Beware extra Vitamin C!
The evidence from studies in older children suggests that frequent consumption of soft drinks is the main culprit, especially carbonated beverages, many of which contain "acidic regulators" to maintain their acidity and therefore their taste. "Sports" drinks, heavily marketed towards those wishing to maintain an image of a healthy lifestyle, are just as damaging. This damage may be increased where drinks contain "extra vitamin C", as this provides another source of acid, ascorbic acid. These drinks are commonly consumed after intensive exercise when the mouth is dry and thus devoid of the protective action of saliva, which helps to neutralise acids in the mouth. The greater availability of fruit-based drinks and carbonated beverages in shops, and particularly now in vending machines in schools, is likely to exacerbate this problem.

Is erosion on the increase?
We do not know whether the prevalence of dental erosion is increasing in the UK or indeed in other countries, because as yet there is no data. We must await the results of the forthcoming National Diet and Nutrition Survey of 5-18 year-old children, which will indicate whether the prevalence has increased in this country in comparison with the 1993 Child Dental Health Survey.

What we do know is that patients who experience dental hypersensitivity require treatment, which is often unpredictable. Coating the exposed dentine surfaces with varnishes or desensitising agents is often ineffective, and if there is some improvement it is frequently short-term. More elaborate conservative treatment may be required, such as fillings or even root treatment. The options can be expensive and commit the patient to a lifetime of costly maintenance and care.

Messages for teachers and parents
From a nutritional standpoint, it has recently been observed that children can consume so much in the way of fruit-based squashes, sugar-free or otherwise, that they lose much of their appetite and become malnourished as a result. This condition has been given the name "squash syndrome." Another consequence of squash syndrome is likely to be an increase in dental caries. However, with respect to young people and tooth tissue loss we need to redouble our efforts in the field of health promotion to ensure that the public is properly informed of the dental hazards of acidic intake, and that potential risk factors are minimised. This means...

- Reducing the availability of damaging drinks to children, who may be less discerning than adults as well as feeling pressurised by peer groups to conform.
- Providing ready access to safe alternatives such as water, milk, or well-diluted sugar-free squashes; and, for older children, having unsweetened beverages such as tea and coffee available.
- And also, more specifically, making young people aware of the dangers of...
  - Frequent consumption of acidic foodstuffs, and in particular fizzy and fruit-based drinks.
  - Using, or misusing, their teeth as "tools!"
  - Grinding their teeth away.
  - Brushing their teeth away.

References

The teaching of sex education is a source of 'widespread anxiety' for teachers and senior educationalists. What do pupils think?

Gellisse Bagnall & Linda Lockerbie

HIV/AIDS education: Are senior pupils losing out?

What do senior pupils think about HIV/AIDS education in school?
Described below are the findings from a survey of schools in one region of Scotland. These findings are set against background evidence that senior-school pupils are being short-changed in terms of health education in general and HIV/AIDS education in particular.

Provision within school curricula
In 1993, a national survey of health education provision in Scottish schools (Devine et al., 1991) showed widespread agreement among LEAs on the broad areas which should be covered, including HIV/AIDS. It also found that schools seemed to be satisfied that they were meeting the needs of their pupils, at least to some extent (Devine, 1993). Despite this, the data collected from individual schools highlights some points of concern.

1. Most schools reported spending approximately half an hour per week on health education during compulsory schooling, falling overall thereafter in S5 and S6 (the sixth form). Recognising that HIV/AIDS is only a part of the total health education curriculum, this clearly suggests little if any time devoted to the topic.

2. Sensitive topic areas are often avoided, with difficult areas sometimes omitted by large numbers of schools. Indeed, 9% of schools across Scotland did not include HIV/AIDS education at any stage.

3. Supporting evidence from a survey of schools in England and Wales (Scott & Thompson, 1992) also identified the teaching of sex education as a source of 'widespread anxiety' for teachers and senior educationalists.

Pupils' perceptions
These approaches reinforce the above arguments. Although not nationally representative, a subsample of S4 (Year 11) pupils surveyed as part of the 1990 Scottish Health Behaviours in Schoolchildren Survey (Currie & Todd, 1993) showed that:

- 75% believed they needed to know a lot more about AIDS.
- 59% felt they had not been taught enough about it at school.

Launching an initiative
Against this background, Lothian Region Education Department developed an HIV/AIDS initiative which goes some way towards addressing the problems identified.

Lothian Region is one of Scotland's nine politically defined regions and constitutes approximately 15% of the country's total population. It includes the city of Edinburgh, which has been widely recognised as having a disproportionately high percentage of people that have tested positive for HIV.

The initiative involves a four-hour (half-day) teaching block, and is offered to all schools in...
the Region. Details of the programme are given elsewhere (Young & Phillips, 1993). To summarise briefly, innovative aspects include an emphasis on pupil participation in planning the programme, as well as the use of specialist-trained sessional workers, instead of school staff, for small-group work.

The programme is also unusual in that it includes a plenary session where someone who is HIV positive talks and answers questions about his personal experience.

### Documenting the pupils’ views and attitudes

A project was set up to assess how well the programme was received by pupils, and to evaluate its impact on their attitudes towards HIV/AIDS. These outcomes will be discussed in detail in a subsequent evaluative report. Our concern here is with the first objective of the project, which was to clarify the views of the pupils before this intervention.

A survey of all senior pupils was conducted in eight state secondary schools in Lothian Region. These schools were selected for convenience of timing, and are not statistically representative of the Region; nevertheless they do constitute a reasonable mix of city, new-town and rural environments. About a fortnight before the intervention was due to happen we administered an anonymous self-completion questionnaire, covering:

- Biographical details
- Attitudes to school, academic performance and plans
- Experience of previous HIV/AIDS education
- Sources of information and advice about HIV/AIDS outside school
- Perceived need for further information or help
- Attitudes to various aspects of HIV/AIDS

The second questionnaire, administered about four weeks after the intervention, included the same questions about attitudes in order to explore any shift.

55 (Year 12) pupils participated in six of the schools, and 50 (Year 13) in the other two. Altogether, 641 completed questionnaires were available for analysis. The group was relatively "academic", reflecting the fact that the survey occurred after the year groups had lost their Christmas holidays (those leaving as soon as possible after their sixteenth birthday, and who were usually the least academic pupils).

### When and where? (Table 1)

It is important to realise that this table reflects the pupils' perceptions of where HIV/AIDS education occurred, and that they may not have recognised an integration of this topic into the standard curriculum. Nevertheless, the data do suggest that most of this education took place in Guidance/PSE, reinforcing the national survey of Scottish schools, which found that 77% of health education took place in this area.

This at least facilitates the opportunity for broad discussion on AIDS-related issues, such as relationships and sexual behaviour, rather than a focus on, for example, the biological aspects, which might occur in a science class. It should also be mentioned that 12% of all respondents reported having had no HIV/AIDS education during any of their secondary schooling so far.

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### Teachers and taught (Table 2)

Although teachers were generally thought to be well informed in this area, the responses suggest some difficulties in communication. This reflects the results of a study by Clift & Sears (1991), which suggested that secondary school teachers found it difficult to talk in detail about sexual practices, although it was easier for them to talk about risky rather than safe behaviours.

An implication from this is that speakers from outside school might have advantages in this personal aspect of education. This, in fact, was a recommendation made by some of the respondents in the present survey, and is one of the most innovative aspects of the Lothian Region initiative, with its use of specially-trained sessional workers from outside school.

Overall, girls appeared to believe they were more knowledgeable about HIV/AIDS than boys. However, a high proportion of both sexes perceived difficulties in talking to their teachers about personal matters, and felt that although teachers listened to what they had to say, they did not really understand the lifestyles of their pupils.

### Practical knowledge about HIV prevention (Table 3)

It is now generally recognised that most 16-18 year olds have a good general knowledge about HIV/AIDS (see, for example, Demen et al, 1995 and Curren & Todd, 1995). The present survey did not set out to re-establish this, but instead did the complete evaluation project look for a shift in knowledge as evidence of the intervention's effectiveness. The small number of 'knowledge' questions used in this pre-intervention survey therefore addressed issues that have particular implications for the content of subsequent HIV/AIDS education in senior school.

Table 3 presents some revealing data, in that these 16-18 year olds were still uncertain about specific aspects of prevention, with roughly half of all respondents being unable to respond positively to questions 2, 3 and 4. Perhaps the high...
level of detail for more knowledge about the biology of AIDS reflects the fact that there are still large gaps in expert knowledge of the virus. What is surprising is that girls are significantly more likely than boys to want to know more — despite having appeared earlier to be already more knowledgeable.

Taking this extra depth of knowledge into account, it is surprising that the girls were no more likely than the boys to know where to seek confidential advice about HIV/AIDS prevention.

**Personal preventive behaviour**

(Table 4)

This table shows the responses to questions about obtaining and using condoms. It shows that girls are generally more willing than boys to obtain condoms from professional sources (Brook Advisory or Family Planning). Boys, on the other hand, seem generally more confident about purchasing condoms from impersonal outlets — most commonly chemists in public toilets — where they are not likely to be recognised. The data suggest that boys in general find obtaining condoms an embarrassing procedure.

It is thus reassuring to learn that 80% of both sexes said that they would feel comfortable carrying condoms in case the need should arise. In a separate question, the vast majority of both sexes (85% of males and 98% of females) agreed that the final responsibility for making sure a condom is worn is taken by both parties.

These findings suggest that educational initiatives for this age group should focus on developing skills and self-confidence in obtaining condoms. They also have implications for the provision and availability of condoms for senior school pupils. In an American study, Kirby et al. (1994) noted that a small percentage of middle and high schools throughout the United States have implemented school-based clinics providing reproductive health services, although only a small proportion dispensed contraceptives on site, other than prescriptions for the pill.

Nevertheless, the authors of the study also noted that the availability of condoms in schools, as a preventive measure against HIV transmission, was supported in a national survey by 65% of the adult respondents. Perhaps it would be useful to ascertain the views of British adults in this context, as a contribution to the development of school-based HIV/AIDS education?

**Conclusion**

The results from this pre-intervention survey suggest that senior school pupils in the study group were not particularly impressed with the HIV/AIDS provision they have experienced so far. The specific areas of dissatisfaction identified, particularly that of difficulty in relating to teachers when talking about issues around HIV/AIDS, provide useful pointers to changes of direction which could be adopted in new programmes for this target group.

The gender differences and academic differences relating to some aspects of HIV/AIDS education suggest that it may be necessary to subdivide the complete target group at some point, in order to take account of the possible impact of such differences.

It is quite clear that the young adults that participated in this survey worry about HIV infection, but at the same time have realistic expectations about their own sexual needs and behaviours. Recognising this, it is therefore of crucial importance to help these young people to think through the issues for themselves in a constructive way and to help them develop the skills and confidence that will facilitate the adoption of safer practices.

In contrast to the views of senior educationalists in Scotland already referred to, this study suggests more generally that schools are not currently meeting the health education needs of their pupils, at least in the context of HIV/AIDS. The findings reported here support the concern expressed in the national survey of health education in Scottish schools, that provision for pupils beyond the age of compulsory schooling may be particularly inadequate.

It remains to be seen whether the approach adopted in Letham Region schools can begin to address this problem.

**References**


