AIDS Prevention Challenges for Colleges and Universities

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It is commonly accepted that, since there is no treatment to eliminate HIV infection, risk reduction education is the most viable intervention to slow the epidemic. There are few places where this is as true as it is on college campuses where most of the population, primarily young adults, is uninfected. But it is here that the AIDS prevention maxim—education alone is not enough—receives its greatest test: students are among the least likely to change behavior as a result of knowledge about HIV infection.

The challenges involved in designing and implementing effective AIDS prevention programs in higher education are diverse, and vary from one campus to another depending on local circumstances, institutional governance, available human and financial resources, community attitudes, and student demographics. The effectiveness of any college-based AIDS education program depends on its relevance to the unique characteristics of its population of students, their psychological development, and the social patterns of their lives. Plainly, an educational approach that works for traditional undergraduates in a residential institution may not address the concerns of older, part-time students attending a commuter campus downtown. This article considers these challenges and discusses some of the more subtle factors that make achieving behavior change difficult.

There is no reliable counting system to enumerate the college and university students who have been diagnosed with AIDS. Even if this number were available, it would inadequately and deceptively measure the impact of HIV infection on campuses. Given the prolonged asymptomatic phase of HIV infection and the average age of college students, it is likely that the overwhelming majority of students with HIV infection will not have recognizable immune deficiency while in school. In addition, most colleges will have enrolled far more students with early, asymptomatic or mildly symptomatic HIV infection than with chronic or advanced disease. Students with recognizable immune deficiency are likely to be older than traditional undergraduates.

Preliminary research done by the American College Health Association (ACHA) and the Centers for Disease Control (CDC) has provided the only indicator of the frequency of HIV infection among college students nationwide: among about 17,000 students tested in a blinded study on 19 campuses, approximately two of every 1,000 (0.2%) tested positive for HIV antibody. Single campus studies and anecdotal reports variably suggest slightly higher or lower rates of infection. The importance of these early studies is simply to confirm the presence of HIV among college students; more elaborate and refined studies will both monitor trends in seroprevalence over time and delineate differences in patterns of HIV infection among student groups, institutional types, and geographic areas.

Translating Knowledge into Behavior Change

When approaching AIDS education, it is important to consider both the developmental factors that contribute to risky behaviors among students and the social and cultural realities that reinforce these behaviors. Among traditional college and university students, the combination of experimental behavior and a sense of invincibility contributes to many risks associated with health, safety, personal relationships, and academic progress. Research into knowledge, attitudes, and behaviors among students confirms the recurring paradox of health education: students who know how to protect themselves from HIV infection do not regularly and predictably act safely. (See Sexual Behavior among Heterosexual College Students, below.)

It is dangerous, however, to ascribe this lack of connection between knowledge and behavior purely to the “It can’t happen to me” syndrome; this formulation oversimplifies the complex process that students undertake when they assess risk and choose behaviors. For example, for many students, the sense of invulnerability may derive less from a real belief in invincibility than from a tendency to look at life in small segments of time. Conceiving a future many years away does not seem to fit comfortably into the immediate and short-term goals that characterize the quarters and semesters of college life.

Students face other barriers to successfully translating knowledge into behavior change. Peer pressure, role expectations, and group norms generally promote not only sexual experimentation, but also the combination of behaviors, such as sex and alcohol or drug use, that elevate risk. Many students, uncomfortable with acknowledging or discussing sexual feelings or activities, do not prepare for the possibility of intercourse. If intercourse occurs, it is commonly justified by alcohol (“I must have been drunk,”) or spontaneous (“One thing just led to another,”), or perhaps naiveté (“I didn’t realize what was happening.”). In addition, unwanted physical intimacy and intercourse without consent (acquaintance rape) are common on campuses. When neither negotiations nor consent are involved, precautions against transmitting HIV will not happen.

Cultural messages that target students and promote risky behaviors reinforce these attitudes. Daytime television, movies, rock music, and advertising usually do not portray healthy sexual activity and substance use. Sales inserts in campus newspapers regularly extol the virtues of beer, and student culture suggests that alcohol will make sex easier to find and relieve some of its tension. Advertisements and entertainment programming for student markets do not explore the consequences of unprotected or unnegoti ated sex. Compared to the excitement and gratification promised through these other channels, the messages of health educators on campus often seem restrictive and unrealistic.

Even when consent is given, alcohol is absent, and the possibility of intercourse is acknowledged, communication about previous sexual experience and current desires is commonly flawed and misleading. For example, students’ conceptions of such “protective” strategies as monogamy are varied. Both "se continued on page 2
Prevention in Colleges... continued from cover

The hierarchical nature of college experience, however, may undermine internal assumptions of self-worth. In addition, many college students have not defined or practiced skills in intimacy, managing relationships, assertive communication, coping with stress, or using alcohol and drugs in a healthy way.

Special Issues for Campus Subpopulations

Societal attitudes complicate AIDS education and attempts to change behaviors of members of certain subpopulations, including gay, lesbian and bisexual students, women, and students from other cultures. Many students who have intercourse with others of the same gender do not label themselves gay, lesbian, or bisexual, and may not seek educational services designed for these communities. Many institutions do not provide specific outreach to these students for philosophical, religious, or "image" reasons, and may mistakenly assume that gay, lesbian, and bisexual students must have learned elsewhere all they need to know about HIV infection. It is particularly important for colleges to design AIDS education for gay, lesbian, and bisexual students because programs designed for the established gay community may not be relevant to younger gay students. For example, for younger gay students, "eroticizing safer sex" is often less important than finding outlets for intimacy and disclosing their sexuality. Finally, campus prejudice, harassment, and violence against gay, lesbian, and bisexual students impairs self-esteem and may limit the access of these students to academic and other services.

For most women students, the primary need, beyond standard AIDS education, is to help increase power and self-determination in relationships. Both family upbringing and cultural standards, promulgated by advertising and entertainment, emphasize the importance of social relationships for women. The result is that women may fear social rejection more than they fear HIV infection. The frequency of acquaintance rape and unwanted physical intimacy demonstrates the persistence of cultural assumptions and role expectations for both men and women that continue to place campus women at risk. Sexism in higher education becomes a health issue when it makes women think less of themselves and promotes their submission in relationships.

AIDS education programs that address only the average white, English-speaking, younger student overlook the needs of students from outside of the United States and students who are members of racial and ethnic minority groups. Campus racism adds to this problem by affecting self-esteem among people of color and limiting the resources directed at health promotion programs for other cultural groups. Non-traditional undergraduates, who are usually older, often feel out of place in residence halls where activities fit the needs of late adolescents.

Finally, while needle-sharing is a much less common route of transmission than sex on campuses, I.V. drug use is a factor in the lives of some students, perhaps more often for those on urban campuses. Needle-sharing during anabolic steroid use is a more common behavior on most campuses, despite the fact that its frequency is underestimated by both athletic coaches and drug-testing programs. Intervening to decrease steroid injection will require not only education for students, but also commitments from coaches, trainers, administrators, and alumni to sacrifice the greatest athletic success for the health benefits of avoiding steroid use.

Skills Building

Campus health education programs need to shift their focus from disseminating information about HIV to helping students define, develop, and reinforce skills that will enable them to put safe behavior into practice. Given the complex nature of development, behavior, cultural issues, and risks, such skills building must be specifically tailored to individual campus populations. The challenge is to recognize the breadth and depth of the skills that are required: clarifying values, nurturing self-esteem, defining the nature of safe sexual intimacy, structuring relationships, managing stress, coping with cultural expectations, and dealing with alcohol and drugs. These are lifetime projects, to be sure, but college provides a particularly good framework for the health behavior skills that lead to protection against HIV infection.

Three critical skills provide specific protection. Assertive communication prepares students to understand and articulate their wishes in a relationship, to accept that sex must be a decision and not a "happening," and to determine their own behavior and risk. In order to separate sex from alcohol and drugs, students must learn that negotiation, communication, and humor may be more effective than substances in giving permission, removing barriers, and relieving anxiety. Using condoms during intercourse depends on implementing these first two skills and requires not only information about how to use a condom, but also practice in skillfully doing so. These skills are best taught by credible messengers, such as students themselves, who share the assumptions of student culture and may be perceived by other students as helpful, nonjudgmental, and understanding.

Conclusion

Effective campus AIDS education programs will be complex, innovative, expensive, and threatening. People in campus communities may be alarmed by the specific content of educational programs, offended by condom vending machines, and disturbed by skills-building approaches. The resulting controversy may be uncomfortable for some, but all colleges will have to manage the consequences of failing to institute these programs.

Those colleges that rise to the challenge, however, will discover real opportunities: campus communities are experimental workshops offering chances to develop and evaluate creative educational programs. Using the special qualities of the college health care delivery model, which emphasizes "high touch, low tech" services, institutions may also evaluate and refine models that can contribute to compassionate and effective services off campus and to care for conditions other than HIV infection.

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References


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Sexual Behavior among Heterosexual College Students

The Kinsey Institute Research Staff

Younger people are as likely as adults to engage in sexual behaviors that may put them at risk of contracting HIV infection. The Kinsey Institute developed a brief questionnaire to define these behaviors, particularly among heterosexual college students.

The most important findings from this survey reveal that students engage in significant levels of unprotected sex, including anal intercourse; have multiple sexual partners; and have sex with partners about whose sexual history they may know little. These results were compiled from responses of 809 self-selected college students attending a large Midwestern university in the spring of 1988. The respondents were similar to the general student population of their university in terms of age, region of residence, marital status, and year in school. The typical respondent was 22 years old, white, Protestant, politically moderate, and from the Midwest. These demographics suggest that the sample provides a relatively conservative estimate of the proportion of young adults in the United States who engage in sexual activities that place them at increased risk for sexually transmitted diseases (STDs), including HIV infection.

Sexual Behavior

The data reported in this article pertain to those respondents who labeled themselves “heterosexual” (737, or more than 90 percent of the total sample) and who had engaged in vaginal or anal intercourse (609, or more than 80 percent of the 737 heterosexual respondents, had engaged in one or both of these behaviors). More than one-half were involved in sexually exclusive relationships, more than one-third were not in relationships, and the remainder were in sexually non-exclusive relationships. On average, respondents had been sexually active for four to six years. More than one-fifth of the females and one-quarter of the males reported engaging in heterosexual anal intercourse at least once. This prevalence is within the range reported in the few other studies that have asked about anal intercourse, the majority of which have surveyed individuals older than college age. A review of the literature suggests that 39 percent of adult women have engaged in anal intercourse at least once.

It is also important to note that 3 percent of the self-labeled heterosexual men in this college survey reported engaging in anal intercourse with other men. Such evidence of behavioral bisexuality in nominally heterosexual men underscores the importance of obtaining information about an individual’s sexual activities with both men and women regardless of the sexual orientation label the person uses to describe him or herself. It also emphasizes the role that “hidden” bisexual behavior may play in increasing the risk of HIV transmission across ostensibly distinct sexual orientation boundaries.

Fewer than two-thirds of respondents had used a condom within the last year. The last time they engaged in vaginal or anal intercourse, less than one-third had used a condom, and nearly one-quarter had used either no contraception or relatively ineffective methods such as rhythm or withdrawal, both of which offer no protection against STD transmission. More than one-fifth of respondents had contracted an STD including anogenital warts, herpes, pubic lice, gonorrhea, chlamydia, or syphilis.

Types and Numbers of Sexual Contacts

On average, college women reported having approximately six opposite-sex partners over their lifetimes, including three one-night stands; college men reported close to 11 opposite-sex partners over their lifetimes, including five one-night stands. The type of relationship in which an individual was involved at the time of the study—sexually exclusive, sexually non-exclusive, or not currently in a relationship—was significantly related to a number of important risk factors. For example, respondents, especially men, in non-exclusive relationships had significantly more sexual partners (an average of 20.5 for men and 4.2 for women) than those in sexually exclusive relationships. They were also more likely to have engaged in unprotected intercourse during the last year and at the time they last had sex. Compared to other men, men in non-exclusive relationships had almost twice as many partners, most of whom were one-night stands.

Individuals involved in exclusive sexual relationships, not those in non-exclusive relationships, reported the highest frequency of intercourse. Educators may find that these findings are compelling in arguments for the benefits associated with committed, sexually exclusive relationships. A committed sexual relationship may not only lower risk of HIV infection—by reducing overall numbers of partners, by increasing the opportunity to know more about a partner’s sexual and drug use history, and by encouraging the assumption of greater responsibility for each other’s health—but, on average, also appears to be associated with more, rather than less, sexual activity.

Another HIV-related risk factor examined in this study pertains to mobility and sexual activity. Since 1980, approximately one-quarter of this college sample reported engaging in vaginal or anal intercourse with a resident of at least one of the 10 cities identified by the Centers for Disease Control (CDC) as having the highest number of reported AIDS cases. Moreover, approximately one-third of those having done so participated with a new, first-time partner. These results suggest that more research is needed on travel and sexual behavior in various socioeconomic groups, such as business executives who probably travel more than college students, since mobility is a factor in the spread of HIV from higher to lower prevalence areas in the United States.

Conclusion

The results of this study demonstrate that heterosexual college students, even in the Midwest, have had unprotected vaginal and anal intercourse with several partners. Given what is known about the conditions under which HIV may be most easily spread, there is cause to be concerned about heterosexual college students who engage in high-risk sexual activities.

This article was written by June Machover Reinisch, PhD, Director, Craig A. Hill, PhD, Research Associate, Stephanie A. Sanders, PhD, Assistant Director, and Mary Ziemba-Davis, doctoral candidate, all at The Kinsey Institute for Research in Sex, Gender and Reproduction at Indiana University (IU) in Bloomington. Dr. Reinisch is Professor of Psychology at IU, Bloomington and Professor of Psychiatry at the IU School of Medicine. Dr. Sanders is on the faculty of MATEC/Indiana at the IU School of Medicine.

References
Recent Reports


Of 305 male undergraduates at Virginia Tech, 254 (83 percent) said that they would not object to using a condom if asked by a partner; but, of those who had used condoms previously, 110 (50 percent) said that they did not intend to use one if they were to have sexual intercourse within the next month.

In the winter of 1986, researchers administered two scales, measuring attitudes towards sex and attitudes towards condoms. The majority of the subjects (72 percent) were juniors and seniors.

Seventy-two percent of the respondents had used a condom at least once, but only 12 percent said that condoms were pleasant to use, and many said they thought condoms were unreliable. While men with positive reactions toward condoms were more likely to use condoms, even men expressing negative views were willing to use them. Of men who had previously used condoms, an overwhelming number did so primarily to prevent pregnancy; only 12 percent did so primarily to prevent disease transmission. [Editor's note: Despite the age of this study, the researchers still believe that the perception of risk of HIV infection is low among students in this population.]


Black college students have an accurate understanding of the basic facts related to HIV transmission, but also have surprising gaps in their knowledge. According to a survey of 975 undergraduates, 94 percent of whom were Black, many Black students do not fully understand how HIV is not transmitted or that HIV infection is a threat to heterosexuals. The survey also showed that, despite mounting evidence in AIDS education that knowledge is not enough to change behavior, subjects who engaged in high-risk behaviors had significantly less accurate knowledge about HIV infection than those who did not participate in these behaviors.

The survey was conducted at an eastern university during the 1987-1988 school year. It included questions about demographics, knowledge, attitudes, and behavior. The sample was 61 percent female. The mean age of respondents was 21.

Only 26 percent of respondents knew that HIV is not transmitted by insects, and only 75 percent knew that HIV could not be spread by coughing or sneezing. Fewer than 80 percent knew that HIV is different from the herpes virus and that symptoms of AIDS require more than 12 to 24 hours to appear. Less than 70 percent knew that most Blacks with AIDS are not homosexual and that most babies with the disease are not White.

Seventeen percent of respondents reported having anal intercourse, 6.5 percent had used heroin, and 16 percent had been treated for a sexually transmitted disease. Women made up 64 percent of those who engaged in anal intercourse.

Student Support for People with AIDS. California State University, Bakersfield (Psychological Reports, August 1989).

A heterosexual woman with AIDS is less likely to receive support from university students if she is known to have been infected with HIV via “risk-taking” activities—unsafe sex or unsafe drug use—rather than through means not perceived as risky—a blood transfusion or sex with an “unfaithful” husband, according to a study of 237 college students. Forty-two percent of the respondents were male and their average age was 24.

Seventy-three percent of respondents said they would sign a petition in support of the woman’s right to attend classes. While male students offered similar levels of support for the woman no matter how she had been infected, female students were much more willing to support the woman if she had been infected through a blood transfusion.

CD4 Toxicity Study Results. Lead institutions of two studies: San Francisco General Hospital and Massachusetts General Hospital. (Annals of Internal Medicine, February 15, 1990).

Two independent phase one studies—which test only toxicity—of recombinant soluble CD4 in patients with AIDS and ARC showed that the drug is well tolerated by the body at several dosages, and may be effective at reducing levels of p24 antigen. Soluble CD4 is a promising synthetic antiviral drug that mimics T-cell binding sites to which HIV is attracted, causing the virus to bind to the synthetic molecule rather than the human cell.

The first trial included 42 subjects, 40 of whom were men, 29 of whom had AIDS, and 13 of whom had ARC. The 78-day protocol included eight weeks of administration three times weekly in doses ranging from one to 300 μg per kilogram of body weight, given either intravenously, subcutaneously, or intramuscularly. The white blood cell counts of 22 subjects decreased slightly, but no patient withdrew as a result of toxic reactions.

In the second trial, 25 men received, intravenously or intramuscularly, between 9 milligrams and 30 milligrams of CD4 daily for 28 days. None of the patients had significant toxic reactions: 10 developed fever that cleared within 48 hours, and one developed a skin eruption that resolved after treatment ceased. The 10 patients receiving 30 milligrams daily showed a significant decline in p24 antigen. No consistent declines were reported at lower dosage levels. In both studies, a few patients developed antibodies to CD4, but this seemed to have no adverse effect.