

AIDS Risk Among Students Attending SDA Academies In North America

AIDS, Acquired Immune Deficiency Syndrome, has emerged as the sixth leading cause of death among 15- to 24-year-olds in the United States. Although no one knows for sure how many adolescents are infected with the immunodeficiency virus (HIV) that causes AIDS, it is estimated that the number exceeds 60,000.¹

In 1995, the U.S. Centers for Disease Control and Prevention (CDC) reported that young adults (ages 20-29) represent approximately 20 percent of all AIDS cases nationwide.² The period of time between infection with HIV and full-blown AIDS is usually five to 10 years. Thus, most of those diagnosed with AIDS in their 20s became infected while in their teens.

Because there is no vaccination or known cure for AIDS, it is vital that young people be educated about AIDS risk behaviors.

Until recently, there has been little information about such behaviors by students attending parochial schools. Four surveys conducted in SDA schools revealed that between 12 and 27 percent of students practice behaviors that place them at risk for transmitting or contracting HIV,³ compared to 52 percent of public school students.⁴ Because HIV risk behaviors do

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Removed

occur among SDA students, the authors of this article designed a research project to identify the causes of these behaviors and provide a sound scientific basis for AIDS education in SDA schools.

Research Design

During the 1994-1995 school year, the authors assessed AIDS-related knowledge, behaviors, attitudes, social pressures, and perceptions of control among students attending four-year academies throughout the North American Division.

The NAD Office of Education granted permission to conduct this research in its four-year academies throughout the United States and Canada. Our questionnaire included demographic characteristics of the students, HIV/AIDS-related knowledge, and behaviors, as well

as intentions, attitudes, social pressures, and perceptions of control regarding two HIV/AIDS risk behaviors: sexual inter-

course and substance use. The questionnaire also asked students about their parents' substance use.

A consent letter was written, asking parents to allow their children to complete the questionnaires with a guarantee of anonymity. The 93 schools were asked to mail the 13,368 consent letters to the parents of their students. Eight schools did not mail

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the letters, making the 912 students in those schools ineligible to participate. Parental consent allowed 2,834 students to participate in this research.

Once parental permission was granted, questionnaires were mailed to each of the 85 schools. Sixteen schools did not administer the questionnaires, representing a loss of 1,061 potential participants.

Results

Response rate. The researchers received 1,765 completed questionnaires, a response rate of 62.5 percent of the students whose parents allowed them to participate. Of the 1,773 students who actually received questionnaires at their school, 1,765 (99.55 percent) responded.

Demographics. More of the respondents attended boarding schools than day schools (53.7 percent versus 46.3 percent). The average age across all respondents was 17 years, with a range of 12 to 19 years. Females represented 56.4 percent of those who completed the questionnaire. The majority of the respondents were SDAs (93.3 percent).

Respondents were well distributed across the four grades, with a slight overrepresentation of 11th graders. White students were over-represented (79 percent in study, versus 56 percent in the total NAD academy student population), while all types of minorities were under-represented.

Knowledge. Students scored high on the 13 questions measuring their knowl-

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edge about methods of HIV transmission. The average score was 91 percent. The most common misconceptions are listed in Table 1.

Substance use. A higher percentage of non-SDA respondents reported substance use (Figure 1).

Three questions dealt with parental use of tobacco, alcohol, and marijuana. Students reported that alcohol was the substance most commonly used by a parent or guardian (25.7 percent, N = 448), followed by tobacco (10.7 percent, N = 187), and marijuana (4.5 percent, N = 78). Figure 2 shows that a greater proportion of students reported having used all substances if their parent or guardian used one of these substances.

Sexual intercourse. Of the total sample, 16.3 percent reported ever having

had sexual intercourse. Female students reported a lower rate (14.6 percent) than males (18.4 percent). The average age at first intercourse was 14.5 years for males and 15 years for females. A smaller proportion of SDA students reported having experienced sexual intercourse (14.6 percent) as compared to non-SDA students (37.1 percent).

Table 2 shows that the lowest rates of sexual experience occurred in students who reported no substance use. The highest rates of sexual experience were reported by students who admitted to past use of substances and who said that at least one of their parents also used tobacco, alcohol, or marijuana.

The questionnaire also asked whether students intended to engage in sexual intercourse before marriage. Those who reported the greatest intention to do so (1) were already sexually experienced, (2) had used at least one substance, (3) had a parent who used either tobacco, alcohol, or marijuana, and (4) were non-SDA. These same four groups also had more positive attitudes toward sexual intercourse and future substance use, perceived more social pressure to have sexual intercourse and to use substances, and had a lower perception of control over having sexual intercourse and substance use.

Students' perception of control and their attitudes toward premarital sex were the most important predictors of their intention to engage in sexual intercourse before marriage. The items most closely associated with the students' feelings of being in control over sexual intercourse before marriage were *encouragement from teachers* and *spiritual strength*. In other words, sexually inexperienced students relied upon their teachers and spiritual resources to guide them in making decisions about sex.

Students who thought sex would improve their relationship with a girlfriend or boyfriend and their status at school were more likely to be sexually experienced. Those who thought sex would decrease their self-esteem and ruin their reputation were less likely to be sexually experienced.

Discussion

Many of those who participated in

Table 1
AIDS Knowledge Questions Most Commonly Answered Incorrectly

<i>Questions Answered Incorrectly*</i>	<i>Number Answering Incorrectly</i>	<i>Percent of Incorrect Answers</i>
• AIDS can be contracted from donating blood.	698	40.1%
• A person can get AIDS from having a blood test.	451	25.8
• A person can get AIDS from being bitten by mosquitoes/insects.	354	20.3
• A person can get AIDS from using public toilet seats.	176	10.1

*Correct answer to each is NO.

the present research have engaged in behaviors that place them at risk for contracting or transmitting HIV. Although rates of substance use in SDA schools are typically lower than in public schools (Figure 3), young people in SDA schools who use alcohol, tobacco, cocaine, and other drugs are more likely to engage in AIDS-risk behaviors.⁵

Parents can positively influence their children's behavior. The present research showed a strong relationship between parental substance use and children's use of drugs and rates of sexual intercourse.

Students scored high on the 13 questions measuring their knowledge about methods of HIV transmission.

We believe that substance use by parents may be a factor that encourages AIDS-risk behaviors by their children.

The present research also demonstrates that teachers have a great influence on the lives of their students. Adventist teachers and school staff need to take very seriously their roles in shaping the choices that their students make. This study shows that SDA students value Christian principles and rely on them for guidance in making decisions about premarital sexual behavior. Administrators and school board members should carefully select teachers who will make themselves available both inside and outside the classroom to encourage and counsel students about issues such as substance use and premarital sex.

Non-SDA Students Attending SDA Schools

Until the past few years, North American Division policy limited the number of non-SDA students admitted to the denomination's elementary and secondary schools. Schools serving kindergarten through grade seven were allowed 15 percent non-SDA students, while grades eight to 12 were restricted to no more than 10 percent non-SDAs. Those schools who admitted greater proportions of non-SDAs were designated "mission schools." In recent years, local school boards have become more willing to accept non-SDA students. Financial necessity seems to be driving this philosophical shift, although some defend the practice as part of the evangelistic mission of the church.

Many non-SDA students make positive contributions to the Christian environment on our campuses. The current research, however, suggests that parents, teachers, school boards, administrators, and church pastors should weigh carefully the potential costs of relaxing enrollment policies in Adventist schools.

Limitations of the Study

As a basis for policy making, this study does have some limitations. Although serious attempts were made to secure a representative sample of all students attending four-year academies throughout the U.S. and Canada, the responses represent (1) an over-representa-

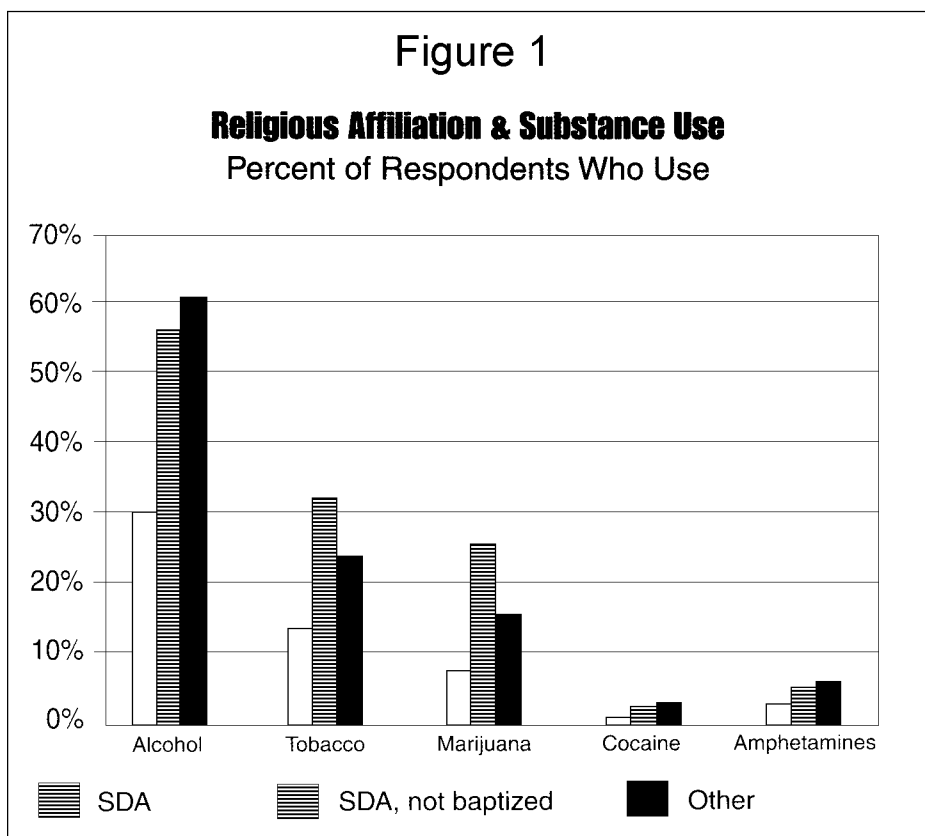


Table 2
Relationship Between Students' Sexual Experience and Parental Use of Substances

Substance Use		Sexually Experienced Students Percentage*
Parent	Student	
No	No	3.5%
Yes	No	5.9
No	Yes	26.3
Yes	Yes	30.3

*Percent of total sample (N=1,765)

The items most closely associated with the students' feelings of being in control over sexual intercourse before marriage were encouragement from teachers and spiritual strength.

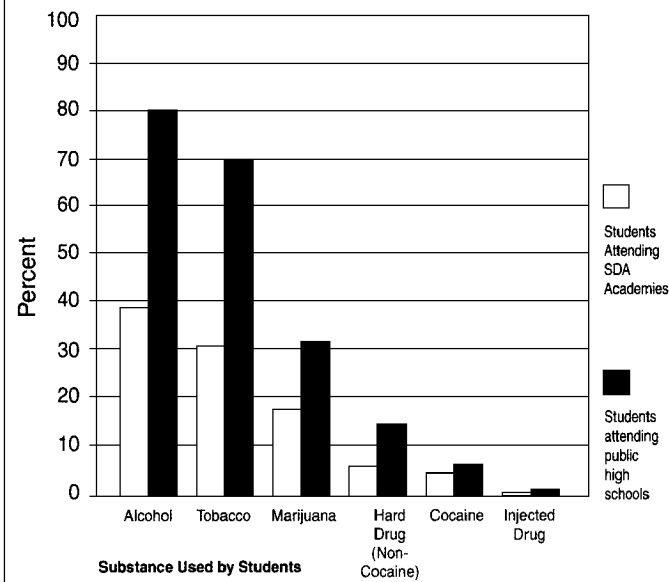
schools. Despite these limitations, this research provides a sound basis for developing educational interventions that will decrease the risk of SDA youth contracting HIV and engaging in other high-risk behaviors. ✍

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Figure 3

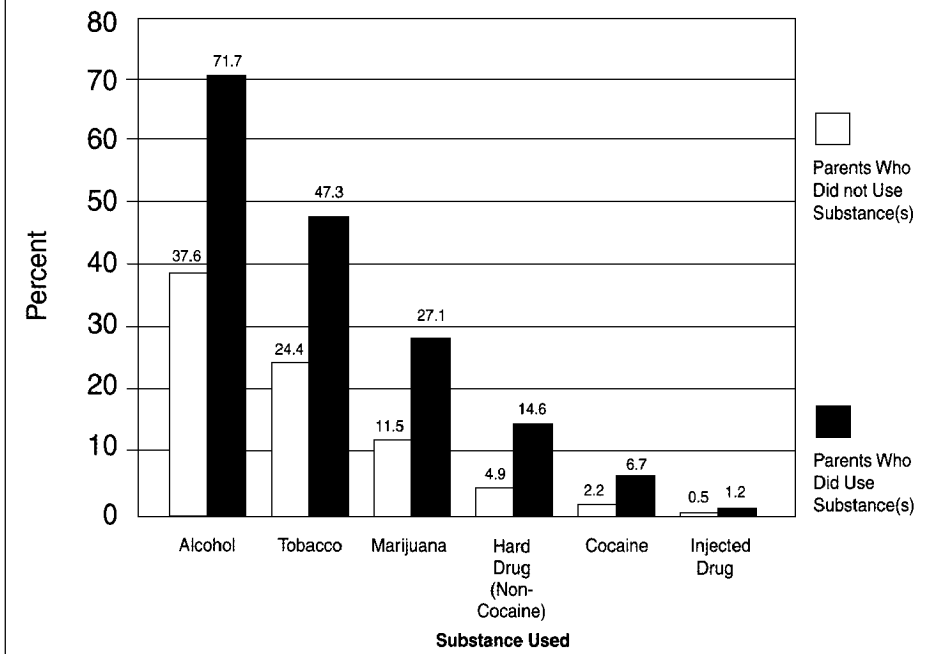
Substance Use by SDA Versus Public School Students



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Figure 2

Rates of Substance Use by Students and Reports of Parental Substance Use



REFERENCES

1. M. D. Kipke, C. Boyer, and K. Hein, "An Evaluation of an AIDS Risk Reduction and Skills Training (Arrest) Program." *Journal of Adolescent Health* 14 (1993), 533-539.
2. *HIV/AIDS Surveillance Report* 7:1 (Online: Centers for Disease Control, 1995).
3. See Gerd Ludescher, "AIDS-Related Knowledge, Attitudes, and Behaviors in Adolescents Attending Seventh-day Adventist Schools in California" (doctoral dissertation, Loma Linda University, 1992); Peter L. Benson and Michell J. Donahue, *Valuegenesis: Report 1: A Study of the Influence of Family, Church, and School on the Faith, Values, and Commitment of Adventist Youth* (Minneapolis: Search Institute, 1990); Gary L. Hopkins, "AIDS-Related Knowledge, Attitudes, and Behaviors of Twelfth-Grade Students at Loma Linda Academy" (unpublished manuscript, 1994); and Deborah L. Gray, "Human Immunodeficiency Virus and Acquired Immune Deficiency: Beliefs, Knowledge, and Behaviors of High School Students Attending Seventh-day Adventist Academies" (doctoral dissertation, Andrews University, 1994).
4. Centers for Disease Control and Prevention, "Youth Risk Behavior Surveillance—U.S., 1995." *Morbidity and Mortality Weekly Report* 45, SS-4 (September 27, 1996), pp. 4-19.
5. Kathleen R. Miner, "Educating About HIV/AIDS," in Peter Cortese and Kathleen Middleton, eds., *The Comprehensive School Health Challenge: Promoting Health Through Education* (Santa Cruz, Calif.: ETR Associates, 1994), vol. 1, pp. 413-441.