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STUDENTS AND STIS:

The Need for Effective Sexuality Education Programs on Campus

Sexually transmitted infections (STIs) are among the most common infections in the United States today, particularly for college students. However, because parents may not talk with their children about sexuality and the majority of sexuality education programs in high schools currently address abstinence only, today's college students may be left without adequate knowledge about sexuality and STI prevention at a critical juncture in their lives.

Sexual Activity Among College Students

The increased independence enjoyed by college students appears to have an impact on their sexual activity. Although nearly 50% of students have never had sex upon starting college, as reported in a recent study, this percentage drops to 28% by the spring of freshman year.¹ In addition, in a study of 1,168 college students, 74% of freshmen, 84% of sophomores, 87% of juniors, and 90% of seniors reported being sexually active.² Fifty percent of female college students report having their first sexual intercourse at an unexpected time³ and 27% report being under the influence of alcohol during their first sexual intercourse,⁴ placing them at increased risk for contracting an STI.

Key Risk Factors for College Students

As a result of their beliefs (sometimes incorrect), behaviors, and lifestyle choices, college students may unknowingly increase their STI risk. Use of alcohol, serial monogamy, inconsistent use of condoms, and inadequate understanding of oral contraception are all associated with an increased STI risk for college students.

Use of Alcohol

Alcohol consumption may contribute to inconsistent use of contraception, because students under the influence of alcohol may have a diminished perception of pregnancy or STI risk.³ In a survey of 446 undergraduates (35% freshmen, 27% sophomores, 25% juniors, 13% seniors), 49% of the female college binge drinkers disclosed having unprotected or unsafe sexual intercourse since starting college, compared with only 25% of the female nonbinge drinkers.⁵ In addition, a recent study of 221 college students reported that alcohol use was associated with fewer discussions of safe sex and with new as opposed to repeat sexual partnerships. There was also a tendency for alcohol use and a new sexual partnership to be associated with a lower likelihood of contraceptive use.⁶

Serial Monogamy

College students often have a series of monogamous relationships, which can result in a lower perceived risk of contracting an STI and hence a lower perceived need to use condoms because these students trust their partners and “feel safe.”⁷⁻⁹ Many college students engage in unprotected sexual behavior with a monogamous partner because they view their monogamy as protection against STIs instead of considering the risks associated with their partner’s previous sexual experiences.¹⁰

Inconsistent Use of Condoms

The Fall 2007 National College Health Assessment indicates that only 50% of sexually active college students reported using condoms the last time they had vaginal intercourse, 25% during anal intercourse, and 5% during oral sex.¹¹ Some of the reasons for not using condoms or inconsistently using condoms are condom discomfort, possibility of breakage, cost, interruption of sexual activity, need for proper technique, loss of penile sensation, preference for other forms of birth control, or stigma of using a method associated with promiscuity and STIs.^{12,13} College women in particular may not use condoms because they are less likely to perceive themselves at risk and believe that condoms do not play a role in a relationship based on love, trust, and commitment.³

Inadequate Understanding of Oral Contraception

Despite the potentially devastating outcomes that can result from unprotected sexual intercourse, college students do not consistently take the necessary precautions to protect themselves from contracting an STI and instead see pregnancy prevention as the primary issue. For example, in a survey of 797 college students, 28% cited pregnancy prevention only as the reason for using contraception.¹⁴ In another study, approximately 40% of male and female college students reported using unreliable methods of birth control (nothing or withdrawal to prevent pregnancy).⁴ These findings may be attributed to a lack of knowledge or incorrect beliefs about the effectiveness of oral contraceptives in preventing STIs.¹⁴ Many college students believe that condoms and oral contraceptives are equal choices, rather than understanding that both are required for maximal protection against STIs and unwanted pregnancy.¹⁵

Inadequate Testing/Knowledge of Testing for STIs

College students may have a false sense of security when it comes to monitoring for STIs. Many adolescents wrongly assume that health care providers are routinely screening them for STIs.¹⁶ Although public clinics frequently test for STIs as part of the annual examination, a national survey of US physicians showed that less than one third routinely screened patients for STIs.¹⁷

STDs/STIs: Running Rampant

According to a recent study by the Centers for Disease Control and Prevention, 26% of teenage girls in the United States aged 14 to 19 years are infected with at least one of the most common STIs (human papillomavirus [HPV], chlamydia, herpes simplex virus, and trichomoniasis), and black teenage girls are disproportionately affected; nearly half of the young black women (48%) in the study were infected with an STI compared with 20% of young white women.¹⁸ In addition, a 2004 study showed that approximately 18.9 million new STI cases occurred in 2000, and about 50%—9.1 million—were diagnosed in people aged 15 to 24 years; HPV, trichomoniasis, and chlamydia represented 9 of 10 new STIs in this age group.¹⁹ The total direct cost of these 9 million new cases alone was estimated to be \$6.5 billion (in year 2000 dollars), with human immunodeficiency virus (HIV) and HPV accounting for 90% of the economic burden (\$5.9 billion).²⁰

Two of the most common STIs in college students are HPV and chlamydia. It should be noted that the findings

of the studies described below might underestimate the true incidence of STIs among college students, because they may be asymptomatic and therefore go unreported and untreated.

HPV

Although HPV infection has been well studied in women, both male and female college students are at high risk for contracting this STI. In a study of 603 female college students followed up at 4-month intervals, the cumulative incidence of first-time HPV infection at 24 months was 32.3%.²¹ However, in a similar study of 240 male college students followed up at 4-month intervals, the cumulative incidence of first-time HPV infection was 62.4%.²² In both studies, factors that were predictive of HPV infection included a history of smoking and report of a new sex partner (during the past 0-4 months for male students and during the past 0-8 months for female students); use of oral contraceptives was also associated with an increased risk of HPV infection in female students.^{21,22} The study of female students also noted that consistent use of condoms did not protect these women from contracting HPV; in fact, any type of nonpenetrative sexual contact was associated with an increased risk of infection and was considered by the study investigators to be a plausible route of transmission in virgins.²¹

Chlamydia

Younger female college students are at particularly high risk for chlamydia infection. In a recent study of 789 students (mean age, 20 years) at 10 colleges in Alabama, Georgia, and Mississippi, the prevalence of chlamydia among all students was 9.7%. Students younger than 20 years were 66% more likely to be infected than were older students, and younger female students were 92% more likely to be infected than were older female students.²³ However, in comparison, the prevalence of chlamydia infection in a study of 4,086 college students in California was 3.4%. In the California study, the incidence rates for men (3.03%) and women (3.78%) were similar, and factors associated with significantly increased risk were age younger than 25 years, ethnicity other than white, and more than one sexual partner in the preceding year or a new partner in the preceding 2 months.²⁴

Sexuality Education at Home and at School

Given the prevalence of STIs among college students, combined with the many risk factors and the fact that the majority of these students are having sex, experts agree that new approaches are needed to reduce the impact of STIs in this population. College administrators may believe that sexuality education is not needed at the college level because students have learned about STIs at home or in middle school or high school. However, in a survey of 6,000 college students, participants reported receiving more sex education from peers and media than from parents.²⁵ In an online survey of 1,051 men and women ages 18-24 years performed by the Bacchus Network, more than half of students (56%) surveyed said if they are having a sexual health problem such as a suspected STI or pregnancy, they talk to a friend or peer counselor first.²⁶ According to another study of 164 parent/college student dyads, parents tend to be overly optimistic about their children's health risk behaviors, underestimating the frequency of their children's alcohol, smoking, marijuana, and sex-related behaviors, and therefore may not have appropriate conversations with their children about risky health behavior.²⁷ In addition, because federal policy currently supports abstinence-only sexuality education programs (which prohibit mention of condoms or other methods of contraception) in high schools, today's college students may never have been formally educated about STI prevention and therefore do not have the knowledge and skills needed to protect themselves.²⁸ For example, in a study of 915 college students from 4 Louisiana universities, the average score on a sexuality knowledge test was only 55.39%. Mean scores were 66.4% for questions about contraception and 47.4% for questions about STIs.²⁹ Another study of 1,168 college students found that 13% had never received sexuality education before entering college and only 53% received sexuality education while attending college.²

Some colleges and universities are cautious about what is taught in sexuality education courses, because these

classes use more graphic materials than are used in high schools. In addition, at the college level, sexuality education is often taught as part of courses in biology, psychology, and physical education, thus determining the emphasis and often excluding more comprehensive explanations of human sexuality.³⁰ The quality of sexuality education at the college level is also an issue. In the previously cited study of 1,168 college students, only 18% of the students rated the overall quality of sexuality education that they received as good to extremely good, while 38% gave a rating of average to good, 30% as poor to average, and 14% as poor.² In another study of 55 young adults (aged 18 to 28 years), of whom 78% were college students, only 48% reported that the sexual health information they had received was helpful.³¹

What Constitutes an Effective Sexuality Education Program for College Students?

School-based sexuality education programs can provide students with the opportunity to receive accurate information and explore their own values about sexuality in a supportive and nonthreatening environment. These programs can also introduce relationship skills that enable students to avoid becoming coerced into sexual activity, as well as teaching about abstinence and prevention of STIs.³² According to the American Psychological Association, a comprehensive sexuality education program should address a range of sexual behaviors, provide information, encourage abstinence, promote condom use for those who are sexually active, encourage fewer sexual partners, educate about the importance of early identification and treatment of STIs, and teach sexual communication skills.³³

Effective sexuality education programs that engage college students into responsible prevention habits require instructors with the knowledge, skills, and attitudes necessary to connect with college students. Sexuality educators must feel comfortable with the subject matter, have appropriate knowledge of and training in human sexuality, be clear about their own values and accepting of the values and beliefs of others, and have good group facilitation skills.³²

According to a recent study of college students, an ideal sexuality education program would include “more nitty-gritty information” about STIs, along with information about contraception and the reproductive system.³¹ Most of the students surveyed thought the best way to receive sexual health information was a formal class/program (37%) or a class led by an instructor who had personal experience with STIs (37%). The majority of students in this study (73%) suggested the need for follow-up programs such as a general overview given in a mandatory formal class setting, information on demand when needed, and information targeted to an individual’s sexual development (eg, progressing from sexually inactive to sexually active status).³¹ One should not overlook the value of peer education in imparting sexual health knowledge. By drawing on the credibility young people have with their peers, a well-designed peer education program can promote healthy behaviors as well as an adult-led program.³⁴

Conclusions

Approximately three fourths of college students are sexually active by the end of their freshman year, but colleges and universities are not effectively educating these students about their sexual health and STI prevention. Rates of STIs, particularly HPV and chlamydia, are high in college students, yet these students engage in behaviors that place them at risk (such as binge drinking and serial monogamy) while at the same time lacking understanding about STI detection and effective preventive methods to prevent STI transmission. Sexuality education programs tailored to the needs of college students and led by health promotion professionals and trained peer educators with the knowledge, skills, and attitudes necessary to connect with these students are critical to the control of STIs in this population.

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