
<tr>
<td>2012</td>
<td>American Society of Criminology (ASC)</td>
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