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**CONTROL OF ADOLESCENT SMOKING**

# Smoking, school achievement and educational aspirations among Scottish adolescents

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This report examines smoking among Scottish adolescents and its association with school achievement, educational aspirations and attitudes toward school. The data were collected in 1998 from a sample of 1,724 fifteen-year-old Scottish secondary school students, as part of the EC-funded project, *Control of Adolescent Smoking (CAS)*.

- ~ A highly significant association was found between adolescents' own reports of their academic achievement and their smoking status. Those who reported doing well at school were less likely to be smokers.
- ~ A highly significant association was found between young people's reports of their plans for the future and their smoking status. Smokers were more likely than non-smokers to have low aspirations for their future education.
- ~ A significant association was found between adolescents' smoking status and their attitudes towards their school. Smokers were significantly more likely than non-smokers to have negative feelings about their school.
- ~ Smokers were significantly more likely than non-smokers to have skipped classes four days or more in a single term.

## Introduction

A number of previous research studies have shown that students who do well in school, who have high academic aspirations and who are committed to school are less likely to smoke than their peers who do not have these characteristics.<sup>1</sup>

Findings are presented here which show the associations between smoking and young people's current academic achievement, their plans for the future, their attitudes toward school and teachers and the number of days they skipped school in a single term. Adolescents' performance at school and their own plans for the future are likely to be related to their future socio-economic status and thus may also be an indicator of their likelihood to smoke in the future. Data on educational indicators were gathered in 1998 under the auspices of the Scottish component of the *Health Behaviour in School-aged Children: a WHO cross-national study (HBSC)*.<sup>2,3</sup> Data on smoking was

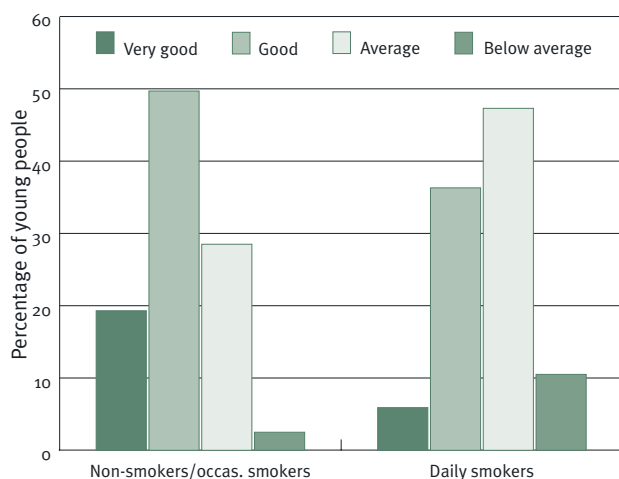
gathered from the same sample of young people as part of the EC-funded *Control of Adolescent Smoking (CAS)* study.

In the tables and graphs shown below, daily smokers are those adolescents who reported smoking every day; occasional smokers are those who reported smoking less often than every day; and non-smokers are those who said they did not smoke.

## Academic achievement

Young people were asked, "In your opinion, what does your class room teacher(s) think about your school performance compared to your classmates?" Responses indicated that the smoking status of Scottish 15-year-olds was significantly associated with their academic achievement at school ( $p < 0.001$ ). Non-smokers and occasional smokers were more likely than daily smokers to report their academic achievement as "very good" or "good". Figure 1 shows that 19.3% of non-

**Figure 1: Association between adolescent smoking status and self-reported academic achievement**

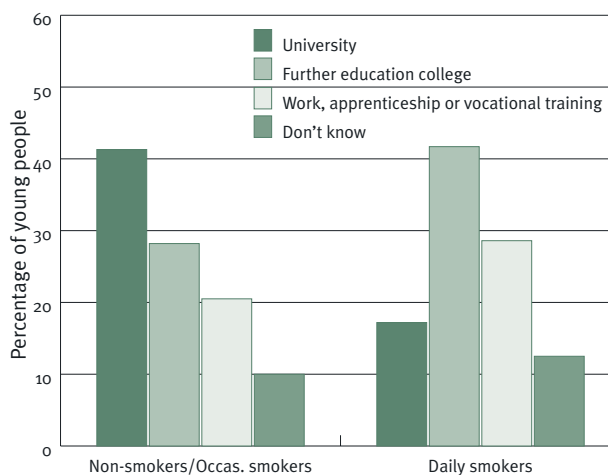


Because of the small numbers of occasional smokers in some categories, occasional smokers have been categorised together with non-smokers and compared to daily smokers.

smokers/occasional smokers reported their academic achievement as “very good”, while only 5.9% and of daily smokers said the same. Conversely, only 2.5% of non-smokers/occasional smokers reported having “below average” academic achievement, while 10.5% of daily smokers said the same.

One possible explanation for the relationship between academic achievement and smoking status may be that young people who report doing well at school are more likely to come from higher socio-economic classes.<sup>4</sup> In fact, our data showed that young people’s academic achievement was significantly associated with their parents’ socio-economic status. However, multivariate analysis showed that even after parental social class was taken into account, young people who reported lower academic achievement were more likely to be daily smokers than non-smokers.

**Figure 2: Association between adolescent smoking status and plans for the future.**



Because of the similarity in profiles between occasional smokers and non-smokers, occasional smokers have been categorised together with non-smokers and compared to daily smokers.

### Plans for the future

Young people were asked, “What do you think you will be doing when you leave school?” Responses (See Figure 2) indicated that there was a highly significant association between young people’s smoking status and their plans for the future ( $p < 0.001$ ). Results showed that 41.3% of non-smokers and 42.9% of occasional smokers were planning to go to University compared to 17.2% of daily smokers. On the other hand, Table 1 shows that among daily smokers, girls were more likely to plan to go on to a further education college, and boys were more likely to plan to begin work or vocational training immediately after school.

Only one in ten university-bound young people were daily smokers at age 15, compared to nearly one-third of adolescents who were not planning to go to university. Although young people’s intentions to go to university were significantly

**Table 1: Association between adolescent smoking status and plans for the future.**

Adolescents' plans for the future	Male (%)			Female (%)			Total (%)		
	Non-smokers	Occas smokers	Daily smokers	Non-smokers	Occas smokers	Daily smokers	Non-smokers	Occas smokers	Daily smokers
University	35.7	42.6	13.4	46.8	43.0	19.7	41.3	42.9	17.2
Further education college	23.4	16.7	26.2	32.9	35.5	52.3	28.2	28.6	41.7
Work, apprenticeship/ vocational training	29.5	31.5	44.3	11.6	14.0	17.9	20.5	20.4	28.6
Don't know	11.4	9.3	16.1	8.7	7.5	10.2	10.0	8.2	12.5
Total (n)	(589)	(54)	(149)	(596)	(93)	(218)	(1185)	(147)	(367)
Significance (p)		***			***			***	

\*\*\* –  $p < 0.001$ .

associated with their parents' socio-economic status, multivariate analysis showed that even after parental social class was taken into account, adolescents who did not intend to go to university were more than three times as likely to be daily smokers than those who were university-bound. It is not possible on the basis of cross-sectional data to say anything about the causal direction of the relationship between smoking and young people's plans for the future. Nevertheless, this finding suggests that, at age 15, young people with lower aspirations for their future education were more likely to be daily smokers than those with high aspirations.

**Attitude toward school and teachers**

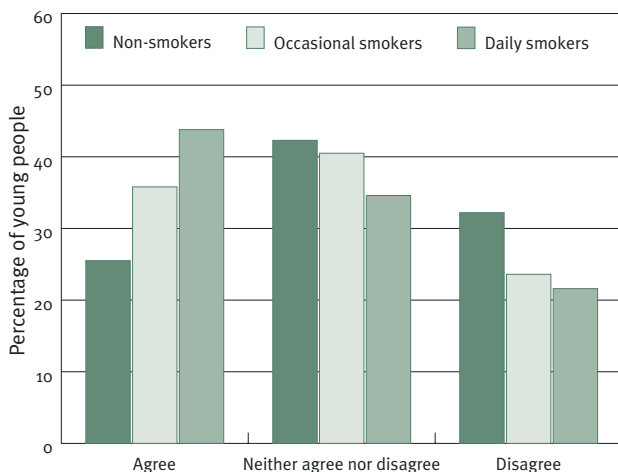
Figures 3–6 show highly significant associations between smoking status and adolescents' perceptions of the social environment at their school ( $p < 0.001$ ). Occasional and daily smokers were significantly more likely than non-smokers to agree with the statements: "Pupils are treated too strictly in this school,"

"My teachers expect too much from me," and to disagree with the statements: "Our school is a nice place to be," and "I feel I belong at this school."

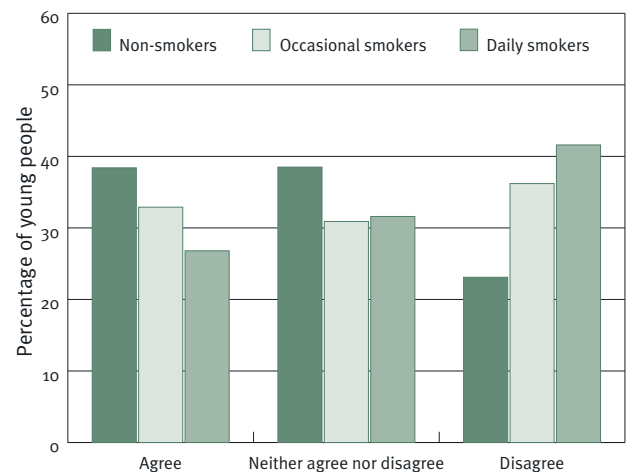
For example, Figure 3 shows 25.5% of non-smokers agreed with the statement, "Pupils are treated too strictly in this school," compared to 35.8% of occasional smokers and 43.8% of daily smokers. The pattern shown in Figure 4 is similar. Figure 5 shows that 23.1% of non-smokers disagreed with the statement, "Our school is a nice place to be," compared to 36.2% of occasional smokers and 41.6% of daily smokers. Again, the pattern shown in Figure 6 is similar.

Taken together, these findings suggest that smokers were more likely than non-smokers to have negative feelings about their school. Alternatively, bearing in mind that it is not possible to determine the direction of cause and effect, one might also say that those young people with negative feelings about their school were more likely to smoke than those with positive feelings.

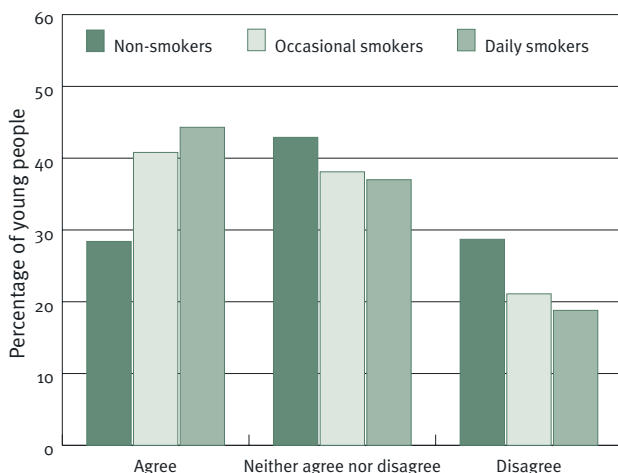
**Figure 3: Association between smoking status and responses to the statement, "Pupils are treated too strictly in this school."**



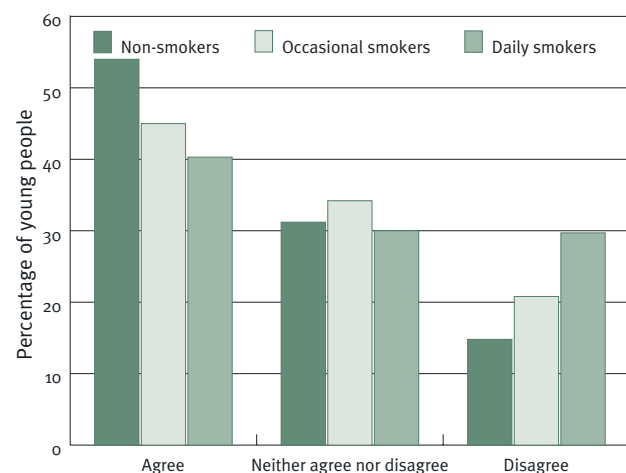
**Figure 5: Association between smoking status and responses to the statement, "Our school is a nice place to be."**



**Figure 4: Association between smoking status and responses to the statement, "My teachers expect too much of me."**



**Figure 6: Association between smoking status and responses to the statement, "I feel I belong at this school."**



## Truancy

Truancy was also found to be significantly related to adolescent smoking status. Young people were asked how many days they had skipped classes or school in the current term. While there was no difference between boys and girls in the number of days they had skipped school (see Table 2), there was a significant difference between smokers and non-smokers ( $p < 0.001$ ). Table 3

**Table 2: Percentage of Scottish 15-year-olds who reported skipping classes in a single term.**

Number of days skipped	Male (%)	Female (%)
0 days	63.8	62.6
1 day	9.3	11.9
2–3 days	11.1	12.0
4 days or more	15.8	13.6
Total (n)	(803)	(911)
Significance (p)	n.s.	

**Table 3: Association between adolescent smoking status and reported skipping of classes in a single term**

Number of days skipped	Male (%)			Female (%)			Total (%)		
	Non-smokers	Occ. smokers	Daily smokers	Non-smokers	Occ. smokers	Daily smokers	Non-smokers	Occ. smokers	Daily smokers
0 days	73.1	48.2	32.9	74.1	56.5	33.2	73.6	53.4	33.1
1 day	7.7	21.4	11.2	10.1	17.4	14.3	8.9	18.9	13.0
2–3 days	10.9	7.1	13.2	9.8	21.7	13.8	10.4	16.2	13.6
4 days or more	8.2	23.2	42.8	6.0	4.3	38.7	7.1	11.5	40.4
Total (n)	(595)	(56)	(152)	(602)	(92)	(217)	(1197)	(148)	(369)
Significance (p)	***			***			***		

\*\*\* –  $p < 0.001$ .

## Credits

This report is taken from a larger report entitled, *Control of Adolescent Smoking in Scotland*. The full report is available from CAHRU at the address shown at right.

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shows that, among non-smokers, 8.2% of boys and 6.0% of girls reported skipping classes four days or more, while among daily smokers, 42.8% of boys and 38.7% of girls said the same. Conversely, three-quarters of non-smokers (73.1% of boys and 74.1% of girls) reported that they had not skipped classes at all in the last term, whereas only one-third of smokers (32.9% of boys and 33.2% of girls) said the same.

## References

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component of the *Health Behaviour in School-aged Children: a WHO Cross-National Study (HBSC)*. The opinions expressed in this report are those of the authors and not the funders.

## Further information about the CAS study is available from the project co-ordinator:

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