

Comparison of Alcohol, Tobacco, and Illicit Drug Use among Students and Delinquents in the Bahamas

REGINALD G. SMART¹ & SANDRA DEAN PATTERSON²



Surveys of drug use were conducted among 4,767 junior and senior high school students in 1987 and 74 incarcerated delinquents in 1988 in the Bahamas. It was found that the majority of both groups reported having drunk alcohol, and substantial proportions had also smoked tobacco, although over twice as many delinquents as students had smoked. However, use of illicit drugs was far more common among delinquents, at seven times the student rate for marijuana and six times their rate for cocaine. Many social and demographic similarities were found among users in both groups, who were likely to be males who had trouble in school or did not attend school, were not religiously active, and came from families where drugs were used or sold. Over one-third of the delinquents had sold drugs, but almost half (44%) of the delinquents and 25% of the students said they would use or sell marijuana or cocaine if they had it. The results of the studies point to the need for increased drug education in the Bahamas and for efforts involving schools, churches, parents, the media, and Government.

Along with many other countries in the Caribbean, the Bahamas experienced a large increase in drug abuse and trafficking in the 1980s. Admissions of cocaine abusers into treatment also increased greatly, and drug abuse became a prime public concern. In response to this problem, the Bahamas Ministry of Health and the Pan American Health Organization's Country Office in Nassau developed a plan to study the nature and extent of drug use and abuse in the country. This plan was supported by the United Nations Fund for Drug Abuse Control (UNFDAC). It called for studies

of drug use among junior high school and senior high school students, College of Bahamas students, delinquents in the Boys and Girls Industrial School (BGIS), inmates at the Bahamas Government Prison, and the general adult population. The first four studies have been completed.

This paper describes the studies of students and delinquents and examines both the similarities and the differences found. It was expected that drug use rates would be higher among delinquents than among students in the Bahamas. Studies made elsewhere have consistently shown that delinquents have much higher rates of alcohol and drug use than do nondelinquents of the same age (1, 2).

The purpose of studies of alcohol and drug use is to gain an understanding of (1) the extent of such use in the whole population and in different groups and

¹Prevention Studies Department, Addiction Research Foundation. Mailing address: 33 Russell Street, Toronto, Ontario, Canada, M5S 2S1; PAHO Consultant for this project. The views expressed in this paper are those of the authors and do not necessarily reflect those of the Addiction Research Foundation.

²Ministry of Health, Sandilands Hospital, Nassau, Bahamas.

(2) the social, demographic, and other characteristics that differentiate users from nonusers. The drugs of greatest current concern in Bahamian society are alcohol, tobacco, cocaine, and marijuana. The surveys paid special attention to these drugs and focused less on the use of tranquilizers and heroin. In the Bahamas, there is a special interest in how alcohol and drug use varies in different areas. In addition, there is interest in how youthful drug use relates to living arrangements, religious involvement, parent's occupation, and the use of drugs by parents. Studies of this type also provide information on how preventive programs should be developed and which students need them most.

This was the first large-scale study of student drug use in the Bahamas and first study of drug use among delinquents. An earlier survey (3) obtained data from only 359 students in grades 8 and 11 in New Providence. About 67% of students reported having used alcohol, 21% tobacco, 5% marijuana, and 1% cocaine. However, the small sample size and restricted geographic scope made the survey less than ideal.

Studies of drug use are always more interesting if results can be compared to earlier data, but such comparison is difficult in the Bahamas. The current studies, however, provide the basis for a long-term trend investigation for which new data can be collected every few years. An established methodology was used that should yield dependable results. Participants were asked if they had used drugs "ever," "in the past 30 days," and "in the past year." These inquiries, based on questions developed by a scientific group under the auspices of the World Health Organization (4), and some demographic questions, have been extensively tested in a variety of countries for the reliability, consistency, and validity of the answers they elicit. In general, the questions give

reliable results and probably slightly underreport the true incidence of drug use. Many of the drug use, social, and demographic questions have been used in surveys in Canada (5) and the United States (6), as well as Bermuda and Trinidad and Tobago. Several social and demographic questions were developed to suit the Bahamian situation and are unique to this study. In addition, questions about the reasons for incarceration were added to the study of delinquents.

The school study used a sampling plan designed to include students in three geographic areas (two in the Family Islands and one in New Providence). The study of delinquents surveyed all students in the Boys and Girls Industrial School in Nassau.

The specific aims of both studies were to determine (1) the nature and extent of alcohol, tobacco, and drug use in the Bahamas, (2) the social and demographic factors associated with drug use, and (3) attitudes toward drug use. A more general aim was to find out what educational initiatives might be most useful in preventive programs.

METHODS

The Student Study

The target sample for the student study included students 11 years of age or over living on the larger Bahamas Islands and enrolled in junior and senior high schools and "all age schools." The complex sampling plan was developed to be representative of geographic areas and types of schools. A total of 4,767 students in 32 schools and 192 classes participated.

The questionnaire was anonymous, written, and self-administered. It contained 68 items, including questions on demographic characteristics; use of alcohol and drugs by the respondent,

friends, and relatives; problems experienced because of alcohol, cocaine, and marijuana use; the availability of marijuana and cocaine; reasons for trying or not trying drugs; attitudes about drugs and drug sellers; and candor of answers. The majority of the questionnaires were completed between 1 March and 15 April 1987. Participation was voluntary. In general, the survey was well administered and its procedures were comparable to similar surveys.

Despite the overall success of the student survey, some problems can be noted. The sample obtained was slightly smaller than had been hoped (71.3% versus 75% of target group). In addition, the smaller, less populous Family Islands contributed somewhat more to the sample than expected (13% versus 9%); however, overrepresentation of this small segment is preferable to its underrepresentation. Some lack of candor clearly affected the results, since about 21% of the students said that if they had used cocaine or marijuana they would not admit it on the questionnaire.

Boys and Girls Industrial School Study (BGIS)

The BGIS study included 74 young people who were residents at the facility during one week in March 1988. Thus, it can be seen as a time sample, and because turnover is slow, the sample should represent the BGIS population over a long time period.

The questionnaire contained 60 items, which mainly consisted of those from the student survey with the addition of some other items especially appropriate to delinquent groups. Because of their poor reading ability, the items were read to BGIS residents by staff from Sandilands Hospital; BGIS staff did not participate. The questionnaire was confidential and names were not used. One question asked of residents was, "If you had used marijuana (or cocaine) would you admit it?" Virtually all (73 of 74) said yes, a much higher proportion of the respondents than in the student survey. Consistency questions also gave similar results, indicating that drug use findings should be dependable.

The main shortcoming of the BGIS study is the small sample size: only 74 respondents of which only 19 were girls. This means that the results in some demographic and drug use categories were based on small numbers and are possibly unreliable. The BGIS results for girls should be interpreted cautiously.

RESULTS

Drug Use

Table 1 summarizes the results of the two studies. It can be seen that most students (66%) reported drinking, but far fewer reported smoking (14.7%). Relatively small numbers reported marijuana use (8.2%), and few reported use of cocaine (1.7%) or heroin (0.3%). About the

Table 1. Percentages of students and delinquents in Bahamas reporting ever having used drugs, 1987 and 1988.

Group	Substance used						
	Alcohol	Tobacco	Marijuana	Cocaine	Heroin	Tranquilizers	Pills ^a
Students	66.0	14.7	8.2	1.7	0.3	— ^b	7.4
BGIS delinquents	74.0	32.0	57.0	11.0	— ^b	15.0	— ^b

^aIncludes tranquilizers, sleeping pills, and methaqualone.

^bNot queried.

same proportion of delinquents as students reported drinking, but the similarity between the groups ends there. More than twice as many delinquents reported smoking and seven times as many reported marijuana and cocaine use. Delinquents also started using alcohol, drugs, and tobacco at much younger ages than did students. Most delinquent marijuana users started by the age of 12, while use among students was more prevalent at older ages. Daily drinking and daily marijuana use were common among delinquents (50% for both substances) but rare among students (11.5% and 1.4%). Over one-third of the delinquents (37%) had sold drugs, but few were in the BGIS because of drug offenses. Most were institutionalized for stealing or because they had been judged uncontrollable.

Availability of Drugs

As expected, delinquents reported drugs to have been more available to them than did students. About 42% of students versus 83% of delinquents reported that marijuana was (or had been before coming to the BGIS, in the case of the delinquents) easy or very easy to get. Results were similar regarding cocaine, which about 34% of students and 67% of delinquents found easy or very easy to get.

Attitudes toward Selling Drugs

Students and delinquents were asked, "If you found a bag of marijuana (or cocaine) what would you do?" As expected, delinquents were more likely than students to say they would sell marijuana, hide it, or share it with friends (44% versus 25%). Fewer delinquents said they would take it to the police (20% versus 27.6% of students). The results were very similar concerning both mari-

juana and cocaine. In general, many students were willing to profit from drugs even though they reported that they did not use them.

Admitting Drug Use on the Questionnaire

There was some evidence that delinquents were more candid than students about their drug use. Only one of 74 delinquents said he would not have admitted cocaine use on the questionnaire, whereas about 21% of students said that if they had used marijuana or cocaine, they would not admit it.

Social and Demographic Characteristics of Marijuana Users

Drug use incidence was higher among delinquents, but the students who had used drugs showed many similarities to delinquent users. Table 2 summarizes some of these results for marijuana use. In both groups, males were more likely to be users, as were those having problems in or outside of school. Young people not associated with religious institutions were more often users, as were students living with one parent and delinquents formerly living only with their fathers.

Many students and delinquents who used marijuana grew up in families where drug use was accepted and drugs were available. In both populations, users were much more likely to come from families where mothers sold drugs and family members used drugs. Student users were more likely to come from families where fathers drank regularly.

Summary of Results

The main results from these studies of youth in the Bahamas can be summarized as follows:

Table 2. Characteristics of students and delinquents who had used marijuana.

Group	Characteristics
Junior and senior high school students	Male
	Older (17 and 19)
	Live with one parent
	Lower grades in school
	Less often expect to graduate or go to college
	Not religiously involved
	Fathers unemployed, employed in hotel industry, or sell drugs
	Mothers sell drugs, are in business, or no mother
	Family members have used marijuana
	Fathers drink alcohol regularly
Delinquents (BGIS)	Male
	Did not attend school
	Formerly lived with fathers
	Convicted of stealing
	Had more spending money
	Not religiously involved
	Fathers in business, security work, or professions
	Mothers sold drugs, worked in offices or stores, or no mother
	Families used drugs
	Families sold drugs

1. Alcohol is the most commonly used drug, followed by tobacco, marijuana, and cocaine, among both students and delinquents.
2. Delinquents often begin drug use at a young age; most drinkers and half of the smokers began by the age of 10, and most marijuana and tranquilizer users started by age 12. However, age at first use was much higher among students.
3. Many delinquents had sold drugs (37%), but only 16% reported being on drugs at the time of their arrest. Those whose offense was stealing were more likely to smoke tobacco and use marijuana and tranquilizers. Those who were "uncontrollable" were more likely to be users of cocaine.
4. Males in both groups were more likely than females to be users of marijuana, tobacco, and cocaine.
5. Marijuana users among delinquents were less likely than nonusers to have attended school before coming to the BGIS. Among students, users were more likely to get lower grades and to not expect to go to college. The family backgrounds of marijuana users in both groups involved relatively little religious observance. Many lived in families where older members used and sold drugs or drank excessively.
6. Many delinquents and students would be willing to use, sell, or hide drugs if they found them, but those behaviors were more likely among delinquents.

DISCUSSION

As expected, the rate of drug use was relatively low for students but very high

for delinquents. In fact, a totally different picture of drug use among youth is obtained from the two studies. Most studies have found that delinquents more often report frequent drug use than do nondelinquents (1, 2). In general, Bahamian delinquents were seven times as likely as students to have used marijuana, six times as likely to have used cocaine, and at least twice as likely to have used tobacco.

The school survey revealed drug use rates that are relatively low compared to the results of many school studies in other places. For example, recent surveys in Canada (5) indicated that 15.9% of students had used marijuana in the past year, and a study in Bermuda in 1983 found an almost identical rate (15.8%). Studies in the United States (6) have commonly found that 30% to 40% of students have used marijuana. However, these findings are difficult to compare to the results for the Bahamas for several reasons. Cultural and social differences must be taken into account. In addition, the age groups included in the samples must be comparable. The Bermuda study surveyed secondary students. In Canada, youth over the age of 13 were included. The best known study in the United States (6) included only high school seniors, aged 17 and over. However, the current survey included many young students, and only 11% were as old as 17 years of age. When comparisons are made for students of the same age, differences are lessened, but rates in North America are still much higher.

Of interest is the school survey (7) completed in Trinidad and Tobago, which is the only other Caribbean country that has begun to experience the kind of cocaine epidemic that the Bahamas has undergone. Ninety-one percent of the Trinidadian students surveyed admitted having used alcohol and 46% had smoked cigarettes. They did not, how-

ever, report as much use of illicit drugs as was reported in the present Bahamian survey, with only 6% saying they had used marijuana and 1% cocaine.

Clearly, there is an important illicit drug use problem among delinquents in the Bahamas. Although drugs are not often the reason for their presence at the BGIS, a significant proportion (16%) were on drugs at the time of their offense. Many delinquents reported selling drugs and would sell them again if they had them. Many probably stole to support their drug use. It is also possible that cocaine use caused feelings of anger and suspicion that led to some delinquents being classified as "uncontrollable" by parents, schools, and courts.

The student and delinquent users of marijuana share certain marginal social characteristics. Users in both groups have considerable problems in school. Many lived in families where drugs were used and sold. Few have close connections with churches. These characteristics show that the marijuana users exist outside the mainstream of Bahamian life, which emphasizes school, church, and a supportive family.

The finding that cocaine use was more prevalent among children who grew up in single-parent families highlights the need for a national policy with regard to single parents. Because of their marginality, drug users represent a serious social problem now and for the future. Long-term preventive efforts in the community will involve efforts to get these children into school and keep them there, to improve their family lives, and to reduce the general availability of drugs. Attendance officers could help to get children to school more often. Basic courses on family life education could be made available through the schools and various Government or local agencies. Of course, these solutions are long-term and difficult to implement. Also, some delin-

quents may need drug treatment or counseling during their time at the BGIS and afterward.

Many students and delinquents are comfortable with admitting that they would sell a bag of marijuana or cocaine if they found it. The results point to the critical need for family life education to enable youngsters to develop and incorporate into their daily lives the coping skills necessary for making choices based on good values and rational thinking.

The results also point to the need for all community institutions, that is, schools, churches, and the media in particular, to become involved in preventing drug use and promoting positive values. Bringing about major changes in the factors associated with drug use will require long-term commitments from Government, parents, and community institutions.

The results of this survey reveal the need for drug education in the Bahamas. Some students are not aware of the health and legal risks posed by marijuana and cocaine use. Careful thought and study will be required to develop appropriate drug education messages. The importance of a careful approach is apparent in the comment of one 14-year-old boy who reported using marijuana: "I wanted to experience the effects, to feel what it feels like to be high; also, to see what all the fuss was about not wanting people to use the drugs." The target group for drug education should be those at highest risk, for example, older males who are not expecting to graduate and in whose families drug use and heavy drinking already occur. The best, most effective approach will combine efforts by schools, churches, parents, the media, and Government to educate students about making choices, incorporating values, and living in today's Bahamas.

Acknowledgments. The authors wish to thank Mr. Sam Aymer, PAHO, Nassau; The Honorable Dr. Norman Gay, Minister of Health; Dr. David Allen, National Drug Council; the students; the teachers; the residents of the BGIS; and all of the people in the Ministries of Health, Education, Prisons, and Finance who made these studies possible.

REFERENCES

1. Barton, W. I. Heroin use and criminality: Survey of inmates of state correctional facilities, January 1974. Appendix to: *Drug Use and Crime*. Springfield, National Technical Information Service, 1976.
2. Clayton, R. R. The delinquency and drug use relationships among adolescents: A critical review. In: D. J. Lettieri and J. P. Ludford (eds.), *Drug Abuse and the American Adolescent*. Natl Inst Drug Abuse Res Monogr 38. Rockville, MD, National Institute on Drug Abuse, 1984.
3. Hanna, C. L., and A. Gibson. Report on the Youth Survey on Drugs Conducted in Ministry of Education and Independent Junior and Senior High Schools. Nassau, Bahamas, National Drug Council, 1985.
4. Smart, R. G., P. H. Hughes, L. D. Johnston, et al. *A Methodology for Student Drug Use Surveys*. Geneva, World Health Organization, 1980.
5. Smart, R. G., and E. M. Adlaf. *Alcohol and Other Drug Use among Ontario Students in 1987, and Trends since 1977*. Toronto, Addiction Research Foundation, 1987.
6. Johnston, L. D., P. M. O'Malley, and J. G. Bachman. *National Trends in Drug Use and Related Factors among American High School Students and Young Adults, 1975-1986*. Rockville, MD, National Institute on Drug Abuse, 1987.
7. Remy, L. Summary Report of Survey of Drug Use among the Secondary Students in Trinidad and Tobago. Mimeographed document. Port of Spain, Port of Spain Hospital, 1985.