

Smoking — A Study of Post-Primary Schools, 1980-1981

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The preliminary results are described of a survey of post-primary school students in the County of Dublin. Some 5,000 pupils were surveyed on their habits and attitudes to smoking, drinking and drug taking. The study was commenced in November 1980 and completed in February 1981.

The objectives of this survey were:

- (i) To investigate the current smoking, illicit drug taking and alcohol consumption habits of post-primary schoolchildren;
- (ii) To compare the situation today with the results of the surveys of 1967 and 1970.

The survey was carried out by a team based at the General Practice Teaching Centre, Department of Community Health. Trinity College, supported by the Health Education Bureau, the Medico-Social Research Board and the Irish Cancer Society.

The Sample and Method

From the 1979-80 Department of Education's Post-Primary Schools list a sample (yielding approximately 5,000 students) of second level schools was selected.

The sample was stratified by type of school (Secondary, Vocational, Community or Comprehensive) and by the male/female pupil attendance figures. A random sample was selected with the probability of selection being proportional to the number of pupils on the

Table 1

Survey Population: Sex and Age Distribution of Respondents

Age		12	13	14	15	16	17	18	Total	Number
Boys	%	10	21	24	21	15	7	2	100	3086
Girls	%	10	18	21	20	18	10	3	100	2092
Total	%	10	20	23	21	16	8	2	100	
Number*		529	1024	1189	1067	840	427	102		5178

*The total number of answered questionnaires was 5189 but 11 questionnaires had either sex or age unstated.

school roll. Every class in each selected school was included in the sample population. Sixteen schools in all were randomly selected.

The questionnaire was of self-completion type. In order to maintain comparability, the same questionnaire was used as in 1970, with some additional questions included. A pilot survey of five hundred second level students was carried out in October 1980.

The large increase in post-primary school pupils became apparent when comparing the 1970 and 1980 surveys. In 1970, there were only some 25,000 pupils while in 1980 there were over 85,000.

The difference between the number of boys and girls of the original sample was due to three factors: one school refused to participate; one girls' school was in the process of closure retaining only Intermediate and Leaving Certificate classes;

and one girls' school attendance was affected by a 'flu epidemic (Table 1).

The survey team attended each of the selected schools and the questionnaires were completed class by class. Each class received a prepared introductory lecture which explained the nature and purpose of the survey. Confidentiality of the questionnaire was stressed and the students assured that the completed forms would not be seen, or the contents identified to teachers, schools or parents. It was further stressed that results would only be published as percentages of the whole of the Dublin Schools Survey, and that under no circumstances would individual schools be identified.

The interviewers gave agreed explanations to any questions that presented difficulties to the students. Prior to the research, standard explanations had been agreed by the survey team. Fewer than twenty questionnaires were spoiled and, consequently, omitted from the analysis.

Definition of Terms: For the purpose of this study, the following definitions were used as a means of classifying smokers and non-smokers.

- (i) A regular smoker is a student smoking at least one cigarette per week every week;
- (ii) An occasional smoker is one who states that he does not smoke regularly but smokes on holiday, at parties, etc. The students in this group have also completed the questions on the questionnaire applying to smokers;
- (iii) Ex-smokers are those who state that they have smoked, but do not do so now.

Results

This paper is mainly concerned with smoking. A paper dealing with illicit drugs is already published.

Table 2 shows the number of girls and boys who have ever smoked. It can be seen that nearly three-quarters of the boys and almost two-thirds of the girls have tried smoking at some time.

In Table 3 we can see the answer to the question: "Do you smoke now?" Over a third of the boys and a quarter of the girls declared themselves *current smokers*, while one-quarter of both boys and girls said they were occasional smokers, for instance they smoked at parties or on holidays and on other social or special occasions. This latter group may well be in a transition

phase, some of whom will become regular smokers. Nearly a third of the sample had never smoked and 14% had given up smoking.

Table 2
Have You Ever Smoked?

	Boys		Girls		Total
	Number	%	Number	%	%
Yes	2263	74	1318	63	70
No	807	26	767	37	30
Total	3070	100	2085	100	100

Table 3

	Boys	Girls	Total
Smoke now	1033	536	1569
Occasionally	736	548	1284
Ex-smokers	494	234	728
Never smoked	807	767	1574
Total	3070	2085	5155

Inspection of the bivariate distribution suggests that smoking is associated with sex in that a larger proportion of boys smoke compared with girls. Testing for the significance of this association by a Chi-squared Test supports this hypothesis. In Table 2

$$X^2 = 93.7547 \text{ p} < .0005$$

that is, the probability of obtaining such a result by chance is less than 0.05%. Therefore, the observed association is highly significant statistically.

Table 4
Smoking Habit by Age

	12	13	14	15	16	17	18+	Total %	
Boys									
Percentage of:									
Regular smokers	21	31	39	37	32	31	46	34	
Occasional smokers	22	24	22	21	30	29	23	24	
Ex-smokers	16	17	14	18	16	14	17	16	
Never smoked	41	28	25	24	22	26	14	26	
Number (=100%)	309	644	744	650	458	215	48	100	3068
Girls									
Percentage of:									
Regular smokers	10	18	29	27	32	34	29	26	
Occasional smokers	19	22	24	30	31	31	30	26	
Ex-smokers	9	10	12	12	10	12	15	11	
Never smoked	62	50	35	31	27	23	26	37	
Number (=100%)	218	376	438	414	378	207	54	100	2085
Total									
Percentage of:									
Regular smokers	17	26	35	33	32	32	36	30	
Occasional smokers	20	23	23	24	30	30	26	25	
Ex-smokers	13	15	13	16	14	13	17	14	
Never smoked	50	36	29	27	24	25	21	31	
Number (= 100%)	527	1020	1182	1064	836	422	102	100	5153

Table 5
Comparison between Regular Smokers, 1967, 1970 and 1980

	12	13	14	15	16	17	18+	Totals	Sample Size
Boys									
Percentage of:									
Regular smokers (1967)	13	19	31	36	42	43	55	32	2,710
Regular smokers (1970)	25	24	33	38	45	44	47	35	3,015
Regular smokers (1980)	21	31	39	37	32	31	46	34	3,068
Girls									
Percentage of:									
Regular smokers (1967)	1	6	11	13	15	22	20	11	1,792
Regular smokers (1970)	3	9	18	25	28	29	28	18	2,468
Regular smokers (1980)	10	18	29	27	32	34	29	26	2,085

Variations in the totals in the various tables are accounted for by students not filling in particular questions.

Girls Approaching Smoking Level of Boys: We see in Table 4 that in the twelve to seventeen age group the peak age for smoking in boys is fourteen, when four out of every ten boys are regular smokers. This contrasts with the situation in 1967 where regular smoking increased steadily with age. On the other hand, the girls show a consistently high level of smoking; over a third are regular smokers by the age of seventeen.

A comparison between the percentage of regular smokers at each age group in the 1967¹, 1970² and 1980 surveys can be seen in Table 5.

Table 5, dealing with boys, shows that, although there is little change in the overall picture of regular smokers, there is a definite decrease in the sixteen and seventeen year old groups, while little difference is evident for the age groups twelve-fifteen years between 1970 and 1980.

Due to the small numbers involved, it is difficult to interpret the sharp increase in smoking for both boys and girls who are eighteen years or older. Neither do we have any definite reasons for the slight decrease in boys smoking between fourteen-seventeen years in the 1980 sample.

It appears that girls will shortly be approaching the smoking levels of boys. In 1970, nearly twice as many boys as girls were regular smokers, 34% versus 18%. Whereas, in 1980 the difference has dropped to 34% versus 26%. While more girls of all ages are smoking in 1980, the increase is particularly remarkable in the younger age groups. More than three times the number of twelve year old girls are smoking in 1980 as compared to 1970, a tenfold increase on 1967. Again in the thirteen year olds, the number of smokers has doubled in the decade and in all other age groups there has been an increase.

Table 6 shows the number of cigarettes smoked per week. One third of the smokers using fifty or more cigarettes each week, one in ten smoking more than ninety cigarettes a week. This last group spend IR£4.00 or more each week on their smoking habit. (In Spring 1981,

Table 6

Number of Cigarettes smoked by Regular Smokers (per week)

Number of Cigarettes	Percentage	Number
0-9	20	292
10-19	15	217
20-29	13	190
30-39	10	144
40-49	9	123
50-59	8	177
60-69	5	69
70-79	7	107
80-89	3	47
90+	10	153
Total	100	1459

Table 7

Average Number of Cigarettes smoked per week in each age group

Age	Boys		Girls	
	Average number per week in age group	Number	Average number per week in age group	Number
15 & under	39	731	29	305
16	54	136	41	118
17	61	663	42	67
18+	70	23	67	115

Table 8

Do your Parents know you Smoke? – By age group and sex

	Boys			Girls	
	Age Group			Age Group	
	under 16	16 and over		under 16	16 and over
	%	%		%	%
Yes	49	71	Yes	35	57
No	32	17	No	49	33
Don't know	19	12	Don't know	16	10
Total number	802	231		332	205

Table 9

Do Parents approve of your Smoking? – By age group and sex

	Boys			Girls	
	Age Group			Age Group	
	under 16	16 and over		under 16	16 and over
	%	%		%	%
Yes	9	16	Yes	3	10
No	68	63	No	71	66
Don't know	23	21	Don't know	26	24
Total number	792	231		328	204

Table 10

Smoking Experience by Parental smoking habit classified by sex

		Both parents	Father only	Mother Only	Neither smoke	Number
Boys						
Percentage of:						
Regular smokers	%	31	27	17	24	1024
Occasional smokers	%	23	24	17	36	729
Ex-smokers	%	28	27	17	28	491
Never smoked	%	31	26	15	27	802
All Boys						
Total number of boys		878	799	505	863	3046
Parental habits	%	29	26	17	28	
Girls						
Percentage of:						
Regular smokers	%	30	24	16	30	534
Occasional smokers	%	19	25	14	42	548
Ex-smokers	%	23	26	15	36	233
Never smoked	%	25	24	16	35	760
All Girls						
Total number of girls		507	509	314	745	
Parental habits	%	24	25	15	36	

Table 11

Position in Class by Smoking Habit

	Never smoked %	Ex smoker %	Occas. smoker %	Reg. smoker %	All %
Top 5	20	14	17	16	17
Top 10	29	28	26	20	25
Middle	48	54	53	55	52
Below	3	4	4	9	6
All	100	100	100	100	100
Number	1549	740	1253	1550	5092

a packet of twenty cigarettes cost 80p-90p.) 20% of the sample smoked 10 or more cigarettes per day on average.

It is important to note that the boys in the survey smoked more heavily, i.e. more cigarettes per week than the girls of all ages and that in both boys and girls heavier smoking increased by age as one would expect (Table 7).

Parental Attitudes: Table 8 shows the answers to the question: "Do Your Parents Know You Smoke?". Of the boys smoking regularly under sixteen years of age, half their parents knew of their smoking habit and two thirds of the parents knew in the older age group. Fewer parents knew of their daughters smoking habit, although their knowledge was correlated with age of the girls.

Parental attitudes to their children's smoking habits are shown in Table 9. They are, of course, the students' interpretation of their parents' attitudes.

Nearly a quarter of regular smokers do not know whether their parents approve of their smoking habits or not. While parental approval increases with the age of the child, the vast majority of the parents do not approve of their children's smoking habit.

Nearly three times more parents of boys in the under sixteen year age group (9%) approved of their sons smoking than parents of girls in the same age group (3%). In the sixteen year plus age group, the respective figures are 16% and 10%.

It is interesting to note that although parents disapprove more strongly of their daughters smoking than of their sons smoking, amongst girls, smoking is increasing. This may indicate a weakening of parental influence and of changing attitudes, especially of young girls.

The students were also asked whether their parents would punish them if they knew of their smoking habit. Four out of ten of the younger girls thought that their parents would, but this decreased as they grew older. However, at all age groups the girls seemed more afraid of their parents' attitudes than the boys. For instance, in the over sixteen year age group, twice as many girls as boys — 22% versus 11% — thought that their parents would punish them if they knew they smoked.

As can be seen in Table 10, the students' smoking habits were influenced to some extent by their parents' smoking habits but less than was anticipated.

Smoking and Academic Ranking: The respondents were asked as to what position they thought they were in their class. This question relied totally on the discretion of the students since in today's educational system, pupils

Table 12
Respondents' Smoking habit by Friends' Smoking habit

Respondents' Smoking Habits	All smoke	Most smoke	Half smoke	Some smoke	None smoke	Total	Number
Boys							
Never smoked	2	9	11	44	34	100	729
Occasional smokers	2	14	15	43	26	100	657
Ex-smokers	4	17	13	45	21	100	447
Regular smokers	20	37	18	23	2	100	1024
Number	253	619	414	1037	534	100	2857
Girls							
Never smoked	1	5	7	37	50	100	703
Occasional smokers	2	9	10	52	27	100	494
Ex-smokers	2	11	15	49	23	100	210
Regular smokers	17	39	21	22	1	100	533
Number	107	308	249	741	535	100	1940

attend different classes for each subject and, therefore, are seldom if ever in the same class at all times. Students were asked to give their answer in four ways:—

- (1) In the Top 5 of the class
- (2) In the Top 10 of the class
- (3) About the middle of the class
- (4) Below the middle of the class.

Table 11 shows the student's position in class, as defined by themselves and by their smoking habits.

There appears to be an association between school achievement and smoking behaviour such that non-smokers appear to be more highly placed in class than smokers. Submitting the table to a Chi-squared Test confirms the hypothesis that the association is highly significant:

$$\begin{aligned} X^2 &= 163.1221 \\ \text{d.f.} &= 9 \\ p &< 0.0005 \end{aligned}$$

While not many students were prepared to rank themselves below the middle of their classes, 53% of these were regular smokers, while 35% of these ranking themselves in the Top 5 had never smoked.

When regular smokers are examined versus students who have never smoked, we found that while only 36% of all regular smokers rank themselves in either the Top 5 or Top 10, nearly half (49%) of those who have never smoked consider themselves to rank in either of these two positions.

Smoking and Peer Group: Six out of ten of those who had ever smoked indicated that they obtained their first cigarette from a friend.

The question: "How many of your friends smoke?" was posed on the questionnaire. A choice of five answers was provided.

Table 12 gives a cross-tabulation of the respondents' smoking habits by that of their friends.

Peer group influence is vitally important in the adolescent stage of development. Smokers and non-smokers appear to congregate in separate groups. Almost all of the friends of regular smokers also smoke to some degree. This holds true for boys and girls. Whereas in the case of boys one third of the friends of non-smokers are also non-smokers, fifty per cent of the friends of female non-smokers are also non-smokers. It is debatable whether smoking is itself an important factor in choosing one's friends or whether it is merely one of several traits which influence a sense of group identity.

Desire to Stop Smoking: In Table 13 (a) and (b) we show the answers of regular smokers to the question: "Do you want to stop smoking?" by sex in (a) and for age in (b).

Table 13 (a)

Do you want to Stop Smoking? (by sex)

Sex		Yes	No	Number (= 100%)
Boy	%	62	38	1021
Girl	%	55	45	530
Total	%	59	41	1551

Table 13 (b)

Do you want to Stop Smoking? (by age)

Age		Yes	No	Number (= 100%)
12	%	67	33	90
13	%	66	34	263
14	%	59	41	414
15	%	59	41	349
16	%	55	45	263
17	%	50	50	133
18	%	65	35	37
Total	%	59	41	1549

There is a sharp contrast between the percentage of girls and boys who want to stop smoking. Among regular smokers, 62% of boys, but only 55% of girls want to give up smoking. We have already shown above that the percentage of girls who smoke cigarettes is on the increase when compared with the 1970 survey. However, it must be borne in mind that boys smoke more cigarettes per week in each age group than girls.

A declining percentage of smokers want to stop smoking as they get older. At the age of seventeen years those who wish to stop and those who wish to continue are of equal proportions. By comparing this information with Table 9 one can see that those who smoke in late adolescence are in a minority, but are more confirmed in the habit and more likely to continue.

Table 14

Percentage of drinking *and* taking drugs or *not* drinking and not taking drugs by smoking habit

Smoking Habit	Drinkers <i>and</i> had taken drugs	Non drinker <i>and</i> had not taken drugs
Never smoked	1%	41%
Occasional smokers	4%	15%
Ex-smokers	6%	13%
Regular smokers	19%	7%

It can be seen from Table 14 that the student who never smoked was also more likely to be a non-drinker who had never experimented with drugs. Almost one in five of the regular smokers were also drinkers who had experimented with drugs.

Conclusion

It is disappointing that such a high percentage of boys commence smoking and at such an early age, and this despite the large number of educational programmes and health campaigns carried out by the Health Education Bureau the Irish Cancer Society and many organisations and voluntary bodies, encouraging people to stop and/or not to commence smoking. This situation becomes even more serious when one examines the increased pattern of smoking among girls since the 1970 survey. There has been an increase of almost 50% in the number of regular smokers in the past decade.

Peer group influence is a major factor in the decision to smoke. The ethos of the time, which promotes equality and liberation, may confuse smoking as part of the liberation process of youth, more especially of girls. The fact that there was a correlation between smokers, alcohol drinkers and those who had experimented with drugs³ may be an indication of a youth culture. Such a culture places a value on such things, without consideration of the dangers to health and life.

While primary prevention is widely acknowledged as the most desirable, the findings of the study provokes one to consider whether sufficient effort is directed at primary prevention, specifically at our younger school-going children. New strategies in our anti-smoking campaigns, which are closer in line with the values of youth, need to be devised. Fear of premature death in the distant future may have little relevance for second level students of today. The financial cost, the anti-social, personal hygiene or impairment to sporting performance approach may be more appropriate means to use in trying to prevent youth from smoking and/or to give up smoking.

One of the more encouraging findings to emerge almost by way of bonus from the study was the keen interest shown by the students in the study and their desire for information as observed by the interviewers. Such information is urgently needed if the 1990 survey results are

not to produce even higher prevalence of tobacco smoking, alcohol consumption and drug abuse among the school-going population.

References

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