

EPIDEMIOLOGY

Drugs — A Study in Post-Primary Schools Situated Outside Dublin 1981

EMER B. SHELLEY*
M.R.C.P.I., M.Sc.

Medico-Social Research Board
73 Lower Baggot Street
Dublin 2

K. WILSON-DAVIS**
B.A.(Econ.), M.B.S.C., D.S.A., Ph.D.
28 Sycamore Drive
Jordanstown

A. O'ROURKE
M.B., D.P.H., F.R.C.G.P.
Senior Lecturer General Practice

Department of Community Health
Trinity College
Dublin

F. O'ROURKE

Summary

We report a survey of a random sample of post-primary schools outside Dublin City and County, on the availability, use and knowledge of illicit drugs. A self-administered questionnaire was completed by 5,408 students in sixteen schools. Eleven per cent of these students said they had been offered what they thought was an addictive drug. The percentage of students who said they had taken a drug was lowest for girls under 16 (2 per cent) and highest for boys aged 16 years or more (13 per cent). This was a three- to eight-fold increase when compared with a similar survey done in 1971. Students who said they had taken a drug occurred with one-third to one-half the frequency of the Dublin 1980-81 survey. Forty-four per cent said they had taken the drug on three occasions or less while a further 40 per cent said they had taken it "occasionally". The most frequently used drug was marijuana (3.5 per cent). The next most commonly used drug was heroin (0.4 per cent). Over two-thirds of those who said they had taken a drug said they had obtained it from a friend. Drug users were significantly more likely to be boys, to be aged 16 years or more and to describe themselves as regular smokers or regular drinkers. The survey showed a need to improve the education on drugs which is available in schools.

Introduction

A survey was carried out in 1970 and 1971 on the consumption of cigarettes, alcohol and drugs by students attending a random sample of post-primary schools throughout Ireland. The findings in relation to the availability, use and knowledge of illicit drugs were published separately for schools in Dublin and in the remainder of the country.^{1,2}

A decade later, the Health Education Bureau, the Department of Community Health, Trinity College and the Medico-Social Research Board carried out a similar survey. The aims were to study the use of cigarettes, alcohol and drugs by those attending post-primary schools throughout the country and to estimate changes in the consumption of such substances since the previous survey. The results of this recent survey in relation to the availability, use and knowledge of drugs in Dublin City and County, have been reported.³ Here, we present the findings as they relate to the use of drugs in post-primary schools situated outside Dublin.

* Address for reprints or for additional tabular data.

** Presently working in the Social Research Division, Northern Ireland Civil Service.

This article is a reproduction of that published in: *Irish Medical Journal*, 77(1), January 1984, pp. 16-19. Pagination may not match that of the original.

Methods

The methods used have been described in detail in the previous report on the Dublin survey.

In order to have sufficient cases for statistical analysis, the minimum sample size was set at 5,000 students. The Department of Education's list of post-primary schools 1979-80 was used as a sampling frame. A random sample of schools was chosen, using a probability proportional to size design. The probability of a school's selection was proportional to the number of pupils in attendance as a proportion of the total number of post-primary students outside Dublin. This procedure was carried out for each school type – secondary, vocational, community and comprehensive. The type of school was represented in the sample in proportion to the "weight" in the total population of schools.

Survey Procedures

Permission to carry out the survey was obtained from the school authorities. The data were obtained using a self-administered questionnaire. The students were assured of the confidentiality of their responses. It was not possible to identify an individual student or school from the questionnaire. No teachers were present while the survey was carried out. All classes in a selected school were surveyed and the questionnaire was issued to all students attending school on the day their class was surveyed.

The questionnaire was similar to that used in the Dublin survey. The questions on drugs were as follows:

1. Have you ever been offered what you thought was an addictive drug? If YES, which drug or drugs?
2. Have you ever been to a party where people took drugs?
3. Have you ever taken drugs other than prescribed by a doctor? If YES, which drug or drugs have you taken?
How often have you taken them?
Where did you get the drug or drugs?
4. Do any of your friends use drugs? If YES, which drug or drugs?

These questions had been asked in the 1970-71 survey. Additional questions in the recent survey were:

5. Give an example of: 1. a Soft drug; 2. a Hard drug.
6. Do you think soft drugs have any long-term effects on people? If YES, what effect(s)?
7. Do you think hard drugs have any long-term effects on people? If YES, what effect(s)?

Statistical Methods

The significance of comparisons between proportions was tested where appropriate and the Chi-squared test was used to test for differences in the numbers of respondents distributed in different sub-groups.⁴

Results

A total of sixteen schools were surveyed – ten secondary, five vocational and one community school. They were located in both urban and rural areas. Different population sizes were represented as follows: <5,000, 7 schools; 5,000-10,000, 4 schools; 10,000-30,000, 2 schools; 30,000-50,000, 2 schools and >50,000, 1 school.⁵

All of the students agreed to cooperate. A total of 5,408 students were at school on the day their class was surveyed. The age and sex distribution of the sample is shown in Table 1.

Contact with Drugs

A total of 597 students, 11 per cent of the sample, said they had been offered what they thought was an addictive drug (Table 2). This was lowest for girls under 16 years (5.3 per cent) and highest for boys aged 16 years and over (25.7 per cent). The positive responses were 2 to 3 times more frequent in each age group than they were in 1971.

The percentage of the under-16s who said they had been offered an addictive drug was less than half that giving a similar response in the Dublin 1981 survey. For those aged 16 years and over, when compared with Dublin 1981, half as many girls and two-thirds as many boys said they had been offered an addictive drug.

Over 20 per cent of those who said they had been offered a drug, omitted to answer the section which asked them to name the drug(s). Nearly 8 per cent of the sample named one or more offered drugs while a further 1 per cent replied that they did not know the name of the drug which was offered. Marijuana was the drug offered to the largest number of students – 299 or 5.5 per cent of the whole sample. Nearly 1 per cent of the sample said they had been offered heroin. Less than 1 per cent said they had been offered cocaine, L.S.D. or glue. When asked “Do any of your friends use drugs?” over 3 per cent of the sample did not answer and over 8 per cent answered that they did not know. 13 per cent answered that their friends used drugs. The proportion was lowest (8 per cent) for girls under 16 and highest (28 per cent) for boys aged 16 years and over. This was a two- to threefold increase since the 1971 survey. Positive responses were approximately one-half as frequent as in the Dublin survey.

Nearly 8 per cent of those under 16 years and 21 per cent of those aged 16 years or over said they had been to a party where drugs had been taken. This represented a three-fold increase since 1971. For the under 16's this response was 47 per cent as frequent as in the Dublin survey, for girls aged 16 years or over 44 per cent, and for boys 59 per cent.

Table 1

Sex and age distribution of those who completed questionnaires

	<i>Age in years</i>							Total
	<12	13	14	15	16	17	>18	
Boys	252	595	602	527	456	201	59	2,692
Girls	303	503	468	503	463	342	134	2,716
Total	555	1,098	1,070	1,030	919	543	193	5,408

Table 2

Number and percentage of boys and girls aged less than 16 and aged 16 and over, who stated they had been offered what they thought was an addictive drug, with comparable percentages from the 1971 study and from the Dublin 1981 study.*

	Under 16 years				16 years and over			
	Outside Dublin		Dublin		Outside Dublin		Dublin	
	Number	%	1971 %	1981 %	Number	%	1971 %	1981 %
Boys	192	9.7	3.0	23.1	184	25.7	11.4	38.7
Girls	94	5.3	1.9	11.0	127	13.5	5.2	26.1
Total	286	7.6	2.5	18.5	311	18.8	7.9	32.8

*71 (1.3%) respondents did not answer this question.

Drug Use

Respondents were asked if they had ever taken drugs other than prescribed by a doctor (Table 3). 265 students, 5 per cent of the sample, replied that they had, while a further 2 per cent did not answer the question. Significantly more of those aged over 16 years (*Ph* 0.001) and significantly more boys than girls (*Ph* 0.001) said they had ever taken a drug.* Positive responses were lowest for girls under 16 years (1.7 per cent) and highest for boys aged 16 years and over (13.3 per cent). This was a three- to eight-fold increase since the 1971 survey. Students who said they had taken a drug occurred with one-third to one-half the frequency of the Dublin survey.

The largest number of those who said they had taken a drug said they had taken marijuana – 188 students, 3.5 per cent of the sample surveyed (Table 4). 24 students, 0.4 per cent of the sample surveyed said they had taken heroin. A further 0.4 per cent said they had used glue, while smaller percentages said they had taken other drugs. When asked how often they had taken drugs, 25 per cent said they had taken it on one occasion, while 44 per cent said they had taken it on three occasions or less. A further 40 per cent said they had taken the drug(s) “occasionally”. 17 per cent of those who said they had taken a drug said that they did so “regularly” or “weekly”.

Over two-thirds of those who said they had taken a drug said that they obtained it from a friend. Ten per cent did not name their source. Eight per cent said that they got the drug from a dealer and a further six per cent from both a friend and a dealer. Five per cent said that they got the drug at home and 3 per cent at a party.

Table 3

Respondents who had ever taken drugs other than those prescribed by a doctor.*

	Under 16 years				16 years and over			
	Outside Dublin		Dublin		Outside Dublin		Dublin	
	Number	%	1971 %	1981 %	Number	%	1971 %	1981 %
Boys	79	4.0	0.5	11.7	95	13.3	3.9	25.2
Girls	30	1.7	0.4	4.6	61	6.5	2.2	15.1
Total	109	2.9	0.5	9.0	156	9.4	2.9	20.0

*This question was not answered by 110 respondents (2.0%).

Table 4

Drugs which were taken, classified by age and sex of respondents.*

	Under 16 years		16 years and over		Total	
	Boys	Girls	Boys	Girls	Number	%
Marijuana	28	13	59	32		
Marijuana + 1 or more “soft” drugs	11	4	14	11	172	3.2
Heroin	2	2	0	4		
Marijuana + Heroin	6	2	6	2	24	0.4
Cocaine	2	0	2	0	4	0.1
Glue	13	4	3	3	23	0.4
Others**	4	2	1	7	14	1.3
Drug Name Unknown	10	3	4	3	20	0.4
Total	76	30	89	62	257	4.8

**This category includes aspirin (8), tranquillisers (4), L.S.D. (1) and cough mixtures (1).

*Some students who stated that they had taken an unprescribed drug omitted to name the drug and/or the frequency with which it was taken.

* The term “drug” refers to the use of a drug which was not prescribed by a doctor.

Characteristics of Drug-users

Boys and those aged 16 years and over were more likely to state that they had ever taken a drug. Those who described themselves as regular smokers were more likely to also have taken a drug (*Ph* 0.01). This was true for the sample as a whole and also within each age and sex group. Overall, 13 per cent of those who said they were regular smokers also said they had used a drug.

When compared with those who never drank alcohol or those who drank occasionally, the students who said they drank regularly were more likely to have used a drug (*Ph* 0.01). Thirty per cent of those who described themselves as regular drinkers said that they had taken a drug. This association between regular use of alcohol and a history of taking a drug was found, (*Ph* 0.01), for boys and girls, under 16 and aged 16 years or more.

Information on their father's occupation was provided by ninety-two per cent of the students. The respondents were then classified into one of twelve socio-economic groups used by the Irish Census. Those whose fathers were unemployed, retired, sick or deceased were placed in one group. The socio-economic groups were then combined to give six social classes. There was no significant difference between the social classes in the proportion of all the students who said they had ever used a drug. When the use of a drug was analysed according to the social class of the respondent, there was no difference between the social classes for boys and girls aged less than 16 or for boys aged 16 years or more. However, a difference was found for girls aged 16 years or more (X^2 , 5 d.f. = 22.6, *Ph* 0.01). This was due to an excess of girls whose fathers were in the unemployed, retired, sick or deceased category ($N = 41$) giving a history of drug use – 22 per cent compared with 6 per cent for the remainder of the group.

For the group as a whole, the more pocket money the students got, the more likely he or she was to have taken a drug (*Ph* 0.01). This was true also for boys and girls aged less than 16 years and for girls aged 16 years or more. In boys aged 16 or over, 20 per cent of those who received £8 or more per week had taken a drug compared with 12 per cent of those who received less, but in this group the difference in drug use between the categories of pocket money was not significant (X^2 , 4 d.f. = 6.8).

Knowledge of Drugs

When asked to give an example of a soft drug, 17 per cent of the students did not attempt to answer. A further 41 per cent answered "don't know". The latter response was much more frequent in the under-16s (52 per cent) than in those aged 16 years or more (16 per cent). Just under 40 per cent named a non-addictive drug, the majority citing cannabis or marijuana (21 per cent). Less than 3 per cent named drugs such as heroin or cocaine. 8 per cent of the students did not answer the question "Do you think soft drugs have any long-term effects on people?", and a further 24% answered "don't know". Soft drugs were considered not to have any long-term effects by 27 per cent of the students while over 40 per cent stated that soft drugs had long-term effects.

The question "Give an example of a hard drug" was not answered by 16 per cent of the students. A further 41 per cent answered "don't know". This response was again more frequent in those aged less than 16 (46 per cent) compared with those aged 16 years or more (6 per cent). Thirty-five per cent correctly named a drug such as heroin or cocaine. However, nearly 10 per cent named drugs such as marijuana, glue or aspirin. The question "Do you think hard drugs have any long-term effects?" was not answered by 9 per cent of the sample and 22 per cent answered "don't know". Hard drugs were stated to have long-term effects by 64 per cent of the sample while less than 5 per cent considered that hard drugs did not have long-term effects.

Discussion

This survey of 5,408 students attending a random sample of post-primary schools situated outside Dublin was carried out in the last four months of 1981. Boys and girls were represented almost equally in the sample. Nearly 70 per cent were aged less than 16 and in this age group there were more boys than girls. There were more girls than boys aged 16 years or more. The sample studied in 1971 had similar characteristics.² This age and sex composition of the sample reflects the higher attendance of boys at vocational schools, and the lower school attendance of boys from an agricultural background especially in the older age group. The sample would, therefore, appear to be representative of the population of post-primary school-attenders outside Dublin City and County.

The sampling methods used in this survey were identical to those used in the survey of rural post-primary schools in 1970-71 and in the surveys of Dublin schools. Some of the questions asked in 1970-71 were repeated in 1981. The same questionnaire was used in the 1981 survey in Dublin schools and in those outside Dublin. The results of the present survey may, therefore, be compared with those already reported.

In this survey, 11 per cent of the students said that they had been offered what they thought was an addictive drug, 13 per cent answered that their friends used drugs and 12 per cent that they had been to a party where drugs had been taken. Positive responses to these questions were lowest in girls under 16 years. Boys aged 16 years and over had the highest percentage of positive answers to these questions – over 25 per cent. In each age and sex category there was a two- to three-fold increase since 1971 in the percentage of students who said that they had been offered an addictive drug, that their friends used drugs or that they had been to a party where drugs were used. Positive responses to those questions were 40 per cent - 50 per cent as frequent as in Dublin in 1981 except for boys aged 16 years or more whose positive responses were approximately 60 per cent as frequent as for their Dublin peers.

The percentage of students who said they had taken a drug was also lowest for girls under 16 (2 per cent) and highest for boys aged 16 years or more (13 per cent). When compared with the 1970-71 survey, the increase in answering that a drug had been taken was fourfold for girls and eight-fold for boys under 16. There was a three-fold increase for boys and girls aged 16 years or more. Students who said they had taken a drug occurred with one-third to one-half the frequency of the Dublin 1981 survey.

The most frequently used drug was marijuana – 188 students (3.5 per cent). The next most commonly used drug was heroin – 24 students (0.4 per cent). The drugs which were used were very similar to those used by students in the Dublin survey. The ratio of ever-users of marijuana to ever-users of heroin was 8:1 among students outside Dublin and 10:1 for those in Dublin. Those outside Dublin were more often occasional marijuana users (43 per cent vs 34 per cent) and less frequently regular or weekly users (21 per cent vs 28 per cent). More of the rural heroin users did not state the frequency with which they used the drug (29 per cent vs 8 per cent). Among those who did so, there were fewer regular or weekly users compared with their Dublin counterparts (40 per cent vs 72 per cent).

It is possible that students did not volunteer information in relation to solvent abuse in these surveys as they may not regard such substances as drugs. Students outside Dublin said that they had used glue more frequently than did the students in Dublin (0.6 per cent vs 0.1 per cent). Solvent abuse was most frequently reported by girls under 16 years. This accords with anecdotal evidence of such abuse in girls' schools in provincial towns.

The source of supply of drugs taken was very similar for those outside Dublin and for those in Dublin City and County, the majority getting them from a friend, with a dealer being the next most frequent source.

The socio-demographic characteristics of drug-users were consistent with findings in other countries such as the United States, and were also very similar outside Dublin to those

in Dublin.^{6,7} In each area, drug users were significantly more likely to be boys, to be aged 16 years or more and to describe themselves as regular smokers or regular drinkers. The more pocket money received by a student the more likely he or she was to have taken a drug, though this difference was not significant for boys in the provinces who were aged 16 years or more.

These surveys outside Dublin and in Dublin City and County found no significant difference between the social classes in the percentage of students who said they had taken a drug. The exception to this was among girls aged over 16 outside Dublin, where girls whose fathers were unemployed, retired, sick or deceased (N = 41) were more likely to have taken a drug than those in other social classes. It must be remembered that these surveys relate only to school attenders and do not provide information on progression to drug-related problems. For the whole sample outside Dublin, those whose fathers were farmers or agricultural workers had the lowest percentage who said that they had used a drug. While this difference was not significant, it suggests that the use of drugs is less frequent in rural than in urban areas, with use being highest in Dublin City and County.

For the question relating to the knowledge of drugs, the abstention rate, the percentage of "don't know" answers and the difference between the under-16s and those aged 16 years or more were greater and the percentages of correct answers were lower in those outside Dublin when compared with those in Dublin City and County. This survey shows a need to improve the education on drugs which is available in schools.

Since the survey was done, there has been an upsurge of interest in drug education among parents and teachers. The Health Education Bureau has organised an International Workshop on Drug Education.⁸ Local factors must be considered when planning drug education programmes and this includes whether the location is urban or rural. Planners should consider how involvement of parents and of the wider community might be encouraged. Programmes should be implemented as part of a health education programme and emphasis should be placed on decision-making skills. Straight information has not been shown to be effective in prevention and some education researchers believe that information dissemination approaches are potentially harmful.⁹

Acknowledgements

We are grateful to the following organisations for funding this survey: The Health Education Bureau and the Medico-Social Research Board. We wish to thank Dr. Geoffrey Dean for his advice and helpful comments and Mrs. Esme O'Rourke for her assistance in administering the survey. We would also like to thank Mrs. Maria Baston for typing the manuscript.

Special thanks are due to the school authorities and to the students, without whose cooperation this survey would not have been possible.

References

- 1 Nevin M, Wilson-Davis K, O'Rourke A, Dean G. Drugs – a report of a study in Dublin post-primary schoolchildren 1970. *J Irish Med Assoc* 1971; 64: 91-100.
- 2 Kirke P, Gough C, Wilson-Davis K, O'Rourke A, Dean G. Drugs – a study of Irish rural post-primary schoolchildren 1970-71. *J Irish Med Assoc* 1973; 66: 231-7.
- 3 Shelley EB, O'Rourke F, O'Rourke A, Wilson-Davis K. Drugs – a study in Dublin post-primary schools. *Irish Med J* 1982; 75: 254-9.
- 4 Armitage P. *Statistical methods in medical research*. Oxford: Blackwell Scientific Publications, 1971.
- 5 Central Statistics Office. *Census of population of Ireland 1981 volume I*. Dublin Stationery Office, 1982.
- 6 Kandel DB. Drug and drinking behaviour among youth. *Ann Rev Sociol* 1980; 6: 235-85.
- 7 Kandel DB. Drug use by youth: an overview. In: Lettieri DJ, Ludford JP, eds. *Drug abuse and the American adolescent*. Maryland: National Institute on Drug Abuse, 1981; 1-24. (NIDA Research Monograph 38).

This article is a reproduction of that published in: *Irish Medical Journal*, 77(1), January 1984, pp. 16-19. Pagination may not match that of the original.

- 8 Health Education Bureau. International workshop on drug education. HEB News 1983; 1:3-13.
- 9 Swisher JD. Addiction prevention – future directions. In: Education against addiction. Dublin: Health Education Bureau, 1980; 68-86.

Erratum

The following terms were substituted due to a printing error: (*Ph* 0.01) and (*Ph* 0.001) for ($P < 0.01$) and ($P < 0.001$) respectively.