Smoking among schoolchildren

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SUMMARY. As part of its health education programme, the Irish Cancer Society sponsored studies of the smoking habits of Dublin schoolchildren in the late 1960s and early 1970s. It was decided to review the situation a decade later, and accordingly the Health Education Bureau, the Medico-Social Research Board and the Irish Cancer Society funded a survey of smokers among Dublin post-primary schoolchildren in 1981.

The prevalence of smoking among schoolchildren is still at a high level, and the main change over the last 10 years has been the fact that girls have almost caught up with the boys. It was hard to evaluate the effect of health education over the decade. Although many of the 'smoking' students wanted to give up smoking the reason was not long-term health. In fact, concentrating on the 'cancer/shorten life' effects of smoking may be counterproductive and anti-smoking campaigns should perhaps stress the immediate benefits of giving up smoking—better breathing, increased ability for sport, saving of money, and so on.

Introduction

EACH year many deaths and much suffering are self-inflicted owing to what has been referred to as 'health-shunning' behaviour. This is behaviour which if indulged in over a long time may cause illness and, for some, death. Two of the most important types of antihealth behaviour are smoking and alcohol abuse. In a parliamentary answer, a British minister of State stated: 'The health risks of smoking cigarettes are well known. It is the single most preventable cause of death and disease in the United Kingdom, responsible for at least 50,000 early deaths each year. It costs the National Health Service about £150 million per annum to treat smoking-related disease and it loses the country something like 50 million working days each year.'

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In the Republic of Ireland the tobacco industry spends close to £3 million each year to persuade the public to smoke, not counting its expenditure on advertising in foreign journals and newspapers. The Irish Government collects IR£280 million (1982 estimate) from taxes on tobacco. Conversely, the same Government has to spend large amounts of money in coping with the problem produced by smoking, and while it is difficult enough to estimate the cost in financial terms it is the cost in human misery and suffering that is of most concern.

As part of its health education programme, the Irish Cancer Society sponsored a study of the smoking habits of Dublin schoolchildren in 1967;[1] this was followed by a further survey of Dublin schools in 1970,[2] and a rural schools survey in 1972.[3] Ten years later it was decided to review the situation in order to ascertain whether the smoking habits of schoolchildren had changed a decade later. Accordingly, the Health Education Bureau, the Medico-Social Research Board and the Irish Cancer Society funded a survey of smokers among Dublin post-primary schoolchildren in 1981.

Method

A random sample of Dublin post-primary schools was taken and within each selected school all pupils were asked to fill in a simple questionnaire. Over 5,000 students were included.

One of the authors (A.O'R.) supervised the interviewing. Specially briefed interviewers were present at the sessions to answer queries. The teachers were asked to leave the classroom and it was stressed to the pupils that all the information was confidential, no names would be put on the questionnaires. As well as questions on smoking, there was also a section on alcohol and drug usage. In fact, less than 20 questionnaires out of the 5,000 plus were unusable. Students took a great interest in the study, and indeed the demand for information was an outstanding feature of the whole exercise.

Results

Table 1 indicates the percentage of regular smokers in the 1981 survey compared with the 1970 and 1972 studies. For the purpose of the study, a regular smoker was defined as someone who smoked at least one cigarette regularly per week. It can be seen that the number of regular smokers among the boys had changed little in the decade but that there had been a remarkable increase in the proportion of girls smoking,

Table 1. Percentage of regular smokers by age and sex.

Survey	Age (years) Under 12	13	14	15	16	17	18+	All ages	(n=100%)
Dublin schools 1981									
Boys	*21*	*31*	*39*	*37*	*32*	*31*	*46*	*34*	3,068
Girls	*10*	*18*	*29*	*27*	*32*	*34*	*28*	*26*	2,085
Dublin schools 1970									
Boys	*25*	*24*	*33*	*38*	*45*	*44*	*47*	*35*	2,710
Girls	*3*	*9*	*18*	*25*	*28*	*29*	*28*	*18*	1,792
Rural schools 1971[3]									
Boys	*14*	*15*	*21*	*30*	*36*	*41*	*39*	*25*	2,897
Girls	*2*	*7*	*11*	*13*	*21*	*19*	*19*	*13*	2,853

Table 2. Percentage of students who had never smoked.

	Age (years) Under 13	13	14	15	16	17+	All ages
Boys	*40*	*27*	*25*	*24*	*22*	*24*	*26*
Girls	*63*	*50*	*35*	*31*	*27*	*23*	*37*

Table 3. Percentage of regular and occasional smokers.

	Age (years) Under 13	13	14	15	16	17+	All ages
Boys	*43*	*56*	*61*	*58*	*62*	*61*	*58*
Girls	*29*	*40*	*53*	*57*	*63*	*64*	*52*

Table 4. Percentage smoking habit by sibling's habit.

Smoking habit	Girls: Sibs smoke	Girls: Sibs do not smoke	Boys: Sibs smoke	Boys: Sibs do not smoke
Never	*21*	*52*	*17*	*35*
Tried	*13*	*10*	*16*	*16*
Occasional	*28*	*25*	*22*	*26*
Regular	*38*	*13*	*45*	*23*
Total	*100*	*100*	*100*	*100*
(N)	(1,006)	(1,034)	(1,520)	(1,456)

and this is particularly marked at ages below 15 years. A hopeful sign among the boys was the decrease in smokers aged 16 and 17 years; the reason for this decrease is not clear and would require more research.

Of the students who were classified as having 'never smoked' (Table 2), we see that just over one quarter (26 per cent) of the boys and 37 per cent of the girls had never smoked, but by the age of 17 years more girls than boys had experimented with smoking.

When the occasional smokers were included with regular smokers, the high level of smoking at all age groups could be seen (Table 3). The occasional smokers claimed that they smoked only in situations like parties or when on holiday.

Among both boys and girls there appeared to be a definite influence exerted by brothers and sisters (Table 4). In households where siblings smoked, both boys and girls were liable to smoke—45 per cent of boys and 38 per cent of girls were regular smokers in these circumstances. Conversely, where siblings did not smoke, more of the respondents were liable to be nonsmokers. This was particularly true of girls—in households where their siblings were nonsmokers over half of the girls (52 per cent) had never smoked.

In this study, on the other hand, parental habit in itself did not appear to exert much influence, though there was a slightly positive association between both parents smoking and the child being a regular smoker (Table 5).

There was more influence from peers, as is vividly demonstrated in Table 6. Where all their friends smoked, over 80 per cent of boys and girls were regular smokers; and there was a significant and linear trend through each category such that where none of their friends smoked, only 1 per cent of girls and 4 per cent of boys were regular smokers. Conversely, there was a marked trend among non-smokers and their friends: where none of their friends smoked, 65 per cent of girls and 46 per cent of boys had never smoked themselves; where all their friends smoked, only 4 per cent of girls and 7 per cent of boys had remained nonsmokers.

In answer to the question 'Do you think that smoking affects your health?' 90 per cent of students stated that it did affect health in some manner (Table 7). Over half of all the smokers (62 per cent of boys and 55 per cent of girls) said that they would like to stop smoking. Their reasons for wanting to stop are listed in Table 8.

Discussion

Children experiment with cigarettes from an early age. In a survey of over 300 10–12-year-old schoolchildren,[4] 16 per cent of boys and 7 per cent of girls admitted to having tried their first cigarette when they were aged 6 years or younger. Interviews[5] with mothers revealed that many children play with and pretend to smoke real and sweet cigarettes before they are even 5 years old. In the Dublin 1981 study, 16 per cent of boys claimed that they had first smoked before they were 8 years old and a third (33 per cent) had smoked before the age of 10 years; among girls these figures were 6 per cent and 15 per cent respectively. However, it is not until adolescence that smoking becomes commonplace.

The occasional smokers may give up the habit or, as is much more probable, go on to become regular smokers. McKennell and Thomas[6] found that only 2 per cent of

Table 5. Percentage smoking habit by parental habit.

Smoking habit	Girls				Boys			
	Both parents smoke	Father only	Mother only	Neither smoke	Both parents smoke	Father only	Mother only	Neither smoke
Never	*37*	*36*	*38*	*36*	*29*	*26*	*24*	*25*
Tried	*11*	*12*	*11*	*11*	*16*	*16*	*16*	*16*
Occasional	*20*	*27*	*24*	*31*	*19*	*22*	*24*	*30*
Regular	*32*	*25*	*28*	*21*	*36*	*35*	*35*	*29*
Total	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*
(*N*)	(507)	(509)	(314)	(745)	(879)	(799)	(505)	(863)

Table 6. Percentage smoking habit by friend's smoking habit.

Smoking habit	Girls					Boys				
	All friends smoke	Most	Half	Some	None	All friends smoke	Most	Half	Some	None
Never	*4*	*11*	*21*	*35*	*65*	*7*	*11*	*18*	*31*	*46*
Tried	*5*	*8*	*13*	*14*	*9*	*7*	*12*	*14*	*19*	*18*
Occasional	*8*	*14*	*21*	*35*	*25*	*6*	*15*	*24*	*27*	*32*
Regular	*83*	*67*	*45*	*16*	*1*	*81*	*62*	*44*	*22*	*4*
Total	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*
(*N*)	(107)	(303)	(249)	(741)	(535)	(253)	(619)	(414)	(1,037)	(534)

smokers were able to limit themselves to occasional smoking, suggesting that this group is at considerable risk of becoming regular smokers.

It is clear that the main change over the last 10 years has been the fact that girls have almost caught up with the boys in smoking—perhaps one of the less desirable consequences of changing attitudes and sex equalization.

Influence of family and friends

It has been known for a long time that children whose parents and/or siblings smoke are more likely to be smokers than children whose parents and/or siblings do not smoke. However, the 1981 survey was in marked contrast to the Dublin surveys of 1968 and 1971 where parental smoking habit was found to be significantly associated with respondents' habits. It could be a sign of the changing times that children are less influenced by parents than by their own peers. Peer example is extremely important either by helping to initiate the habit or reinforcing it. It is during adolescence that peer pressure to smoke is the greatest. Bynner[7] reported that roughly 50 per cent of the boys in his study admitted coming under pressure to smoke from their friends and that this pressure increased between 11 and 15 years of age. The majority of children who smoke obtain their first cigarette from a friend. It would seem that in the company of smokers many adolescents find it difficult to resist the offer of a cigarette.

Table 7. Percentage replies on health effects of smoking.

	Never smoked	Tried	Occasional smoker	Regular smoker
Cancer	*37*	*40*	*36*	*32*
Cough	*30*	*26*	*29*	*34*
Bad for sport/ slows you down	*2*	*10*	*10*	*13*
Can kill you	*19*	*16*	*17*	*14*
Other physical effects	*8*	*6*	*7*	*7*
Social factors	*3*	*1*	*1*	*
Other	*1*	*1*	*	*
Total	*100*	*100*	*100*	*100*
(*N*)	(1,347)	(636)	(1,097)	(1,239)

*Less than 0.5 per cent.

Health education

Much of the anti-smoking literature stresses the deleterious health effects of smoking but it is only partly successful.

It appears that the health education programmes have been successful in getting across the message that smoking can cause cancer and shorten one's life. Most respondents gave these two health effects. However, very few of them seemed to identify coronary heart disease with smoking.

Given that about one third of all respondents stated that smoking 'makes you cough' and a tenth stated that

Table 8. Percentage reasons for wanting to stop smoking.

	Boys				Girls			
	Under 16	16	17+	All ages	Under 16	16	17+	All ages
Cancer	3	3	4	3	7	2	6	6
Cough	8	7	14	8	5	10	11	7
Bad for sport	20	20	18	19	10	18	3	11
Can kill you	6	3	2	5	6	10	9	7
Other physical effects (e.g. bad breath, stained fingers)	47	34	29	45	59	32	19	47
Social factors	3	1	0	2	4	7	3	5
Money	13	32	33	18	9	21	49	17
Total	100	100	100	100	100	100	100	100
(N)	(384)	(72)	(51)	(507)	(165)	(62)	(35)	(262)

it is 'bad for sport and slows you down', antismoking campaigns might be advised to stress these more immediate aspects rather than the long-term ones of cancer and death, especially as adolescents glibly discount future events.

Comparing the reasons why smokers want to give up with their answers to the general question on why smoking is bad for one shows that, although the 'cancer' message has got across, it is not of importance to adolescents.

Conclusions

It is sad to record that the prevalence of smoking among post-primary schoolchildren is still at a high level, even though there are signs of a decrease in smoking among the adult population. The levels of smoking for girls are nearly as high as those for boys, a phenomenon of the past decade which is possibly due to the changing position of women in our society.

It is hard to evaluate the effect of health education over the decade; maybe the position would have been far worse if the health education programmes had not been available. Undoubtedly the message that smoking affects your health has got across, although the association between smoking and coronary heart disease seems to have been missed. Although it is encouraging that so many of the 'smoking' students want to give up smoking, the reason is not long-term health. Antismoking campaigns should perhaps concentrate on the immediate benefits of giving up smoking—better breathing, good for sport, saving of money, no bad breath—rather than stress the long-term effects. In fact, concentrating on the 'cancer/shorten life' effects of smoking may be counterproductive and induce the 'it can't happen to me' attitude in adolescents. Health education should be made pertinent to the adolescent's lifestyle and timescale.

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Muscle cramps

Muscle cramps are painful and common in elderly patients but have largely escaped medical investigation. Quinine sulphate is usually the sole drug prescribed, even though firm evidence for its efficacy is not available. The results of a double-blind crossover study showed that quinine was significantly superior to placebo in decreasing the number, severity and duration of nocturnal cramps.

Source: Jones K, Castleden CM. A double-blind comparison of quinine sulphate and placebo in muscle cramps. *Age and Ageing* 1983; **12:** 155.