12-31-2008

Violent and Criminal Behaviors in Rural and Non-Rural African American Youth: A Risk-Protective Factor Approach

Elizabeth Trejos-Castillo  
*Texas Tech University*

Alexander T. Vazsonyi  
*Auburn University*

Dusty D. Jenkins  
*Auburn University*

Follow this and additional works at: [https://egrove.olemiss.edu/jrss](https://egrove.olemiss.edu/jrss)

Part of the Rural Sociology Commons

**Recommended Citation**


This Article is brought to you for free and open access by the Center for Population Studies at eGrove. It has been accepted for inclusion in Journal of Rural Social Sciences by an authorized editor of eGrove. For more information, please contact egrove@olemiss.edu.
VIOLENT AND CRIMINAL BEHAVIORS IN RURAL AND NON-RURAL AFRICAN AMERICAN YOUTH: A RISK-PROTECTIVE FACTOR APPROACH

ELIZABETH TREJOS-CASTILLO
TENNESSEE TECH UNIVERSITY

ALEXANDER T. VAZSONYI
AUBURN UNIVERSITY

and

DUSTY D. JENKINS
AUBURN UNIVERSITY

ABSTRACT

Once believed to be a poor inner city neighborhood characteristic, youth violence and crime are now recognized as problems in rural areas as well (Osgood and Chambers 2000). Studies on their etiology remain scarce, particularly with a focus on minority youth. Given the importance of individual characteristics and a positive future orientation (educational aspirations) during adolescence, the current study tested a risk-protective factor approach with measures of risk proneness, self-esteem, educational commitment, and educational expectations to predict both direct and “indirect” measures of violence and criminal behaviors (assault, encounters with law enforcement, and court appearances) in samples of rural (n=687) and non-rural (n=182) African American youth. Results show that self-esteem, risk-proneness, and educational commitment were highly associated with measures of violent and criminal behaviors in both samples. Importantly, no differences were found in how risk or protective factors were associated with measures of violence and crime in rural and non-rural developmental contexts.

Rural communities are often perceived as safe areas that are generally less prone to violence and criminal behaviors (Frank 2003). This view is corroborated by official data reporting that, for example in 2005, whereas rates of violent crimes accounted for 514.6 violent incidents per 100,000 inhabitants in urban areas, rural areas reported only 199.2 violent incidents per 100,000 (NCVS 2005). In addition,

“This research was supported through grants to the second author by the National Research Initiative (USDA, Competitive Grant Program Agreement No. 00-35401-9256) and by an award from the Auburn University Competitive Research Grant Program.
the Uniform Crime Reports (UCR 2006) reported higher rates of violent crimes among urban areas compared with rural areas in 2006; that is, 404.2 versus 197.1 violent crimes per 100,000 inhabitants, respectively. However, official data also show that the greatest decrease of violent crimes has taken place in non-rural areas over the last five years (NCVS 2005); and, the increasing trends on criminal incidents among rural youth have gained the attention of some scholars in recent years. For instance Mink et al. (2005) sampled 9–12th graders (N=13,601) living in urban (n=5,113), suburban (n=7,144) and rural (n=1,263) areas and found evidence that rural youth were at equal or greater risk for being exposed to violent behaviors, such as weapon carrying, fighting, and suicidal behaviors than their urban and suburban counterparts. Other studies have also provided evidence of significantly higher risk for weapon carrying, gun carrying, exposure to violence, and verbal and physical aggression (e.g., verbal harassment, making threats, pushing, shoving, kicking, being in a fight) among rural youth compared with urban ones (Atav and Spencer 2002; Slovak and Singer 2002; Swaim, Henry, and Kelly 2006).

While understanding crime and violence among rural youth is a pressing need, noting that scholarship in this area needs to overcome key limitations in previous studies is important. For example, many studies have included multiple confounds (e.g., SES, ethnicity/race, poverty) by comparing Caucasian youth with ethnic minority adolescents, and in many of these studies minorities are often significantly underrepresented in the comparisons (Mink et al. 2005). This, in turn, may result in misleading generalizations about characteristics of a particular group of youth (Brewer and Heitzeg 2008; Covington 1995). For example, nationally surveyed African American and White youth reported similar rates of weapon carrying, gun carrying, and of being involved in a physical fight in 2003 (15.2% and 17.9%; 6.5% and 5.5%; and 36.5% and 32.5%, respectively; CDC 2003). In addition, White youth reported having committed almost twice the number of violent crimes (59%) in comparison to African American adolescents in 2005 (25%; BJS 2005). Finally, African American youth showed the greatest decline in homicide rates across all racial/ethnic groups between 1993 and 2003 (NCVS 2005). Nonetheless, African American youth reported being arrested at a rate nearly two to three times that of White adolescents (69 to 137 times compared with 30 to 48 times per 100,000 individuals; Snyder 2003). This phenomenon is not unique to the urban areas, but also a noticeable problem in rural communities – “between 1993-1998, 90% of the rural population was White and [they] were perceived to have committed 72% of
rural violent crimes. Although Blacks comprised only 8% of the rural population, they were perceived to have committed 16% of rural violent crimes” (Small 2001:2).

A closely associated issue is the scarcity of comparative studies that examine within group similarities or differences in developmental outcomes across contexts (e.g., rural versus non-rural African American youth; Farmer et al. 2004; Hawkins 1995, 1999; Osgood and Chambers 2000). In part, this limitation may be because numerous studies rely on official data (UCR) and self-reported victimization data (NCVS) which may not adequately test racial/ethnic and contextual comparisons with a focus on perpetration (Donnermeyer 1995; Hawkins et al. 2000). Other causes may relate to the lack of agreement among scholars about how urban models of crime and violence replicate or not across rural areas; some researchers adhere to the generalized view that rural areas are structurally homogenous in comparison to urban areas, and thus, youth in both contexts experience completely different patterns of violence and crime (Branas et al. 2004; Weisheit and Wells 2001).

Because of the abovementioned gaps, the current study aimed to examine violent and criminal behaviors (e.g., assault, encounters with law enforcement, and court appearances) in two samples of African American youth, one rural and one non-rural. More specifically, it tested a risk-protective factor model that considered risk proneness, self-esteem, educational commitment, and educational expectations. The current study used a comparative approach to test for potential moderation effects by developmental context (rural and non-rural). Theoretical underpinnings and empirical research on the risk/protective factor approach in the study of youth violence and crime are discussed in the following section.

THE RISK-PROTECTIVE FACTOR APPROACH

There is substantial theoretical and empirical support for the key role that risk and protective factors play in the etiology of violence and crime among youth. Jessor and colleagues (1995) define risk factors as conditions or variables that increase the likelihood of adolescents engaging in problem behaviors, whereas protective factors are those that either directly decrease the likelihood of participation in problem behaviors or moderate the effects of risk factors. Empirical evidence has shown that the cumulative effect of multiple risk factors may increase the likelihood of involvement in violent and criminal behaviors among youth (Earls 1994; Herrenkohl et al. 2000; Rutter, Giller, and Hagell 1998; Thornberry 1998).

Studies on risk and protective factors for youth violence have consistently pointed out the importance of individual characteristics particularly because
adolescents might be more vulnerable to risk factors surrounding their physical and social environments due to the major maturational changes and the expansion of social networks experienced during this developmental stage (Ollendick 1996; Reese et al. 2001; Webber 1997). Thus, several individual characteristics during this transitional stage are early predictors of problem behaviors (WHO 2002). For example, low self-esteem has been identified as a risk factor for aggression, delinquency, and violence (Donnellan et al. 2005; Jessor et al. 1995), whereas high self-esteem has been associated with positive outcomes including academic achievement, social relationships, and positive psychological functioning (Hirsch and DuBois 1991; Reasoner 1992; Rosenberg 1986; Zimmerman et al. 1997). Similarly, risk proneness—described as attraction to excitement and risk and a lack of awareness of negative consequences (Beyth-Marom and Fischoff 1997; Crockett et al. 2006)—has been significantly associated with aggression (e.g., Joireman, Anderson, and Strathman 2003; Swain et al. 2006) and delinquency in youth (e.g., White, Labouvie, and Bates 1985; Zuckerman 1974, 1979). Some scholars have suggested that the relationship between individual characteristics and violence and crime in youth may vary due to ethnic and racial background; however, most findings are generally inconclusive due to methodological limitations (e.g., race/ethnicity and SES confounds; Rhodes et al. 2004). For instance, Hubbard (2006) found that self-esteem was a protective factor for Caucasian youth whereas among African American adolescents, as self-esteem increased, their likelihood of being arrested also increased. In contrast, other studies reported higher levels of self-esteem associated with less aggression among urban African American youth (Li, Nussbaum, and Richards 2007; Yakin and McMahon 2003).

From a developmental perspective, adolescence also represents an important time to contemplate life aspirations, career, and occupational goals. Empirical evidence has shown that a positive school environment not only encourages adolescents to thrive and pursue their goals, but also represents an important predictor of behavioral outcomes in youth (Arthur et al. 2002; Hawkins, Von Cleve, and Catalano 1991; McNeely 2003). In fact, school connectedness, academic performance, educational commitment, and career expectations have been consistently cited in the literature as key predictors of multiple problem behaviors including aggression, delinquency, violence, and crime (e.g., Battistich and Hom 1997; Freeman 1996; Hawkins et al. 2001; Jessor et al. 1995; Maguin and Loeber, 1996; McNeely 2003; Resnick et al. 1997; Swaim et al. 2006; Tremblay et al. 1992). Again, some scholars have argued that African American adolescents are less likely
to feel connected to the school due to perceived rejection, anticipated lower performance, and lower career expectations by teachers and staff when compared with students from other ethnic/racial backgrounds (Griffin 2002). This, in turn, may result in limited occupational opportunities and lower socioeconomic attainment that could potentially lead to delinquency and crime (Caldwell, Sturges, and Silver 2007; Dornbusch et al. 2001; Morretti 2005).

Few previous studies have documented the associations among individual characteristics, educational achievement, and crime in youth across developmental contexts (e.g., rural versus non-rural), and findings have been inconsistent. For instance, rural youth have been described to have lower educational expectations and future aspirations than urban youth due to geographical isolation, limited educational and recreational resources, higher levels of poverty, and reduced career and professional opportunities (Apostal and Bilden 1991; Markstrom, Marshall, and Tryon 2000). In turn, these factors may result in lower self-esteem and subsequent engagement in violent and criminal incidents (Korbin 2003; Rhodes et al. 2004). In addition, it has also been suggested that youth living in high poverty urban neighborhoods develop a sense of hopelessness and future failure that may result in engagement in maladaptive behaviors (Bolland 2003; Greene 1993). Moreover, other scholars report no differences across developmental contexts and ethnic groups in levels of school factors and their associations with maladjustment among youth (Swaim et al. 2006).

In summary, understanding the links between individual characteristics, school factors (e.g., educational commitment and expectations), and violence among youth is a pressing issue considering the increasing crime rates among rural and non-rural youth as well as the alarming school dropout rates, particularly among urban African American youth for whom rates reached 50% between 2002 and 2003 (Swanson 2003). Furthermore, although previous studies have documented the association of individual and school related risk factors to violence and crime among multiethnic youth, within group similarities and differences, namely rural versus non-rural African American youth, remains for the most part unexplored (Farmer et al. 2004; Hawkins 1999).

METHODOLOGY
Data and Sampling Methodology

Data collection for the current study was approved by a University Institutional Review Board and included a self-report data instrument administered to African
American youth living in one rural and one non-rural location in the Southeastern region of the United States (n = 869). The rural data was collected at a county school with a total population of 851 students; the participants for the rural sample included 7th through 12th grade adolescents (n = 687; mean age 15.7 years). The rural school is located in a small town in a “Black Belt” county with a population of 73% African Americans, an unemployment rate of 8.1%, a median household income of approximately $20,600, and a poverty rate of 33.5% (Vazsonyi and Crosswhite 2004). The non-rural data was collected at a high school in a small university town outside the Black Belt with a population of 73% Whites, a median household income level of $30,950, and a poverty rate of 21.8% (Vazsonyi et al. 2001). The school had a total population of 1,134 students of which 289 were African Americans; participants for the current study included 9th-12th grade adolescents (n = 182).

Variables

Demographic variables. Age of participants was measured by two items indicating year and month of birth of participants; mean ages for the rural and non-rural samples were 15.7 years and 16.5 years, respectively. Sex was measured by a single item: “What is your sex?” (1=male and 2=female); the samples were gender balanced (46.6% and 48.9% males in the rural and non-rural samples). For family structure, most of the youth reported living with both biological parents or biological mother only; thus, family structure was recoded as 1=two biological parents and 2=other. Finally, socioeconomic status was assessed based on the job category of the household’s primary wage earner (1=Laborer, 2=Semiskilled, 3=Clerical, 4=Semi-professional, 5=Professional, 6=Executive).

Independent variables

Risk proneness was measured by a scale containing 10 items from the Low Self-Control Scale (Grasmick et al. 1993) and Weinberger Adjustment Inventory (Weinberger and Schwartz 1990) (e.g., “I do things without giving them enough thought;” 1=strongly disagree to 5=strongly agree). Rationale for selecting the items for both scales was based on Beyth-Marom and Fischhoff’s (1997) description

1The Black Belt comprises an area of 623 disadvantaged rural-non-metropolitan counties characterized by high rates of poverty, unemployment, infant mortality, poor health, and low academic achievement (U.S. Census 2003, 2006).
of risk proneness: attraction to risk and lack of awareness of negative consequences. An exploratory factor analysis (EFA) was conducted to examine construct validity of the scale and item loadings for each factor. Reliabilities were $\alpha = .81$ for the rural and $\alpha = .79$ for the non-rural sample. *Self-esteem* was measured by a subscale that is part of the 62-item Weinberger Adjustment Inventory (Weinberger and Schwartz 1990). The scale contained 7 items rated on a 5-point Likert-type scale ranging from 1=never to 5=always (e.g., wish was someone else); reliability coefficients were $\alpha = .72$ for the rural sample and $\alpha = .76$ for the non-rural sample. *Educational commitment* was measured by a scale composed of 10 items (e.g., does extra work to improve grades) drawn from Thornberry and colleagues’ Commitment to School Scale (1991) and Buriel, Calzada, and Vazquez’s Educational Expectations and Aspirations scale (1982). The items were rated on a 4-point Likert-type scale (1=strongly disagree to 4=strongly agree); reliability coefficients were $\alpha = .72$ for the rural sample and $\alpha = .74$ for the non-rural sample. *Educational expectations* were measured by a scale containing 2 items (e.g., how likely will graduate from a 2-year college & how likely will attend a vocational/technical school) rated on a 4-point Likert-type scale (1=definitely won’t to 4=definitely will). The items were based on "general" conceptual work by Hamilton and Lempert (1996); reliability coefficients were $\alpha = .71$ for the rural sample and $\alpha = .64$ for the non-rural sample. *Cumulative Risk* was computed by dichotomizing the predictor variables (risk-proneness, self-esteem, educational commitment, and educational expectations) into “0=low risk” and “1=high risk;” these values were assigned based on examination of frequencies as well as means of each variable to ensure that the cut-off point was consistent with the presence or absence of risk. For example, the item “I wish I was someone else” (self-esteem) was rated on a scale that ranged from 1=never to 5=always; thus, youth who answered never and not often were coded as “0=low risk,” whereas youth who answered often, sometimes, and always were recoded as “1=high risk;” the same procedure was followed to recode risk-proneness, self-esteem, educational commitment, and educational expectations scales. Then, dichotomized variables were summed to produce a cumulative risk index that ranged from 0-4.

---

*Some items were slightly reworded to correspond better with Likert scales and to alternate between positive and negative orientations of the items.*
Dependent variables

Violent and criminal behaviors were measured by two subscales from the Normative Deviance Scale (Vazsonyi et al. 2001), namely assault (six items; e.g., used force/violence/threats to get money from someone) and weapon carrying (two items; e.g., carried weapon to use/intention to fight); assault had good internal consistency across the rural (\( \alpha = .92 \)) and non-rural (\( \alpha = .83 \)) samples, and item correlations for weapon carrying were high in both samples (\( r = .85 \) and \( r = .90 \), respectively). In addition, encounters with law enforcement and court appearances were measured by four single items, namely “being pulled over by the police for speeding,” “being pulled over by the police for something else,” “appeared before court,” and “being arrested.” All dependent variables were rated on a 5-point Likert-type scale (1=never to 5=more than six times).

RESULTS

Results from comparisons of demographic characteristics showed only two significant differences across samples, namely age and family structure. More specifically, non-rural youth were older than rural youth (16.5 years and 15.7 years, respectively). In addition, most rural youth reported living with their biological mother only (n=252) and with a step father (n=108), whereas most non-rural youth reported living with both biological parents (n=78) or biological mother only (n=57); Table 1 provides detailed information on demographic characteristics by sample. Correlational analysis provided evidence that main study constructs were significantly correlated in the expected directions across samples; Table 2 depicts the correlation coefficients by sample.

In a next step, one-way ANOVAs were performed to test for potential mean differences on violent and criminal behaviors by cumulative risk across samples. Due to significant differences found across samples on age and family structure and to remove potential confounds due to demographic variables scores were residualized by age, sex, family structure, and SES. In addition, post hoc tests using Scheffé’s procedure were used for multiple comparisons. For simplicity purposes, the results of the comparisons will be discussed for the dependent variables that were based on two or more items, namely, assault and weapon carrying; the results are plotted in Figures 1 and 2 by sample. Overall, pairwise comparisons of adjacent cumulative risk categories by levels of assault and weapon carrying showed significantly higher levels of the two constructs for 3 and 4 risk factors (\( p < 0.05 \)) across variables in comparison to lower levels for 0 to 2 risk factors; thus, results
Table 1. Frequencies of Demographic Variables by Rural versus Non-Rural Developmental Context

<table>
<thead>
<tr>
<th>Developmental Contexts</th>
<th>Rural African American Youth n=687</th>
<th>Non-Rural African American Youth n=182</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>15.7 years</td>
<td>16.5 years</td>
<td>F=31.2*</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td>ns</td>
</tr>
<tr>
<td>Male</td>
<td>46.6 (320)</td>
<td>48.9 (89)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>53.4 (369)</td>
<td>50.5 (92)</td>
<td></td>
</tr>
<tr>
<td>Family structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two biological parents</td>
<td>176</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>461</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>Primary wage earner</td>
<td></td>
<td></td>
<td>ns</td>
</tr>
<tr>
<td>Laborer</td>
<td>6.0</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Semiskilled</td>
<td>24.3</td>
<td>20.2</td>
<td></td>
</tr>
<tr>
<td>Clerical</td>
<td>14.7</td>
<td>14.5</td>
<td></td>
</tr>
<tr>
<td>Semi-professional</td>
<td>31.2</td>
<td>28.2</td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>15.9</td>
<td>20.2</td>
<td></td>
</tr>
<tr>
<td>Executive</td>
<td>7.8</td>
<td>12.9</td>
<td></td>
</tr>
</tbody>
</table>

Note: **p < .01, ***p < .001; ns=not significant. Percentages are based on those who answered because the question applied to them. Participants were given the option to answer “does not apply” for parental education and employment; these figures are not included in the table and make up the difference between the sum of all categories and 100%.
<table>
<thead>
<tr>
<th></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>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Risk proneness</td>
<td><strong>-.20</strong></td>
<td><strong>-.10</strong></td>
<td><strong>-.14</strong></td>
<td><strong>.27</strong></td>
<td><strong>.25</strong></td>
<td><strong>.27</strong></td>
<td><strong>.31</strong></td>
<td><strong>.23</strong></td>
<td><strong>.22</strong></td>
<td><strong>.48</strong></td>
<td></td>
</tr>
<tr>
<td>2. Self-esteem</td>
<td>-.07**</td>
<td>.49**</td>
<td>.05</td>
<td><strong>-.35</strong></td>
<td><strong>-.31</strong></td>
<td><strong>-.36</strong></td>
<td><strong>-.34</strong></td>
<td><strong>-.27</strong></td>
<td><strong>-.39</strong></td>
<td><strong>-.65</strong></td>
<td></td>
</tr>
<tr>
<td>3. Education commitment</td>
<td>-.24**</td>
<td>.35**</td>
<td>.12**</td>
<td><strong>-.40</strong></td>
<td><strong>-.34</strong></td>
<td><strong>-.37</strong></td>
<td><strong>-.35</strong></td>
<td><strong>-.29</strong></td>
<td><strong>-.38</strong></td>
<td><strong>-.72</strong></td>
<td></td>
</tr>
<tr>
<td>4. Educational expectations</td>
<td>-.13**</td>
<td>.23**</td>
<td>.30**</td>
<td>.01</td>
<td><strong>-.12</strong></td>
<td><strong>-.21</strong></td>
<td><strong>-.03</strong></td>
<td><strong>-.08</strong></td>
<td><strong>-.07</strong></td>
<td><strong>-.48</strong></td>
<td></td>
</tr>
<tr>
<td>5. Assault</td>
<td>.38**</td>
<td><strong>-.32</strong></td>
<td><strong>-.39</strong></td>
<td><strong>-.23</strong></td>
<td>.76**</td>
<td>.70**</td>
<td>.71**</td>
<td>.71**</td>
<td>.75**</td>
<td>.42**</td>
<td></td>
</tr>
<tr>
<td>6. Weapon carrying</td>
<td>.33**</td>
<td>-.10**</td>
<td><strong>-.35</strong></td>
<td><strong>-.13</strong></td>
<td>.64**</td>
<td>.57**</td>
<td>.58**</td>
<td>.56**</td>
<td>.58**</td>
<td>.35**</td>
<td></td>
</tr>
<tr>
<td>7. Been pulled over for speeding</td>
<td>.20**</td>
<td><strong>-.23</strong></td>
<td><strong>-.33</strong></td>
<td><strong>-.25</strong></td>
<td>.46**</td>
<td>.29**</td>
<td>.01</td>
<td>.01</td>
<td>.00</td>
<td>.38**</td>
<td></td>
</tr>
<tr>
<td>8. Been pulled over for something else</td>
<td>.28**</td>
<td><strong>-.34</strong></td>
<td><strong>-.42</strong></td>
<td><strong>-.22</strong></td>
<td>.58**</td>
<td>.45**</td>
<td>.52**</td>
<td>.62**</td>
<td>.67**</td>
<td>.36**</td>
<td></td>
</tr>
<tr>
<td>9. Appeared before court</td>
<td>.16**</td>
<td>-.27**</td>
<td><strong>-.31</strong></td>
<td><strong>-.23</strong></td>
<td>.48**</td>
<td>.35**</td>
<td>.45**</td>
<td>.56**</td>
<td>.73**</td>
<td>.29**</td>
<td></td>
</tr>
<tr>
<td>10. Been arrested</td>
<td>.25**</td>
<td><strong>-.26</strong></td>
<td><strong>-.30</strong></td>
<td><strong>-.21</strong></td>
<td>.65**</td>
<td>.34**</td>
<td>.49**</td>
<td>.68**</td>
<td>.64**</td>
<td>.41**</td>
<td></td>
</tr>
<tr>
<td>11. Cumulative risk</td>
<td><strong>.54</strong></td>
<td><strong>-.55</strong></td>
<td><strong>-.65</strong></td>
<td><strong>-.61</strong></td>
<td>.42**</td>
<td>.34**</td>
<td>.38**</td>
<td>.45**</td>
<td>.34**</td>
<td>.39**</td>
<td></td>
</tr>
</tbody>
</table>

Notes: *p < .05, **p < .01. Rural African American youth are above the diagonal, while Non-Rural African American youth are below.
suggested that as the number of risk factors increased the levels of assault and weapon carrying increased significantly.

To be able to test potential moderation effects by developmental contexts (rural and non-rural) on the association between risk/protective factors and violent and criminal behaviors, interaction terms were introduced in the last step of the logistic regression models, namely self-esteem*sample, risk proneness*sample, educational commitment*sample, and educational expectations*sample. Although educational expectations were not significantly associated with any of the dependent measures, it was still tested in these analyses. The results showed that none of the interactions were statistically significant; this suggested that developmental context (rural versus non-rural) did not moderate the relationship between risk and protective factors and measures of violence and crime across samples. Table 3 includes the results from the final model step without interaction effects.

Results from logistic regressions showed that self-esteem, risk proneness, and educational commitment were significantly associated with all measures of violent and criminal behaviors (e.g., assault, weapon carrying, court appearances, and encounters with the law). Unexpectedly, educational expectations were not
associated with any of the measures. Based on pseudo $R$ squared values, models explained between 20% and 40% of the variance in assault, between 7% and 9% in weapon carrying, between 18% and 21% for having been pulled over by the police for speeding, between 19% and 27% for having been pulled over by the police for something else, between 21% and 29% for having appeared in court, and between 22% and 32% for having been arrested.

The results for individual factors showed that adolescents with low self-esteem were 2.5 times more likely to report having committed assault, 3 times more likely to report having been pulled over by the police for speeding, 3.3 times more likely to report having been pulled over by the police for something else, 3 times more likely to report having appeared in court, and 5.2 times more likely to report having been arrested; weapon carrying was not significantly associated with self-esteem. The results also showed that adolescents with high levels of risk-proneness were 5.9 times more likely to report having committed assault, 3 times more likely to report having carried a weapon, 2.2 times more likely to report having been pulled over by the police for speeding, 6.5 times more likely to report having been pulled over by the police for something else, and 4.3 times more likely to report having
### Table 3. Final Model Step of Logistic Regression Analyses for African American Youth Total Sample (N=869).

<table>
<thead>
<tr>
<th></th>
<th>Assault</th>
<th>Weapon carrying</th>
<th>Been pulled over by the police for something else</th>
<th>Been pulled over by the police for speeding</th>
<th>Appeared before court</th>
<th>Been arrested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR 95% CI</td>
<td>OR 95% CI</td>
<td>OR 95% CI</td>
<td>OR 95% CI</td>
<td>OR 95% CI</td>
<td>OR 95% CI</td>
</tr>
<tr>
<td><strong>Individual Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>2.51*** .147-4.28 1.45</td>
<td>0.88-2.38</td>
<td>3.28*** 1.87-5.77</td>
<td>3.06*** 1.77-5.30</td>
<td>3.01*** 1.74-5.22</td>
<td>5.22*** 2.82-9.64</td>
</tr>
<tr>
<td>Risk proneness</td>
<td>5.88*** 2.38-14.54 3.05**</td>
<td>1.48-6.26</td>
<td>6.50*** 2.31-18.27</td>
<td>2.22* 1.00-4.93</td>
<td>1.64 .74-3.62</td>
<td>4.26** 1.55-11.70</td>
</tr>
<tr>
<td><strong>School Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational commitment</td>
<td>5.91*** 3.26-10.70 4.49***</td>
<td>2.63-7.66</td>
<td>4.70*** 2.48-8.92</td>
<td>4.64*** 2.50-8.60</td>
<td>3.50*** 1.86-6.60</td>
<td>9.62*** 4.25-21.79</td>
</tr>
<tr>
<td>Educational expectations</td>
<td>1.18 .69-2.01</td>
<td>.78 .47-1.25</td>
<td>1.08 .62-1.89</td>
<td>1.34 .78-2.31</td>
<td>.59 .34-1.01</td>
<td>1.34 .73-2.47</td>
</tr>
<tr>
<td><strong>Cumulative risk</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumulative risk</td>
<td>2.80*** 2.15-3.64 1.94***</td>
<td>1.55-2.41</td>
<td>2.75*** 2.09-3.62</td>
<td>2.45*** 1.90-3.17</td>
<td>1.94*** 1.51-2.48</td>
<td>4.01*** 2.86-5.63</td>
</tr>
<tr>
<td>LR c²(df)</td>
<td>39.2(1)</td>
<td>32.4(1)</td>
<td>36.6(1)</td>
<td>26.9(1)</td>
<td>15.5(1)</td>
<td>40.4(1)</td>
</tr>
<tr>
<td>Cox &amp; Snell R²</td>
<td>0.2</td>
<td>.07</td>
<td>.19</td>
<td>.18</td>
<td>.21</td>
<td>.22</td>
</tr>
<tr>
<td>Nagelkerke R²</td>
<td>0.4</td>
<td>.09</td>
<td>.27</td>
<td>.21</td>
<td>.29</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Notes: OR: odds ratio; CI: confidence interval. *p≤.05, **p≤.01, ***p≤.001
been arrested; risk proneness was not significantly associated with having appeared in court.

Findings for the school factors showed that youth reporting low levels of educational commitment were 5.9 times more likely to report having committed assault, 4.5 times more likely to report having carried a weapon, 4.6 times more likely to report having been pulled over by the police for speeding, 4.7 times more likely to report having been pulled over by the police for something else, 3.5 times more likely to report having appeared in court, and 9.6 times more likely to report having been arrested. Additional analyses tested the association between the cumulative risk index and violent and criminal behaviors; as expected, cumulative risk was significantly associated with all the outcomes. High risk youth were 2.8 times more likely to report having committed assault, 1.9 times more likely to report having carried a weapon, 2.5 times more likely to report having been pulled over by the police for speeding, 2.8 times more likely to report having been pulled over by the police for something else, 1.9 times more likely to report having appeared in court, and 4 times more likely to report having been arrested.

DISCUSSION AND CONCLUSIONS

Current research on violence and crime across rural and non-rural areas suggests that although for decades rates of crime and violence in rural areas were lower than urban areas (with a significant rise in rural areas during the last decade), the patterns of crime and violence are not homogeneous across either context. For example, significant variation in crime rates has been documented across neighborhoods in metropolitan areas as well as rural areas (Weisheit and Donnermeyer 2000; Wells and Weisheit 2004). Similarly, the factors associated with crime and violent acts (e.g., poverty, unemployment) may follow different patterns that are not homogenous across rural and non-rural contexts and may also vary depending on additional factors that are particular to one area but not the other (e.g., local resources; Osgood and Chambers 2000; Wells and Weisheit 1996). Thus, youth violence remains a serious concern to the American public – a phenomenon described as a “public health issue because of its tremendous impact on the health and well-being of youth” (CDC 2006:2). In addition, despite the current national prevention efforts and the emerging scholarship in this area, African American adolescents continue to be understudied.

The main objective of the current study was to examine potential differences or similarities in crime and violence among African American youth living in rural and
non-rural areas. Our interest rests particularly on addressing two important caveats of extant literature on crime and violence among African American youth: first, the inclusion of ethnicity/race as a confound by comparing African American youth with Caucasian and/or other minority youth, and second, the prevalent inconsistencies on empirical research about predictors of crime and violence among youth living in rural and non-rural areas. Thus, we aimed to contribute to these gaps by first examining violent and criminal behaviors based on a risk-protective factor model, and second, by using a comparative approach to tease apart the potential developmental contextual effects on measures of adjustment in African American youth.

Consistent with previous literature (Donnellan et al. 2005; Li et al. 2007; Yakin and McMahon 2003) and except for weapon carrying, self-esteem was significantly associated with assault, encounters with the police (e.g., being pulled over by the police for speeding, being pulled over by the police for something else, being arrested), and court appearances. Similarly, risk proneness was associated with most measures of violence and crime, except for court appearances; this finding was largely consistent with previous work (White et al. 1985; Zuckerman 1974, 1979). For school factors, educational commitment was significantly associated with all measures of violence and crime as documented by previous studies (Hawkins et al. 2001; McNeely 2003; Resnick et al. 1997; Swaim et al. 2006); surprisingly, educational expectations were not associated with any of the dependent measures. It is important to note that the lack of associations among some variables may be partly due to the limited number of items included on each measure, for example, court appearances and educational expectations (1 and 2 items, respectively). In addition, the modest amount of variance explained in weapon carrying (2 items) may also be because this behavior was endorsed by few youth (267 out of 677), thus presenting a restriction in range problem. Other limitations of the study include the exclusive use of self-report data and the cross-sectional nature of the data that does not allow for causal inferences.

The most salient finding from the current study is that developmental contexts (rural and non-rural) did not moderate the relationship between individual characteristics and school factors and both violence and crime measures. Thus, our results provide evidence that the risk/protective factors associated with crime and violent acts did not differ by developmental contexts. These results are inconsistent with previous studies documenting adjustment differences in youth across developmental contexts (e.g., Atav and Spencer 2002; Mink et al. 2005; Slovak and
Singer 2002); however, these findings provide support for other studies that have examined adjustment on rural and non-rural African American youth and found no differences across groups (e.g., Farmer et al. 2004; Hawkins 1995, 1999). Furthermore, since both rural and non-rural samples were African American and the risk/protective model functioned in an invariant way across groups, the results underscore the importance of conducting more comparative studies to examine within group differences/similarities. As suggested by Scheer, Borden, and Donnemeyer (2000:112): “It would appear that the basic etiology is the same for various ethnic groups in American society. However, variations within different ethnic groups may account for additional variance and suggest directions for future research.”

From a practical perspective, these findings have important implications for prevention and intervention efforts that work primarily with African American youth in rural and non-rural areas by providing insights on the key role that individual characteristics and school factors play on violent and criminal behaviors. In addition, school programs aimed to build self-esteem and foster educational commitment may find this information useful in promoting positive well-being particularly among youth who may be at risk for negative outcomes. Finally, although the current study represents only a small step forward in understanding the etiology of violence and crime among rural and non-rural African American youth, it provides the foundation for future scholarship on this area for this population and other ethnic minority youth.

REFERENCES


VIOLENT AND CRIMINAL BEHAVIORS


VIOLENT AND CRIMINAL BEHAVIORS


