

SHORT REPORT

Activity of African-American female teenagers in black organisations is associated with STD/HIV protective behaviours: a prospective analysis

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The African-American adolescent female population is disproportionately affected by sexually transmitted disease (STD) and the HIV epidemic in the United States.^{1,2} Like other adolescents, African-Americans also have a high rate of teenage pregnancy. One important, yet understudied, protective influence that could reduce African-American adolescents' sexual risk behaviour may be their involvement in community organisations. A recent study of low income minority adolescents found that pro-social activities mediated the relation between family structure and sexual risk behaviour. Pro-social activities also mediated an observed relation between family class position and sexual risk behaviour.³ In addition, participation in boys and girls clubs has been associated with positive adolescent health outcomes and youth development, for example, less substance misuse and increased parental involvement.⁴ Similarly, more recent evidence suggests that participation in school based extracurricular activities may be a protective factor reducing the risk of adolescent substance misuse.⁵

These initial studies suggest that more intensive investigation of potential associations between adolescent participation in community organisations and sexual risk behaviour is warranted. African-American adolescent female populations constitute an important starting point for these investigations. Accordingly, the purpose of this study was to examine the association between high risk African-American adolescent females' membership in community organisations and their recent sexual risk and communication behaviours. Because of the dearth of previous research specifically devoted to this question, we chose to begin our investigations with an assessment of the potential protective value of membership in black community organisations.

METHODS

Baseline and six month follow up data collected as part of an HIV prevention intervention trial were used to create a prospective study design. The trial tested the efficacy of a culturally based and gender specific education programme on female teenagers sexual risk behaviours. Recruitment sites were located in low income neighbourhoods of Birmingham, Alabama. From 1997–1999 project recruiters screened 1130 female teenagers in diverse community locations (five schools and six health clinics). Adolescents were eligible to participate if they were African-American females, 14–18 years old, unmarried, and reported recent sexually activity (609 were eligible). The study achieved an 85.7% participation rate, with 92% returning at follow up (n=482). The University of Alabama Institutional Review Board approved the study protocol.

Data collection was conducted at the University of Alabama Family Medicine Clinic and included several assessments of sexual risk behaviour (table 1). Each measure shown in table 1 was collected at the six month follow up. Frequency of adolescents' communication about preventing STD/HIV and preg-

nancy with their sex partners and with their parents was assessed by two 5-item scales with adequate reliability ($\alpha=0.80$ and 0.88 , respectively). Scales assessed adolescents' frequency of discussing sex related issues such as STD, HIV, and pregnancy prevention during the past six months. Response alternatives were "never" (0 times), "sometimes" (1 to 3 times), "often" (4 to 6 times), and "a lot" (7 or more times). Obtained distributions were highly skewed (partner communication mean =8.9, SD=4.5; parent communication mean =17.3, SD=5.2) and subsequently dichotomised by median split.

The predictor variable (adolescents' activity in black social organisations) was assessed at baseline. Adolescents were asked to indicate agreement or disagreement with the following statement "I am active in black organisations or social groups."

To control for possible confounding effects, we assessed numerous variables to determine whether they were statistically related to the predictor variable as well as any of the outcome variables; none were identified. To control for intervention effects, assignment to condition was entered into a hierarchical logistic regression as the first block. The second block contained the variable representing participation in community organisations. Outcome measures of sexual risk and communication behaviour were each regressed on these two blocks of variables.

RESULTS

Average age of the sample was 16.0 years. Fifty five per cent reported being active in black organisations or social groups. Table 1 displays the obtained prevalence ratios, adjusted odds ratios, and the percentage that reported each risk factor, stratified by participation in black community organisations. As shown, all but three of the outcome measures achieved significance. The exceptions were both measures of vaginal sex unprotected by condoms and inconsistent contraceptive use with casual partners.

COMMENT

These exploratory findings suggest that African-American adolescent females who do not participate in black community organisations may be more likely to have multiple sex partners than adolescents who participate in these organisations. Similarly, protective effects of participation may include a lower likelihood of: engaging in sex with casual partners, inconsistent contraceptive use with steady partners, and infrequent sexual communication with sex partners and parents. Findings warrant further research and suggest that community involvement may be an important intervention modality. Further research may benefit from investigating the effects of unstructured time on adolescents' level of sexual risk behaviour. For example, involvement in organised activities may be protective against engagement in sexual risk based on

Table 1 Bivariate and multivariate associations between lack of involvement in community organisations and adolescents' sexual risk behaviours

	Community involvement		PR*	95% CI†	p	AOR‡	95% CI	p
	% No	% Yes						
<i>Risk behaviour</i>								
More than 1 sex partner, past 30 days	8.7	3.4	2.58	1.09 to 6.14	0.02	2.73	1.10 to 6.80	0.03
More than 1 sex partner, past 6 months	26.4	15.2	1.74	1.20 to 2.50	0.003	1.98	1.25 to 3.14	0.003
Sex with a casual partner, past 6 months	23.6	15.6	1.51	1.04 to 2.19	0.03	1.65	1.03 to 2.62	0.03
Inconsistent contraceptive use, steady partner§	69.8	58.9	1.19	1.02 to 1.38	0.03	1.62	1.05 to 2.50	0.03
Inconsistent contraceptive use, casual partner¶	72.3	80.0	0.90	0.71 to 1.15	0.42	0.65	0.23 to 1.86	0.42
Inconsistent condom use, steady partner**	51.2	45.2	1.13	0.92 to 1.40	0.25	1.31	0.86 to 1.98	0.21
Inconsistent condom use, casual partner††	42.6	34.3	1.24	0.70 to 2.19	0.45	1.42	0.57 to 3.52	0.44
<i>Sexual communication</i>								
Less frequent sexual communications w/ partners	55.2	44.1	1.25	1.04 to 1.51	0.02	1.61	1.10 to 2.32	0.01
Less frequent parent-adolescent communication about STD, HIV, and pregnancy prevention	52.8	43.7	1.21	1.00 to 1.46	0.05	1.45	1.00 to 2.09	0.05

*Prevalence ratio; †confidence interval; ‡adjusted odds ratio; §defined as using contraception less than 100% of the last five times sex occurred among 366 adolescents with steady partners; ¶defined as using contraception less than 100% of the last five times sex occurred among 82 adolescents with casual partners; **defined as using condoms less than 100% of the last five times sex occurred among 366 adolescents with steady partners; ††defined as using condoms less than 100% of the last five times sex occurred among 82 adolescents with casual partners.

adolescents' reduced time in unchaperoned circumstances. Structured time may also possibly provide adolescents with a sense of belonging that may preclude seeking social satisfaction in the context of a sexual relationship.

Findings are limited by several factors. For example, adolescents were not provided with a definition of what "active" means in the context of being "active in black organisations or social groups." Although an imposed definition could have provided greater clarity regarding adolescents' responses, we believe that adolescents' self defined perceptions of what it means to be "active" are important. In addition, it should be noted that our testing for statistical covariates did not yield any potentially confounding variables. Thus, one important aspect of subsequent research may be identification of factors that may predispose adolescents to activity in black organisations and also predispose them to the positive outcomes described in this study. Finally, it should be noted that the predictor variable was assessed using a single item measure. Based on findings from this exploratory study, further empirical investigation of this research question should be expanded to include scale measures that capture adolescents' activity levels in black organisations.

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REFERENCES

- 1 DiClemente RJ. Adolescents at risk for AIDS: AIDS epidemiology, and prevalence and incidence of HIV. In: Oskamp S, Thompson SC, eds. *Understanding and preventing HIV risk behavior: safer sex and drug use*. Thousand Oaks, CA: Sage, 1996.
- 2 Eng TR, Butler WT, eds. *The hidden epidemic: confronting sexually transmitted diseases*. Washington, DC: National Academy Press, 1997.
- 3 Ramirez-Valles J, Zimmerman MA, Newcomb MD. Sexual risk behavior among youth: Modeling the influence of prosocial activities and socioeconomic factors. *J Health Soc Behav* 1998;**39**:237-53.
- 4 Schinke SP, Orlandi MA, Cole KC. Boys and girls clubs in public housing developments: prevention services for youth at risk. *Journal of Community Psychology* 1992;**28**:118-28.
- 5 Elder C, Leaver-Dunn D, Wang MQ, et al. Organized group activity as a protective factor against adolescent substance use. *Am J Health Behav* 2000;**24**:108-13