Mark Morgan and Joel Grube

DRUG USE IN IRISH SCHOOLS: A COMPARISON WITH OTHER COUNTRIES

Mark Morgan Ph.D., is a lecturer in educational psychology at St. Patrick's College, Drumcondra and is presently on secondment to the Primary Curriculum Review Body. Joel W. Grube Ph.D. was a Research Officer at the Economic and Social Research Institute and is currently at the Prevention Research Centre, Berkeley, California. They have collaborated on several papers on drug use, attitude formation and research methodology. The present paper is based on the results of a three-phase survey of drug use in Dublin postprimary schools.

What is the most serious drug problem in Irish schools in the late eighties? Depending on what criteria one adopts the answer might be "cigarettes", or "alcohol", or one of the illegal substances. What will become clear is that in order to decide on the seriousness of a drug problem, it is necessary to consider not only the numbers using the substance, but also the comparison with other times and other countries, the probability of addiction, the consequences to the individual involved, the effects on others in the family, etc. People value each of these criteria differently, with the result that the grounds for identifying the "size" of a drug problem (if indeed there is a problem at all) are many and varied. Unfortunately, the legal/illegal distinction does not help very much, since by some criteria (e.g. number of deaths caused) the "legal" substances cause most problems.

THE DUBLIN SMOKING, ALCOHOL AND DRUGS STUDY

The study on which the present paper is based, is a three-phase survey of the reported use of cigarettes, alcohol and illegal drugs by 3,000 randomly selected pupils in the greater Dublin area.⁵ Twenty-four post-primary schools were involved, representing the full range of socio-economic backgrounds. About two-thirds of the pupils were from secondary schools and about one-third were from community, comprehensive or vocational schools. As would be expected from such a sample, the vast majority of the respondents range in age from 12.5 to 18.0 years.

The survey instruments consisted of self-administered questionnaires in which pupils anonymously completed items relating to their use of, attitudes towards and beliefs about smoking, alcohol and other drugs. The surveys were carried out by trained personnel from the Economic and Social Research Institute and normally the class teacher was absent from these sessions. The students were instructed not to put their names on the questionnaires and the instructions on the questionnaires reiterated the anonymous and confidential nature of the survey.

Since the students did not put their names on the questionnaire and since many of the interesting questions involved linking a given respondent's answer at one phase to his or her answers at a different phase, it was essential to devise a method of matching questionnaires across phases. This was accomplished through the use of a self-generated code. Respondents supplied information that was unique to themselves specifically, date of birth, number of older brothers, number of older sisters, and first initial of mother's first name. On the basis of these characteristics, a computer programme matched the files across the phases, thus allowing the advantage of confidentiality, but without the drawbacks.

RELIABILITY AND VALIDITY

The reliability of the measures was assessed mainly through a measure of the extent to which the subjects' reports of their use of a given substance correlated with their reports at the later testing

session, i.e., test-retesting reliability. In other words, a measure of the consistency of students' responses was obtained. These correlations are quite high; .83 for smoking, .72 for drinking and .53 for illegal drug use. While the reliability for illegal drug use is somewhat low, an inspection of the data showed that most of the change was due to changes from "never having used" a drug to "having used it once" during the previous month. In other words some of the "unreliability" may have been due to actual changes in behaviour during the interval in question.

While consistency is a necessary condition for validity, it does not of itself guarantee the validity of subjects' reports. The reason for this is that, while the students may have been consistent in their reports, they may have been consistently untruthful. While this seems implausible, given that the tests were unexpected, it seemed worthwhile to try to eliminate some of the sources of invalidity. Two major sources of invalidity are generally thought to be problematic. Firstly, it may be that some adolescents under-report the extent to which they smoke, drink, or use illegal drugs because these behaviours either are illegal or are disapproved of by adults. On the other hand, a desire to appear grown up may result in overclaiming by some other adolescents. The present study included a control for this last possibility by listing among the illegal a nonexistent substance with a plausible-sounding name. In fact 1.6 per cent claimed to have used this fictitious substance — an indication that this minority may have been overclaiming for other substances, but also an indication that overclaiming may not have been a widespread threat to validity.

The present study did not include a safeguard against under-reporting. However, those studies that have investigated this issue have come to the conclusion that confidential self-reports are the most valuable, and in many cases the only, way to obtain valid accounts of these kinds of behaviours.³

PREVALENCE OF CIGARETTE SMOKING

To make our measures comparable to those used by other investigators, two concepts need to be defined viz., lifetime prevalence and current prevalence. "Lifetime prevalence" refers to the fact that a person has used a given substance (e.g., smoked a cigarette) at some time in their lives. "Current prevalence" refers to the use of the substance in question over the last month. These concepts provide valuable cross-national comparisons and are much better than measures like percentages of "real" smokers or "casual" smokers.

Just over two-thirds of the sample had smoked a cigarette at some time in their lives. About half of those aged 13 years had smoked at some time, while at age 17, 74 per cent had smoked at some time. Interestingly, the primary school years seemed to be of crucial importance in initial experimentation with cigarettes; about two-thirds of the pupils had their first cigarette during the ages 9-12 years old.

Over one-third of the sample were current smokers (they had smoked during the previous month). What is particularly noteworthy is that a great number of these current smokers were in fact daily smokers. In fact, a distinguishing feature of our young smokers was the high proportion of daily smokers. The percentage of such daily smokers shows a dramatic rise from age 13 to age 16 years. At age 13 only 12.5 per cent of the sample were daily smokers. By age 16 years the number of daily smokers had increased to over 30 per cent.

How do these figures compare to other countries? By any standard the level of smoking is extremely high. Although it is difficult to get precise comparable samples, the indications are that the rates of smoking in England are several percentage points below those described above. In general, the rates from mainland Europe tend to be below those reported above. In particular a study supported by the WHO in Norway, Finland, and Austria showed a level of regular smoking that was 3 to 5 percentage points below the Dublin rates.' Only French adolescents seem to smoke more frequently than their Irish counterparts.⁸

A number of very comprehensive studies from the United States are directly comparable to the present one, because identical wordings in the questionnaires were used. In particular a series of annual studies of high-school seniors gives an excellent picture of the levels of smoking at age 16+.6 In the same year and by the same criteria as the present study, 18.7 per cent of this latter group were regular (daily) smokers in the United States, while the corresponding figure in our study is almost 30 per cent. Furthermore, the figures from the U.S. suggest a decline in the number of young smokers in that country, particularly boys. Over the years 1977 to 1986 there was a drop in the number of regular smokers from 28 to about 18 per cent. The available figures suggest that the number of young Irish adolescents who smoke has remained remarkably stable.

PREVALENCE OF DRINKING

The percentage of post-primary pupils who reported that they had ever consumed a drink is shown in Table 1, for each age-group between 13 and 17 years. It can be seen that almost two-thirds of the sample said that they had drunk one whole drink at least once in their lives. Data was also obtained on whether certain alcoholic beverages were more popular than others among these adolescent drinkers. It was apparent that beer (including lager and stout) was by far the most popular, with 46 per cent of the sample having drunk beer at some time. Wine and spirits were next most popular with 45 per cent and 39 per cent having drunk these substances, while just 35 per cent had consumed cider at some time.

Table 1. Percentage Lifetime Drinking Rates by Age and Gender (adapted from Grube and Morgan, 1986)

Age	Girls	Boys	Total
13 years	37.9	56.8	45.0
14 years	49.7	68.3	57.9
15 years	59.7	73.1	65.7
16 years	66.8	78.1	73.6
17 years	75.5	81.8	79.2
Total	56.8	73.6	65.0

Information was obtained also on the number of young people who ever felt drunk. A number of aspects of these figures are of particular interest. Firstly, over one-third of the total sample had felt drunk at least once. Secondly, a minority had been drunk at least six times. Among those students who had tried alcohol the figures are substantially higher. Of these students, nearly three-fifths had felt drunk at some time and nearly a quarter had done so on at least six occasions.

It would seem that in comparison to other countries, the levels of drinking are mid-way between low-consumption countries like Israel and high-consumption countries like France. A particularly striking feature of the Irish figures is the relatively high number who have never sampled a drink by age 16. The fact that our percentage of total-abstainers is high by international standards may be surprising given that all countries have some legal curbs on youthful drinking. In fact, every country has a massive problem of under-age drinking. By the other hand, the level of reported drunkeness among the present sample is high by international standards. It would seem, therefore, that the pattern of drinking among young people is a reflection of the drinking pattern among Irish adults in that a significant minority do not drink at all, while a sizable minority drink frequently to the point of feeling drunk.

ILLEGAL DRUG USE

The percentages of students who reported ever having used each of the individual categories of drugs are shown in Table 2, along with the percentages of having used them in the previous

months. By far the most popular substances among these young people were glue (or other inhalants) or marijuana. About 13 per cent of the sample had tried each of these at some time in their lives. Use of the remaining substances were considerably less frequent. It is interesting that nearly 3 per cent of the students had tried substances without knowing what they were. Another important point is that many of the students had tried more than one drug. In fact of those who had used drugs, about 23 per cent had tried two substances, 17 per cent had tried three or four substances and 14 per cent had tried five or more.

Table 2. Percentage Prevalence Rates for Illegal Drug Use (adapted from Grube and Morgan, 1986)

Age	Ever used	Used previous month
Glue-solvents	12.9	5.0
Marijuana	13.2	5.9
Heroin	1.2	0.7
Cocaine	1.5	0.7
LSD	2.7	1.2
Barbiturates	2.7	1.4
Speed	3.3	1.4
Magic Mushrooms	4.0	1.2
Cough Syrup	4.8	1.8
Other Substances	2.8	0.8

It is worth emphasising that regular use (during the previous month) is confined to a relatively small number. About 8 per cent of the students were regular users in the sense that they had used either more than one illegal substance or else they had used the same illegal substance more than twice. On the other hand, this figure means that, on average, a classroom of twenty-five pupils will have two pupils who are regular users.

It is fair to say that the level of illegal drug use emerging in the present study is low by international standards. This is especially true for the use of marijuana. For example, the number of regular users of this drug among comparable age-groups in the United States is about ten times higher than the figure emerging from the present work.⁶ Furthermore, while other Western countries have rates that are lower than the United States, use of this substance is generally above Irish levels in those countries, particularly in England, Scotland, France, Spain, and West Germany.^{1,8}

On the other hand, the use of solvents and inhalants is quite high by international standards. It is also worth noting that solvents tend to be used at a much younger age than marijuana. In fact the peak age for the use of solvents is 14 years, while the use of marijuana continues to rise up (from a very low level) up to age 17 years.

GENDER AND SOCIAL CLASS

The differences between boys and girls are worth exploring in some detail. With regard to cigarettes, boys tend to start smoking at a younger age than do girls. However, by age 16 the girls have in fact caught up, so that the gender differences have disappeared. This is particularly interesting since there were substantial differences in the smoking of boys and girls until about 15 years ago. In fact probably the most worrying outcome of this whole survey is this rise in the level of smoking among adolescent females.

The gender differences in relation to alcohol and illegal drugs can be summarised in a single generalisation, i.e., boys tend to be more frequent users especially at higher levels. Thus, while there are only minor differences between boys and girls as regards prevalence of life-time drinking, there are substantial differences with regard to reported drunkeness. Similarly, more boys tend to use illegal drugs, especially the more dangerous drugs.

Perhaps the finding that surprises most people, although it is totally consistent with results emanating from other countries, concerns the absence of social class differences. There were no significant differences related to social background in the rates of smoking, drinking and the use of illegal drugs. Why then are drug problems frequently seen to be associated with deprivation and poverty? There are probably two reasons. The first has to do with visibility. A drug problem is much more likely to come to light in a deprived area. The second reason has to do with experimentation vs. becoming an habitual life-time user. There is some evidence that a young person from a deprived background may be somewhat more likely to "progress" to full-blown addiction than is a youth from a middle-class background.

PARENTAL INFLUENCE

There are a number of ways in which parents may be either directly or indirectly influential in relation to the likelihood of their children beginning to smoke, drink or use drugs. The first factor is their attitude – the extent to which they might approve or disapprove of the use of a given substance by their offspring. Another way is through their own example, particularly whether they smoke or drink themselves. Finally, the way that a young person relates with his or her parents may also be important.

The evidence is that each of these factors may be important in at least some respects. It is remarkable that parental example is important for drinking but is quite unrelated to smoking. In fact, if both parents are smokers there is only a slightly greater probability that the child will smoke than if both parents are nonsmokers. It would seem that as many children are "put off" smoking by their parents smoking as are inclined to take up the habit by following parental example. On the other hand, parental attitude is an important factor relating to use of all kinds of drugs (legal and illegal), with a very permissive attitude being associated with more frequent use by children. There is also a suggestion (especially in some studies from the United States) that an extremely punitive attitude by parents may also be counterproductive. Finally, it is worth noting that the very basic matter of the parent-child relationship is of itself a factor in the likelihood of the child beginning to smoke or drink. The section on "social bonding" in this paper will show that strong attachment to parents is associated with a lower probability of substance use. As in other areas, there are some fundamental aspects of development that seem to impinge on all behaviours.

PEERS AND DRUG USE

Perhaps the commonest explanation for drug use is the concept of "peer-pressure". It has to be said that this concept is wrong in a number of respects. First of all, the people who matter are not "peers" as such but selected "friends". This matters a great deal because parents are frequently concerned about whether there are drugs in use in an environment – a concern that may be misplaced. The young people who matter are a small number of intimate friends, especially the young person's best friend. The other point is that while there is indeed a strong correlation between friends use and personal use, a , great deal of this relationship is due to selection, i.e., pupils seek out those others who have the same interests and hobbies as themselves. There is indeed a small factor of peer influence, but most of the association comes about from selective friendships.

Another important point is that while parental *approval-disapproval* is the crucial factors, it is peer behaviour that counts (use or non-use), not whether or not the "peer-group" approves of the use of a given substance. This is especially important since approval and example frequently do not relate strongly with each other.

BELIEFS ABOUT CONSEQUENCES

The evidence suggests that users of any substance differ in two respects as regard to their beliefs about the consequences of the use of that substance. Firstly, they are more likely to deny that negative consequences will actually occur to them. For example, cigarette-smokers are less likely to say that smoking will give them bad breath. Furthermore, they are inclined to say that the consequence is not particularly important anyway, e.g. bad breath is not a really bad thing! Conversely, with "positive consequences", the opposite pattern applies e.g. cigarettes are more likely to make you "feel relaxed" and feeling relaxed is very important.

What is particularly interesting about this pattern of results is that it applies more especially to *short-term consequences*, e.g., "bad breath" vs. "getting lung cancer". In fact, as regards the long-term consequences there are only minimal differences in the perceptions of the dangers. This finding has implications for strategies to prevent young people starting to use such substances. It seems that a concentration on short-term consequences is a far more viable strategy than drawing attention to the long-term dangers.

SOCIAL BONDING AND DRUG USE

The social control perspective in sociology⁹ suggests that individuals are constrained from engaging in deviant behaviours by the extent that they are "bonded" to conventional social institutions such as the family, the church and the school. Weakened social bonding is said to result in a greater likelihood of involvement in anti-social activities, such as drug use and underage drinking. In the present study, two facets of bonding were measured: commitment ("How important to you think it is to get along well in school?") and attachment ("How well do you get along with your parents?").

The results showed that bonding to church, family and school was indeed negatively related to substance use. Those young people who showed a high level of attachment and commitment to these institutions tended to be less likely to smoke, drink or use illegal drugs. However, in contrast to some of the correlations (e.g., with peer use) the size of the relationship was not very large.

CONCLUSIONS

On the basis of the international comparisons it could be argued that the biggest drug problem among youth in Ireland is cigarette-smoking, followed closely by alcohol abuse. It is probably no coincidence that these are the main drug problems among the Irish adult population. A critical consideration is that the actual numbers that are affected by these legal drugs is far greater than the numbers affected by illegal substances. However, it is likely that "hard drugs" (especially heroin) will continue to be regarded as a "bigger problem". This is because of the severity and immediacy of the consequences of hard-drug usage, in contrast to long-term damage of cigarettes and alcohol to a much greater number of people.

Knowledge of the factors associated with usage (as outlined above) should provide a basis on which prevention programmes might be devised. This is a relatively recent development, but there are a number of prevention efforts based on supplying information about consequences or providing pupils with the skills to withstand "peer pressure". A number of conclusions about these efforts are warranted by the extant evidence regarding the effectiveness of these programmes. Firstly, mere information of itself does not seem to have any demonstrated beneficial effects. There is also some indication that "misinformation" (exaggerating the dangers) may indeed have counterproductive effects. Secondly, a number of school-based programmes have indeed produced positive effects, particularly those that train young people to withstand the pressures to smoke, drink or use drugs. To date, many of these "life-skills" programmes have focused on preventing cigarette smoking and the results are quite promising. The efforts to establish such programmes in Irish schools seem therefore to be well worthy of support.

REFERENCES

- 1. Aaro, L. E., Kannas, F., Ledwith, S., Lorant, P. & Rimpela, M. Social network influences on health behaviours in school children. Unpublished manuscript. University of Bergen, 1984.
- 2. Akers, R.L., Krohn, M.D., Lanza-Kaduce, I., & Radosevich, M. Social learning and deviant behaviour: A specific test of a general theory. American Sociological Review, vol. 44, pp. 635-655.
- 3. Bauman, K.E., & Koch, G.C. Validity of self-reports and descriptive and analytical conclusions: The case of cigarette smoking by adolescents and their mothers. American Journal of Epidemiology, vol.118, 1983, pp. 90-98.
- 4. Best, J.A., Thomson, S.J., Santi, S.M., Smith, E.A., Brown, K.S. Preventing cigarette smoking among school children. American Journal of Public Health, vol. 9, 1988, pp. 161-201.
- 5. Grube, J.W., & Morgan, M. Smoking, drinking and other drug use among Dublin post-primary school pupils, Dublin, Economic and Social Research Institute, 1986.
- Johnston, L.D., O'Malley, P.M., & Bachman. Use of licit and illicit drugs by America's High School students, 1975-1984, Rockville, MD.: National Institute on Drug Abuse, 1985.
- 7. Kandel, D.B. Drug and drinking behaviour among youth. Annual Review of Sociology, vol. 6, 1980, pp. 235-285.
- 8. Kandel, D.B., Adler, I, & Sudit, M. The epidemiology of adolescent drug use in France and Israel. American Journal of Public Health, vol. 71, 1981, pp.256-265.
- 9. Kaplan, H.B., Martin, S.S., Robbins, C. Pathways to adolescent drug use: Self-derogation, peer influence, weakening of social controls, and early substance use. Journal of Health and Social Behaviour, vol. 25, pp. 270-289.
- 10. Todd, G.F. Statistics of smoking of Member States of the European Community, 1986, Luxembourg, Office for Official Publications of the European Communities.