

# BAHAMIAN ADOLESCENTS: A SURVEY OF THEIR KNOWLEDGE, ATTITUDES, AND BELIEFS ABOUT AIDS

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*This paper reports data from a survey conducted with 260 Bahamian adolescents assessing their knowledge, attitudes, and beliefs about AIDS. The results revealed that these adolescents have a high level of knowledge about AIDS. In fact, these adolescents are as knowledgeable about AIDS as adolescents in the normed group, which consisted of low income African-American adolescents. Further, neither males nor females differed in their perceptions about their risk for getting AIDS and in their perceptions about the effectiveness of condoms in preventing the spread of AIDS. Implications for the development of AIDS prevention programmes for Bahamian adolescents are discussed.*

## INTRODUCTION

A plethora of studies have attempted to assess adolescents' knowledge about AIDS (e.g., DiClemente, Zorn, & Temoshok, 1986; Baldwin & Baldwin, 1988; DiClemente, Boyer & Morales, 1988; Goodman & Cohall, 1989; Lamport, & Andre, 1993) and their attitudes towards condom use (e.g., Polit-O'Hara & Kahn, 1985; Sonenstein, Pleck, & Ku, 1989). To date, however, most of these studies have surveyed American adolescents (Brooks-Gunn, Boyer, & Hein, 1988; Goodman & Cohall, 1989). For those studies done outside of the United States, most have been conducted in European countries (Romer & Hornik, 1992). Thus, there is limited information in the literature from adolescents in Africa, Asia, and the Caribbean regarding the above-identified variables.

A study using Bahamian adolescents as its sample needs to be conducted at this time because recent statistics indicate that The Bahamas has the second highest number of reported AIDS cases in the Caribbean (Trinidad-Tobago, 1993). Although the majority of the cases are adults, it seems reasonable to expect that there will be an increase in the number of adolescents who have AIDS. This speculation is based on recent statistics from the Bahamian Public Health Department that indicates that Bahamian adolescents between the ages of 15-19 years had a pregnancy rate of 26.6 per 1,000 girls. Epidemiologic data on the prevalence of other sexually transmitted diseases (STDs) also suggest that adolescents are at increased risk for HIV infection (Bahamian Public Health Department, 1992).

Because these adolescents may be at risk, it is important to examine their knowledge, attitudes, and beliefs about AIDS so that effective intervention programmes can be developed for this population. Thus, the purpose of this study was to examine these variables among senior high school level Bahamian adolescents.

## **METHOD**

### ***Sample and Procedures***

The respondents were 260 Bahamian adolescents (104 males, 140 females) from Nassau, Bahamas, who were recruited from three randomly selected senior high schools. The remaining 16 respondents opted not to identify their gender. These senior high schools were randomly selected from a pool of 10 senior high schools, which represent all of the public senior high schools in Nassau, Bahamas. Ages of the respondents ranged from 14 to 19 years with a mean age of 15.93 years ( $SD = 1.18$ ). Thirty-seven percent (37%) of the respondents were 10th graders, 36% were 12th graders, and 27% were 11th graders. All participants had an AIDS education course one year prior to participating in this study.

Data were collected from a specific grade level at each school. For example, at school A data were collected from the 10th graders; at school B data were collected from the 11th graders; and at school C data were collected from the 12th graders. Data were collected in this manner in an attempt to get a more heterogeneous sample. There were 188 tenth graders enrolled in school A and 96 completed the questionnaire, yielding a response rate of 51%. While at school B there were 141 eleventh graders enrolled and 70 completed the questionnaire, yielding a response rate of 50%. Finally, there were 156 twelfth graders enrolled in school C and 94 completed the questionnaire, yielding a response rate of 62%. The overall calculated response rate is 54%.

All the respondents were administered the questionnaire in their classroom. The 43 item questionnaire took approximately 40 minutes to complete.

### ***Measures***

The measures administered in this study assessed knowledge about AIDS, using the General AIDS Knowledge Questionnaire (DiClemente, et al., 1986), perceived susceptibility, knowing someone with AIDS, perceived barriers to condom use, perceived effectiveness of condoms, frequency of condom use, peer norms, using a measure developed by DiClemente (DiClemente, 1991), support for condom use, communication, using a measure developed by DiClemente (DiClemente, 1991), and ability to keep oneself from getting AIDS. Knowledge scores were devised based on the number of correct responses to 16 knowledge questions.

## RESULTS

### *Preliminary Analyses*

A series of students' t-tests, chi-square analyses and analyses of variances were conducted to determine if there were significant differences between males and females and younger and older adolescents on the variables of interests. Additionally, an analysis of variance was conducted to determine if there were significant differences among the grade levels on the variables of interest. Students' t-tests revealed that there were no differences between males and females in their perceptions about their perceived risk for getting AIDS and in their perceptions about the effectiveness of condoms to prevent the spread of AIDS. Chi-square analyses revealed that females were less likely to have been sexually active within the last six months than males  $\chi^2(1, N = 226) = 18.3, p < .01$ . Adolescents above the median age (14) were more likely to have been sexually active within the last six months than those adolescents below the median age  $\chi^2(1, N = 219) = 7.81, p < .01$ . Whereas, 12th graders were more likely to have been sexually active within the last six months than 10th and 11th graders  $\chi^2(2, N = 232) = 8.42, p < .05$ . The one way analysis of variance revealed that there was a significant main effect of grade level on AIDS knowledge,  $F(2, 257) = 7.14, p < .01$ . Student Newman-Keuls tests were conducted to determine where the differences existed among the groups. The results of the post hoc test indicated that the 11th graders were more knowledgeable about AIDS than the 10th and 12th graders. The means and standard derivations are as follows: 10th graders ( $M = 13.67, SD = 2.04$ ), 11th graders ( $M = 14.58, SD = 1.52$ ), and 12th graders ( $M = 13.48, SD = 2.09$ ).

### *Descriptive Results*

Prevalence of Sexual Behavior. Of these respondents, 62% of the males reported being sexually active within the last six months. Of those who reported being sexually active, only 38% were involved in a monogamous relationship and 50% used condoms consistently during sexual intercourse. Thirty-four percent (34%) of the females reported being sexually active in the last six months. Of those who reported being sexually active, 65% were involved in a monogamous relationship and only 9% used condoms consistently during sexual intercourse. Moreover, of those adolescents age 14 through 15 years who were sexually active, 16% reported being sexually active within the last six months. Of those who reported being sexually active, 50% were involved in a monogamous relationship and 7% used condoms consistently during sexual intercourse. For those adolescents ages 16 through 19 years, 34% reported being sexually active within the last six months. Of those who reported being sexually active, 49% were involved in a monogamous relationship and 17% used condoms consistently during sexual intercourse.

**General AIDS Knowledge.** Overall, the adolescents participating in this study were found to possess a high level of AIDS knowledge. The median knowledge score was 14 ( $SD = 1.98$ ). In comparing the median score of this sample with the median score for the normed group (median = 14), which consisted of low income African-American adolescents (M. Lodico, Personal Communication, January 12, 1994), it was revealed that these adolescents were as knowledgeable about AIDS as the adolescents in the normed group.

Overall, the respondents' knowledge of AIDS transmission was relatively high. Of the combined high school sample, 94% indicated that sharing needles spreads the AIDS virus. Moreover, 96% of the combined sample recognized that those persons who got AIDS through needle-sharing can transmit the virus to others during sexual intercourse. Meanwhile, touching was recognized as an improbable route of transmission of the AIDS virus by 94% of the combined sample. Ninety-six percent (96%) of the combined sample recognized that males can transmit the AIDS virus to females during unprotected sex. Moreover, 93% of the combined sample recognized that females can transmit the AIDS virus to males during unprotected sex. Furthermore, 94% of the combined sample recognized that AIDS can be transmitted through heterosexual relations. Sixty-two percent (62%) of the combined sample knew that AIDS could be transmitted through kissing.

As for risky behaviours, 91% of the combined sample was aware that anal sex without a condom puts persons at risk for getting AIDS. Moreover, 93% of the combined sample was aware that having sex without a condom increases a person's risk for getting AIDS. Seventy-nine percent (79%) of the combined sample was aware that persons needed only to be sexually involved with one partner to be at risk for AIDS.

Overall, the respondents' knowledge of preventative measures was fairly high. Fully 81% of the combined sample knew that using birth control pills did not lower a woman's risk for getting AIDS. Seventy-nine percent (79%) of the combined sample recognized that keeping in good physical condition was not the best way to prevent getting the AIDS virus.

In the area of general knowledge, 98% of the combined sample recognized that persons who look healthy could spread the AIDS virus. Meanwhile, 85% of the combined sample knew that persons can get the AIDS virus even if they just have sex once without a condom. Seventy-three percent (73%) of the combined sample recognized that persons infected with AIDS may not show signs of being infected with the virus immediately.

**Perceived Susceptibility.** With regard to their perceived risk, the mean score for the males was 1.94 ( $SD = 1.31$ ) on a scale ranging from 1 ("not at all likely") to 5 ("very likely"). This suggests that they perceived themselves to be at little risk for acquiring the AIDS virus. On the other hand, the mean score for the female was 2.50 ( $SD = 1.68$ ), suggesting that they perceived themselves to be somewhat at risk for getting AIDS.

**Knowing Someone with AIDS.** The majority of the sample (52%) indicated that they knew someone who has AIDS. Most of the persons they knew fell into the category of friends.

**Frequency of Condom Use.** Thirty-two percent (32%) of the sexually active adolescents reported “always” using condoms during sexual intercourse within the last month. As for the other response categories, 10% reported “sometimes” using condoms; 6% reported “never” using condoms; and no one indicated “rarely” using condoms during sexual intercourse. The remaining 52% did not answer this question.

Adolescents indicating that they “never”, “rarely”, or “sometimes” use condoms during sexual intercourse were asked what prevented them from using condoms. The males reported the following: “I did not feel like using one” (48%); “reduced my pleasure” (43%); “my girlfriend insisted I not use a condom” (14%); “too embarrassed (5%), could not afford one” (5%) and other reasons (14%). These reasons were: none were available, did not believe we needed to use one, and have not been unfaithful to each other. Females reported the following: “I insisted he not use one” (32%); “my boyfriend did not feel like using one” (20%); “reduced my pleasure” (20%); “boyfriend felt it reduced his pleasure” (16%); “boyfriend was too embarrassed” (8%); and boyfriend did not know how to use one” (4%).

**Perceived Effectiveness of Condoms.** As for the perceived effectiveness of condoms, the mean score for the males was 2.71 (SD = .93) on a scale ranging from 1 (“not all effective”) to 4 (“very effective”). This suggests that they perceived condoms to be somewhat effective in preventing the spread of AIDS. The mean score for females was 2.43 (SD = 1.08), suggested that they too perceived condoms to be somewhat effective in preventing the spread of AIDS.

Adolescents who believed that condoms were not effective were asked to indicate why. They reported the following: “condoms could have holes in them” (40%); “they are not 100% fool proof”(26%); “they rip easily” (17%); “they could slip off during sexual intercourse” (8%); “not sure how good the quality of the condoms are” (5%); “they are too thin” (2%); and “they are made out of animal skin” (2%).

**Perceived Peer Norm.** As for the perceived use of condoms by their age peers, the mean score was 2.84 (SD - 1.14) on a scale ranging from 1 (none) to 5 (all). This suggests that they perceived that half of their same age peers used condoms during sexual intercourse.

**Self-Efficacy.** Eighty-seven percent (87%) of the respondents believed that they could keep themselves from getting AIDS.

**Communication about AIDS.** Of those adolescents who were sexually active, 63% indicated that they have talked to their sex partner(s) about AIDS before engaging in sexual intercourse. Respondents (32%) who reported that they have not talked to their sex partner(s) about AIDS before engaging in sexual intercourse were asked to explain why they have not done so. Fifty-four percent (54%) reported that they never thought about talking to their sex partner(s) about AIDS before engaging in sexual intercourse.

**Support for Condom Use.** For those adolescents who were sexually active, 52% reported that their family members encouraged them to use condoms every time they have sexual intercourse, and 37% of these adolescents reported that their friends encouraged them to use condoms every time they had sexual intercourse.

## DISCUSSION

The purpose of this study was to assess Bahamian adolescents' knowledge, attitudes, and beliefs about AIDS and the influence of these variables upon consistent condom use. Overall, the adolescents participating in this study were found to possess a high level of AIDS knowledge. They were as knowledgeable about AIDS as adolescents in the normed group, which were low income African-American adolescents. One possible explanation for their high level of knowledge is their participation in an AIDS prevention programme one year prior to participating in this study. The influence of knowledge, attitudes, and beliefs about AIDS on consistent condom use could not be analyzed because there were too few consistent condom users.

The finding that 11th graders were more knowledgeable about AIDS than the 10th and 12th graders, although statistically significant, these results are limited in their interpretative value because of the small sample size.

There are several limitations in this study that must be noted when considering the implications of the results. First, this was a convenience sample; therefore, generalizability of these results is limited. In addition, there were no data collected from those students who refused to participate. Therefore, there is no way to assess if the adolescents who participated in this study differed from those who refused to participate on critical variables. Finally, there is no way to determine if the differences among the 10th, 11th and 12th graders on their AIDS knowledge scores are a result of grade or school effects because of the data collection.

The results of this study have several implications for the development of AIDS prevention programmes for Bahamian adolescents. Even though these adolescents are fairly knowledgeable yet they have some gaps in their knowledge about AIDS. However, it has been consistently documented that knowledge is insufficient to promote behavioural changes (Baldwin & Baldwin, 1988; Kegeles, Alden, & Irwin, 1989). Therefore, AIDS prevention programmes should focus on reducing the risky behaviors of these adolescents. There is evidence that cognitive-behavioural interventions that teach and encourage adolescents to use cognitive, social, and self-management skills are effective in reducing risky behaviours (Jemmott, Jemmott, & Fong, 1992; Rotherman-Borus, Koopman, & Haignere, 1991). Bahamian school personnel should consider developing similar programmes for Bahamian adolescents at risk of contracting AIDS. Furthermore, based on the present findings, it is recommended that prevention programme focus on changing participants' perceptions about the effectiveness of condoms in preventing the spread of AIDS. It should be emphasized that condoms are effective in preventing the spread of AIDS as well as other sexually transmitted diseases and unwanted pregnancy. More importantly, any prevention programmes designed for Bahamian adolescents should fit the Bahamian culture and be evaluated for their effectiveness.

In conclusion, continued research needs to be done in assessing the knowledge, attitudes, and beliefs about AIDS of Bahamian adolescents. Preferably, this research should use a large sample so that there will be an opportunity to assess if any of the above-mentioned variables are associated with consistent condom use. Furthermore, these studies should employ both qualitative and quantitative methods. This will allow for the collection of more detailed information that may have implications for the development of effective AIDS prevention programmes.

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