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## Completing questionnaires by proxy

Sir,

In a study of the relationship between respiratory morbidity in early childhood and asthma in adolescence and young adulthood<sup>1</sup> we found that, in a self-administered questionnaire,<sup>2</sup> the older age group (16–23 years) reported a much higher prevalence of most respiratory symptoms than did parents of the younger age group (10–15 years), even after correction for smoking behaviour. This difference could be partly caused by completion of the questionnaire by parents instead of the children themselves: the proxy effect.

The proxy effect in health surveys has been investigated where spouses (usually women) have completed questionnaires for their partners (usually men), and both underreporting<sup>3</sup> and overreporting<sup>4</sup> have been found.

As far as we know, the proxy effect of parents completing a questionnaire about respiratory symptoms in adolescents has not been explored. Therefore we studied this effect further by inviting the subjects themselves to complete the questionnaire for a second time one year later. The proxy effect of completion by parents was studied for each question separately by assessing the extent of agreement between the parents' answers to the first questionnaire and the children's answers to the second questionnaire for those aged under 16 years. The extent of agreement between the answers to both questionnaires for those aged 16 years and over served as a reference. Cohen's kappa was used as a measure of agreement,<sup>5</sup> and Z-statistics for kappa were used to determine the significance of the differences between the kappa values.<sup>6</sup>

The prevalence and kappa values of the respiratory symptoms for both questionnaires and for both age groups are shown in Table 1. For most questions the agreement between the answers given in the first and the second survey was higher for those aged 16 years and over. This difference strongly suggests a proxy effect of parents completing the questionnaire for their children, but it is difficult to separate this from the effect of long-term variations in respiratory symptoms.

Parents appear to interpret the questions differently and/or to notice fewer respiratory symptoms in their children than the children themselves. Whether this finding reflects underreporting by parents or overreporting by adolescents and depends on a critical age should be the object of further research. When administering a questionnaire on respiratory symptoms to a population of adolescents, the proxy effect of completion by parents should be taken into account.

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## References

1. Kolnaar BGM, van Lier A, van den Bosch WJHM, et al. Asthma in adolescents and young adults: its relationship with early childhood respiratory morbidity. *Br J Gen Pract* 1994; **44**: 73-78.

2. Brunekreef B, Groot B, Rijcken B, et al. Reproducibility of childhood respiratory symptom questions. *Eur Respir J* 1992; **5**: 930-935.
3. Koons DA. *Quality control and measurement of non-sampling error in the health interview survey. Vital and health statistics series 2, no. 54.* Rockville, MD: National Center for Health Statistics, 1973.
4. Briscoe ME. Research note: proxy responses in health surveys: a methodological issue. *Sociol Health Illness* 1984; **6**: 359-365.
5. Fleiss J. *Statistical methods for rates and proportions.* New York, NY: John Wiley, 1981.
6. Cichetti DV, Heavens R. Computer program for determining the significance of the differences between pairs of independently derived values of kappa or weighted kappa. *Educ Psychol Measurement* 1981; **41**: 198-193.

## Medical students in general practice

Sir,

Medical students in the United Kingdom are spending increasing amounts of their clinical training in general practice attachments and this trend is likely to contin-

**Table 1.** Patients' responses to the first and second questionnaires on respiratory symptoms and extent of agreement between these answers (Cohen's kappa) for both age groups.

Question*	% of patients responding positively (kappa)					
	Aged <16 years			Aged 16+ years		
	1st study	2nd study	(0.11)	1st study	2nd study	(0.32) **
Cough (n = 313/246)	5.8	15.0	(0.11)	10.6	15.5	(0.32) **
Chronic cough (n = 314/246)	1.6	4.8	(0.18)	4.1	5.3	(0.41) **
Phlegm (n = 310/244)	2.6	9.4	(0.24)	10.7	9.8	(0.42) *
Chronic phlegm (n = 313/246)	0.6	3.2	(0.33)	4.1	4.9	(0.62) ***
Cough with phlegm (n = 311/244)	17.7	32.8	(0.21)	32.8	34.8	(0.42) **
Chronic cough with phlegm (n = 314/246)	2.6	6.4	(0.11)	7.7	6.9	(0.46) ***
Wheezing (n = 310/243)	12.6	19.0	(0.56)	15.2	18.5	(0.52)
Chest tightness with wheezing (n = 306/239)	3.6	11.4	(0.20)	4.2	8.4	(0.34)
Breathlessness (n = 313/246)	13.4	27.8	(0.38)	26.0	33.3	(0.48)
Breathlessness more quickly than friends (n = 314/246)	8.0	11.8	(0.57)	9.4	14.2	(0.42)
Breathlessness going upstairs (n = 310/245)	7.7	25.5	(0.20)	20.8	29.0	(0.55) ***
Breathlessness on flat ground (n = 314/246)	1.6	3.5	(0.11)	1.6	5.3	(0.22)
Rhinitis (n = 314/244)	32.5	61.5	(0.19)	45.1	52.1	(0.37) *
Chronic rhinitis (n = 314/246)	8.3	10.2	(0.45)	10.6	9.8	(0.33)

\*See reference 2 for a description of the questions. n = number of respondents aged <16 years/16+ years. \*P<0.05, \*\*P<0.01, \*\*\*P<0.001.

ue.<sup>1,2</sup> There are only a few published surveys on patients' attitudes regarding contact with medical students and these have been hospital based.<sup>3-5</sup> We carried out a survey to assess patients' willingness to be involved in medical student education when they visit the practice.

A postal questionnaire was sent to all patients over the age of 16 years registered with one general practitioner (N O) in a five partner health centre based practice in Cambridge. Patients were asked about past encounters with medical students within the practice and willingness to be involved with medical student training in the future. Responses were anonymous and there was no follow up of non-respondents.

A total of 1133 questionnaires were sent out and 578 (51.0%) returned. There was a statistically significant ( $P < 0.001$ ) response bias — the mean age of respondents was 52.9 years compared with 44.6 years for all those to whom the questionnaire was sent (including respondents).

Of the 578 respondents, 379 (65.6%) reported having previously had a medical student present during a consultation with their general practitioner and 262 of these reported the student to have played an active role, that is taken a history or performed an examination. Of the 368 patients who answered the question, 317 (86.1%) reported that having the student present made no difference to the consultation, 15 (4.1%) felt the consultation was easier and 36 (9.8%) that it was more difficult.

Patients were asked whether they would be prepared to have a medical student involved during future consultations with their general practitioner (Table 2). There was no significant difference in the responses of those patients who had had previous experience of medical students and those who had not. Analysis by seven

10-year age bands showed younger patients were less likely to report a future willingness to have a medical student present during their consultation than older patients ( $P < 0.05$ , chi square test with 12 degrees of freedom).

This survey has demonstrated that a large majority of respondents would be prepared to have a medical student present when they visit the surgery. We conclude that patients' attitudes are unlikely to present a significant barrier to an increased proportion of medical student training taking place in general practice in the UK.

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### References

1. Iliffe S. All that is solid melts into air — the implications of community based undergraduate medical education. *Br J Gen Pract* 1992; **42**: 390-393.
2. Oswald N. Where should we train doctors in the future? *BMJ* 1991; **337**: 1087-1088.
3. Romano J. Patients' attitudes and behaviour in ward round teaching. *JAMA* 1941; **117**: 664-667.
4. Richardson PH, Curzen P, Fonagy P. Patients' attitudes to student doctors. *Med Educ* 1986; **20**: 314-317.
5. King D, Benbow SJ, Elizabeth J, Lye M. Attitudes of elderly patients to medical students. *Med Educ* 1992; **26**: 360-363.

### Out of hours treatment centres

Sir,  
Recent reports in the national press suggest that the government is planning to introduce primary care out of hours treatment centres (*Sunday Express*, 21 November 1993).

A retrospective review of all out of hours, face to face, doctor-patient con-

tacts over the period August 1992 to August 1993 was made for those patients registered at the four practices covered by me when I am on call. I keep a separate card for each patient seen out of hours and information was obtained from these. A questionnaire was also sent to all 10 local practices which would be in the likely catchment area for an out of hours centre, if such a centre were to operate from my own or one of the neighbouring towns.

Of the 214 out of hours consultations 81% were for patients living four miles or more from the surgery. A total of 133 patients were seen at the surgery and 81 were visited at home. Of patients seen 62% were therefore willing and well enough to attend the surgery. Only 18 of all the patients seen (8%) required admission to hospital. Of the 214 consultations 14% were accounted for by minor injuries that could have been dealt with equally well in a hospital accident and emergency department. In the 194 patients whose duration of symptoms could be estimated, 32% had had symptoms for 24 hours or less when seen by the doctor. The other 68% had had symptoms for more than 24 hours; 43% of patients had had symptoms for more than 48 hours.

In reply to the questionnaire, 10 doctors indicated that they would be interested and four doctors said they would not be interested in decreasing their out of hours workload by 60%. Five doctors would be happy and eight would not, for their patients to contact a primary care centre directly (one doctor did not know). Seven doctors would prefer their patients to contact the practice/out of hours rota first while four doctors would not and three did not know. Two doctors would be willing to pay a small fee for their patients seen in the centre, seven would not be willing and five did not know. Three doctors would be interested in working in the centre, seven would not be and four did not know. Three would be interested in using the service if it became available, six would not be, and five did not know.

That 62% of patients were able to come to the surgery suggests that these consultations were for minor illnesses. Only 8% of patients needed hospital admission. In Walker's study of out of hours visits to children, only 5% required hospital admission.<sup>1</sup> A recent study showed no difference in doctor defined serious health problems between children seen frequently out of hours and a control group who were not seen frequently.<sup>2</sup> As two thirds of symptoms had been present for more than 24 hours, it is likely that the illnesses had started during normal working hours. Out-of-hours consultations could be reduced by better patient education and

**Table 2.** Patients willingness to participate in medical student education in a primary care setting.

	% of patients responding:		
	Yes	Sometimes	Never
In future would you allow a medical student to be present when you see your doctor? (n = 578)	69.7	26.8	3.5
Would you be prepared to see a medical student alone before seeing the doctor? (n = 576)	47.0	27.6	25.3
Would you be prepared to let your child see a medical student as well as seeing the doctor? (n = 196)	71.9	18.9	9.2

n = total number of respondents to question.