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Low School Engagement and Sexual Behaviors among African American Youth: Examining the Influences of Gender, Peer Norms, and Gang Involvement

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Abstract

This research examined whether negative peer influences (i.e., norms favoring risky sex and drug use and gang involvement) mediated the relationship between school engagement (i.e., grade point averages [GPAs] obtained from school records and student-teacher connectedness) and sexual behaviors (i.e., sexual début, sex without condoms, group sex, and sex while using drugs) among African American high school adolescents, and whether these relationships varied by gender. Five hundred sixty-three high school adolescents (ages 13 to 19) completed self-administered questionnaires that assessed school engagement markers (GPAs obtained from student records, and student-teacher connectedness), peer influences, sexual début, and risky sex (sex without condoms, group sex, and sex while using drugs). Major findings for boys indicate that GPA was negatively associated with both sexual début and risky sex. Additionally, the relationship between student-teacher connectedness and risky sex was mediated by gang involvement. For girls, higher GPAs were associated with fewer norms favoring risky sex and drug use and such norms were associated with sexual début. Moreover, the relationship between GPA, sexual début and risky sex was mediated by risky peer norms. Intervention programs to delay sexual début and reduce risky sex among youths should attend to the gendered ways through which such behaviors occur.

Keywords

African American adolescents; school engagement; peer influences; sexual behaviors

In the United States, African American adolescents are twice as likely as White peers to report low grade point averages (GPAs) and drop out of school, with such rates being twice as high for African American boys compared to their female counterparts (U.S. Department of Education, 2006). In addition to high school failures, African American adolescents also report high rates of unsafe sex which are partly reflected in disproportionate rates of human immunodeficiency syndrome (HIV). For instance, in 2007, African American youth, while composing approximately 15% of the adolescent population, accounted for 61% of new HIV/AIDS cases (Centers for Disease Control, 2007). A mounting body of research provides

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evidence that low school engagement is a significant correlate of early sexual début and unsafe sex (Kassen, Vaugham, & Walker, 1992; Resnick et al. (1997; Slonim-Nevo, Auslander, Ozawa, & Jung, 1996; Voisin et al., 2005).

The Relationship Between School Engagement and Sexual Behaviors

School engagement makers are comprised of factors such as school bonding, student-teacher relationships, student teacher support, GPAs, or dropout rates (Libby, 2004). Several studies with diverse adolescents document that such school engagement markers are correlated with sexual behaviors (e.g., early sexual début and risky sex). For instance, Voisin et al. (2005), in a multiethnic sample of detained adolescent males found that youth who reported low student-teacher connectedness prior to being detained were twice as likely as their peers who reported high student-teacher connectedness to report being sexually active and engaging in risky sex.

In addition, Slonim-Nevo et al., (1996), in a study of African American and White adolescents aged 11 to 18 in residential centers, reported that educational parameters such as relationships with teachers predicted AIDS knowledge, attitude (e.g., belief about condoms, drug use, and group sex), and risky sexual behaviors.

Results from population-based samples have also substantiated that school engagement parameters are correlated with adolescent sexual behaviors. For instance, Resnick et al. (1997), using data from the National Longitudinal Study of Adolescent Health (Add Health) found that school connectedness was associated with a delay in sexual début. In addition, McNeely and Falci (2004), also using Add Health data, found that among a multiethnic sample of adolescents, increased teacher support was associated with delayed initiation of sexual intercourse.

Finally, Kassen, Vaugham, and Walter (1992) investigated causal inferences between school bonding as a marker for school engagement and risky sex. They found that among a group of multiethnic youth aged 10 through 17, school bonding was predictive of lower rates of alcohol abuse and dependency over a five-year period. It is widely acknowledged that drug use during sexual activity increases the likelihood of engaging in risky sex (Kassen, Vaugham, & Walter, 1992).

The relationships between school engagement variables and sexual behaviors can be partly accounted for by social control theory (Hirschi, 1969). According to this theory, the bond to conventional society is represented by four elements: attachment to others, commitment to conventional institutions, involvement in conventional activities, and belief in conventional values. These conventional elements are partly represented by prosocial agents such as schools and teachers. Weakened ties to these agents increase the probability of being recruited by, or attracted to, peers who endorse risky behaviors.

Peer Influences and Sexual Behaviors

Markers for peer influences on risky sex have often been investigated with regard to norms favoring unsafe sex and drug use or negative group involvement such as gang involvement (DiClemente et al., 2004). With regard to peer norms favoring risky sex, research has shown that when adolescents believe that their friends are engaging in certain sexual practices (e.g., group sex, older partners, and anal sex), they will be more likely to adopt such behaviors (Bachanas et al., 2002; Boyer et al., 2000; Crosby et al., 2000; DiClemente & Wingood, 2000; Millstein & Moscicki, 1995; Voisin, 2003).

Gang involvement is commonly associated with health compromising behaviors such as early sexual début and risky sex (Harper & Robinson, 1999; Voisin et al., 2004; Wingood et al.,

2002). For instance, researchers have found that adolescent boys who reported a history of gang membership were 6.5 times more likely than peers not in gangs to be sexually active, three times more likely to use condoms inconsistently, three times more likely to have caused a pregnancy, nearly four times more likely to be high on drugs during sexual intercourse, have sex with a partner who was high, or have group sex (Voisin et al., 2004). Evidence from prior research also suggests that gang membership is an important indicator of sexual risk among female adolescents. Harper and Robinson (1999) found that among 14 to 18 year-old female adolescents, gang members were more likely than those not in gangs to report an earlier sexual début, more sexual partners, inconsistent condom use, and higher rates of substance use. Wingood et al. (2002) found that African American girls who reported a history of gang membership were almost four times more likely to have been expelled from school and have engaged in binge drinking, and almost three times more likely to report multiple sexual partners and test positive for STDs than female counterparts not belonging to gangs.

Studies evaluating the relationship between gang influences and unsafe sex often combine participants who are current gang members and those with a history of gang membership into a single category of "gang involved youth" (Bjerregaard & Smith, 1993; Harper & Robinson, 1993; Thornberry & Burch, 1997;Voisin et al., 2004; Wingood et al., 2002). This broad conceptualization of gang membership is often used because there is wide acknowledgement that young adolescents often move in and out of gangs (Fagan, 1990; Moore, 1991) and that restricting conceptual definitions to current membership will not capture those who are not active members but may still be negatively influenced by socializing influences of such groups (Battin-Pearson et al., 1997). The influence of peers on sexual risk behaviors can be partly accounted for by Mischel's (1996) applied principles of social learning theory. Behaviors are shaped by positive reinforcement. Behaviors that align with one's peers are reinforced, whereas inconsistent behavior is ignored or punished and therefore becomes less recurrent.

Collectively, the above findings document that school engagement makers are related to sexual risk behaviors, and that peers' influences are associated with sexual behaviors. Unfortunately, only one study to date (Bjerregaard & Smith, 1993) has attempted to disentangle the relationships among school engagement, peer influences, and sexual behaviors. This study involved a multiethnic sample of youth (Grades 7 and 8). However, researchers only examined bivariate analyses and did not test for mediation. Findings documented that low expectations for graduating were associated with gang involvement and lower commitment to positive peer norms. Notably, markers for student-teacher connectedness or GPAs were not assessed. Results also indicated that higher rates of risky sex were associated with gang membership. A history of gang involvement was related to substance use for both boys and girls. However, for girls especially, school success predicted less gang involvement.

The Current Study

Collectively, the above studies have contributed significantly to our understanding of the relationship between school engagement, peer influences, and sexual behaviors among youth. However, several gaps still exist. First, traditional social roles and scripts are different for boys versus girls (Wichstrom, 1999). Researchers and theorists have suggested that boys and girls negotiate different developmental pathways and risks as they move into adulthood (Cosse, 1992). Additionally, some evidence suggests that during adolescence, there is heightened pressure for boys and girls to behave in more stereotypical ways (Crouter, Manke, & McHale, 1995). Furthermore, gender differences have been documented in prior research with regard to school engagement markers (U.S. Department of Education, 2006), rates of gang involvement (Bjerregaard & Smith, 1993), and sexual risk behaviors (Centers for Disease Control, 2007). Therefore, gender differences are likely to be significant when examining the interrelationships among school engagement, peer influences, and sexual behaviors.

Second, few studies have examined whether actual peer influences mediate the relationship between school engagement and sexual behaviors among youth. This is unfortunate given that adolescence is a time of heightened peer influence (DiClemente, Salazar, Crosby, & Rosenthal, 2004) and sexual risk behaviors (Centers for Disease Control, 2007). While clinical observations support these linkages, few empirical studies have attempted to disentangle the interrelationships among school engagement, peer influences, and sexual behaviors. Therefore one aim of this study was to examine the role of negative peer influences in mediating the relationship between school engagement and sexual behaviors.

Finally, it is unclear how various school engagement factors (e.g., student-teacher connectedness or GPAs) may be related to specific sexual behaviors. Research is needed to inform us whether school engagement markers may influence sexual behaviors by way of peer influences (e.g., negative peer norms or gang involvement) (McNeely & Falci, 2004).

Specifically, this current study utilizing a sample of high school students explores the effects of gender on the following questions: 1) whether school engagement , measured by grades from school records and student-teacher connectedness, are independently related to sexual début; 2) whether school engagement , measured by grades from school records and student-teacher connectedness, are independently related to risky sex (i.e., group sex, sex without condoms, sex while using drugs); and 3) whether negative peer influences (i.e., peer norms supporting risky sex and drug use, or gang involvement) mediate these relationships.

METHODS

Participants

Sample and Procedures—In April 2006, 20 trained research assistants (master's and doctoral-level students) recruited prospective participants from a single high school in a large Midwestern city. The overwhelming majority of students attending this school (80%) were African American. Research assistants administered parental permission forms to approximately 673 students who identified themselves as African American (ages 13 to 19) in 25 homeroom classes. Students were eligible for study participation if they identified themselves as African American, were between the ages of 13 and 19 years, and were attending regular high school classes (i.e., non-special education classes). Data collection occurred within a two-week period.

Parents or guardians signed permission forms for their adolescents to participate in the study. Students who brought signed parental forms were required to provide assent prior to completing the self-administered survey. The questionnaire was developed to be understood at a fifth-grade reading level. Participants were paid $10.00 for completing the survey which took no more than 40 minutes to fill out, and it was administered in a small school auditorium.

The final sample comprised of 563 urban youths (219 boys and 344 girls) who either identified solely as African American (n= 540) or African American with mixed heritage (n= 23). The study achieved an 83% participation rate. The majority of boys and girls (55% and 54% respectively) lived in single-female-headed households, and 61% of boys and 59% of girls reported receiving "free school lunch." No students reported any adverse reactions in relation to answering study questions. Institutional Review Board approval was obtained from the university, the local school council, and the regional office.

Measures

Gender—Boys and girls were given similar questionnaires, which were framed in gender-specific language. Given that we expected relationships among explanatory variables, mediators, and outcomes to vary by gender, we ran separate statistical models for boys and

girls. Consequently, psychometric properties reported below for all scales were calculated separately for boys and girls.

School engagement—was assessed by recent GPAs obtained from student records and student-teacher connectedness. We obtained students' combined GPAs in their core courses (math, English, social studies, and science). We assessed student-teacher connectedness with the Student Assessment of Teachers Scale (McNeely & Falci, 2004). Adolescents responded to seven items measured on a 5-point, Likert-type scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). An example includes, "Teachers at my school care about me." Higher scores on the scale indicated higher student-teacher connectedness. The alpha coefficients were .86 and .87 for both boys and girls, respectively.

Negative Peer influences were assessed by two variables: 1) peer norms favoring risky sex and drug use measured by the Peer Risk Norm Scale (Voisin, 2003) and 2) a history of gang involvement. The Peer Risk Norm Scale assessed perceived negative peer norms which promoted unsafe sex and drug use with three items evaluating negative attitudes towards condom use and positive attitudes to alcohol and drug use. Sample questions are, "How many of your peers use drugs?" and "How many of your peers believe that condoms reduce pleasure?" Adolescents responded to these questions on a seven-point scale ranging from "0" to "6 or more times." The alpha coefficients were .72 and .65 for boys and girls, respectively.

History of Gang Involvement—One of the significant problems challenging gang research is the selection of an appropriate definition of a gang (Bjerregaard & Smith, 1993). Given the diversity of modern gangs (Curry & Spergel, 1992), many researchers argue that self-definition is an important aspect of gang membership and avoids some of the definitional and behavioral debates of what constitutes a gang (Fagan, 1990; Winfree, Sellers, & Clason, 1993). Therefore, we assessed a history of gang membership with one item: "Have you ever been a member of a gang?"

Sexual behaviors—were assessed by four items. A single survey item, "Have you ever had sex?" assessed sexual début. This was defined as ever having had vaginal or oral sex with a person of the opposite sex. Risky sexual behaviors were defined as having had one or more of the following experiences in the prior 12 months: sex without condoms, group sex, and sexual intercourse while under the influence of drugs (0 = none of these experiences; 1 = one or more of these experiences).

Data Analysis—Initial analyses described the characteristics of the sample via one-way frequency tables and measures of central tendency. Following initial analyses, we computed within-gender correlations for girls and boys. Prior research has investigated the issue of causal ordering between gang involvement and risk behaviors across seven waves of data and found that, in general, risk behaviors increase after gang involvement (Thornberry, Krohn, Lizotte, Smith, & Tobin, 2003) suggesting that gang involvement increases risk outcomes (Bjerregaard & Smith, 1993). Based on the above research, we fitted structural equation models (SEM) to the data in which school engagement was represented by an observed-student teacher connectedness and a latent overall GPA variable (measured by GPAs in English, math, social studies, and physical science). These variables explain the likelihood of a history of gang involvement and peers norms supporting risky sex. These intermediary variables in turn explain a history of sexual intercourse and risky sex. Because we measured several of our constructs with single indicators (e.g., lifetime gang membership) or previously validated scales (e.g., student-teacher connectedness), we treated these variables as observed rather than latent. On the basis of previous research on the impact of school engagement variables on sexual behaviors among adolescents, we opted to examine sexual début and risky sex in separate analyses (Voisin et al., 2005). We specified the SEMs using M*plus* 4.2 for Windows (Muthén & Muthén,

2006). Owing to the dichotomous nature of lifetime gang membership and the sexual behavior outcomes, we used weighted least-squares estimation with a mean and variance adjustment (M*plus* estimator, WLSMV) (Flora & Curran, 2004; Muthén, du Toit, & Spisic, 1997). We assessed the global fit of the model to the data with a robust chi-square test of exact model fit. Because chi-square tests are often sensitive to trivial data-model fit discrepancies, we also report the following approximate fit indices: Bentler's comparative fit index (CFI; Bentler & Bonnett, 1980), the root mean square error of approximation (RMSEA; Browne & Cudek, 1993), and the weighted root mean square residual (WRMR; Yu, 2002). To attain adequate fit, a model's CFI should meet or exceed .90 (Vandenberg & Lance, 2000), RMSEA should be .06 or lower (Hu & Bentler, 1999), and WRMR should be 1.0 or lower (Yu, 2002). Because these statistics' performance varies in certain circumstance—for example, RMSEA may be inflated in small to moderately sized samples (Curran, Bollen, Chen, Paxton, & Kirby, 2003)—we followed the recommendations of Hu and Bentler (1999), who suggest satisfactory model fit is attained when two or more of the fit statistics meet the recommended cutoff levels.

Owing to the presence of indirect effects in the analysis, we computed confidence intervals via the bias-corrected (BC) bootstrap for asymmetric indirect effect distributions (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; MacKinnon, Lockwood, & Williams, 2004; Shrout & Bolger, 2002). Therefore, for each parameter estimate, we report the unstandardized regression coefficient (B), the bootstrap-based bias-corrected 95% confidence interval of B, and the standardized regression coefficient (β). The number of bootstrap samples was set at 5,000 to ensure sufficient precision of the confidence intervals (Hox, 2002). Confidence intervals that do not include zero imply that the parameter estimate around which the confidence interval is constructed is statistically significant at $p < .05$.

Results

Bivariate analyses indicated that girls were significantly more likely than boys to report higher levels of student-teacher connectedness (mean = 2.24 versus 1.68, $p < .001$), while boys were more likely to report peer norms that endorsed risky sex and drug use (mean = 7.78 versus 5.08, $p < .001$). Boys were also more likely than girls to be involved with gangs (30% versus 6.9%, $p < .001$), be sexually active (74% versus 58.3%, $p < .001$), and report group sex (24% versus 5.9%, $p < .001$).

Bivariate correlations appear in Table 1. In general, correlations between boys and girls were similar. Core subject GPAs were highly intercorrelated, while student-teacher connectedness was not correlated with GPA variables suggesting that these were two distinct domains in this study. Risky peer norms and gang membership were uncorrelated with GPA variables for boys, with the exception of their math GPA, which was weakly negatively correlated with a history of gang membership ($r = -.14$).

By contrast, correlations were negative between English, math, and social studies GPAs and risky peer norms for girls. GPA variables and student-teacher connectedness were negatively correlated with the two sexual risk behavior outcomes for boys, but only the English and math GPAs were correlated with both sexual risk outcomes for girls. Social studies GPA and physical sciences GPA were negatively correlated with sexual début, but not high-risk sexual behavior. Risky peer norms were positively correlated with gang membership and risky sexual behavior in both genders. By contrast, gang membership was associated with risky sexual behavior only for boys.

Question 1: Association between School Engagement and Sexual Début

For boys, the SEM examining the impact of school engagement factors on sexual début for boys was an excellent fit: The chi-square test of absolute fit was not significant (χ^2 (N = 218,

DF = 8) = 8.27, $p = .08$), indicating that the null hypothesis of exact model-data fit was upheld. The approximate fit indices also indicated excellent model fit to the data (CFI = .97, RMSEA = .07, WRMR = .61). Direct effects from this analysis appear in Table 2. Higher levels of GPA were negatively associated with ever having had sexual intercourse. Higher levels of student-teacher connectedness were negatively associated with gang membership.

For girls, the SEM examining the impact of exogenous school engagement factors on sexual début was not rejected on an absolute basis (χ^2 (N = 344, DF = 5) = 11.20, $p = .05$). As was the case with boys, the girls' sexual début SEM fit the data well on a descriptive basis (CFI = .97, RMSEA = .06, WRMR = .66). As shown in Table 2, higher GPA was associated with lower risky sex norms, and higher risk norms were associated with an increased likelihood of the sexual début.

Question 2: Association between School Engagement and Risky Sex

For boys, the fit of second SEM examining the impact of GPA on high-risk sexual behavior to the data was not rejected (χ^2 (N = 218, DF = 4) = 8.33, $p = .08$). Moreover, the approximate fit indices indicated very good model fit to the data (CFI = .97, RMSEA = .07, WRMR = .61). Direct effects from this analysis are shown in Table 3. Higher levels of GPA were negatively associated with high-risk sexual behavior. Gang membership was positively associated with risky sex. Lower levels of student-teacher connectedness were associated with a higher likelihood of a gang membership.

For girls, the global test of absolute model fit was rejected (χ^2 (N = 344, DF = 5) = 11.44, $p = .04$), yet descriptive fit statistics indicated that the model had satisfactory fit (CFI = .97, RMSEA = .06, WRMR = .67). Direct effects (see Table 3) showed that higher levels of GPA were associated with lower risky peer norms. Higher levels of risky peer norms were positively associated with high-risk sex.

Questions 3: Peer Influences Mediating the Association Between School Engagement and Sexual Behaviors

For boys, no indirect effects involving GPA reached statistical significance, but student-teacher connectedness was negatively associated with risky sex by way of gang involvement (B = −.06; 95% CI = −.18, −.004; β = −.05). This result suggests that as student-teacher connectedness increases, the likelihood of gang membership decreases, which in turn lowers the likelihood of risky sex for boys.

For girls, there was a significant, negative, indirect effect of GPA on high-risk sexual behavior by way of risky peer norms (B = −.07; 95% CI = −.16, −.01; β = −.05). This finding suggests that as GPA levels increase, risky peer norms decrease and, in turn, the likelihood of engaging in high-risk sex decreases. By contrast, none of the indirect effects linking student-teacher connectedness with any high-risk sexual behavior attained statistical significance.

Discussion

A discussion of the major findings and their implications for sexual risk reduction among African American adolescents should be interpreted within the context of study limitations. The data was cross sectional, which precludes us from making causal inferences. In all likelihood many of these relationships documented in this study may be bi-directional. For instance, gang membership may lead to lower student-teacher connectedness and vice-versa. Similarly, risky sexual behaviors may be related to gang involvement. Findings provide the basis for longitudinal designs which would be needed to clarify the temporal ordering among these variables.

Another consideration in contextualizing study results is that non-probability sampling limits the generalizability of findings to larger groups of African Americans. Additionally, selection bias may also have to be taken into consideration. For instance, the 17% of students who selected out of the study have been more gang involved or less committed to school. Furthermore, this study assessed a history of gang membership and not current gang involvement. However, prior research suggests that the issues related to gang membership are complex and may not be limited to such discrete categories. For instance, although gang involvement usually involves some criminal or risky activities (Bjerregaard & Smith, 1993), some researchers contend that membership and involvement might be classified on a continuum among core, stable, and transient members (Esbensen & Osgood, 1999). However, some research has shown no attitudinal or behavioral differences based on such classifications (Battin-Pearson et al., 1997). This latter finding might suggest that even though persons may not be currently involved as active gang members, they may still be influenced by the socializing influence of such groups. Future research might investigate reasons for gang membership and specific attitudinal and behavioral sexual norms related to membership.

Notwithstanding these limitations, this study documented some important results. This study explored whether peer influences mediated the relationship between school engagement and sexual behaviors among a sample of African American youth. Major findings for boys indicate that the higher one's GPA, the lower the risk of both sexual début and risky sex. Student-teacher connectedness is also negatively associated with gang involvement, and such involvement is associated with risky sex. In addition, the relationship between student-teacher connectedness and risky sex is linked by gang involvement. These are important and novel findings because they substantiate and expand knowledge gained from prior studies. For instance, several studies document that both school engagement markers (Slonim-Nevo et al., 1996; Voisin et al., 2005) and gang involvement (Bjerregaard & Smith, 1993; Voisin et al., 2005) are associated with sexual behaviors. However, this study documents that gang involvement mediates the relationship between student-teacher connectedness with African American boys. While clinical observations may observe such linkages, there are few studies to empirically which have sought to disentangle the interrelationships among these variables.

Major results for girls indicate that a higher GPA is associated with less risky peer norms, and higher-risk norms are associated with sexual début. Consistent with prior studies, these findings corroborate that peer influences are related to sexual début and risky sex (DiClemente et al., 2004), in this case among a sample of African American girls. Another novel and important finding is that the relationship between GPA and both sexual début and risky sex are mediated by peer norms supporting risky sex for girls but not boys.

Collectively, these findings support the notion that pathways to risky sexual behaviors are gendered for African American high school adolescents. For boys, one pathway from low school engagement to risky sex is through gang involvement. However, for girls, one documented pathway from low school engagement to risky sex is via peer norms supporting risk behaviors. Social control theory and gender socialization might explain these findings. According to social control theory (SCT) (Hirschi, 1969) and as these results document, for boys, low attachment to teachers is associated with gang involvement which in turn is related to risky sex. Related to one application of this theory, the risk tendencies that all youth supposedly have are controlled by bonds to prosocial "agents" such as teachers. However, for boys who may have low bonding to teachers coupled with lower GPAs than girls, such controlling influences may be absent. Consequently, boys may feel uncommitted to conventional societal norms (Petraitis, Flay, & Miller, 1995), which may heighten the risk of them becoming attached to risky peer groups such as gangs. Gangs though considered deviant by the larger society, can provide not only a sense of belonging but also status, income, and alternative social capital (Wilson, 1987). Membership in such peer groups may then reinforce

risky norms such as early sexual début and unsafe sex (Petraitis et al., 1995). Therefore strengthening student-teacher connections especially for boys who are underperforming scholastically may be one important direction to reducing gang involvement and sexual risks behaviors. Girls in this sample reported lower levels of gang involvement than boys. Additionally, they had higher levels of GPAs than boys. This profile is consistent with findings from prior studies (Bjerregaard & Smith, 1993; Thornberry & Burch, 1997). Consequently, the perception of peer norms was a stronger determinant of sexual behaviors for girls more than boys. Traditional gender roles emphasize social connections for girls more than boys (Wichstrom, 1999). Therefore, the perception of peer norms may be especially important for delaying and reducing risky sex among African American adolescent girls. Collectively, the distinct school engagement profiles for boys and girls coupled with the gendered pathways to sexual risk behaviors need to be addressed when designing STD/HIV prevention programs for African American adolescents.

Results also suggest that empirically based youth interventions to promote student-teacher connectedness are warranted. For example, efforts could be made to hire, train, and support competent teachers, create smaller class sizes and schools within schools (McNeely & Falci, 2004; Voisin et al., 2005). Particularly for boys, interventions that prevent gang membership or target current gang members by using former gang members to recruit members while promoting employment, educational assistance, health care, and membership in prosocial community groups, among other services are also warranted (Bjerregaard & Smith, 1993; Voisin et al., 2004). Such efforts, though difficult, attempt to socialize current gang members to prosocial norms by linking them to positive institutions and activities.

Collectively, these finding suggest that in addition to promoting a positive school engagement, gender-specific approaches to sexual risk prevention are important. Prior research has documented the importance of addressing gendered norms and expectations in relationships, and social ties that may restrain risk behaviors may be important features of such approaches (DiClemente et al., 2004). Although not considered directly here, the above recommendations should supplement, not replace, efforts to enhance knowledge and prevention of sexually transmitted diseases in the school curricula.

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Table 1

Correlations among Observed Variables

	1	2	3	4	5	6	7	8	9
1. English GPA	1.00	.69***	.77***	.76***	−.07	−.14*	.001	−.21***	−.19***
2. Math GPA	.70***	1.00	.69***	.74***	−.04	−.14**	.03	−.16**	−.13*
3. Social studies GPA	.79***	.70***	1.00	.80***	−.07	−.13*	−.08	−.12*	−.09
4. Physical sciences GPA	.79***	.74***	.81***	1.00	−.05	−.07	−.04	−.13*	−.10
5. Student-teacher connectedness	.12	.09	.11	.08	1.00	−.05	−.01	−.05	−.03
6. Peer risk norms	−.05	−.06	−.08	−.08	−05	1.00	.17*	.28***	.32***
7. Gang membership history	−.11	−.14*	−.11	−.10	−.16*	.17*	1.00	.08	.07
8. Sexual intercourse	−.31***	−.19**	−.27***	−.31***	−.15*	.16*	.15*	1.00	.94***
9. High-risk sex	−.23***	−.14*	−.26***	−.26***	−.15*	.15*	.17**	.81***	1.00

N = 218 boys; *N* = 344 girls. Correlations were estimated using full information maximum likelihood in M*plus* 4 with significance levels determined via the bootstrap with 5,000 replicate samples. Boys' correlations appear below the main diagonal; girls' correlations appear above the main diagonal.

* $p < .05$;

** $p < .01$;

*** $p < .001$.

Table 2

Sexual Début: Direct Effects from Structural Equation Models

		Boys				Girls			
Dependent Variable	**Independent Variable**	**LCL**	**B**	**UCL**	**β**	**LCL**	**B**	**UCL**	**β**
English GPA	GPA	1.00	1.00	1.00	0.89	1.00	1.00	1.00	0.87
Math GPA	GPA	**0.69**	**0.82**	**0.97**	**0.79**	**0.85**	**0.95**	**1.05**	**0.80**
Physical science GPA	GPA	**0.96**	**1.07**	**1.20**	**0.90**	**1.09**	**1.20**	**1.32**	**0.89**
Social studies GPA	GPA	**0.93**	**1.05**	**1.18**	**0.90**	**1.07**	**1.18**	**1.30**	**0.88**
Risk norms	GPA	−1.38	−0.45	0.51	−0.07	**−1.38**	**−0.73**	**−0.11**	**−0.13**
Gang membership	GPA	−0.42	−0.19	0.03	−0.17	−0.35	−0.08	0.18	−0.06
Risk norms	Student-teacher connectedness	−0.98	−0.24	0.61	−0.04	−0.75	−0.28	0.19	−0.06
Gang membership	Student-teacher connectedness	**−0.41**	**−0.22**	**−0.04**	**−0.21**	−0.25	−0.03	0.19	−0.03
Sexual intercourse	GPA	**−0.67**	**−0.41**	**−0.16**	**−0.32**	−0.43	−0.22	0.01	−0.16
Sexual intercourse	Risk norms	0.00	0.04	0.08	0.18	**0.04**	**0.09**	**0.13**	**0.34**
Sexual intercourse	Gang membership	−0.06	0.22	0.55	0.20	−0.09	0.22	0.59	0.20
Sexual intercourse	Student-teacher connectedness	−0.40	−0.17	0.06	−0.15	−0.19	−0.02	0.14	−0.03

Notes: $N = 218$ for boys; $N = 344$ for girls. B = unstandardized regression coefficient; LCL = Lower 95% confidence limit; UCL = upper 95% confidence limit, and β is the standardized regression coefficient. Confidence intervals that do not include zero are significant at $p < .05$ and displayed in bold face type.

Table 3

Risky Sex: Direct Effects from Structural Equation Models

		Boys				Girls			
Dependent Variable	**Independent Variable**	**LCL**	**B**	**UCL**	**β**	**LCL**	**B**	**UCL**	**β**
English GPA	GPA	1.00	1.00	1.00	0.88	1.00	1.00	1.00	0.87
Math GPA	GPA	**0.69**	**0.83**	**0.98**	**0.78**	**0.85**	**0.95**	**1.05**	**0.80**
Physical science GPA	GPA	**0.99**	**1.10**	**1.25**	**0.92**	**1.09**	**1.20**	**1.32**	**0.89**
Social studies GPA	GPA	**0.94**	**1.06**	**1.21**	**0.90**	**1.08**	**1.18**	**1.31**	**0.88**
Risk norms	GPA	−1.41	−0.45	0.54	0.07	**−1.38**	**−0.74**	**−0.11**	**−0.13**
Gang membership	GPA	−0.42	−0.19	0.03	−0.17	−0.35	−0.08	.18	−0.06
Risk norms	Student-teacher connectedness	−0.98	−0.24	−0.61	−0.04	−0.75	−0.28	0.19	−0.06
Gang membership	Student-teacher connectedness	**−0.41**	**−0.22**	**−0.04**	**−0.21**	−0.25	−0.03	0.19	−0.03
Sexual risk	GPA	**−0.57**	**−0.31**	−0.07	**−0.25**	−0.36	−0.17	0.06	−0.12
Sexual risk	Risk norms	−0.01	0.03	0.07	0.16	**0.05**	**0.09**	**0.14**	**0.38**
Sexual risk	Gang membership	**0.004**	**0.26**	0.57	**0.24**	−0.11	0.19	0.54	0.17
Sexual risk	Student-teacher connectedness	−0.36	−0.15	0.06	−0.13	−0.18	−0.02	0.15	−0.01

Notes: $N = 218$ for boys; $N = 344$ for girls. B = unstandardized regression coefficient; LCL = Lower 95% confidence limit; UCL = upper 95% confidence limit, and β is the standardized regression coefficient. Confidence intervals that do not include zero are significant at $p < .05$ and displayed in bold face type.