

Acceptance of HIV Testing among African-American College Students at a Historically Black University in the South

Nanetta S. Payne, MA; Curt G. Beckwith, MD; Melvin Davis, PhD; Timothy Flanigan, MD; Emma M. Simmons, MD; Kathy Crockett, PhD; Tanya M. Ratcliff, MA; Larry K. Brown, MD; and Kaye F. Sly, PhD

Jackson, Mississippi and Providence, Rhode Island

Purpose: Routine HIV testing on college campuses has the potential to increase students' awareness of their HIV status. Testing targeted only at persons reporting HIV risk behaviors will not identify infected persons who may deny or be unaware of their risk. Thus, this study sought to investigate the acceptability of rapid HIV testing among African-American college students in a nontraditional setting on a historically black college/university (HBCU) campus.

Methods: A cross-sectional survey on risk behaviors, barriers to testing, and HIV testing history was administered to 161 African-American college students at an HBCU. All approached students (both those participating and not) were offered free HIV rapid testing.

Results: Eighty-one African-American college students consented to be tested for HIV and all tested negative. Results of the questionnaire indicated that African-American college students engage in risky sexual behaviors (such as unprotected sex) yet perceive themselves as at little or no risk. College students who reported past HIV testing often did so in conjunction with routine exams, such as annual pap smears, rather than specifically seeking HIV testing.

Conclusions: Routine HIV testing on college campuses may be an important public health initiative in reducing the spread of HIV. Specifically, this strategy may provide a model for student access to HIV testing, particularly males and other students who may be less likely to seek HIV testing at traditional medical settings. These data supports expansion of routine testing programs directed at African-American college students.

Key words: HIV/AIDS ■ African Americans

© 2006. From the Department of Psychology, Jackson State University, Jackson, MS (Payne, Davis, Crockett, Ratcliff, Sly); and Brown University, Providence, RI (Beckwith, Flanigan, Simmons, Brown). Send correspondence and reprint requests for *J Natl Med Assoc*. 2006;98:1912–1916 to: Dr. Nanetta Payne; phone: (401) 444-3156; fax: (401) 444-4656; e-mail: npayne@lifspan.org

INTRODUCTION

The HIV/AIDS epidemic is a health crisis for African Americans. In 2001, HIV/AIDS was among the top three causes of death for African-American men aged 25–54 years.¹ It was the number-one cause of death for African-American women aged 25–34 years.¹ Moreover, among both males and females, African Americans represent the largest percentage of HIV/AIDS diagnoses across ethnicities.²

Although many inner-city areas have an increased prevalence of HIV infection, research has shown that the epidemic is becoming increasingly rural, with African Americans and those living in poverty at greater risk.³ The most recent Centers for Disease Control (CDC) surveillance report suggested that the highest incidence rates were in the southeastern United States.⁴

Compared with their nonminority peers, African-American college students are at an increased risk for HIV infection.⁵ An epidemiologic investigation in North Carolina of young, HIV-positive black men who have sex with men (MSM) and who were college students revealed high rates of HIV risk behaviors and an epidemic of HIV infection.⁶ A retrospective review of men in North Carolina aged 18–30 indicated an increase in the diagnosis of HIV among male college students, from two cases in 2000 to 56 cases diagnosed between January 2001 and May 2003. Of the 56 male college students diagnosed during this time, 49 were black.⁷

Knowledge of HIV serostatus is an important element of HIV prevention and treatment efforts.⁸ Among the estimated 850,000–900,000 Americans living with HIV in 2000, approximately one-fourth (180,000–280,000) were unaware of their HIV infection status.⁹ A recent multisite project from the CDC reported that late testers are more likely to be black or Hispanic and exposed to HIV through heterosexual contact.¹⁰

Another major challenge facing HIV service delivery is the large number of individuals who get tested for HIV but never return for their results. Specifically, data from

the CDC revealed that a significant percent of both HIV-positive (30%) and HIV-negative (39%) individuals that tested at publicly funded sites in the United States failed to return for their test results.¹¹ HIV rapid testing has been identified as a strategy to address the low percentages of tested individuals receiving their results.

Traditionally, college students have been perceived as a low-risk group for HIV infection.^{12,13} However, published studies suggest that both homosexual and heterosexual college students consistently engage in high-risk behaviors, including inconsistent condom use,¹⁴⁻¹⁸ use of drugs and alcohol during sex,¹⁸⁻²⁰ and sex with multiple partners.^{14,18} Despite engaging in these high-risk activities, college students have a low perceived risk of HIV infection.²¹⁻²³

Although HIV/AIDS research on college campuses has been conducted, gaps in our knowledge of students' perceptions of their risk status and risk-related behaviors still exist. African-American college students present with a higher prevalence of HIV infection than their majority group peers, yet they are the least likely to be aware of their HIV diagnosis.²⁴ Few published studies have addressed African-American students' willingness for HIV testing on college campuses.

The objective of this study was two-fold. First, we assessed attitudes toward HIV testing, HIV risk behavior and risk perceptions among African-American college students. In addition to attitudes, we evaluated African-American college students' acceptance of rapid HIV testing by performing a pilot study of rapid HIV testing in a nontraditional setting on an HBCU.

METHODS

This study was conducted with approval from the university's institutional review board (IRB). Inclusion criteria were all non-HIV-infected African-American students aged 18-24. Students were recruited from various classes in the liberal arts building (e.g., general health education, introductory to psychology, statistics, etc.) at a southern HBCU. Two-hundred-three students were approached; 161 students met the inclusion criteria and were enrolled in the study. Exclusion criteria included ethnicity other than African American, age <18 years and >25 years. Although the exclusion criteria prevented the participation of some students, all students who were approached were offered free rapid HIV testing.

The study consisted of two phases. The first phase required completion of a 60-item paper-and-pencil ques-

Table 1. Bivariate relationship between baseline demographics, sexual and drug risk, HIV testing and acceptance to HIV rapid testing (N=161)

Variables	Full Sample	HIV Tested (N=81) Said Yes to Rapid Testing
<i>Demographics</i>		
Gender		
Male	58 (36%)	27 (47%)
Female	103 (64%)	54 (52%)
<i>Testing History</i>		
Ever Been Tested for HIV?		
Yes	78 (48%)	44 (56%)
No	80 (50%)	36 (45%)
Don't know/unsure	3 (2%)	1 (33%)
Intensity of Barriers to Testing		
Low	40 (25%)	22 (27%)
Moderate	82 (51%)	32 (40%)
High	39 (24%)	27 (33%)
<i>Risks</i>		
Perceived Risk for HIV		
Low	135 (84%)	64 (47%)
High	26 (16%)	20 (77%)
Any Diagnosed Sexually Transmitted Infections?		
Yes	21 (13%)	11 (52%)
No	140 (87%)	70 (50%)
Had Unprotected Vaginal Sex in the Past 90 Days?		
Yes	64 (40%)	38 (59%)
No	97 (60%)	43 (44%)
Had Unprotected Anal Sex in the Past 90 Days?		
Yes	26 (16%)	16 (62%)
No	135 (84%)	65 (48%)

tionnaire examining basic demographics (e.g., age, gender), sexual and drug risk behaviors, barriers to testing, and HIV testing history. The self-administered questionnaire was completed in participants' classrooms.

The primary investigator introduced the questionnaire as part of a survey project on the acceptability of HIV rapid testing among African-American college students. The primary investigator reviewed the consent form, explaining the nature, purpose, risks, benefits and alternatives to the current study. Students received extra course credit for participation. Extra credit was not contingent on HIV testing—only on completion of the questionnaire.

Following completion of the questionnaire, participants were immediately offered free, confidential, rapid HIV testing, using whole blood obtained from a fingerstick. The rapid HIV testing procedure was explained to all participants. Participants were informed that HIV testing would be performed at the university counseling center (located in the liberal arts building). The counseling center is a suite with four private rooms used to conduct clinical assessments and interviews.

For participants who consented to receive rapid HIV testing, an additional HIV testing consent was reviewed prior to testing. Participants who declined testing completed an additional one-item question, examining their reason(s) for not being tested and were given a referral for other testing sites.

Rapid testing was performed in conjunction with HIV pre- and posttest counseling. All counselors were certified by the Department of Health in HIV pre-/post-counseling. Counselors were not affiliated with the university. Using CDC revised guidelines, participants were informed that results would be available in 20 minutes and that in the event of a positive test result, he or she would be referred to the local department of health for confirmatory testing. Results were given along with posttest counseling, which included a risk-reduction plan for all participants who received HIV testing.

RESULTS

Of the 161 participants at baseline, 36% were male (n=58) and 64% were female (n=103). The mean age

was 20.6 (SD=1.86) years. All participants were African American. All 161 students completed the questionnaire. Of the 161 study participants, 81 (50%) underwent rapid testing. All 81 participants who underwent HIV testing received a negative test result. Bivariate analysis revealed no significant relationships between those who received HIV rapid testing and those who did not (Table 1).

In this sample, perceived risk was relatively low, with 84% reporting a low risk of acquiring HIV. However, 64% of participants reported having unprotected vaginal sex and 16% reported having unprotected anal sex in the past 90 days. See additional risk behaviors and predictors of HIV testing in Table 1.

Seventy-eight (48%) of the participants reported that they previously received HIV testing. Forty percent reported being tested at a community health center, 32% by a physician/family doctor, 17% at a university health clinic, 10% at a hospital and 1% in a mobile testing van. Common reasons for previous testing included: as part of their routine pap smear (23%), belief that they were not at risk but wanted to know their status (8%), received testing as part of prenatal care (8%), insurance requirement (4%), knew they were at risk (3%), in the military (2%), thought their partner was at risk (1%).

Participants reported the following barriers as precluding their receipt of HIV testing: receiving an HIV test could affect their relationship with their partner (29%), lack of information about local HIV testing sites (20%), fear that HIV testing results would not be kept confidential (18%) (Table 2).

Participants were more likely to consent to rapid HIV testing if they perceived themselves to be at high risk of contracting HIV (Table 1). No participant endorsed use of intravenous drugs. See additional risk behaviors in Table 1.

DISCUSSION

Traditionally, most HIV testing is performed by physicians in hospital settings, although various public programs and clinics account for about one in five of recent HIV tests.²⁵ Consistent with past studies, this sample of students often underwent testing as part of

Table 2. Reasons for declining HIV rapid testing (total N=81)

Reason(s)	Total (%)	Males (n=31)	Females (n=49)
I do not feel at risk.	21	16	17
I am at risk but do not want to know my status.	1	0	1
I am at risk but do not want to know my status immediately.	1	0	1
I have had an HIV test within the last six months.	13	8	13
I want to have the test but do not have time now.	19	12	18
I do not feel comfortable being tested in this setting.	3	2	2
I am not sure the results will be kept private.	2	1	2
I do not want to have a fingerstick (blood drawn from finger).	2	1	2

routine exams, such as annual pap smears, instead of specifically seeking HIV testing. Nevertheless, rapid HIV testing was well accepted in this nontraditional setting, with 50% of the students consenting to rapid HIV testing (provided at the university counseling center). These findings suggest that testing on college campuses may provide a model for student access to HIV testing, particularly males who may be less likely to get tested in traditional medical settings.

Several barriers to HIV testing included concerns about receiving a positive test, confidentiality of results and lack of information about local testing sites. In this study, we deliberately addressed some of the barriers by providing a convenient testing site that was easily accessible and at no cost for all of our student participants. Offering HIV testing in a nontraditional site, such as in the liberal arts building (in close proximity to classes) allowed for a bigger pool of students who chose to be tested. Also, offering the test in a nontraditional setting may have served to decrease the stigma of receiving HIV testing. Certainly, further education efforts are needed to inform students about HIV testing sites in their community and to familiarize them with the policies of confidential HIV testing procedures.

Our findings concerning condom usage are consistent with other studies that show a large number of African Americans engaging in risky sexual behaviors, such as inconsistent condom use, that promote the spread of HIV.^{26,27} African-American college students at this HBCU are engaging in notable levels of sexual risk-taking behaviors under the belief that they are not at risk of contracting HIV. Eighty-four percent of the participants perceived themselves as at no or low risk of HIV infection, although 90 (56%) participants engaged in some form of risky sexual behavior (such as unprotected vaginal or anal sex). Specifically, participants who perceived themselves at low risk were less likely to seek testing, despite risky reported sexual behavior. Nevertheless, we were delighted to see that students who do perceive themselves at risk are willing to seek testing. Expanding HIV testing and prevention counseling efforts (to all “perceived” risk groups) may have future behavioral change implications for those that test negative.

There are several limitations to these data. This convenience sample was relatively small and may not be generalizable to all African-American college students. Students received extra course credit for participation (completion of questionnaire), which may have influenced study participation. Also, limited resources may have negatively impacted potential recruitment opportunities.

Overall, with 50% of participants consenting to on-the-spot rapid testing, it was clear that HIV testing was well accepted in this nontraditional setting. This first step indicates the amenability of this population to HIV intervention and prevention efforts. Providing more accessible testing sites may potentially increase the per-

centages of African-American students who seek testing. Additional research is needed to explore further implementation of rapid HIV testing (on college campuses).

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