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## Who is Likely to Help and Hurt? Profiles of African American Adolescents with Prosocial and Aggressive Behavior

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### Abstract

Prosocial behavior and aggression among children and adolescents are important indicators of social and interpersonal competence. The goal of this study was to investigate whether there are different prototypes among African American adolescents that can help explain prosocial and aggressive (relational and overt) behaviors. Also of interest was whether these profiles differed for boys and girls. The selection of independent variables (e.g., empathy, anger management, normative beliefs about aggression, and ethnic identity) was guided by an information processing model of aggression and prosocial behaviors. The sample consisted of 789 (57% female) African American adolescents between the ages of 11 and 14. Cluster analysis produced three profiles that were similar for boys and girls. These were labeled “well-adjusted,” “poorly adjusted,” and “low identity.” A fourth profile was labeled “low empathy” for girls and “poor anger management” for boys. These four clusters significantly differentiated who engaged in prosocial behavior and relational and overt aggression. Findings suggest that prevention programs may consider targeting well-adjusted youth to serve as peer models. Additionally, programs that promote empathy, anger management, ethnic identity, and normative beliefs against aggression may be useful for reducing aggression and increasing prosocial behavior among poorly adjusted youth.

### Keywords

Prosocial behavior and aggression; African American adolescent; Profiles of African American adolescents; Empathy; Anger management; Ethnic identity

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Prosocial and aggressive behaviors are important topics and are highly relevant to understanding how to promote positive developmental outcomes for youth. While both prosocial and aggressive behaviors are critical to developmental outcomes, there has been relatively little published research on prosocial behaviors among African American children and adolescents. There has been more study on aggression among African American youth, but additional research in this area is also warranted.

Understanding prosocial and aggressive behaviors among African American adolescents is important for several reasons. First, as noted, prosocial and aggressive behaviors have been linked to several important developmental outcomes including peer (Ellis and Zabatany 2007) and family relationships (Gorman-Smith et al. 2000; Eisenberg 2004), academic

achievement (Caprara et al. 2000; Miles and Stipek 2006), drug use or non-use (Fothergill and Ensminger 2006; Szapocznik et al. 2007), delinquency (Pursell et al. 2008) and overall psychological well-being (McMahon et al. 2006). Second, a better understanding of African American adolescents who engage in prosocial and aggressive behaviors will help identify who might benefit from interventions that increase prosocial behavior and decrease aggressive behavior. Third, much of the study of African American children and adolescents has focused on deficits and problems with less focus on resiliencies and strengths (Belgrave and Allison 2010). One of the goals of this article was to include a more balanced perspective and to gain an understanding of both positive and negative behaviors and their determinants among African American adolescents. The overall goal of this study was to investigate whether there are different profiles (or prototypes) among African American adolescents that can help explain prosocial and aggressive behaviors. We were also interested in whether these profiles differ for boys and girls.

## Prosocial and Aggressive Behaviors

Prosocial behavior is defined as a voluntary action intended to benefit another individual or groups of individuals (Mussen and Eisenberg 2001). Prosocial behavior among children and adolescents include sharing, caring, cooperation, helping, and perspective-taking. Prosocial behavior is an indicator of social competence and has been linked to several positive outcomes including positive social and peer relationships (Farver and Branstetter 1994; Wentzel et al. 2007), psychological well-being (Eisenberg et al. 1996) and academic performance (Wentzel et al. 2007). Given the importance of prosocial behavior, there is a need for more research on prosocial behavior among African American children.

Empathy, a type of prosocial behavior, is characterized as the ability to recognize, to take the perspective of, and to respond to another's emotion (Eisenberg et al. 1992). Empathy particularly has been documented to facilitate prosocial behaviors and reduce aggressive behaviors in children (LeSure-Lester 2000). Espelage et al. (2004) found among a sample of middle-school students (predominately White) that empathy was negatively linked to aggression (bullying among boys and relational aggression among girls). In a sample of low-income African American children in Grades 5–8, McMahon et al. (2006) found that children higher in empathy exhibited more prosocial behavior. Males in this sample reported higher levels of prosocial behavior than females; this finding was contrary to expectation but consistent with our premise that prosocial behavior may operate differently for African American adolescents. In the McMahon et al., study, empathy was also negatively correlated with aggressive behavior. Empathy is an important precursor to both prosocial and aggressive behavior and more research on empathy among African American children is needed.

Aggression is intentional behavior aimed at causing physical or emotional pain (Berkowitz 1993). Overt aggression includes both physical and verbal aggression and involves the intent to hurt others with actions such as hitting, pushing, jabbing as well as verbal actions such as shouting, yelling, and threatening. Overt aggression differs from relational aggression which involves behaviors intended to damage another child's friendships or feelings of inclusion in the group (Crick and Grotpeter 1995). Relational aggression involves gossiping, spreading

rumors, and withdrawing or preventing friendship related to social exclusion. Both overt and relational aggression are factors in poor peer and social relationships (Barnow et al. 2005), school problems (Pepler and Craig 2005), delinquency (Sullivan et al. 2006), and psychological maladjustment (Sullivan et al. 2010).

The ability to manage and cope with anger is an important step in preventing and reducing aggressive behavior as anger can affect what is attended to and how it is interpreted. Children with low anger management skills are likely to have hostile interpretation and retaliation when encountering social cues (Lemerise and Arsenio 2000). In a study of mostly urban African American youth in middle school, Sullivan et al. (2010) found that children's ability to cope by regulating anger led to less physical aggression. Children who are able to manage their anger and respond in socially acceptable ways are less likely to be aggressive (De Castro et al. 2005). The ability to regulate anger responses is likely to be associated with more prosocial and less aggressive behaviors.

Normative beliefs about aggression contribute to aggressive behavior. These are beliefs about whether aggression is an acceptable form of behavior. Children and adolescents who view aggression as normal are more likely to engage in aggressive behaviors (Espelage et al. 2004; Huesmann and Guerra 1997). In an ethnically diverse sample of economically disadvantaged African American, Latino, and White children, Henry et al. (2000) investigated normative beliefs about aggression along with classmates' beliefs about the acceptability of aggression using self-report and peer nominations. The authors found that classmates' beliefs about the acceptability of aggression significantly predicted aggressive behavior by influencing students' normative beliefs about aggression. Normative beliefs about aggression might be higher among youth who reside in low resource and disadvantaged communities where there is higher exposure to violence. These youth may learn that aggression is a normal and acceptable form of behavior for self preservation (Esposito 2007).

Dodge and Crick's (1990) social information processing model offers further support for the contention that factors relating to prosocial and aggressive behavior include empathy, anger management, and normative beliefs about aggression. According to this model, social competence and maladaptive behaviors are the end products in the processing of social cues. Cognitive and social processes affect which social cues are attended to, how they are interpreted and whether they are responded to in a socially competent or maladapted manner. For example, aggressive children are more likely than nonaggressive children to attend to and interpret stimulus information as hostile, and to consider fewer options in response to perceived threats. These children would be low in anger management. Children who engage in prosocial behavior are more likely than those who do not to be empathetic and to consider alternative responses to perceived threats. Crick and Dodge's model also considers children's previous experiences and memories with regard to adaptive or maladaptive behaviors. Exposure to violence among youth residing in poor resource communities may affect whether or not aggression is seen as normative and how anger is managed or expressed (Shahinfar et al. 2001).

Ethnic identity is also an important factor to consider given it has a direct (Street et al. 2009) and protective effect against problem behaviors among African American youth (Belgrave and Allison 2010; Stevenson and Arrington 2009). Ethnic identity is the awareness and knowledge of an individual's ethnic membership that may be combined with shared values and attitudes of other members of one's ethnic group (Phinney and Chavira 1992). Research has shown that ethnic identity directly and indirectly links to social and interpersonal competence (Bennett 2007; Brook and Pahl 2005; Nasim et al. 2007; Prelow et al. 2007; Street et al. 2009). Of note, strong ethnic identity during early adolescence may be especially beneficial because of transitions occurring within peer, family, and social relationships among this age group. Strong ethnic identity supports feelings of belongingness and connection to others; adolescents with strong ethnic identities are more likely to feel better about themselves and perceive others in a more favorable way than those with weak ethnic identity (Phinney 2003; Quintana 2007). DeCarlo (2005) found among incarcerated and non-incarcerated adolescents that those with a higher identity status were less aggressive than those with a lower identity status. McMahon and Watts (2002) found that stronger ethnic identity was linked to fewer beliefs supporting aggression and less aggressive behavior in a sample of African American adolescents in grades five through eight. Consistent with Crick and Dodge social information processing model, ethnic identity can also be viewed as a type of schema that influences the child's interpretation of his/her social environment and subsequent behaviors including aggressive and prosocial behaviors (Ostrov and Godleski 2010). Overall, strong ethnic identity is likely to lead to more prosocial and less aggressive behaviors.

## **Gender and Ethnic Differences in Prosocial and Aggressive Behavior**

### **Gender Differences**

In general, boys are less likely than girls to engage in prosocial behavior (Eisenberg et al. 1991). This may be because boys are less likely than girls to be socialized to be compassionate and nurturing (Hill 2002). Girls are also more likely than boys to be empathic (Laible et al. 2004) and empathy is linked to prosocial behavior. However, McMahon et al. (2006) found that African American boys engaged in more prosocial behavior than girls and that this was moderated by their level of empathy. At lower levels of empathy, prosocial behavior was similar across gender. At higher levels of empathy, however, boys displayed significantly higher levels of prosocial behavior than girls. Boys in general are more likely than girls to engage in aggressive acts that display overt aggression (Archer 2004). This may be due to higher levels of physical activity among boys and less parental monitoring among boys than girls (Richards et al. 2004).

Gender socialization also affects how girls and boys deal with interpersonal conflict and aggression leading to the expression of anger in different ways (Galen and Underwood 1997; Strayer and Roberts 2004). Research suggests that girls are more likely than boys to engage in relational aggression, which involves gossiping and other methods of social exclusion (Crick 1997). However, Sullivan et al. (2010) found among a predominantly African American sample no difference in relational aggression between boys and girls in 5th and 8th grade. Similarly, among a sample of African American middle-school students, Esposito

(2007) found no gender differences in overt aggression and also found that boys were more relationally aggressive than girls. This study and others suggest that relational aggression along with overt aggression and prosocial behavior might operate differently for African Americans than for other ethnic groups.

### **Ethnic Differences**

There has been limited research on ethnic differences in prosocial and aggressive behaviors and findings have been equivocal. Nansel et al. (2001) found no differences between African American and White students in aggressive behavior while Graham and Juvonen (2002) found that African American students were more likely than White and Hispanic students to be nominated by their peers and teachers as being aggressive. With regard to prosocial behavior, there has been limited research on ethnic differences. The findings from a study by Beutel and Johnson (2004) suggested an interaction between ethnicity and gender with regard to prosocial behavior. These authors found that prosocial values differed by both ethnicity and gender. White adolescent males reported weaker prosocial values than both White females and African American male and female adolescents. In overview, findings from studies on ethnic differences in prosocial and aggressive behaviors are not conclusive.

### **The Current Study**

In the current study, we were interested in capturing profiles that could help explain aggression and prosocial behaviors among African Americans boys and girls. Literature and research suggest that prosocial and aggressive behaviors might manifest themselves differently for African American youth than for youth from other ethnic groups. Crick and Dodge's social information processing model provides a conceptual framework for examining factors (e.g., empathy, anger management, and normative beliefs about aggression) linked to aggression and prosocial behaviors among adolescents. These factors affect how children encode, process, and react to social stimuli (Kaukiainen et al. 1999; Mayberry and Espelage 2007; Pardini et al. 2003; Shahinfar et al. 2001). Ethnic identity was also investigated in this study because of its salience to social and interpersonal competence among African American adolescents. We also note the importance of early to middle adolescence in expressions of prosocial and aggressive behavior. Participants in our sample were in middle school and between the ages of 11–14. Children in this developmental period are more likely than younger children (<11) and older children (>16) to engage in aggressive behavior (Underwood et al. 2009). Also, because prosocial behavior progresses developmentally, adolescents in this age range are more likely than younger children to engage in prosocial behavior (Eisenberg et al. 1991).

The first aim of this study was to examine participants' scores on empathy, anger management, normative beliefs about aggression, and ethnic identity to determine whether these traits existed in meaningful clusters. The next aim was to determine whether or not these profiles or clusters would lead to differential outcomes in aggression and prosocial behavior. We hypothesized that these clusters would differ for boys and girls based on gender differences in socialization experiences.

## Methods

Data were collected from middle-school students in urban public schools in the Southeastern part of the United States. Students were enrolled in a culturally enriched drug and sex education program delivered during their health and physical education classes. Pre-test data collected prior to students' participation in the program was used in this study.

## Participants

The sample included 789 African American adolescents between the ages of 11 and 14. There were slightly more females than males in the study. Fifty-seven percent ( $n = 450$ ) of the sample was female and 43% ( $n = 336$ ) were male. Thirty seven percent of the sample was 6<sup>th</sup> graders ( $n = 292$ ), 36% ( $n = 280$ ) 7th graders, and 27% ( $n = 211$ ) eighth graders. On average, the participants were between the ages of 12 and 13 years of age ( $M = 12.69$ ,  $SD = 1.08$ ). Approximately, 52% ( $n = 408$ ) of participants lived with one parent, 40% ( $n = 316$ ) lived with two parents, and 8% ( $n = 62$ ) lived with neither parent. The majority of students reported that their mothers worked full-time ( $n = 479$ , 62%). Twenty one percent of mothers ( $n = 161$ ) worked part-time, 13% ( $n = 97$ ) were unemployed, and 5% ( $n = 37$ ) of students reported "I don't know." Fifty-nine percent ( $n = 430$ ) of the participants' fathers worked full-time, 13% ( $n = 95$ ) part-time, 11% ( $n = 82$ ) not at all, and 17% ( $n = 125$ ) of students reported "I don't know." Note, that the sample sizes do not always add up to 789 due to missing data.

The participation rate ranged from school to school with approximate rates of 50–70%. The program from which students were recruited was offered through health and physical education classes and required passive parental consent. However, completion of the questionnaire required active parental consent. Thus, the sample of students who completed the questionnaire does not reflect all of the students in the intervention program.

## Measures

**Empathy**—Empathy was measured by a revised measure of Bryant's Index of Empathy in Children and Adolescents (1982). This self-report questionnaire consists of 22 items that assess empathetic (e.g., "It makes me sad to see a girl who can't find anyone to play with") and non-empathetic tendencies (e.g., "Kids who have no friends probably don't want any"). Participants reported whether they agree with the statement by circling "yes = 1" or "no = 0." Higher scores on the scale indicate more empathy, and lower scores indicate less empathy. Cronbach's alpha for the scale was .62.

**Anger Management**—Items on the anger management scale were adapted from an existing measure and asked participants to respond to a situation in which they had a problem with other kids in their school or community when they were feeling angry. Items were taken from the Anger Management subscale of the PSI Student Survey developed to assess the Positive Peer Group program (Prevention Systems Intervention, Inc.; Mcloughlin 1999; Rosenberg et al. 1999). Participants rated their responses to 10-items on a 5-point Likert scale 1 = DISAGREE! 2 = Disagree, 3 = Not Sure, 4 = Agree, 5 = AGREE! Higher

scores indicated better anger management. An example of an item is “I could control my mad feelings if I wanted to.” Cronbach’s alpha for the scale was .74.

**Normative Beliefs about Aggression**—Normative beliefs about aggression were measured with an adapted version of the Normative Beliefs about Aggression-Revised scale developed by Huesmann and Guerra (1997). Although the original measure has two subscales, general belief and retaliation belief, we used a composite score to measure general acceptance of aggressive behaviors. Participants’ beliefs about the acceptability or unacceptability of aggressive behaviors were measured by 11-items on a 4-point Likert scale where 1 = It’s really wrong, 2 = It’s sort of wrong, 3 = It’s sort of OK, 4 = It’s perfectly OK. Higher scores indicate more acceptance of aggression and low scores indicate less acceptance of aggression. Cronbach’s alpha for the scale was .87.

**Ethnic Identity**—Ethnic identity was measured by an adapted version of The Survey of Black Life (Resnicow et al. 1999). The scale consists of 6 items (e.g., “I think or have thought about what it means to be my race.”) measured on a 4 point Likert scale (1 = DISAGREE, 2 = Disagree, 3 = Agree, 4 = AGREE). Higher scores indicate higher levels of ethnic identity and lower scores indicate lower levels of ethnic identity. Cronbach alpha was .74.

**Aggression and Prosocial Behavior**—Aggression and prosocial behavior were measured using an adapted version of the Children’s Social Behavior Scale, Self-Report (Crick and Grotpeter 1995). The scale consists of 3 subscales which measure overt aggression, relational aggression and prosocial behavior. Participants are asked to report how often they participate in various aggressive and prosocial behaviors using a 5-point scale Likert scale. The responses were coded so that 1 = Never, 2 = Almost Never, 3 = Sometimes, 4 = Almost All the Time, 5 = All the Time.

**Overt Aggression:** The overt aggression subscale consists of 4-items that measure overt aggression (e.g., Some kids hit other kids at school. How often do you do this?). Higher scores indicate higher levels of overt aggression and lower scores indicate lower levels of overt aggression. Cronbach alpha for the scale was .88.

**Relational Aggression:** The relational aggression subscale consists of 5 items that assess behaviors that harm or manipulate a peer’s relationship in a negative fashion (e.g., Some kids tell lies about a classmates so that other kids won’t like the classmate anymore. How often do you do this?). Higher scores reflect higher levels of relational aggression and lower scores indicate lower levels of aggression. Cronbach’s alpha for the scale was .85.

**Prosocial Behavior:** The prosocial behavior subscale consists of 3 items that assess behaviors that help others (e.g., Some kids help other kids when they need it. How often do you do this?). Higher scores reflect higher prosocial behavior, and lower scores indicate lower levels of prosocial behavior. Cronbach’s alpha for the scale was .80.

## Procedure

This study was approved by the university's Institutional Review Board. Parental consent and student assent were obtained from all participants. Trained research assistants visited the Health/Physical education classes at six middle schools to inform students about the study and to answer any questions. Students took consent forms home along with a letter for parents to review. The letter provided parents with information about the study as well as contact information in case they had questions. Participants could be enrolled in the drug and sex education program without participating in the survey and this was stated on the consent form. Data were collected during school hours, primarily during Health/Physical education class periods. Students were seated far enough apart to ensure privacy. Following protocol, a survey prompt was read aloud that included information about how to complete the survey and reminded the students that their participation was voluntary and their responses were anonymous. Small incentives were provided to students when they completed the questionnaire.

## Data Analysis Procedure

To analyze the data, we ran cluster analysis to explore how empathy, anger management, normative beliefs about aggression, and ethnic identity existed in regards to real profiles found in our population. In the first stage of data reduction, the use of hierarchical cluster analysis was employed to determine the appropriate number of cluster profiles to extract from the sample population based on the four attributes: anger management, empathy, acceptance of aggression, and ethnic identity. Because our study was exploratory, we employed general agglomerative hierarchical clustering to determine our initial cluster solution following general guidelines that examine agglomeration coefficient changes (Hair et al. 2010; Milligan and Cooper 1985; Xu and Wunsch 2009).

After arriving at a four-cluster solution, we expected there to be differences in gender as supported by the empirical literature discussed previously. We employed K-means cluster analysis as it is an iterative procedure that partitions a data set into a prescribed number of clusters (Kogan 2007; Hair et al. 2010), which was four in the present study. Afterwards, we examined whether cluster membership led to differential outcomes in aggression and prosocial behaviors.

## Results

### Preliminary Analyses

Refer to Table 1 for the summed and mean scores of our variables. Bivariate associations were computed among anger management, empathy, acceptance of aggression, ethnic identity, overt aggression, relational aggression, and prosocial behavior. The results of the correlational analyses are presented in Table 2. Higher levels of anger management were significantly associated with lower levels of overt aggression and relational aggression but with higher levels of prosocial behavior. Higher levels of empathy were significantly associated with lower levels of overt aggression and relational aggression but with higher levels of prosocial behavior. Higher levels of acceptance of aggression were significantly associated with higher levels of overt aggression and relational aggression but with lower



levels of prosocial behavior. Ethnic identity was not related to overt or relational aggression. Ethnic identity was only significantly and positively associated with prosocial behavior. Several of the other variables were also significantly associated with one another (See Table 2).

### Creation of Cluster Configurations

A hierarchical cluster analysis was employed to determine the appropriate number of clusters suggested by Hair et al. (2010). In this method, agglomeration coefficients are examined for large increases that indicate increases in cluster homogeneity. After calculating the percentage change in the clustering coefficients for 6–2 clusters, as predicted, the largest increase was going from two to one cluster; however, the next noticeable change was going from four to three clusters (Refer to Table 3). This suggests that there are 4 distinct clusters that are to be extracted from our sample.

We employed K-means cluster analysis to examine our four-cluster solution. Follow-up Bonferroni corrected tests were used to examine whether the standardized values differed significantly from zero. Cluster configurations were significantly different on all measures (at the  $P < .01$ ). It should be noted that the configuration labels are heuristic and used for descriptive purposes to facilitate discussion. These configuration labels are not intended to stereotype behavioral traits.

The four clusters that emerged for girls are shown in Table 4. *Girls with low ethnic identity* (cluster 1) rated average on anger management, empathy, and acceptance of aggression and rated below average on ethnic identity. *Well adjusted girls* (cluster 2) rated above average on anger management, empathy, and ethnic identity and below average on acceptance of aggression. *Girls with low empathy* (cluster 3) rated above average on anger management and ethnic identity, rated average on acceptance of aggression, and below average on empathy. *Poorly adjusted girls* (cluster 4) rated above average on acceptance of aggression, rated average on ethnic identity, and below average on anger management and empathy.

The four cluster configurations that emerged for boys are shown in Table 5. *Poorly adjusted boys* (cluster 1) rated above average on acceptance of aggression, rated average on ethnic identity, and below average on anger management and empathy. *Boys with poor anger management* (cluster 2) rated average on empathy, acceptance of aggression, and ethnic identity and rated below average on anger management. *Boys with low ethnic identity* (cluster 3) rated above average on anger management, average on empathy and acceptance of aggression, and below average on ethnic identity. *Well adjusted boys* (cluster 4) rated above average on anger management and ethnic identity, rated average on empathy, and below average on acceptance of aggression. It should be noted that poorly-adjusted boys, well-adjusted boys, and low ethnically identified boys have profiles that are highly similar to their respective female counterparts.

### Cluster Configurations and Measures of Aggression and Prosocial Behavior in Girls

We tested whether cluster membership led to significant differences in aggressive and prosocial behaviors for girls. To maintain the family-wise error rate, we employed Bonferroni corrections. The results showed that there were significant differences among

girls' clusters in the display of overt aggression,  $F(3,446) = 16.57, P = .00, \eta^2 = .10$ , relational aggression,  $F(3,446) = 8.82, P = .00, \eta^2 = .06$ , and prosocial behavior,  $F(3,446) = 16.38, P = .00, \eta^2 = .10$ . Refer to Table 6 for aggression and prosocial measures stratified by cluster configurations for girls.

Post hoc comparisons with Bonferroni tests revealed that well-adjusted girls had the lowest levels of overt aggression, although their scores did not significantly differ from girls with low ethnic identity. Poorly adjusted girls had the highest levels of overt aggression, although their scores did not significantly differ from girls with low empathy.

Post hoc comparisons revealed that well-adjusted girls had the lowest levels of relational aggression, although their scores did not significantly differ from girls with low ethnic identity. Poorly adjusted girls had the highest levels of relational aggression although their scores did not significantly differ from girls with low empathy or low ethnic identity.

Post hoc comparisons revealed that well-adjusted girls had the highest levels of prosocial behavior. Poorly adjusted girls had the lowest levels of prosocial behavior although their scores did not significantly differ from girls with low empathy and low ethnic identity.

### Cluster Configurations and Measures of Aggression and Prosocial Behavior in Boys

We tested whether cluster membership led to significant differences in aggressive and prosocial behaviors for boys. To maintain the family-wise error rate, we employed Bonferroni corrections. The results showed that there were significant differences among boys' clusters in the display of overt aggression,  $F(3,331) = 8.80, P = .00, \eta^2 = .07$ , and prosocial behavior,  $F(3,331) = 9.62, P = .00, \eta^2 = .08$ . Clusters did not significantly differ in levels of relational aggression,  $F(3,331) = 2.21, P = .08, \eta^2 = .02$ . Refer to Table 7 for aggression and prosocial measures stratified by cluster configurations for boys.

Post hoc comparisons with Bonferroni tests revealed that well-adjusted boys had the lowest levels of overt aggression, although their scores did not significantly differ from boys with poor anger management. Poorly adjusted boys had the highest levels of overt aggression, although their scores did not significantly differ from boys with poor anger management or low ethnic identity.

Post hoc comparisons revealed that well-adjusted boys had the highest levels of prosocial behavior, poorly adjusted boys had the lowest levels of prosocial behavior, although their scores did not significantly differ from boys with poor anger management or boys with low ethnic identity.

## Discussion

An understanding of prosocial and aggressive behaviors among children is an important topic because these behaviors have pervasive effects on developmental outcomes. Prosocial and aggressive behaviors affect peer and interpersonal relationships (Ellis and Zabatany 2007), academic achievement (Caprara et al. 2000; Miles and Stipek 2006), delinquency and drug use (Fothergill and Ensminger 2006; Pursell et al. 2008) and psychological well-being (McMahon et al. 2006). In this study, we were interested in understanding more about

prosocial and aggressive behavior among African American adolescents given the limited research on this topic. Our goal was to determine whether different profiles for aggressive and prosocial behaviors existed among African American adolescents. A second goal was to see whether these profiles differed for boys and girls. We found that adolescents in our sample could be classified into one of four distinct clusters that are represented as prototypes.

Three similar prototypes emerged for boys and girls: “well-adjusted,” “poorly adjusted,” and “low ethnic identity.” For the most part, well-adjusted boys and girls scored above average on positive attributes (e.g., anger management, ethnic identity, empathy) and below average on normative beliefs about aggression. Poorly adjusted girls and boys group scored below average on positive attributes while those in the low ethnic identity group scored below average on ethnic identity. Girls fitting the fourth prototype scored low in empathy and average on other attributes. Boys fitting the fourth prototype scored low on anger management and average on the other attributes. These profiles may have theoretical and practical applications for understanding and improving social competence among African American adolescents.

The fact that the same (or very similar) clusters emerged for boys and girls suggests that there might be fewer gender differences than previously expected with regard to profiles among African American male and female adolescents. This reasoning is consistent with research that suggests that the socialization process for African American boys and girls might result in similar attitudes, beliefs, and behaviors. For example, research suggests that both African American males and females have androgynous gender role beliefs compared to other ethnic and racial groups who may have more traditionally masculine or feminine gender role beliefs (Corneille et al. 2005; Harris 1993). Findings from this study are also consistent with the work of Sullivan et al. (2010) who found no difference in relational aggression among African American males and females.

The one cluster that emerged for girls and not boys was characterized by being low in empathy. Perhaps lack of empathy is especially salient for African American girls given relational values of females (Miller 1986) and communal values among people of African descent (Belgrave and Allison 2010). Empathy among girls may be more normative and expected and the lack of empathy problematic. This is consistent with the finding of McMahan et al. (2006) that African American boys (but not girls) displayed more prosocial behavior when empathy was high. Among boys, poor anger management emerged as a distinct cluster. While there is some overlap in socialization among African American boys and girls, boys may be socialized to be tough but in control so boys who are low in anger management may have encountered deficits in the socialization process. While the profiles for girls and boys were quite similar overall, the emergence of these two distinct clusters suggests some profiles that are gender specific. How the lack of empathy among girls and poor anger management among boys manifest themselves may be important to consider in future research and intervention development.

We found that the four prototypes significantly accounted for who was likely to engage in prosocial and aggressive behaviors. For girls, cluster membership led to significant

differences in overt aggression, relational aggression, and prosocial behavior. For boys, cluster membership led to significant differences in overt aggression and prosocial behaviors but not relational aggression. Well-adjusted girls and boys had the lowest scores in overt and relational aggression and the highest scores in prosocial behaviors. Poorly adjusted girls and boys had the highest scores in overt and relational aggression and the lowest scores in prosocial behaviors.

Empathy and ethnic identity are two attributes that may be protective for African American youth. Well-adjusted girls had significantly lower levels of overt and relational aggression and higher levels of prosocial behavior than girls with low empathy, although their cluster profiles were similar except for the empathy scores. This finding suggests a protective and promotive effect of empathy for girls. Empathy fosters prosocial behavior, and the development of social skills oriented toward positive interpersonal relationships and non aggressive communication (Garaigordobil 2009). Well-adjusted boys had significantly lower levels of overt aggression and higher levels of prosocial behavior than boys with low ethnic identity, although their cluster profiles were similar with the exception of ethnic identity scores. This suggests a protective and promotive effect of ethnic identity for boys. These findings suggest the need for further research on both antecedents and consequences of empathy and ethnic identity among African American youth.

### **Implications for Programs and Policies**

Many (but not all) of the African American adolescents in our sample resided in low resource communities where violence may be elevated; youth in these communities may come to view aggression and violence as normative. However, many African American youth are resilient and not only survive but also thrive in spite of neighborhood disadvantaged (Belgrave 2009). Our analysis pointed to a cluster of well-adjusted boys and girls. Peer-led interventions by identified well-adjusted youth may be especially useful within these communities as these youth can model adaptive behaviors and skills.

Based on our finding that certain profiles resulted in more or less aggressive and prosocial behaviors, another approach for programming would be to identify youth who are poorly adjusted (i.e., accepting of aggression, low in empathy and anger management skills and ethnic identity) and target them for prosocial and anti-aggression interventions. Of course, identification of these youth should be done in a sensitive and confidential manner with input from parents and others responsible for the adolescent's well-being. A comprehensive program targeting prosocial and anti-aggressive behaviors would involve the development of skills and activities directed at helping youth learn to be empathic through perspective taking. The program might also include strategies that help youth learn to control and manage anger by watching appropriate peer models, problem-solving, and other social skill development activities. These programs could occur in both school and community settings. Some evidenced based programs have successfully achieved these outcomes with African American adolescents (Farrell et al. 2001). An example of such a program is PACT (Positive Adolescent Choices Training), which is a video-based staff training program. PACT trains adults how to implement violence-risk education, anger management, and prosocial skills among African American youth (Hammond and Yung 1991; Yung and Hammond 1995).

Programs such as Coping Power (Lochman et al. 2008) focus on teaching children how to recognize their feelings (e.g., anger) and how to appropriately channel them without using aggressive behaviors. The Positive Peer Group Prevention Systems Intervention program is a peer program that fosters positive identification, social skills, and personal responsibility by teaching youth to manage conflict, and bonding with their school community (McLoughlin 1999; Rosenberg et al. 1999). Importantly, interventions that target the promotion of prosocial behavior and the prevention of aggression should have spillover effects and increase overall social competence.

We would also include a component to these programs aimed at strengthening ethnic identity. We found that boys with low ethnic identity reported less prosocial and more aggressive behavior even when they were similar on other attributes. Programs that strengthen ethnic identity could link youth to positive African American adults, provide a historical and contemporary context for African American accomplishments, and expose youth to African American events and activities. Belgrave and colleagues' curriculums on Sisters of Nia and Brothers of Lem provide guidelines for increasing ethnic identity among African American youth (Belgrave et al., in press; Belgrave et al. 2008). These programs could be implemented in a variety of settings including schools, after-school and community based programs such as boys and girls clubs, and also Churches and other religious institutions.

Our findings also suggest the need for policies in schools and other youth-serving institutions where teachers and other adults who work with youth are trained in how to develop empathy, anger management skills, and the development of anti-aggressive peer norms. At the time of this writing, there have been several recent news reports of young children and adolescents who have committed suicide because they were the targets of overt and relational bullying from peers (James 2010). Policies and procedures are needed at institutional levels to ensure that responsible adults can recognize and prevent aggressive peer behaviors.

### Study Limitations

Our study has several important limitations that should be noted. We used a cross-sectional design and causality cannot be inferred. Youth self-reported aggressive and prosocial behaviors and social desirability could have influenced self-report. Peer, parent, or teacher ratings would have collaborated the veracity of youth report. Data were collected from African American youth who lived in urban communities in a mid-size city in the southeastern part of the United States. Youth who reside in rural, small-town, and/or suburban settings and in other geographical regions might have responded differently. For example, youth in depressed and low-resource communities may experience and perpetuate more aggression (McMahon et al. 2009; Plybon and Kliewer 2001). Another limitation is that our participation rate was modest. Because the focus of the larger study was to provide students with a prevention program within on-going health and physical education classes, rigorous efforts were not devoted to obtaining parental consent that was required of all students who completed our questionnaires. With these limitations noted, we believe that our

relatively large sample and the variability of scores on demographic items in our sample provide some confidence in our findings.

Other limitations relate to one measure and our analytic strategy. The reliability of the Empathy Scale was modest at .62. The dichotomous (yes/no) format and lack of variability most likely decreased the average intercorrelations among the scale's items and contributed to this reliability. Because of the exploratory nature of the study, we employed cluster analytic techniques to define our clusters. However, more advanced and sophisticated clustering techniques such as latent class or latent profile analysis are available (Muthen 1998). These techniques may provide more objective criteria (i.e., fit indices) in the selection of clusters. These techniques may be useful in future studies and perhaps eliminate potential subjectivity in cluster selection.

## Conclusions

This study furthers our understanding of prosocial and aggressive behavior among African American adolescents. Four clusters or profiles of African American adolescents emerged from youth scores on empathy, anger management, acceptance of aggression, and ethnic identity. Three similar clusters emerged for girls and boys and included well-adjusted, poorly adjusted, and low ethnic identity. A fourth cluster for girls was low empathy and a fourth cluster for boys was low anger management. These four clusters differentiated who would engage in prosocial and aggressive behavior. Well adjusted girls and boys were less likely to engage in aggressive behavior and more likely to engage in prosocial behavior. These well adjusted adolescents have a strong ethnic identity, high anger management skills, beliefs that aggression is not normative, and average or above average levels of empathy. Well-adjusted youth in peer-led prevention programs can serve as role models for their peers. Youth who are poorly adjusted and/or with low ethnic identity and empathy can also be identified to benefit from targeted skill building and empathy development programs.

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**Table 1**

## Descriptives of study variables

Measure	Mean average	SD	Min.	Max
Anger management	3.49	0.68	1	5
Ethnic identity	1.74	0.56	1	4
Empathy	1.41	0.15	0	1
Acceptance of aggression	3.08	0.58	1	4
Overt aggression	2.67	1.19	1	5
Relational aggression	2.11	1.00	1	5
Pro-social behavior	3.47	0.98	1	5

*N* = 785

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**Table 2**

Bivariate associations among variables of interests

	1	2	3	4	5	6	7
1. Anger management	1	.22**	-.39**	.15**	-.23**	-.10**	.18**
2. Empathy		1	-.30**	.07	-.12**	-.15**	.29**
3. Acceptance of aggression			1	-.12**	.30**	.20**	-.21**
4. Ethnic identity				1	-.02	-.02	.14**
5. Overt aggression					1	.71**	-.04
6. Relational aggression						1	-.07*
7. Pro-social behavior							1

\* Significant at  $P < .05$ .\*\* significant at  $P < .01$ . $N = 785$

**Table 3**

Agglomeration coefficients for hierarchical cluster analysis

Number of clusters	Agglomeration coefficient	Percentage change in coefficient
1	88873.39	
2	62694.30	42
3	52688.66	19
4	44217.89	19
5	40021.94	10
6	36645.45	9

*N* = 785

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**Table 4**

Cluster configurations for girls

Cluster membership	<i>n</i>	%	Anger management	Empathy	Acceptance of aggression	Ethnic identity
1	103	23	-.24(.60)	.21(.93)	-.02(.83)	-1.14(.81)
2	129	29	.79(.84)	1.23(.62)	-.84(.69)	.49(.72)
3	104	23	.38(.69)	-.62(.69)	-.11(.76)	.67(.54)
4	114	25	-1.06(.74)	-.30(.84)	.94(.80)	.18(.69)

Means are *z*-scores and unadjusted. Standard deviations are enclosed in parentheses; *n* = 450

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**Table 5**

Cluster configurations for boys

Cluster membership	<i>n</i>	%	Anger management	Empathy	Acceptance of aggression	Ethnic identity
1	78	23	-.32(.80)	-.80(.54)	1.28(.68)	-.02(.77)
2	100	30	-.79(.60)	-.04(.78)	-.03(.62)	-.16(.73)
3	57	17	.30(.65)	-.18(.94)	-.16(.70)	-1.51(.87)
4	100	30	.92(.68)	-.04(.87)	-.73(.67)	.68(.57)

Means are *z*-scores and unadjusted. Standard deviations are enclosed in parentheses; *n* = 335

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**Table 6**

Aggression and prosocial behavior scores by girls' cluster configurations by girls' cluster configurations

Configuration	Measures <sup>a</sup>			
	<i>n</i>	Overt aggression	Relational aggression	Pro-social behavior
Girls with low ethnic identity	103	10.33(4.45)	9.82(4.33)	10.73(1.89)
Well-adjusted girls	129	8.69(4.76)	8.83(4.95)	11.76(2.03)
Girls with low empathy	104	11.29(4.81)	11.17(5.10)	10.84(1.71)
Poorly-adjusted girls	114	12.75(4.21)	11.81(5.22)	10.19(1.92)

<sup>a</sup>Provided information is means (SD); *n* = 450

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**Table 7**

Aggression and prosocial behavior scores by boys' cluster configurations by boys' cluster configurations

Configuration	Measures <sup>a</sup>			
	<i>n</i>	Overt aggression	Relational aggression	Pro-social behavior
Poorly-adjusted boys	78	12.36(4.32)	11.68(4.97)	9.32(2.55)
Boys with poor anger management	100	10.44(4.56)	10.43(5.21)	9.63(2.20)
Boys with low ethnic identity	57	11.70(4.92)	11.54(5.46)	9.68(2.46)
Well-adjusted boys	100	9.02(4.66)	10.04(4.37)	10.28(1.97)

<sup>a</sup>Provided information is means (SD); *n* = 335

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