9. PERSONAL SAFETY: Fear of being bullied

The Year 6 sample is not represented in this section, as no 'personal safety' questions were included in the primary Health Related Behaviour Questionnaire. However, research that has been carried out in primary schools suggests that a still greater percentage of these younger children are affected by bullying.

Table 9 shows that about a third of the girls and a quarter of the boys fear being bullied at least sometimes. The Year 8 group is more 'fearful' than the Year 10. No attempt is made in the questionnaire to define bullying, as different young people will have their own (equally valid) concepts of bullying as it affects them.

The implications of this and other 'personal safety' questions have been explored in the Unit's publication 'Bully Off'. Correlations between fear of being bullied and many other lifestyle factors, such as poor parental support, promiscuity to asthma, and self-esteem, are identified.

The sample

The vast majority of our information comes from pupils in mixed comprehensive schools, and the schools are encouraged to represent the whole ability spectrum in their classroom surveys. We therefore believe that the data give a good picture of the young people in each area (usually corresponding to a District Health Authority) surveyed.

This very large sample thus represents a much larger group of young people than the one from which it was drawn - probably more than twice the number. However, we do not know to what extent these samples and shifts are representative of the country as a whole, although where comparison data are available our figures are usually in line with more deliberately sampled national data from, for example, the Office of Population Censuses and Surveys. Some examples of these comparisons are presented in Young People in 1995.

In areas with a substantial independent school provision, some of the 'cream' may be lost from the comprehensives, resulting in a bias with respect to academic ability and home background. However, the absence of up to 10% of the school population through illness or truancy affecting principally the low-achieving pupils, may help to counteract this effect.

Conclusion

Across the last ten years the Health Related Behaviour Questionnaire survey has been used in over one thousand secondary schools and in hundreds of primary schools. Many secondary schools have used the service more than once - two have carried out a survey on six occasions! Some Health Authorities have carried out up to four surveys at District level, and one Regional Health Authority has carried out extensive surveys on three occasions.

The variety of ways in which the data are used by schools now includes examination of their own data on computer disc in IT literacy, and look for connections between behaviours and to consider lifestyles. This parallels the Lifestyles resource we have produced, which uses an identified set.

We now also calculate a Health Risk Appraisal score for all pupils, who use a code number known only to themselves to identify their score. Ways of making the data more accessible and meaningful to schools include relating their pupils' responses to the average for the all the schools in the survey, and inserting their tabulated data into a 'school report' with enlightening commentary.

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Sun safety education in schools

Cancer education in schools has traditionally been a neglected area, possibly because adults in general have a fear of the disease. Teachers as a group are no exception, and this can result in children acquiring knowledge from a variety of sources outside the classroom, one of which may be overhearing adults discussing people with cancer. By misinterpreting what they hear, or by hearing old wives' tales, children can adopt pessimistic and fearful attitudes to cancer (Rainey 1989).

These ideas need to be replaced by realistic health beliefs and attitudes. The United Nations Universal Declaration of Children's Rights (1989) addresses this notion and has formalised children's right to knowledge about health. In recent years, health educators are keen to inform children about disease prevention, health-enhancing behaviours, and of course about the appropriate steps that society as a whole might take to facilitate this.

Skin cancer

Skin cancer is slowly emerging as an area in which well-presented educational packages seem to have a valuable place in disease prevention. Most of the mortality associated with skin cancer is attributable to malignant melanoma, which, although still comparatively rare, is on the increase in many parts of the world. It is, however, preventable, and treatable if diagnosed early enough. The Government's Health of the Nation document (1992), which outlines its strategy for health, identifies skin cancer as one of the target areas, calling for a halt to its present year-on-year increase (DOH, 1993).

There appears to be little doubt that ultraviolet light plays a major role in the aetiology of malignant melanoma. In fact, epidemiological data have indicated that sunlight is important in the development of all skin cancers in constitutively predisposed, i.e. fair-skinned, people (Ulwold et al., 1985).

What is interesting is that epidemiological data now indicate that exposure to sunlight in childhood, in particular traumatic sunburn with pain lasting at least 2 days, is important in the development of malignant melanoma, usually in early adult life (Armstrong, 1994).

Primary prevention

Prevention of malignant melanoma relies on encouraging children to adopt new prevention behaviours against sunburn, like the appropriate use of protective clothing including sunshades, seeking shade when the sun is at its hottest (between 11am and 3pm), and the judicious use of sunscreens.

Many dermatologists would wish to discourage sunbathing per se, but others such as Doherty & Mackie (1988) suggest that it would be impossible to eradicate the habit of sunbathing (30- to 30-year-old campaigns to discourage cigarette smoking have been disappointing), and advocates sensible sun exposure. Others, such as Meremstein & Klesenberg (1992) suggest that comparisons with no-smoking campaigns are unfair, since sun protection campaigns will have the advantage of having the cosmetic and sunscreen industries on its side.
This work by Newton and others provided me with the impetus to evaluate my own health-promotion work in the field, by allowing me to integrate research methods and findings into day-to-day health visiting with the aim of improving practice.

Evaluation of an education programme

In 1996 I undertook a randomised control study in a local secondary school in rural Derbyshire (Syson-Nibbs, 1996). Six Year 7 classes containing altogether 145 pupils were divided at random into two groups of three. The experimental group (70 pupils) received immediate sun-safety education, while the control group (75 pupils) had it delayed until after the study was completed.

Evaluation was conducted using self-completion questionnaires. Baseline data were obtained before any work was done with the pupils, while post-intervention data, using the identical questionnaire, were collected 4 months later, allowing a comparison between the control and experimental group.

The educational material used was the same as that employed by Newton, and consisted of:

• A coloured leaflet about sun safety, published by the Imperial Cancer Research Fund.

• A workbook containing basic information about ultraviolet radiation and skin cancer.

• A video called Suncool which addressed attitudes to sunbathing and skin cancer.

I led the education sessions, supported by each class’s individual year teacher.

Results: Knowledge scores

Table 1 shows the knowledge scores by group pre- and post-intervention. Analysis by t-test of the differences within groups for the experimental subjects shows:

• No significant initial knowledge difference between the control and experimental groups.

• Within the control group, no significant change of knowledge over the 4-month interval.

• Within the experimental group, a significantly higher post-intervention knowledge score (up from 18.5 to 24.0, t=10.46, p<0.0005).

As in Newton’s work, baseline knowledge scores were found to be generally high, with pupils scoring on average approximately 18 correct answers out of 29. It appeared that children scored more highly on environmental questions than health or cancer-related questions. The experimental group’s post-intervention scores demonstrated that learning did take place.

In group work, pupils offered many imaginative ways of creating more shady areas outside.

A lot of sun throughout life ages the skin.

Almost 40% more children agreed (70.4% from 31.9%, x² = 21.3, p<0.0005).

All the classroom work focused on the appeal of retaining one’s natural skin colour as a way of avoiding prematurely thickened or wrinkled skin. Information emphasizing the desirability of white or pale skin was avoided in view of its hidden racist message. This attitude change was especially pleasing, for it supported other research in which appearance-based messages were more successful than health messages in changing attitudes and reported behavior intention amongst adolescents (Hawkard, 1992). The range of maturation rates, cognitive abilities, and social backgrounds amongst 11-12 year olds subjects varied so that a significant number of them will be starting to take an interest in their attractiveness to others.
There is little chance that I will get skin cancer.
Almost 20% more disagreed with this statement (38.5% vs. 20.3%, \( \chi^2 = 5.9, p < 0.05 \)).

Had the intervention alarmed them or had they become more aware of the prevalence of skin cancer as a potential illusory amenable to prevention and cure? The classroom intervention tried to avoid a narrowly-focused medical model of illness, as this can run the risk of placing the burden of responsibility far too heavily on the individual and can contribute to fear. So although pupils were encouraged to take more of their own bodies (especially in the development of moles) and to understand from whom they could seek advice on health issues, wider issues like the implications of VAT on the cost of sunscreen were also addressed.

It is well-established now that perceived susceptibility to an illness plays a major role in the likelihood of change to health-enhancing behaviours (Janz & Becker, 1984). In relation to skin cancer prevention these include perceived susceptibility and severity of skin cancer, and the perceived benefits and barriers associated with the behavior. The risk of sun-safety behaviour. Despite the attitude results suggest that some of these issues have been successfully addressed.

The changes in attitudes were limited to a few items, but, as found by other studies, reported changes in attitude occurred only when knowledge and skill also improved. Jones (1994) discussed this phenomenon in relation to work with adolescents and their sunburning habits. He suggests that because health-risk messages often carry 'demand' characteristics, subjects can be led to report healthy attitudes and intentions as a result of experimental demand. This must be borne in mind when interpreting any research that does not measure behavioural changes as well.

Attitudes that did not change

It may be useful to examine some of the attitudes that did not change and to consider why this was so.

I take great care to avoid getting sunburn

Childhood sunburn is such a strong risk factor for development of malignant melanoma in adult life that this might have been a more disappointing result, but for the fact that in all groups, pre- and post-test, fewer than 20% disagreed with this statement. It would appear that, therefore, that the majority of these pupils had good intentions with regard to sun safety. Of course the research offers no insight into the precautions actually taken, and it is possible that as a result of the intervention some pupils changed from ineffective sun-safety methods, such a low factor sun-screen, to effective ones such as avoiding the midday sun.

Often in the summer months I don't bother putting on a hat

The results showed that only 24-30% often put on a hat, and these are similar findings to those of Newton et al. (1993). However studies in America and Australia all found an increase in intention to wear a hat after intervention. The most likely reason lies in cultural norms. In Australia pupils are forbidden to play outside at break times if they are not wearing a suitable hat. There are strong arguments for adopting a similar approach in UK schools.

Wearing a sun screen, avoiding sunburn, risk of skin cancer

Finally there was a very small sub-group in this sample that did not take these precautions and still did not consider themselves at risk from skin cancer. Cockburn (1989) addressed this group in research that sought to determine the prevalence of the use of sun-protection measures in adolescents.

In her massive survey of 3,000 adolescents she identified an association between cigarette smoking and a failure to use sunscreens, and the study suggested that failure to use such sun-protection methods is part of a constellation of risk-taking behaviours. Such risk-takers are therefore the group on whom most resources should be targeted. It is, perhaps, worth noting at this point that in schools with high numbers of pupils smoking there are also higher numbers of teacher-smokers — so do schools also have higher numbers of teachers sunburning at break time?

For one group of young people, failure to use sun-protection methods is part of a constellation of risk-taking behaviours.

The school involved is about to become part of the 'health schools' initiative, and has continued to address the issue of sun safety. The topic has shifted from a summer issues to one that is being considered throughout the year. For example, this year pupils of various ages have been designing and producing their own sun-safety video and leaflets during the winter and spring terms, with help from a variety of teaching and technical staff as well as the health visitor 'head school nurse'. The material is about to be tested on Year 7 pupils.

Sun-safety education can occur through the formal curriculum, through pastoral care, or both. For example, art and technology students could design a park or play area with plenty of shade. In history, students could chart attitudes to tanning or the development of foreign travel and its health implications. In personal and social education feelings of self-worth, relationships, sex roles, and the influence of advertising can be examined as part of developing healthy attitudes towards skin cancer prevention.

Education also takes place in the hidden curriculum. This might include the examples set by teachers. Physical education teachers, like many outdoor workers, are often sun-tanned and therefore vulnerable—unlike the non-melanoma skin cancers, a fact of which many of them will be unaware. They provide strong role models for many pupils, and their physical fitness is often inextricably linked to their suntans. They have a responsibility to educate their pupils about the risks, and they need to adopt sun-safe behaviours, and could perhaps start sporting colourful zinc cream, like so many Australian cricketers!

The success of sun-safety messages in other countries, notably Australia, has resulted from highly co-ordinated public health campaigns ('Slip Slip Stop') in which school-based education packages form a small but vital part. Joint initiatives between health and education are effective, and should be encouraged as far as possible.

Conclusion

The small study described here appears to follow a similar trend to others (such as sun safety educational interventions by a health visitor) was successful in improving knowledge and attitudes in 11-12 year olds.
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Had the intervention alarmed them or had they become more aware of the prevalence of cancer as a potential illness amenable to prevention and cure? The classroom intervention tried to avoid a narrowly-focused medical model of illness, as this can run the risk of placing the burden of responsibility far too heavily on the individual and can contribute to fear. So although pupils were encouraged to take note of their bodies (especially in the development of moles) and to understand from whom they could seek advice on health issues, wider issues like the implications of V/AT for the cost of sunscreens were also addressed.

It is well-established now that perceived susceptibility to an illness plays a major role in the likelihood of change to health-enhancing behaviour (Janz & Becker, 1984). In relation to skin cancer prevention these include perceived susceptibility and severity of skin cancer, and the perceived benefits and barriers associated with the practice of sun safety behaviour. Evidence to date suggests that the attitudes result in some of these issues have been successfully addressed.

The changes in attitudes were limited to a few items, but, as found by other studies, reported changes in attitude occurred only when knowledge was also improved. John (1994) discussed this phenomenon in relation to work with adolescents and their sunbathing habits. He suggests that because health-risk messages often carry 'demand' characteristics, subjects can be led to report healthy attitudes and intentions as a result of experimental demand. This must be borne in mind when interpreting any research that does not measure behavioural changes as well.

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Conclusion

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