Teenagers and their health

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SUMMARY Six hundred and forty three children aged 14 to 16, attending three upper schools in Oxfordshire, filled in a health questionnaire. Although over 90% rated their health as fair or good, three quarters had taken medicine in the previous four weeks, three quarters had complained of headaches, and three quarters had had dental fillings. In addition, a third drank alcohol at least once a week, a third felt depressed at least once a week, and a third had had time off school for illness in the previous four weeks. There were strong associations between smoking tobacco and other forms of drug abuse.

On the positive side, most children felt responsible for their own health with three quarters agreeing that good health is mainly due to sensible living. Over 85% turned first to their parents for medical advice.

Fashions and attitudes to health and medical problems among teenagers fluctuate over short periods of time in much the same way as do their other behaviour patterns, such as manner of dress, musical tastes, emulation of popular heroes and so on. In addition the degree to which they are exposed to certain kinds of decisions and pressures concerning the use of drugs, the expectation of earlier sexual relationships, and the prospect of unemployment on leaving school, for example, have greatly increased. Parents, doctors, and teachers may therefore find it difficult to give clear advice when consulted by this age group because of lack of knowledge and not having come to terms with such morally challenging problems themselves.

These changes combined with the perception that teenagers have few medical problems could explain the lack of reliable information concerning their health needs, interests, and attitudes.^{1 2} Detailed and up to date information must surely, therefore, be vital to all those concerned with health promotion and the health of school children including the children themselves, their parents, doctors, nurses, teachers, and health educators.

The present study was undertaken to obtain the views of this age group about their health and health problems, to provide a suitable database that could be updated at regular intervals.

Methods

The study was undertaken in the spring and summer

of 1985 at three of the 36 'upper' coeducational comprehensive schools in Oxfordshire. They were selected to be representative of the whole fourth year 'upper school' population of the district. Two schools were therefore urban, one more middle class than the other, and the third covered a small town and rural population. The subjects were all children aged 14 to 16.

No detailed information concerning social class was available from the schools and the teachers felt that it would be inappropriate to ask about parents' occupations in the questionnaire. After obtaining parental permission the children were, in cooperation with the teachers, given a general health questionnaire containing 40 questions most of which were multiple choice; a few more were open ended. Although the questionnaire was designed by the authors, several of the questions had been used in previous studies.^{2 3} The questionnaire was anonymous, self administered, and given to all the pupils in each school in their classrooms at the same time. It was given to the pupils by the researchers, and was preceded by a short explanation of the purpose of the study; at the end the researchers collected the questionnaires without them being seen by the teachers.

Results

Of the total of 770 children, 643 (83%) fully completed the questionnaire. The parents of 48 (6%) of the children refused to let them fill it in; 72 (9%)

were absent the day the questionnaires were given, and 17 questionnaires were spoilt or incomplete (2.6% of those given out). Of the 643 children completing the questionnaire, 299 were girls, of whom 102 were aged 14, 196 were 15, and one was 16. Of the 344 boys, 125 were aged 14, 217 were 15, and two were 16.

GENERAL HEALTH

Analysis of the questionnaire showed that whereas 45% felt they had some health problem at the time the questionnaire was filled in, only 1% felt that their health was 'poor', 7% felt their health was 'excellent', and 92% felt it was 'fair' or 'good'. Table 1 lists the more commonly mentioned health problems (asked by an open ended question).

VISITS TO THE GENERAL PRACTITIONER

Thirty seven per cent had seen their general practitioners in the previous three months, girls more so than boys—42% compared with 33% ($\chi^2=4.41$, $p<0.05$). Table 2 lists the most common reasons (asked by an open ended question).

TIME OFF SCHOOL

Thirty seven per cent had had time off school in the previous four weeks; of these, 53% had been off for one or two days, 40% for three to seven days, and 7% for seven days or longer. Forty two per cent of girls had been off compared with 33% of boys ($\chi^2=6.32$, $p<0.02$). Table 3 shows the reasons given for taking time off school (asked by an open ended question).

MEDICINES

Seventy per cent had taken medicines in the previous four weeks but this was significantly more

common among girls 77% compared with 63% ($\chi^2=13.99$, $p<0.001$). Nineteen per cent of all the children were taking medicines at the time the questionnaire was filled in. Table 4 gives the reasons for taking medicines in the previous four weeks (asked by an open ended question). The main

Table 2 *Reasons for children's visits to their general practitioners during previous three months*

Complaints	No of children (%)
Sore throat	43 (7)
All injuries	28 (4)
Gastrointestinal problems	26 (4)
Skin problems	26 (4)
Immunisations	17 (3)
Eye infections	13 (2)
Coughs and colds	13 (2)
Stomach aches	13 (2)
Infectious diseases	11 (2)
Headache	10 (2)
Chest infections	9 (1)
Hay fever	8 (1)
Influenza	6 (1)
Asthma	4 (1)
Period pains	12 (4)
Contraceptive pill	6 (2)
Other	61 (9)

A few children gave more than one reason for visiting the doctor.

Table 3 *Reasons that children gave for taking time off school during previous four weeks*

Reason	No of children (%)
Gastrointestinal problems	55 (9)
Coughs and colds	42 (7)
Influenza	24 (4)
Headaches	21 (3)
Sore throats	19 (3)
Injuries	9 (1)
Infectious diseases	6 (1)
Ear problems	4 (1)
Period pains	4 (1)
Others	31 (5)

Table 4 *Children taking medicines for various health problems during previous four weeks*

Problem	No of children (%)
Headaches	257 (40)
Coughs and colds	55 (9)
Stomach aches	26 (4)
Hay fever	23 (4)
Asthma	9 (1)
Influenza	8 (1)
Ear infections	8 (1)
Acne	5 (1)
Period pains	33 (11)
Others	42 (7)

Table 1 *Children's health complaints at time of questionnaire*

Complaints	No of children (%)
Coughs and colds	84 (13)
Hay fever	34 (5)
Skin problems	31 (5)
Asthma/bronchitis	24 (4)
Headache	16 (2)
Throat infections	10 (2)
Joint problems	16 (2)
Weight problems	14 (2)
Eye problems	12 (2)
Injuries	9 (1)
Smoking	9 (1)
Stomach problems	9 (1)
Other	64 (10)

A few children mentioned more than one problem.

medical reason was self treatment for headaches with such products as paracetamol and aspirin. Medication taken at the time of the questionnaire were mainly for hay fever (reflecting the time of year), coughs and colds, and headaches, all in roughly equal numbers.

SKIN PROBLEMS

Twenty three per cent had skin problems and again there was an obvious sex difference with 31% of girls noting them compared with 17% of boys ($\chi^2=17.4$, $p<0.0001$); the commonest problem was, not surprisingly, acne. Just over half of all the children had had warts or verrucas, or both, at some time.

HEADACHES

These occurred in 84%, with 20% suffering from them at least once a week, 33% once a month, and 31% less frequently. Significantly more girls than boys suffered from headaches ($\chi^2=15.5$, $p<0.001$). Of those suffering from headaches, however, only 3% gave them as a reason for taking time off school and 2% as a reason for visiting their general practitioner. Sixty nine per cent of the children with headaches took aspirin for relief.

ACCIDENTS

Although there was no significant difference between the numbers of boys and girls among the 24% of children who had had an accident in the previous month, there were sex differences in the type of accident. Thus 36% of the accidents were sports injuries and these were more likely to occur in boys than girls ($\chi^2=4.22$, $p<0.05$) as were the 12% of cycling accidents ($\chi^2=4.63$, $p<0.05$).

DEPRESSION

Eight per cent of all children felt fed up or depressed every day, and 28% at least once a week. Only 3% of girls and 7% of boys had never felt depressed.

ASTHMA/HAY FEVER

Eleven per cent of all the children considered that they suffered from asthma, and 68% of these thought that it interfered with their work or sport. An additional 34% also said that they suffered from hay fever or other allergies, and half of them thought that it interfered with their work or sport.

SMOKING, ALCOHOL, AND DRUGS

Almost all (98%) of the children thought that smoking harmed 'your health' and 85% thought that smoking harmed other people's health (passive smoking); only 7% agreed with the statement that 'there is nothing wrong with smoking'. Even at this age, however, 21% were smoking at the time the

questionnaire was given (24% of the boys, and 18% of the girls, ($\chi^2=3.29$, $p<0.05$)). Most smoked between two and 10 cigarettes a day, and 56% of all the children's parents smoked. There seemed to be a significant correlation between smoking and other forms of drug abuse. Thus smokers drank alcohol considerably more often; 52% were drinking at least once a week compared with 24% of non-smokers ($\chi^2=36.56$, $p<0.0001$). They were more likely to have tried drugs; 19% had sniffed glue compared with 2% of the non-smokers ($\chi^2=52.45$, $p<0.0001$), and 29% had tried other drugs compared with 4% of the non-smokers ($\chi^2=77.43$, $p<0.0001$). The overall incidence of glue sniffing was 5%—4% of the girls and 7% of the boys. Nine per cent of all the children had tried taking other drugs—7% of the girls and 11% of the boys.

Drinking alcohol was common among the children; 95% had had an alcoholic drink at some time, 43% had had one within the last week, and 30% drank regularly every week. Overall, smoking was no more common among those children who drank than those who did not drink. Forty per cent had had their last drink at home.

There was no difference between the sexes in the overall numbers who had tried alcohol, but significantly more boys than girls—43% compared with 23%—had first had alcohol when they were less than 10 years old ($\chi^2=27.82$, $p<0.0001$), and more boys were drinking regularly every week—37% compared with 22% ($\chi^2=15.49$, $p<0.001$).

WEIGHT PROBLEMS

There were differences between the sexes in their perception of whether they had a weight problem (18% were overweight and 7% underweight). Girls were significantly more likely to see themselves as overweight ($\chi^2=25.30$, $p<0.0001$). The sexes were equally divided in their perception of being underweight.

OTHER PROBLEMS

Twelve per cent of the children had had glandular fever, 22% felt there was something wrong with their eyes but only 13% wore glasses. Half of those who did not wear them also did not like the idea of having to wear them. Twenty eight per cent were wearing or had worn braces on their teeth and half of these did not mind wearing them. Exactly three quarters of all the children had had fillings.

Appreciation of other peoples' smells rated high; 92% noticed other peoples' bad breath, and 56% their smelly feet. They were, however, less conscious of their own halitosis, with 58% worrying that their own breath smelt, and 44% that their feet were smelly. There were no differences between the sexes in this group.

WHO WAS TURNED TO FOR ADVICE

Parents were first turned to for advice about illness by 86% of the children. Mothers were a more popular choice (77%) than fathers (5%), with more girls than boys (85% compared with 70% consulting their mothers), and more boys than girls (7% compared with 3%) consulting their fathers. Only 4% first consulted a friend (7% of the girls and 2% of the boys), 4% consulted a doctor first (1% of the girls and 7% of the boys) and less than 1% asked a teacher.

ATTITUDES TO HEALTH

Only 13% agreed with the statement that, 'What happens to your health is a matter of luck', perhaps because 85% agreed with the statement that, 'There are many things that you can do to be healthy and avoid illness'. Three quarters felt that good health was largely due to sensible living, and 82% felt that each person should look after their own health. To the statement, 'If you wait long enough you will get over most illnesses' about a third agreed, a third disagreed, and a third did not know.

Modern medicine seemed to be popular, with only 10% thinking that old fashioned remedies were better, and the remainder either disagreeing (51%) or not knowing (39%).

Given that most children seemed to think that their health was in their own hands it was interesting to look at their diet after school. They were asked what they had eaten and drunk the previous day between leaving school and going to bed. Tables 5 and 6 give these results.

Table 5 *Foods eaten after school*

<i>Food</i>	<i>No of children (%)</i>
Meat, sausages, and pies	380 (60)
Vegetables	308 (48)
Sweets and chocolate	290 (45)
Bread	282 (44)
Crisps	229 (36)
Biscuits	224 (36)
Fruit	210 (35)
Chips	173 (27)
Cereals	143 (18)
Sandwiches	104 (16)
Cakes	92 (15)
Fish	85 (13)
Beans and pulses	77 (12)
Cheese	76 (12)
Ice creams	74 (12)
Eggs	70 (11)
Salads	67 (11)
Yogurt	41 (6)
Rice	41 (6)
Spaghetti	30 (5)

Table 6 *Drinks taken after school*

<i>Drink</i>	<i>No of children (%)</i>
Tea	364 (56)
Carbonated flavoured drinks	310 (48)
Coffee	295 (46)
Water	250 (39)
Milk and shakes	244 (38)
Orange squash	237 (37)
Fruit juice	113 (18)
Alcohol	89 (14)

Sport is now regarded by our society as a healthy activity and the children were asked their main reasons for taking part in sports; 60% said they did because they enjoyed it, 9% because it was healthy, 16% because they had to, and 11% because they thought it was both enjoyable and healthy. The only difference between the sexes was in the statement, 'Because we have to', and significantly more girls than boys answered affirmatively ($\chi^2=9.27$, $p<.01$).

Discussion

This age group is traditionally considered to be relatively healthy, making few demands on medical resources and showing little interest in their own health³; their most common worries are about unemployment, self confidence, and academic aspects of schools.⁴ The first of these propositions does seem to be borne out in the present study, with only 1% considering themselves to be in poor health. This, however, did not include the 72 children who were away on the day the questionnaires were given, possibly because of illness. What the children actually meant by 'health' is, however, difficult to ascertain as about three quarters of the sample said that they had taken medicine in the previous four weeks; three quarters suffered from headaches, and if one extends health problems to include teeth, three quarters had had fillings. In addition, one third of the children in the study drank alcohol at least once a week, got depressed every day (or at least once a week), had had time off school in the previous four weeks because of illness, or had visited their doctor in the previous three months. Furthermore, 19% were taking medicine at the time of the questionnaire, and a quarter had had an accident or injury in the previous month.

It therefore seems probable that 'health' defined by the *Oxford Dictionary* as '(1) soundness of body; that condition in which its functions are duly discharged, or (2) spiritual, moral, or mental soundness'—is to these children an overall concept of wellbeing which is unaffected by relatively minor

ailments such as headaches or asthma when considered from day to day. Nevertheless, children's concepts of actual health problems would appear to be much the same as adults because when asked specifically about breathing problems like asthma the rate cited by the children themselves was almost exactly the 11% reported in a recent survey of parental attitudes.⁵ An interesting future study would be to find out whether parents' and children's classifications of other conditions are also identical.

A further parallel with adults is that the differences between sexes in rates of consultation with the family doctor and in the use of medicines seem to be clearly established by around 15 years of age.^{2,6}

Prevention of illness by health education is medically fashionable, and in some ways health educators can take heart from the fact that not only did the children appear well informed on health matters, but they also thought that they were responsible for, and had power over, their own health. Despite these attitudes the dilemma remains that people do not necessarily act on what they know. Information by itself is only one small step towards change; it is how and whether it impinges on the many other factors in peoples' lives, like their age, their priorities, and their social circumstances, that also play a part.

This is highlighted by the complex interplay between smoking, alcohol consumption, and drug taking among teenagers. Thus although almost all the children knew the risks of smoking, one in five, at the ages of 14 and 15 were smoking. Not only this, but if they smoked they were twice as likely to drink alcohol at least once a week, and seven times more likely to have tried other drugs. Alcohol intake on the other hand, as shown in other studies, was not associated with increased smoking.⁷

The message of health education does not, on superficial examination, seem to have had much effect on diet. Both what was eaten and drunk after

school in most cases hardly fitted into what is nowadays regarded as healthy. Without similar information as to what this age group were eating, say five years ago, however, it would be difficult to draw any conclusions about the changes that may have taken place.

A final surprising finding was the continuing importance of the parental role (especially the mother's) at this age, and the relatively small role (in health matters), that teachers and doctors played. This parental role also has its dangers, as the children may not only turn to parents for advice but they may also imitate the example they give, for instance by smoking.

Both these facts strongly suggest that the health education of the children's parents and the children themselves as future parents should be more strongly emphasised, together with the reality that bringing about important changes in health related behaviour is the result of many highly complex factors and may, if it happens at all, take a generation or more.

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Received 29 May 1987