

## **A Retrospective Study of Secondary School HIV/AIDS Education by North Carolina College Students**

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### **Article:**

#### ***Introduction***

In spite of an intense world wide effort on finding a vaccine for HIV infection, as of this writing HIV/AIDS continues to advance as a leading cause of death. Education remains the most important preventative measure today, as it was at the beginning of the pandemic. Dr. C. Everett Koop, the former Surgeon General, stated in 1988, "AIDS is preventable. It can be controlled by changes in personal behavior. It is the responsibility of every citizen to be informed about AIDS and to exercise the appropriate preventive measures (USDHHS, 1988)."

Adolescent HIV infection rates have increased disproportionately to other age groups. In an effort to educate this group, a law was passed in 1987, requiring AIDS education in the North Carolina public schools (Frye, 1990). As a result of this law, guidelines were developed which recommended to school systems that HIV/AIDS education be taught at the middle school level as a part of the sexually transmitted disease unit in the suggested comprehensive health education program. The need for such education was reaffirmed by Parrillo (1997) in his study of sexual intercourse among North Carolina high school students. He found that a significant number of teens choose to become sexually active prior to high school. Nearly 50 percent of black males and 14.5 percent of white males reported their first sexual intercourse before age 13. Female rates were quite different with 16.8 percent of black females and 4.1 percent of white females reported their first sexual intercourse before age 13.

As a follow-up to the recommendation that HIV/AIDS be taught at the middle school level, the Centers for Disease Control requested quantitative data on HIV/AIDS knowledge, beliefs and behaviors among North Carolina high school students. Data from the North Carolina Department of Public Instruction showed that of 7th through 12th graders, an overwhelming majority had received some form of HIV/AIDS education (Frye, 1990). The study also showed a high degree of knowledge about AIDS among North Carolina students.

Although students had been exposed to the educational message, questions remain about the effectiveness of the message provided. As J. Michael McGinnis, Deputy Assistant Secretary for Health cautions, a student's receptivity to information is not only determined by content and source but by method and timing of its delivery as well (McGinnis, 1990).

Assessing the effectiveness of the educational message has become paramount considering that AIDS has moved from the eleventh cause of death overall in 1989 to eighth by 1993 (USDHHS, 1995). Between 1986 and 1988 AIDS moved from the seventh to the sixth leading cause of death in the United States among 15 to 24 year olds and is currently the leading cause of death among Americans ages 25-44 (Ku, 1992; Yarber & Torabi, 1997).

Given these figures a variety of conclusions can be suggested, however, two major implications appear to warrant further discussion here: (1) AIDS education may not be reaching those segments of the population

which could be described as high risk (Wolfe, 1995) and (2) AIDS education efforts as currently presented appear to be ineffective in altering behaviors. Therefore, the purpose of this study is to identify the perceptions of North Carolina college students regarding the effectiveness of their secondary school HIV/AIDS curricula, and to suggest effective HIV/AIDS education strategies.

Current AIDS education curriculum appears to have been relatively successful in equipping secondary school students with knowledge about disease transmission. Among North Carolina high school seniors surveyed in 1989, the average knowledge score was 76% for all students (Felts, 1990). The central goal of AIDS education, however, must go beyond simply imparting knowledge. The most important outcome is promoting the adoption of preventive behaviors to one of three identified routes of transmission, namely blood, birth, or sex (Fan, Connor, & Villarreal, 1996).

Current curricula have not shown success in getting students to make appropriate behavior changes. College students specifically report only moderate utilization of preventative behaviors. MacDonald and colleagues (1990), in a survey of 5,514 college students, found that among those sexually active only 24 percent of males and 15 percent of females reported always using a condom.

DuBuono and colleagues (1990) studied data on self-reported sexual behaviors of college women from pre-AIDS and post-AIDS eras. In all three study years (1975, 1985, 1989), the authors state that equal proportions of women had multiple sex partners and practiced oral and anal sex; in other words, no change occurred in the frequency of these risky behaviors prior to and after the identification of AIDS. In a survey of 458 undergraduates conducted at Boston University, 72 percent of sexually active students responded that they engaged in unprotected sexual intercourse despite exhibiting a high level of knowledge regarding HIV (AIDS Weekly, 1993).

A survey by DiTorio examined the relationship between the knowledge of AIDS and the knowledge of safer sex practices as predictors of safer sex practices by sexually active college freshman. The study found that "knowledge" of AIDS or safer sex practices could not be used as predictors of safer sex behaviors (AIDS Weekly, 1993). These studies suggest that effective AIDS education efforts must go beyond simply providing information.

## **Methods**

The study utilized a 22 question survey instrument which consisted of three sections. The first section included information on the respondents recall of their high school HIV/AIDS education courses including the background of the teacher who delivered the course, the method of presentation, and the amount of time spent discussing AIDS. The second section assessed the "value" the students attributed to their high school AIDS education. The final section ascertained demographic information including sex, size of high school attended, race, and year of graduation. The survey instrument, which was anonymous, took approximately 10 minutes to complete. Responses were recorded directly onto computerized answer sheets. The instrument was developed by the authors. Content validity was established using both pertinent literature and an expert panel of five noted health educators. The expert panel included two curriculum development specialists, two survey design specialists and a university health education professor.

Participants in the study included 517 students from a North Carolina state university. Although not a representative sample of college students, the subjects did represent a wide cross section of academic majors within the university. Over 70% of respondents graduated from secondary schools in North Carolina.

## **Results**

The respondents typically graduated in a class from 250-499 students (45%), and lived in a variety of different size communities except sparsely populated rural areas (6%). Most respondents were in their junior year of college (73%), were predominantly white (87%), and female (64%). The HIV/AIDS instructor was

typically the health and physical education teacher (66%) and only 11% reported that their health teacher taught health exclusively.

Approximately two-thirds of the students reported that AIDS was discussed in their health class (66%). However, almost 20 percent reported that AIDS was not discussed in their school and 14 percent reported that they did not know. Also, 77 percent reported that their health class was during the 9th or 10th grade which would have made their last formal class five to six years previous to this study. The implications of such a lengthy formal information gap will be discussed later.

Respondents reported that both their health class and the AIDS class presentation were somewhat helpful (46% and 42% respectively). However, approximately a third (36%) were either convinced that their AIDS education was not helpful or were not sure of its value. Roughly 50 percent did not feel that sufficient time had been spent discussing AIDS. However, the issues discussed in the limited time spent were well received with some 77 percent responding that the issues were at least somewhat important.

As with national samples, the respondents reported a high knowledge about condoms (97%) and the purpose of condoms (90%). They also overwhelmingly reported (95%) that they knew someone who had used a condom. Knowledge of the female condom was far less common. Approximately half (47%) reported having only heard about it and only eight percent reported knowing someone who had used one. However, over three quarters (77%) believed the purpose of the female condom was for AIDS and pregnancy prevention.

## **Discussion**

Over two-thirds of the students in this study last had a HIV/AIDS education class at least five years previous to completing the survey. This gap, unquestionably, is leaving a void in the acquisition of relevant information from the seemingly continual breakthroughs surrounding HIV/AIDS over the past several years.

Issues of primary importance for college students will certainly vary from those of most 9th or 10th graders who frequently lack the emotional maturity to address the many issues surrounding HIV/AIDS. Yarber and Torabi (1997) point out that many teenagers may not adequately understand the long term consequences of their behavior. Providing additional opportunities to discuss relevant HIV/AIDS issues during the students' senior year, such as the political, economic, and global ramifications of AIDS, in conjunction with prevention behaviors, may be valuable in overcoming this gap. Consequently, secondary schools may need to consider creative alternatives to offering HIV education. Assuredly, the feasibility of finding time in an already over scheduled school day will be difficult, but, such suggestions as a senior symposium, retreat, or assembly to address new and relevant information may be quite valuable.

An urgent concern is the high probability that many of these students will not take an HIV/AIDS related course in college. Without a more comprehensive approach to educating students, within colleges and high schools alike, the current behavior patterns will most likely continue. Taylor-Nicholson and her colleagues determined that a comprehensive, behavior-orientated AIDS education program will be needed if adolescent high-risk sexual behaviors are to be changed (Taylor-Nicholson, Wang, & Adame, 1989).

## **Conclusions**

Students entering college oftentimes have inadequate preparation to handle the myriad challenges they will be presented within this area. Colleges may need to explore ways to provide relevant HIV education to students early in their college career. The requirement of a college health course, noncredit seminar, or a program through residence life may be valuable in this regard.

The health and physical education teacher overwhelmingly was the professional who taught AIDS education in schools. In North Carolina the majority of health and physical education teacher preparation programs do not require a course in HIV/AIDS education (Bennett, Combs & Peel, 1997.). Thus, preprofessional

programs may want to reevaluate training in HIV/AIDS education for future health and physical education teachers. Health and physical education teacher preparation programs may need to consider whether HIV/AIDS education should be infused into current teacher preparation courses or as a separate course for majors. The health and physical education teacher needs to become the advocate for HIV/AIDS education in those schools not currently teaching an AIDS prevention class, since nearly 19% of the sample reported that the subject of AIDS was not discussed at all in high school.

### References:

- Bennett, J.B., Dowd, D., & Peel, J. (1997) *The status of high school health and physical education programs in North Carolina*. Unpublished manuscript.
- DiTorio, C. (1993). *Factors associated with safer sex practices among college freshmen*. Research in Nursing and Health, 16(5), 343-350.
- DuBouno, B.A., Zinner, S.H., & McCormack, W.M. (1990). *Sexual behavior among college women 1975, 1986, and 1989*. New England Journal of Medicine, 322, 821-825.
- Fan, H., Conner, R.F., & Villarreal, L.P. (1996). *AIDS Science and Society*. Sudbury, MA: Jones and Bartlett Publishers.
- Felts, M., Dunn, P., Barnes, R., White, D., & Chenier, T. (1990). *HIV-related knowledge, beliefs and behaviors among North Carolina public high school students*. The North Carolina Journal, 26(1), 11-14.
- Frye, R. (1990). *Surveys of AIDS education and practices and students knowledge, attitudes, and behaviors: Introduction and background*. The North Carolina Journal, 26(1),
- Henderson, C. (1993). *Survey of students reveals unsafe sexual practices despite knowledge of AIDS risk*. AIDS Weekly, 14(1).
- Ku (1992). *The association of AIDS education and sex education with sexual behavior, and condom use among teenage men*. Family Planning Perspectives, May/June, 100-106.
- MacDonald, N.E., Wells, G.A., Fisher, W.A., Warren, W.K., King, M.A., & Bowie, W.R. (1990). *High risk STD/HIV behavior among college students*. Journal of the American Medical Association, 263, 3155-3159.
- McGinnis, J.M. (1990) *Communication for better health, editorial*. Public Health Reports, 105(3), 217- 218.
- Parrillo, A.V., Felts, W.M., & Mikow-Porto, V (1997). *Early initiation of sexual intercourse and its co-occurrence with other health-risk behaviors in high school students: The 1993 North Carolina Youth Risk Behavior, Survey*. Journal of Health Education, 28(2), 85-93,
- Taylor-Nicholson, M.E., Wang, M., & Adame, D.A. (1989). *Impact of AIDS education on adolescent knowledge, attitudes, and perceived susceptibility*. Health Values, 13(5), 3-7.
- Selik, R.M., Chu, S.Y., & Buehler, J.W. (1993). *HIV infection is the leading cause of death among young adults in cities and states*. Journal of the American Medical Association, 269, 2991-2994.
- Yarber, W.L., & Torabi, M.R. (1997). *Impact of a theory-based, school HIV/STD curriculum on eighth graders' attitudes and knowledge*. Journal of Health Education, 28(2), 74-81.
- U.S. Department of Health and Human Services (1988). *Surgeon General's Report on Acquired Immune Deficiency Syndrome*. U.S.DHHS, Public Health Service: CDC, National AIDS Information Clearinghouse, Rockville, MD.