fractions of palliative radiotherapy for these two conditions before the audit and their practice did not subsequently change and a few continued to use five or more fractions despite the recommendations of audit. We noted, however, that most changed their prescribing practices after the first audit meeting.

Comment

We found that the number of fractions of palliative radiotherapy used to treat bone metastases and advanced lung cancer in this centre has fallen over the past two years. There is currently much interest and discussion about fractionation patterns in palliative radiotherapy and therefore we cannot state categorically that medical audit directly resulted in the changes in palliative fractionation regimens used at this centre. Nevertheless, medical audit helped to establish consensus guidelines for prescribing palliative radiotherapy for these two patient groups and the presentation of data on fractionation and the dissemination of information as a consequence of audit probably resulted in some change in clinical management.

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Teenagers, sex, and risk taking

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Medical problems associated with teenage sexual activity are increasing, including teenage pregnancies and complications from sexually transmitted disease.[1] *The Health of the Nation* targets have brought these topics under scrutiny. This study is a baseline examination of teenage relationships and part of an evaluation of a health and sex education programme.

Subjects and methods

In spring 1991, 1025 students in year 11 (aged 15-16) completed a questionnaire relating to sex education in nine schools in both the state and independent sectors in south west England. After completing this questionnaire volunteers were requested to take part in a further study the following year. From this group 429 volunteered and, having received a preparatory letter in spring 1992, 350 agreed to answer a further questionnaire. A total of 315 questionnaires (90%) were returned.

The follow up questions asked about knowledge of sexually transmitted disease, if and at what age the respondents had first had intercourse, whether they had ever had sex without using contraception, whether they had sex during a "one night stand" or in a relationship lasting only a few days, and if they knew any close friends who had contracted a sexually transmitted disease.

Relative risk ratios and 95% confidence limits were calculated for positive responses to these questions according to sexual activity before or after age 16.

Results

The respondents to the postal questionnaire included more girls than the original school group (223 (71%) compared to 509 (50%)) and respondents tended to be more academically inclined (taking on average 8·3 subjects for the General Certificate of Secondary Education compared with 7·8 for the remainder of the sample) but there were no differences in social class groupings. The average age of the sample was 16·9 years (range 16·5 to 17·5); 54% were sexually active, 84 having had sex under 16 and 84 between their 16th birthday and the questionnaire.

The table shows the responses to the questions. Those who had sex before 16 were almost twice as likely to have had sex at some time without using contraception (relative risk 1·86; 95% confidence interval 1·33 to 2·60); they were twice as likely to have had sex within a short relationship (2·24; 1·38 to 3·62); and three times more likely to know a close friend with a sexually transmitted disease (2·97; 1·55 to 5·70). Only seven (5%) of the non-sexually active teenagers knew a close friend with a sexually transmitted disease.

Responses to questionnaire on sexual behaviour of 16 year olds. Values are numbers (percentages)

		Sexually active	
	Total sample (n=315)	Before 16 (n=84)	After 16 (n=84)
Having sex without contraception	83 (26)	54 (64)	29 (35)
Sex within a short relationship*	59 (19)	39 (46)	20 (24)
Knowing a "close friend" with a sexually transmitted disease	46 (15)	29 (35)	10 (12)

*"One night stand" (44 responses); "a relationship that lasted only a few days" (15 responses).

Comment

This survey is from a group of teenagers who responded to a follow up postal questionnaire. Their level of sexual activity before 16 is marginally lower than that quoted from surveys within the same geographical area.[2] Despite this those starting sex under 16 exhibited a high degree of risk taking, including having sex without using contraception and in short term relationships, consistent with increasing rates of unwanted pregnancy.[1] The high level of sexually transmitted diseases that this group says exists among their peers is of further concern.

Although the younger teenagers in this study have had a longer sexual history, the results support previous data indicating that young teenagers are more likely to expose themselves to risks and less likely to use contraception effectively than their older counterparts.[3] This has been suggested to relate to the level of cognitive development of younger teenagers, which tends to preclude them from taking effective action despite the knowledge of risk.[4] Even when contraceptives are supplied within schools many young teenagers do not obtain them until after they have become sexually active.[5] Perhaps it is the age of first intercourse that is the critical factor.

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