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Psychosocial Challenges facing Black High School Students in Chicago: Does Gender Matter?

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Abstract

We assessed community violence, school engagement, negative peer influences, mental health problems and HIV risk among 563 Black adolescents. Boys reported higher rates of community violence exposures and gang involvement while girls reported higher mental health distress. In the presence of multiple risk factors, negative peer norms were the strongest correlate of HIV risk behaviors.

Keywords

community violence; school engagement; psychological problems; HIV risks

Exposure to community violence is a threat to adolescents' mental health¹. Additionally, poor school engagement may increase the vulnerability of adolescents being drawn to negative peer influences¹. Moreover, risky sex increases the likelihood of contracting human immunodeficiency virus (HIV)². Evidence shows that the above risk factors may be especially pronounced among some Black adolescents^{1,2}.

This study examined whether gender differences in the prevalence of community violence exposures, school engagement, negative peer influences and mental health problems, when assessed collectively, were correlated with HIV risk behaviors among Black high school adolescents.

Methods

Recruitment

673 Black high school students were recruited from an urban Chicago school. Participation rate was 83% for both genders. Eligible students identified as Black and between the ages of 13 to 19. Informed consent and assent were provided by guardians and participants respectively. Adolescents received \$10.00 for participation. University Institutional Review Board approval was obtained for this study.

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Measures

Participants identified their age and socioeconomic status (i.e., do you qualify for free school lunch?).

Lifetime community violence was assessed by the Exposure to Community Violence Probe comprised of eight items assessing witnessing violence or victimization³. Items were measured on a 7-point scale (0=never and 6=six or more times; $\alpha = .72$ for boys and girls).

School engagement markers were assessed by current combined GPAs obtained from school records and the Student Assessment of Teachers Scale comprised of seven items measured on a 5-point Likert-type scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”); $\alpha = .86$ for boys; $\alpha = .87$ for girls)⁴.

Negative peer influences were assessed by: 1) three items assessing the number of friends promoting risky sex and drug use measured on a seven point scale ranging from “0” to “6 or more persons” from the Peer Risk Norm Scale⁵ ($\alpha = .72$ for boys; and $\alpha = .65$ girls), 2) lifetime gang membership (yes vs. no).

Psychological problem behaviors in the last 6 months were assessed using four sub-scales. PTSD symptoms were assessed by the University of California at Los Angeles’ PTSD Reaction Index (UCLARI)⁶ which measured the frequency of symptoms rated on a 5-point Likert scale ranging from “none of the time” to “most of the time” ($\alpha = .82$ for boys and girls). Internalizing behaviors (anxiety; $\alpha = .78$ for boys; $\alpha = .76$ for girls, and withdrawal; $\alpha = .62$ for boys; $\alpha = .69$ for girls) and externalizing behaviors (aggression; $\alpha = .80$ for boys and girls) were measured using the Youth Self Report (YSR) survey assessed on a 3-point scale, ranging from “not true” to “very true”⁷.

HIV Sexual Risk Behaviors were assessed by sex without condoms; having group sex; sex while high on drugs; and having sex while using drugs without a condom; all assessed within the last year. An HIV composite score was created by summing these items and a dichotomous version then coded as (0 = no risk behaviors; 1 = one or more risk behaviors).

Statistical analysis

Univariate statistics described the prevalence of risk factors. Gender differences were identified using chi-square statistics for dichotomous variables and *t*-tests for continuous variables. Using bivariate logistic regressions, controlling for age and socioeconomic status, we regressed any HIV risk behaviors onto each of the 9 explanatory variables (i.e., across community, school, peer and mental health domains), separately by gender. Variables considered for adjusted analysis were those with a *p*-value ≤ 0.25 in bivariate analysis; those retained in the final model had an adjusted *p*-value ≤ 0.058 . Data were analyzed using SPSS 15.0.

Results

Sample

The analytic sample consisted of 563 Black youths (219 boys and 344 girls). Mean age was 16.1 (SD=1.2), and the majority of boys and girls (61% and 59% respectively) reported receiving “free school lunch.” Table 1 documents that levels of community violence exposure were high among the overall sample, with boys reporting higher rates than girls. Gang involvement was relatively high, with boys reporting higher levels of such involvement. Most participants were sexually active, with boys reporting more group sex than girls. Girls reported higher levels of mental health distress than boys.

For boys, controlling for age and socioeconomic status, 7 additional variables (i.e., marital conflict, student teacher connectedness, gang involvement, risk networks, anxiety, aggression and PTSD symptoms) met the criterion cutoff and were entered into a separate logistic regression models. Two variables retained significance: Student teacher connectedness was protective for boys, and associated with less risky sex (AOR = 0.93; 95% CI= .086-.998). Conversely, exposure to risky peer norms was positively associated with unsafe sex (AOR = 1.12; 95% CI= 1.03-1.22).

For girls, also controlling for age and socioeconomic status, two additional variables (i.e., gang involvement and risky networks) met the criterion cutoff and were entered into logistic models. Two variables retained significance: Being older was positively associated with HIV risk behaviors (AOR = 1.70; 95% CI= 1.21–2.34). Additionally, risky peer norms was positively associated with unsafe sex (AOR = 1.11; 95% CI= 1.01-1.20).

Discussion

Consistent with earlier results, boys reported higher community violence exposure than girls⁵. Similar to some earlier research, externalizing symptoms were more pronounced for girls than boys⁹. Among all adolescents, having peers supporting risky norms was a consistent correlate of HIV risk behaviors, even in the presence of multiple risk factors. Consequently, intervention efforts designed to change or alter the perception of peer norms may be a significant approach to curtailing HIV risk behaviors among Black youths. Such interventions are based on social cognitive and social inoculation theories and have been shown some promise¹⁰. Additionally, for Black boys, promoting positive relationships with teachers may be an important safer sex intervention. Interventions should target adolescents prior to the initiation of sexual activity, especially for girls.

Convenience sampling limits generalization of these findings to wider samples of Black youths. Self report measures also limit data reliability. While beyond the scope of the current work, subsequent investigations should directly compare girls and boys in the same analysis to explore whether the effects described above are statistically different across the two genders. Despite these limitations, this recent study describes the environmental context in the lives of Black adolescents and identifies significant correlates of HIV risk behaviors in the presence of multiple stressors. Findings confirm that Black high school youths are an especially vulnerable population. To enhance adolescent interventions, ongoing assessments of contextual factors which disproportionately impact Black youths are critical.

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Table 1

Heath Risk Factors assessing dichotomous variables among Black adolescents, stratified by gender

Variable	% overall (n=563)	% male (n=219)	% female (n=344)
Community Violence exposure			
Experienced a robbery or mugging	27.5	48.4**	14.0
Witnessed a robbery or mugging	61.4	83.0.*	47.7
Involved in a serious accident while traveling in a vehicle	43.5	45.2	42.4
Witnessed a serious accident while traveling in a vehicle	74.5	73.7	74.9
Received news of a serious injury/death of someone close	85.4	85.4	85.3
Witnessed someone injured or killed in a non-gang incident	45.7	55.8**	39.3
Witnessed someone killed in a gang related incident	47.4	63.3**	37.3
Saw a dead body in the community other than a funeral	28.5	42.0**	19.9
Peer networks			
Gang involvement	15.8	30.1**	6.9
HIV-risk behaviors			
Ever had sex	64.5	74.2**	58.3
Had sex without condoms ^a	52.9	55.0	52.9
Had group sex ^a	14.1	24.8**	6.1
Had sex while high on drugs ^a	13.9	25.0	22.9
Used drugs then had sex without condoms ^a	23.2	18.1	11.2

^a Assessed in the last 12 months and only among 358 adolescents who reported being sexually active

N = 217 boys; N = 344 girls;

**
 $p < .01$

**
 $p < .05$

Table 2

Heath Risk Factors, assessed using continuous measures among Black Adolescents, stratified by gender

	Overall Mean (SD)	Boys Mean (SD)	Girls Mean (SD)
School engagement factors			
Student-teacher connectedness ^a	33.90 (6.03)	34.25 (5.93)	33.67 (6.10)
GPA's ^b	2.02 (0.95)	1.68 (0.92)	2.24 (0.91) **
Peer networks			
High peer norms supporting drug use and risky sex ^c	6.13 (5.11)	7.78 (5.50) **	5.08 (4.55)
Mental Health Issues			
High anxiety/depression ^d	3.00 (2.71)	2.46 (2.47)	3.33 (2.79) **
High withdrawal/depression ^e	3.94 (3.54)	2.57 (3.02)	4.81 (3.57) **
High aggressive behavior ^f	7.16 (4.58)	6.13 (4.43)	7.81(4.56) **
High PTSD symptoms ^g	7.52 (6.81)	6.28 (6.33)	8.23 (7.00) **

^aValues ranged from 10 (lowest possible student-teacher connectedness score) to 50 (highest possible student-teacher connectedness score).

^bValues ranged from 0 (lowest possible GPA score) to 4.91 (highest possible GPA score).

^cValues ranged from 0 (lowest possible risk network score) to 18 (highest possible risk network score)

^dValues ranged from 0 (lowest possible depression score) to 15 (highest possible depression score)

^eValues ranged from 0 (lowest possible anxiety score) to 17 (highest possible anxiety score)

^fValues ranged from 0 (lowest possible aggression score) to 24 (highest possible aggression score)

^gValues ranged from 0 (lowest possible PTSD symptoms score) to 33 (highest possible PTSD symptoms score)

N = 217 boys; N = 344 girls.

**
 $p < .001$

SD, standard deviation