

# More than words? The status and impact of smoking policies in Scottish schools

**DAWN GRIESBACH, JO INCHLEY and CANDACE CURRIE**

*Child and Adolescent Health Research Unit, The University of Edinburgh, UK*

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## SUMMARY

*The aim of this study was to investigate the current status of smoking policies in Scottish schools, and the relationship between policy status, enforcement of smoking restrictions and perceptions of smoking behaviour among pupils and teachers. A representative sample of 15-year-old school pupils from 77 Scottish secondary schools was surveyed in 1998 regarding their perceptions of smoking in several locations within and outside the school building. Two staff members from each school were also surveyed regarding school smoking policies for pupils and teachers, the nature of the school's smoking restrictions, and the extent to which the restrictions were enforced. The results showed that more schools had a written policy on teacher smoking than on pupil smoking. All schools in the sample banned smoking by pupils, but the majority allowed smoking by teachers in restricted areas. Irrespective of the type of policy or restrictions on smoking,*

*pupils reported seeing smoking among both pupils and teachers on school premises in all of the sample schools. Whether or not a school had a written policy appeared to be unrelated to pupil smoking in the toilets or teacher smoking outdoors on school premises. However, pupils were less likely to be aware of pupils smoking outdoors and teachers smoking in the staff rooms in schools where there were written policies on pupil and teacher smoking, respectively. Consistent enforcement of a ban on pupil smoking was associated with lower levels of perceived smoking among pupils. Where a complete ban on teacher smoking existed, smoking among teachers was seen less often in the staff rooms, but more often in outside areas on school premises. The results have implications for the use of policy in promoting a healthy school environment.*

*Key words:* health promoting school; school policy; smoking

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## INTRODUCTION

Smoking continues to be the most significant cause of preventable ill health and premature death in Europe. The World Health Organization has estimated that, if current smoking trends continue, the worldwide mortality from tobacco is likely to rise from about four million deaths a year in 1998 to about 10 million a year in 2030 (WHO, 1999).

Since most adult regular smokers begin smoking before the age of 18 (WHO, 1993a; Stead *et al.*, 1996; Lantz *et al.*, 2000), there have been substantial health promotion efforts, mainly within schools, to prevent smoking onset among adolescents (Bowen *et al.*, 1995). However,

traditional methods of classroom-based education have been shown to be ineffective in promoting sustained behavioural change (Bruvold, 1993; Nutbeam, 1995). Evidence suggests that programmes are more successful when they take into account wider social influences such as peer group, family, media and advertising, although the impact of such programmes appears to be short-term (Stead *et al.*, 1996).

More recently, health promotion initiatives have sought to address adolescent smoking at an organizational and environmental, as well as an individual level. School policy is often seen as an important component of this broader approach,

as a means to promote healthy environments and to reinforce classroom teaching through consistency of messages across the school (Thorburn Bird *et al.*, 1994; Stead *et al.*, 1996; Denman *et al.*, 1999).

Studies have shown that smoking policies can be an effective tool for influencing smoking behaviour in a workplace setting (Borland *et al.*, 1990; Gottlieb *et al.*, 1990). However, evidence for the effectiveness of school-based smoking policies is mixed. Smoking policies in schools vary greatly, both in terms of their status and their perceived impact on smoking behaviour (Northrup *et al.*, 1998; Denman *et al.*, 1999; Distefan *et al.*, 2000). Bowen *et al.* found in a study in the US and Canada that almost two-thirds of schools banned student smoking but permitted employee smoking (Bowen *et al.*, 1995). Similarly, studies in the UK have found differences between pupil and staff smoking policies (Myers, 1989; Smith *et al.*, 1992; Hartland *et al.*, 1998; Goddard and Higgins, 1999). These differences in status between pupil and staff policies may partly reflect differences in aims. The aim of pupil smoking policies is to prevent or reduce smoking onset in young people, whereas smoking policies for school staff are usually intended to protect non-smoking staff from exposure to environmental tobacco smoke in the workplace. Staff smoking policies may also aim to limit modelling of smoking behaviour to pupils. However, differences in policies for staff and pupils create an inconsistency which may actually undermine health promotion efforts targeting adolescent smoking (Smith *et al.*, 1992; Bowen *et al.*, 1995). Recently there have been efforts to promote greater consistency through, for example, the use of smoke-free policies to ban smoking on school premises for both pupils and staff. However, progress towards smoke-free schools is often hindered by fears of alienating staff smokers (Hartland *et al.*, 1998; Reeder and Glasgow, 2000).

Many countries in Europe have taken steps to address these issues at a national level by enacting laws which prohibit or restrict smoking in public buildings, including schools. However, in some countries, anti-smoking legislation has been modified to allow staff to smoke in designated areas of the school building or on school grounds (Wold *et al.*, 2000). Additionally, because the implementation and enforcement of national smoking legislation usually takes place at the level of individual schools, there is scope for

considerable variation in smoking practices in schools, even in countries with very strict anti-smoking laws.

The present study was conducted in Scotland, where smoking accounts for one in five of all deaths annually (Scottish Office, 1999). While the proportion of adult smokers in the Scottish population has decreased over the last 15 years (Scottish Office, 1997), evidence reveals an opposite trend among adolescents. Between 1990 and 1998, Todd and colleagues found a significant increase in the proportion of 13- and 15-year-olds, both boys and girls, who reported having ever smoked, and in the proportion of 15-year-olds who reported smoking weekly and daily. Among 15-year-olds, smoking prevalence is significantly higher among girls than boys (Todd *et al.*, 1999).

Although Scotland has no national legislation concerning smoking in public buildings, a number of Scottish local authorities (town or regional councils) have established their own policies. In practice, however, responsibility for development and implementation of smoking policies in schools usually lies with the school management. In 1994, a handbook was produced in Scotland to give guidance to individual schools wishing to develop and implement a policy on smoking (ASH, 1994). However, follow-up evaluation highlighted a number of problems in the use of the handbook, including ineffective distribution by local authorities, misunderstanding by school staff of its purposes, and reluctance by school managers to establish a school smoking policy without local authority sanctions (Dewsbury and Shucksmith, 1996). While a recent survey of Scottish schools found that pupil smoking was banned in all schools and the majority had a policy for school staff (Goddard and Higgins, 1999), little is presently known about the enforcement of school smoking restrictions or the effectiveness of school-based smoking policies. This paper reports on the current status of smoking policy in Scottish schools and the impact of these policies with regard to perceived smoking practices.

## METHODS

### Data collection

The research described here was carried out as part of the European Commission-funded Control of Adolescent Smoking (CAS) study. The CAS study investigates the relationships between

national tobacco policies, school smoking policies and adolescent smoking in eight European countries. This paper presents data from Scotland only.

Data were collected from a sample of pupils and staff at secondary schools throughout Scotland. Pupil data collection was carried out as the Scottish component of the Health Behaviours of School-aged Children (HBSC): a WHO Cross-national Survey (Currie *et al.*, 1998). Cluster sampling was used, where the sampling unit was the school class. When cluster sampling is used, pupil responses cannot be assumed to be independent as pupils within the same class are more likely to be similar to each other than pupils in general. This can therefore produce higher standard errors, but level of precision of estimates can be maintained when the sample size is increased accordingly (Roberts *et al.*, 2000). This study took these issues into account when determining the minimum sample size, which this survey exceeds. A systematic random sample of 84 classes was selected, stratified by school type (state sector versus independent) and education authority. If any school was unwilling or unable to participate in the survey, another school from the same education authority was randomly selected. Participating schools were asked to select a mixed-ability class of 15-year-old pupils to take part in the survey. Data were collected in March–April 1998 through the use of self-completion questionnaires administered in school by the classroom teacher. Questionnaires were completed anonymously, placed in a blank envelope, and sealed by the pupil to ensure confidentiality. Every school that returned completed questionnaires received £50. Further details on the Scottish pupil

survey are described by Todd *et al.* (Todd *et al.*, 1999).

In addition to the pupil survey, a survey was carried out on two members of staff at each participating school, using self-completion questionnaires. Each school was asked to have one questionnaire completed by the head teacher or other senior administrator, and one by the teacher responsible for health education, as it was assumed that these individuals would know about the status of smoking policies at the school.

### Analysis

The aim of the study was to investigate the current status of smoking policies in Scottish schools, and the relationship between policy status, enforcement of smoking restrictions and perceptions of smoking behaviour among pupils and teachers. Specifically, the analysis sought to determine whether there was any difference in pupils' perceptions of smoking in the study schools depending on: (i) whether or not the school had written or informal smoking policies for both pupils and teachers; and (ii) the extent to which smoking restrictions in the school were enforced. Questions used in the survey are detailed in Appendix 1. For the purpose of analysis, schools were categorized using staff reports according to: (i) policy status; (ii) smoking restrictions; and (iii) enforcement of smoking restrictions (Figure 1). Information about policy status, smoking restrictions and enforcement practices is based on staff responses. Information about perceived smoking practices in schools is based on pupil responses.

#### 1 Policy status

- Written policy
- Informal policy
- Uncertain policy

#### 2 Smoking restrictions

- Smoking banned completely on school premises (indoors and outdoors)
- Smoking permitted in restricted areas

#### 3 Enforcement of smoking restrictions

- Always enforced
- Not always enforced

**Fig. 1:** School smoking policies and practices, as reported by school staff.

*School policy status*

Schools were grouped into three categories according to their policy status. Separate analyses were carried out on pupil smoking policies and on policies concerning teacher smoking. This paper does not report on policies for non-teaching staff or visitors. Schools were classified as having a written policy on pupil smoking or a written policy on teacher smoking if both staff respondents from the school said that it did. Similarly, schools were classified as having an informal (i.e. unwritten) policy, if both staff said that it did. Where there was disagreement between the two staff respondents, schools were classified as having an 'uncertain policy status'. There were no schools where both staff respondents said the school had no policies on teacher or pupil smoking.

*Smoking restrictions*

Staff were asked about smoking restrictions for both pupils and teachers on school premises. If both staff respondents from a school said that pupils or teachers were not permitted to smoke at all on the school premises (indoors or outdoors), the school was classified as having a complete ban on pupil or teacher smoking. All others were classified as schools where smoking was permitted in restricted areas.

*Enforcement of smoking restrictions in the school*

In order to determine the extent to which smoking restrictions were enforced in the school, staff were asked about the enforcement of restrictions on pupil smoking in the toilets and playground/other outdoor area, and about the enforcement of restrictions on teacher smoking in the staff room and outdoors on school premises in schools where teacher smoking was banned. Schools were considered to have 'restrictions always enforced' in these locations if both staff respondents agreed that the restrictions were always enforced. Where staff said that restrictions were not always enforced or where there was disagreement between staff, the school was classified as 'restrictions not always enforced'.

*Pupil perceptions of smoking inside and outside the school*

Perceptions of smoking on school premises were based on pupil reports. Pupil perceptions of pupil and teacher smoking inside and outside the school building were measured on the basis of a series

of questions concerning smoking in particular locations: 'how often do you see or know about teachers/pupils smoking in [location]? (About every day/sometimes/never/don't know)'. Data on pupil smoking behaviour are presented for the toilets and the playground/outdoor areas only since these were the two main areas in which pupil smoking was perceived to occur. Data on teacher smoking behaviour are presented for the staff room and outdoors on school premises only since these were the main areas in which teacher smoking was perceived to take place.

**Statistical analysis**

Data analysis was carried out using SPSS version 8.0. Associations between variables were tested using  $\chi^2$  tests, and statistical significance is reported at three levels:  $p < 0.05$ ,  $p < 0.01$  and  $p < 0.001$ .

**RESULTS**

Eighty-one out of 84 randomly selected secondary schools throughout Scotland agreed to participate in the study (school response rate 96.4%). Completed questionnaires were returned from 1727 pupils. Assuming an estimated average class size of 25 at each school, the pupil response rate for this survey was 82.2%. Of the 81 schools that agreed to participate in the survey, two returned no staff questionnaires and two returned only one staff questionnaire. Therefore, all staff and pupil data for these four schools were removed from the analysis, resulting in a sample of 1644 15-year-old pupils and 154 staff from 77 schools.

**Smoking policy status, smoking restrictions and enforcement of restrictions**

Staff reports indicated that the status of both pupil and teacher smoking policies in the schools varied (Table 1). Thirty-three schools (42.9%) had a written policy on pupil smoking and 23 schools (29.9%) had an informal policy. None of the schools had no policy on pupil smoking, but in 21 schools (27.3%) there was disagreement between the staff about the school's policy status. Forty schools (51.9%) had a written policy on teacher smoking and 11 schools (14.3%) had an informal policy. Again, none of the schools had no policy on teacher smoking, but there was disagreement between the staff respondents about

**Table 1:** Policies and restrictions on both pupil and teacher smoking, as reported by staff

	Restrictions on pupil and teacher smoking					
	Smoking banned on school premises		Smoking permitted in restricted areas		Total	
	<i>n</i> (schools)	%	<i>n</i> (schools)	%	<i>n</i> (schools)	%
Policy status re: pupils' smoking						
Written policy	33	42.9	0	0.00	33	42.9
Informal policy	23	29.9	0	0.00	23	29.9
Uncertain policy status	21	27.3	0	0.00	21	27.3
Total	77	100.0	0	0.00	77	100.0
Policy status re: teachers' smoking						
Written policy	16	80.0	24	42.1	40	51.9
Informal policy	1	5.0	10	17.5	11	14.3
Uncertain policy status	3	15.0	23	40.4	26	33.8
Total	20	100.0	57 <sup>a</sup>	100.0	77	100.0

<sup>a</sup>Includes one school for which staff respondents disagreed about whether smoking by staff was permitted on school premises.

**Table 2:** Enforcement of the restrictions on pupil and teacher smoking, as reported by staff

	Schools			
	Restrictions always enforced		Restrictions not always enforced	
	<i>n</i>	%	<i>n</i>	%
Ban on pupil smoking:				
in the toilets/cloakrooms	37	48.1	40	51.9
in playground/other outdoor areas	22	28.6	55	71.4
Ban on teacher smoking:				
in staff room	15	75.0	5	25.0
outdoors on school premises	4	20.0	16	80.0

the school's policy status in 26 schools (33.8%). Twenty-one schools (27.3%) had written smoking policies for both pupils and teachers.

Analysis of smoking restrictions showed that, irrespective of the school's policy status, all schools banned smoking by pupils on school premises. On the other hand, smoking by teachers was banned in only 20 schools (Table 1). Of these, 16 (80%) had a formal written policy on teacher smoking. In the remaining 57 schools, staff smoking was restricted to designated areas such as the staff room or another area within the school building. Of these schools, 24 (42.1%) had a written policy, while a similar number (40.4%) had an uncertain policy status.

Enforcement of the ban on pupil smoking varied according to location (Table 2). Staff reported that the ban was always enforced in the toilets in almost half (48.1%) of the schools, but was always enforced in the playground/outdoor

areas in less than a third (28.6%) of the schools. Statistical analyses revealed that there appeared to be no relationship between pupil policy status and enforcement of pupil smoking restrictions. In the 20 schools where a ban on teacher smoking existed, staff reported consistent enforcement of the ban in the staff room in three-quarters (75.0%) of the schools, and outdoors on school premises in a fifth (20.0%) of the schools. No further statistical analysis was carried out on these data, as the numbers involved were too small.

### Smoking policies and perceptions of smoking practices

Irrespective of policy status, smoking was nevertheless perceived by pupils to occur among both pupils and staff on school premises in all schools in the study. In order to determine whether a school smoking policy for pupils was associated

with pupil smoking in school, we examined the relationship between school policy status and pupils' perceptions of smoking in the toilets and in the playground/outdoor areas (Table 3). There was no significant association between policy status and perceptions of pupil smoking in the toilets. There was, however, a significant association between policy status and perceptions of pupil smoking outdoors ( $p < 0.001$ ). In schools with a written policy, fewer pupils (59.0%) reported pupil smoking outdoors 'about every day' compared with schools with an informal policy (64.9%) or uncertain policy status (67.4%). Equally, pupils were more likely to 'never' see other pupils smoking in outdoor areas in schools with a written policy.

We then examined the relationship between the school's policy status on teacher smoking and pupils' perceptions of teacher smoking in the staff room and outdoors on school premises. There was a highly significant association between teacher policy status and perceptions of teacher smoking in the staff room. In schools with a written policy, fewer pupils (15.8%) were aware of smoking in the staff rooms 'about every day', compared with schools having an informal policy or uncertain

policy status (34.2 and 21.9%, respectively), and more pupils were 'never' aware of smoking in the staff rooms in schools where there was a written policy. No statistical association between teacher policy status and pupils' perceptions of teachers smoking outdoors on school premises was found.

### Enforcement of restrictions on pupil smoking and perceptions of pupil smoking

Perceptions of pupil smoking on the school premises also varied according to enforcement of smoking restrictions (Table 4). There was a highly significant association between enforcement of smoking restrictions in the toilets and perceptions of smoking among pupils in the toilets. In schools where restrictions were 'not' always enforced in the toilets, more pupils reported that pupils smoked in the toilets 'about every day' (38.3%) compared with schools where restrictions were always enforced in the toilets (25.9%). Similarly, a greater number of pupils reported that they 'never' saw or knew about smoking in the toilets in schools where restrictions were always enforced.

**Table 3:** Relationship between pupil and teacher policy status, as reported by staff, and pupils' perceptions of pupil and teacher smoking

How often do you see or know about ...	Status of policies on pupil and teacher smoking			<i>p</i>
	School has written policy (%)	School has informal policy (%)	Uncertain policy status (%)	
... pupils smoking in the toilets/cloakrooms?				
About every day	30.7	35.0	31.6	n.s.
Sometimes	30.6	29.3	32.7	
Never	25.9	24.1	23.9	
Don't know	12.8	11.5	11.8	
... pupils smoking in the playground/outdoor areas?				
About every day	59.0	64.9	67.4	<0.001
Sometimes	23.4	24.0	21.2	
Never	12.1	4.9	4.3	
Don't know	5.5	6.2	7.1	
... teachers smoking in the staff room?				
About every day	15.8	34.2	21.9	<0.001
Sometimes	19.2	27.9	26.2	
Never	21.2	12.2	18.3	
Don't know	43.8	25.7	33.6	
... teachers smoking outdoors on school premises?				
About every day	5.2	4.5	4.1	n.s.
Sometimes	10.7	10.0	8.8	
Never	44.8	52.0	51.5	
Don't know	39.3	33.5	35.5	

n.s., not significant.

**Table 4:** Relationship between enforcement of pupil smoking restrictions, as reported by staff, and pupils' perceptions of pupil smoking

How often do you see or know about ...	Restrictions always enforced at site (%)	Restrictions not always enforced at site (%)	<i>p</i>
... pupils smoking in the toilets/cloakrooms?			
About every day	25.9	38.3	<0.001
Sometimes	29.8	31.8	
Never	30.5	19.2	
Don't know	13.7	10.6	
... pupils smoking in the playground/outdoor areas?			
About every day	57.0	65.8	<0.001
Sometimes	24.1	22.4	
Never	10.5	6.5	
Don't know	8.4	5.3	

**Table 5:** Relationship between teacher smoking restrictions, as reported by staff, and pupils' perceptions of teacher smoking

How often do you see or know about ...	Smoking by teachers banned on school premises (%)	Teachers allowed to smoke in restricted areas (%)	<i>p</i>
... teachers smoking in the staff room?			
About every day	5.7	25.5	<0.001
Sometimes	10.2	27.0	
Never	32.4	14.3	
Don't know	51.8	33.2	
... teachers smoking outdoors on school premises?			
About every day	8.3	3.5	<0.001
Sometimes	18.1	7.2	
Never	36.8	51.9	
Don't know	36.8	37.4	

In schools where smoking restrictions were always enforced outside on school premises, fewer pupils (57.0%) reported that pupils smoked outdoors 'about every day' compared with schools where restrictions were not always enforced (65.8% of pupils). The association between enforcement of smoking restrictions and perceptions of smoking outdoors was also highly significant.

### Staff smoking restrictions and perceptions of staff smoking

The relationship between restrictions on teacher smoking and perceptions of smoking among teachers is shown in Table 5. The association between having a ban on teacher smoking and pupils' perceptions of teacher smoking in the staff room was highly significant. In schools where smoking among teachers was banned, very few pupils (5.7%) reported teachers smoking in the staff rooms 'about every day' compared with

schools where teachers were allowed to smoke in restricted areas (25.5% pupils). One-third (32.4%) of pupils in schools where teacher smoking was banned said that they 'never' saw teachers smoking in the staff room, and one-half (51.8%) said they 'didn't know' whether teachers smoked in the staff room.

A highly significant association ( $p < 0.001$ ) was also found between having a ban on teacher smoking and perceived teacher smoking outdoors on school premises, but this relationship showed a reverse pattern to that found in the staff rooms. In schools where teacher smoking was banned both indoors and outdoors on school premises, 8.3% of pupils said they were aware of teachers smoking outdoors on school premises 'about every day' and 18.1% said teachers 'sometimes' smoked outdoors, compared with 3.5 and 7.2% of pupils, respectively, in schools that allowed smoking in designated areas. In other words, a complete ban on staff smoking was found to be

associated with higher perceptions of teacher smoking outdoors on school premises than in schools where teachers were permitted to smoke in restricted areas of the school.

## DISCUSSION

This study shows that the status of smoking policies in Scottish schools currently varies considerably and that, for pupils, there is no relationship between the type of policy (written, informal or uncertain) and actual restrictions on smoking at school. Although smoking by pupils was banned in all of the 77 schools in this study, fewer than half reported that they actually had a formal, written policy on pupil smoking. While none of the schools reported having no policy on pupil smoking, there was a lack of agreement between the two staff respondents in a number of schools suggesting that, if a policy existed, its status and content was unclear to those people who should be involved in its implementation.

Policy status appeared to have a variable impact on actual pupil smoking practices in Scottish schools. No association was found between type of policy and smoking in the toilets but, in schools with a written smoking policy, fewer pupils reported seeing smoking among pupils in the playground/outdoors areas. This may be because a written policy leads to greater awareness of smoking restrictions, making pupils less willing to smoke in potentially visible areas.

Irrespective of policy status or the nature of smoking restrictions, pupils reported seeing other pupils smoking in all the study schools. Although all schools banned smoking by pupils on school premises, not all schools consistently enforced the ban. However, where the ban on pupil smoking was always enforced, perceptions of pupil smoking were significantly lower than in schools where the ban was not always enforced. This was the case for both outdoor areas and the toilets, suggesting that enforcement of restrictions may have a greater impact on pupils' smoking practices than does the existence of a smoking policy. This finding is in accordance with a recent survey of high school students in the United States, which found that school smoking bans were only effective in terms of reducing teenage smoking when they were strongly enforced (Wakefield *et al.*, 2000).

More schools had a formal written policy on teacher smoking than on pupil smoking. Previous

studies have found that schools are more likely to have a policy on pupil smoking than on staff smoking (Myers, 1989; Smith *et al.*, 1992; Bowen *et al.*, 1995; Hartland *et al.*, 1998). However, this may to some extent reflect variations in the definition of 'policy'. In the current study, a distinction is made between having a formal written policy and having restrictions on smoking behaviour which may or may not be based on a written document. Not all written policies on teacher smoking banned smoking altogether. In fact, schools with written policies on teacher smoking were more likely to restrict smoking to designated areas within the school building. The existence of a written policy on teacher smoking was associated with lower perceptions among pupils of teacher smoking in the staff rooms but appeared to be unrelated to perceptions of teacher smoking outdoors.

Smoking among teachers was banned completely in approximately one-quarter of the study schools, a finding which agrees closely with the results of a national Scottish survey undertaken in 1998 (Goddard and Higgins, 1999). The majority of schools that banned teacher smoking had a written policy, suggesting that such bans may require the formality of a written document in order to be implemented. Irrespective of the level of restrictions on teacher smoking, pupils reported smoking among teachers in all of the schools. However, the findings indicate that fewer pupils were aware of smoking in the staff room in schools where teacher smoking was banned compared with schools where it was not banned.

Interestingly, a complete ban on teacher smoking was associated with higher perceptions of smoking among teachers outdoors on school premises, compared with schools where smoking was permitted in restricted areas within the school building. Thus it would appear that where teacher smoking was not allowed indoors, teachers relocated to areas outside of the school building to smoke. These areas may be more hidden from fellow staff but are likely to be more visible to pupils. As a consequence, teachers may give out mixed messages about the acceptability of smoking to pupils. A similar result was found in a recent evaluation of a workplace smoking policy which banned smoking within buildings at a large Scottish University (Parry *et al.*, 2000). Employees who smoked relocated to the doorways and entrances of buildings and this was perceived to increase not only the visibility of smokers, but also exposure to environmental pollution for those entering and leaving buildings.



The issue of increased visibility of smoking is particularly significant in light of the current emphasis on the importance of the school environment in promoting and supporting healthy choices among pupils. This is a key component of the health promoting school model, which seeks to increase the effectiveness of classroom-based teaching by promoting consistency of messages throughout the whole school, taking into account the school ethos, the physical environment, staff health and the role of staff as exemplars in health-related issues (Young and Williams, 1989; WHO, 1993b; Denman, 1999).

Another important issue highlighted by the research is the differential status of smoking restrictions for pupils and staff, which may partly reflect different underlying motives and objectives. Within a broad, whole school approach to health promotion, pupil smoking policies generally seek to reinforce classroom-based health education, promote a non-smoking norm and provide a healthy smoke-free environment. While it may be legitimate for staff smoking policies to have a different agenda, it is important that they complement, rather than conflict with, the objectives of pupil policies in order to avoid giving mixed messages about smoking. If staff smoking policies are to achieve this, it may be necessary to provide additional support for staff wishing to give up smoking, but this issue has not been addressed in the present investigation.

This study has some methodological limitations. First, information on policy status was gathered through staff reports. The actual policy documents were not seen by the authors and therefore it was not possible to examine their content or determine how they were developed. One might expect to find differences in smoking practices in schools where policies had been imposed from above, compared with schools where the policy arose from a process of consultation with pupils, teachers and other school staff. Secondly, we have not considered how long policies may have been in place, and therefore do not know whether schools with long-established policies differed from schools with newly established policies in terms of smoking practices. Thirdly, we have not considered actual enforcement practices and thus have not distinguished between those schools that used punitive measures to prevent smoking among pupils and those where the enforcement of smoking restrictions was part of a larger effort within the school to support

healthy behaviours. Evidence suggests that supportive rather than punitive measures are more effective in influencing smoking behaviour (Pentz *et al.*, 1989; Tompkins *et al.*, 1999), but this subject needs to be investigated further in order to determine effective practice within the context of Scottish schools. It should be acknowledged that the sample sizes for staff, and therefore the number of school responses, are small and so the findings should be interpreted with some caution. Staff responses were gathered from two members of staff at each school in order to increase validity of the school response. However, in some cases there was disagreement between the two members of staff and therefore no firm conclusion could be reached with respect to the policy status and related practices within these schools. Finally, reports of exposure to smoking behaviour were based on pupil perceptions and do not give any indication of actual smoking prevalence.

It is clear that there is a continued need to address smoking amongst young people, especially during puberty and early adolescence, in order to prevent the establishment of smoking habits which may continue into adulthood. Schools have an important role to play in promoting the health of young people. However, classroom teaching must be supported by whole school approaches to health promotion, which take into account social and environmental factors, if sustained behavioural change is to be achieved. While school policy is an important component of a whole school approach, the findings presented here indicate that policy *per se* has limited effectiveness. This is important given the current emphasis on policy development in schools. Certainly where smoking is concerned, consistent enforcement of restrictions would appear to be the key to making a significant impact on pupils' behaviour. Thus, policy development must be followed by comprehensive implementation and enforcement. It is also important that staff smoking policies complement pupil smoking policies, but the unintended consequences of smoking bans such as relocation to more visible areas must be addressed. The findings of this study suggest that, until smoke-free environments become the accepted norm in schools, it may be more appropriate to continue to provide designated areas for smoking staff that limit exposure to environmental tobacco smoke for non-smoking staff and reduce the visibility of smoking for pupils.

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*Address for correspondence:*

Jo Inchley  
Child and Adolescent Health Research Unit  
University of Edinburgh  
St Leonard's Land  
Holyrood Road  
Edinburgh EH8 8AQ  
UK

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## APPENDIX 1

### Questions to staff

1. Does your school have a written or informal policy restricting smoking by pupils on the school premises? (Yes, written/yes, informal/no policy/don't know)
2. Does your school have a written or informal policy restricting smoking by teachers on the school premises? (Yes, written/yes, informal/no policy/don't know)
3. Are pupils allowed to smoke on the school premises? (No, not at all/yes, only older pupils are allowed to smoke anywhere/yes, only older pupils are allowed to smoke in restricted areas/yes, all pupils are allowed to smoke anywhere/yes, all pupils are allowed to smoke in restricted areas/don't know)
4. Are teachers allowed to smoke on the school premises? (No, not at all/yes, in restricted areas/yes, anywhere on the school premises/don't know)
5. Are teachers allowed to smoke in any of the following places?
  - In the staff room (Yes/no/don't know)
  - In the canteen/cafeteria (Yes/no/don't know)
  - In the corridors (Yes/no/don't know)
  - Outside on the school premises (Yes/no/don't know)
  - In other parts of the school building (Yes/no/don't know)
6. How often are the restrictions on pupils' smoking enforced:
  - in the cloakrooms/toilets? (Always/most of the time/sometimes/never/no restrictions)
  - in the playground/other outdoor area? (Always/most of the time/sometimes/never/no restrictions)

### Questions to pupils

1. During school hours, how often do you see or know about pupils smoking:
  - in the toilets/cloakrooms? (About every day/sometimes/never/don't know)
  - outdoors on school premises? (About every day/sometimes/never/don't know)
2. During school hours, how often do you see or know about teachers smoking:
  - in staff rooms? (About every day/sometimes/never/don't know)
  - outdoors on school premises? (About every day/sometimes/never/don't know)

