

Is paediatrics safe in general practitioners' hands? A study in the north of England

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SUMMARY. *More than half the general practitioners in the north of England, and all the health visitors, were sent questionnaires about the primary health care of children. Eighty per cent of general practitioners responded. Their qualifications and experience in paediatrics were poor, although this was less true for younger practitioners. The doctors differed widely in their management of hypothetical clinical problems, possibly owing to this lack of training. Health visitors were thought to have an important role in developmental screening within the primary health care team, but the teamwork itself seemed weak. Although 83% of general practitioners considered developmental screening should be primarily the responsibility of the primary health care team, 31% of practices did not do it and had no plans to start. Rather more than half of the doctors in these non-screening practices would accept a clinical medical officer to screen their patients on their premises. Suggestions are made for ways of encouraging general practitioners to carry out developmental screening.*

Introduction

FOLLOWING the family doctor charter,¹ the last two decades in general practice have seen the increasing formation of group practices, the expansion of practice premises, the emergence of primary health care teams, the implementation of statutory training and the pursuit of quality.² The Court report³ recommended that a great deal of the care of sick children and paediatric surveillance should be carried out by general practitioners and primary health care teams. The government are now proposing specific remuneration for 'suitably trained' general practitioners undertaking child health surveillance.⁴ The present study was undertaken to assess the provision of paediatric care by general practitioners and health visitors in the north of England.

Method

In May 1985, a four-page questionnaire was sent to all practices in the Northern region of England: that is, all single-handed doctors received one and in practices with two or more principals, exactly half the doctors were sampled at random. Three weeks later, another questionnaire was sent to those principals who had not replied. A second reminder was sent after a further three weeks, with a few 'key' questions highlighted for doctors not wishing to fill in the whole questionnaire. During the same period, a complementary questionnaire was sent to every

health visitor in the region; although some results are included here, a detailed account will appear in another paper.

Questionnaires were sent to 824 practising doctors; 615 (75%) completed questionnaires and 41 (5%) partly completed questionnaires were returned, including at least one questionnaire from 430 (85%) of the 506 practices. Only one significant difference between doctors who responded to different mailings was found: members of the RCGP tended to respond earlier than others, and may therefore be over-represented in the responding sample. Of the 663 health visitors, 599 (90%) completed questionnaires and 13 (2%) partly completed questionnaires.

Questionnaires were analysed on the Newcastle University mainframe computer by the statistical package SPSSX.⁵ To compensate for the different sampling fractions and make the sample representative of all practitioners in the region, single-handed practitioners were given only half the weight of others. This reduced the maximum response to key questions from 656 to 607, and to other doctor-specific questions from 615 to 573.

Premises, staff, equipment and clinics are more appropriately described by practice than by doctor. Here single-handed practices were given the same weight as others. When doctors from larger practices were not unanimous in their responses to a given question, the most frequent response was chosen, or one of equally frequent responses at random.

In principle, the denominator for percentages was taken as the number of responses to the given question. Statistical significance was tested by the chi-squared test; where appropriate, the variants known as McNemar's test and the test for linear trend in proportions were used.⁶

Results

Qualifications, training and clinical management

Fifty two per cent of general practitioners had done a six-month residential paediatric job and 9% held the diploma in child health (Table 1). Significantly higher proportions of recently graduated doctors had qualifications and experience relevant to paediatrics.

Doctors were asked whether they would refer children with defined problems to a specialist or treat them themselves:

- Twenty nine per cent would refer an otherwise well baby with a soft apical systolic murmur detected at a six-week developmental examination.
- Twenty nine per cent would refer a two year old with eczema who has not responded to the application of 1% hydrocortisone for one month.
- Eleven per cent would refer a child aged six years from a wheezy family who presents with a history suggestive of asthma.
- Thirty seven per cent would immediately admit to hospital a known asthmatic child aged eight years with severe bronchospasm at night who is not responding to his usual inhalers and tablets; 59% would try alternative treatment and admit to hospital if not immediately successful and 4% would persevere with alternative treatment and revisit in a few hours.
- Fifteen per cent would refer a boy aged 10 years with lifelong enuresis but no problems in the day and occasional dry nights; a further 39% would involve the health visitor or nurse in treatment within the practice.

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Table 1. Qualifications, training and experience of general practitioners according to time since qualifying.

	Qualifications and experience (number (%) of general practitioners)					
	MRCGP or FRCGP	Diploma in child health	Six month residential paediatric job	Present or past paediatric appointment	In last five years	
					Paediatric course of more than one day ^a	Developmental paediatric course of one day or more ^a
Qualified 1974 or earlier (n≤434)	144 (35)	28 (7)	167 (41)	68 (17)	93 (22)	83 (19)
Qualified 1975 or later (n≤165)	108 (66)	21 (13)	128 (78)	19 (11)	65 (39)	46 (28)
All (n≤607 ^b)	252 (44)	49 (9)	295 (52)	87 (15)	163 ^b (27)	130 ^b (22)
Significance of difference between recent and earlier graduates (χ ² test)	P<0.001	P<0.05	P<0.001	NS	P<0.001	P<0.05

^aKey question. ^bIncludes practitioners who did not state their year of graduation. NS = not significant.

Table 2. Communication between general practitioners and health visitors.

According to:	Number of practices where practice policy discussed:		Number (%) of practices where patients discussed:		
	At formal policy meetings	Informally	At least once a week	Less than weekly but more than monthly	
				Less than once a month	
General practitioners (n≤430)	166 (29)	374 (92)	274 (68)	106 (26)	25 (6)
Health visitors (n≤436)	73 (17)	316 (73)	313 (72)	91 (21)	32 (7)
Significance of difference (McNemar's test)	P<0.001	P<0.001		P<0.05	

Eighty three per cent of respondents felt that children suffering from fibrocystic disease should be mainly the responsibility of a specialist paediatric unit rather than the primary health care team; the corresponding percentages were 81% for spina bifida and 30% for Down's syndrome.

The primary health care team

Ninety seven per cent of practices had an attached health visitor, 90% had an attached midwife, 52% employed a practice nurse and 37% had a specific social worker who liaised with their practice. Doctors and health visitors differed in their perceptions of the extent to which both practice policy and patients were discussed between them; more general practitioners than health visitors thought practice policy was discussed both formally and informally but more health visitors thought patients were discussed regularly (Table 2). Only 21% of health visitors wrote on practitioners' records. Doctors perceived better relationships with their health visitors than health visitors did with their doctors (Table 3).

Sixteen per cent of practitioners had regular contact (at least once a month) with a clinical medical officer. Forty per cent of practitioners found referrals from clinical medical officers 'usually very helpful'; 43% found them 'usually helpful in reminding [them] of problems of which [they] were already aware' and 15% found them of 'no help at all'.

General practitioners and hospitals

General practitioners were asked to estimate how many children they referred each year. Median estimates for the number of acute admissions were five for children aged under 12 months, and six for older children. Median estimates for the number of children referred to out patients each year for ear, nose and throat problems were 10, four for eye problems, three for skin problems and eight for general paediatric problems. All these

Table 3. Professional relationships between general practitioners and health visitors.

	Perceptions of relationship (number (%) of respondents)		
	Very good ^a	Good ^b	Average, ^c poor ^d or very poor ^e
General practitioners (n = 560)	372 (66)	125 (22)	63 (11)
Health visitors (n = 1223)	553 (45)	347 (28)	323 (26)

^a'Respect and can cooperate with', ^b'quite respect and can usually cooperate with', ^c'can get along with', ^d'usually difficult and sometimes hostile', ^e'frankly quite impossible'.

NB: Each health visitor was asked to assess her relationship with up to two practitioners per practice.

P<0.001, comparing general practitioners and health visitor (χ² test for linear trend).

estimates varied widely between respondents. Median estimates of waiting times for routine appointments were 12 weeks for ear, nose and throat, eight for ophthalmology, six for dermatology and three for general paediatrics; these estimates were consistent within districts. Fifty nine per cent of practitioners reported that they did not request domiciliary visits by consultant paediatricians, and another 28% that they requested only one or two visits per year.

Paediatrics in practice

Eighty three per cent of doctors and 69% of health visitors felt that the primary health care team should be responsible for developmental screening (Table 4). Nevertheless, only 56% of practices undertook developmental screening, 45% at special clinics. A further 13% had plans to introduce developmental

Table 4. Suggested responsibility for developmental screening.^a

	Perceptions of primary responsibility for developmental screening (number (%) of respondents)					
	Primary health care team			Clinical medical officers only	Clinical medical officers and HVs equally	Clinical medical officers, GPs and HVs equally
	Mainly GPs	Mainly HVs	GPs and HVs equally			
General practitioners (n = 602)	84 (14)	73 (12)	343 (57)	12 (2)	63 (11)	27 (4)
Health visitors (n = 603)	5 (1)	173 (29)	236 (39)	5 (1)	174 (29)	10 (2)

^aKey question. $P < 0.001$, comparing general practitioners and health visitors (χ^2 test).

screening. Seventy three per cent of the doctors in the 31% of practices where screening was neither undertaken nor planned would be prepared to accept a clinical medical officer doing this for their patients; 55% would accept their doing it on practice premises, and 58% would allow them to use practice records.

The paediatric and related clinics held in the general practices are shown in Table 5. Thirty four per cent of practices held two or fewer paediatric or related clinics and 29% held between seven and the maximum of 10.

The staffing of the five types of practice developmental clinics was essentially the same: 48% were staffed by general practitioners and health visitors, 28% by general practitioners without health visitors, 19% by health visitors without doctors and 5% by clinical medical officers with or without health visitors. The reported availability of paediatric facilities and equipment in practices is shown in Table 6. Half as many practices had facilities for health visitors according to the health visitors than according to the doctors.

Discussion

General practitioner training

Our results suggest that general practitioners in the Northern region are not well trained to provide paediatric care. Only 52% of practitioners had done a six-month residential paediatric job. Only 9% had the diploma in child health; this compares unfavourably with 33% with the diploma in obstetrics⁷ even though intranatal care in general practice has diminished.⁸ Only 27% of practitioners had done a residential paediatric refresher course in the last five years. It is not surprising that the paediatric problems posed in our questionnaire produced wide variations in responses. Similarly, practitioners' dependence on hospital departments for children with severe congenital illness is understandable but still disappointing.

The Court report³ recommended that developmental surveillance be carried out by selected practitioners but the General Medical Services Committee and the Royal College of General Practitioners rejected this concept of a 'general practitioner paediatrician'. The RCGP subsequently emphasized the role of all practitioners in preventive paediatrics.⁹ Our study shows that 83% of practitioners agreed that primary health care teams should take responsibility for developmental paediatrics; most of these allocated equal roles to general practitioners and health visitors. Many health visitors also preferred to share responsibility with practitioners, although nearly a third would involve clinical medical officers and some commented that practitioners should participate 'only if properly trained'. However, less than a quarter of practitioners had done a developmental paediatrics course within the previous five years.

Hearteningly, our results show that significantly more practitioners who graduated after 1975 had done a six months' residential paediatric job, had the diploma in child health, and had attended both paediatric and developmental paediatric courses. Remembering too the paediatric experience of voca-

Table 5. Paediatric and related clinics held in general practices.

	Number (%) of practices (n = 430)
Antenatal or postnatal	356 (83)
Immunization	337 (79)
Well baby	257 (60)
Family planning	215 (50)
Mothercraft	116 (27)
Developmental screening:	
6 weeks	170 (40)
6-8 months	144 (33)
1-1.5 years	147 (34)
2-3 years	136 (32)
Pre-school	120 (28)

Table 6. Paediatric equipment and facilities available in general practices.

	Number (%) of practices according to:	
	General practitioners (n < 406)	Health visitors (n < 427)
<i>Equipment</i>		
Tuning fork	381 (96)	
Height measure	380 (95)	
Peak flow meter	378 (94)	
Percentile growth charts	362 (91)	
Snellen letter card	343 (87)	
Baby scales	317 (80)	
Ishihara colour card	307 (77)	
Microscope	158 (40)	
Snellen picture card	128 (34)	
Electronic audiometer	85 (22)	
<i>Facilities</i>		
Paediatric immunization records	362 (89)	
Age-sex register	287 (71)	
Office for sole use of health visitors	210 (52)	107 (25)***
Clinic area for sole use of health visitors	140 (35)	72 (17)***
Designated health education area	109 (27)	
Paediatric development records	93 (23)	

*** $P < 0.001$ (McNemar's test).

tional trainees within general practice, we conclude that paediatric standards in general practice are rising. We hope that the government's commitment to postgraduate training¹⁰ will encourage more attendances, in particular at paediatric courses.

Health visitors and clinical medical officers

Ninety seven per cent of practices had an attached health visitor. Unfortunately, health visitors' perceptions of their professional

relationships with practitioners could have been better: only 74% compared with 88% of practitioners described the relationship as 'very good' or 'good'. Similarly, many more practitioners than health visitors believed that practice policy was discussed between them, both formally and informally. Furthermore, about a third of practitioners and health visitors discussed patients' problems less than once per week and only 21% of health visitors wrote on practitioners' records.

As 15% of practitioners held, or had held, community paediatric appointments, it was disappointing that only 16% had monthly contact with a clinical medical officer. This was probably why only 40% of practitioners considered that referrals to a clinical medical officer were usually very helpful. However, 43% admitted that they were helpful in reminding them of known paediatric problems, suggesting that clinical medical officers act as a safety net for some children. Unfortunately, the community paediatric services do not reach more than 50% of the child population.¹¹

Thus there is a need for better paediatric teamwork in the community. First, practitioners should recognize that, like themselves, health visitors are independent professionals who are prepared to work with, but not for, others on common paediatric problems. Secondly, clinical medical officers should try to close the gap between themselves and the practitioners and health visitors, for example by visiting practices more frequently, either informally at coffee times or formally at practice meetings. Could health authorities and family practitioner committees not encourage this?

Hospital departments

The 'typical' practitioner admitted about 10 children urgently to hospital each year, and rarely requested a domiciliary visit by a consultant paediatrician. Thus practitioners were undertaking the care of almost all sick children at home. However, the volume of outpatient referrals was threatening to overwhelm the 'special sense' departments; in particular, half of ear, nose and throat referrals waited more than three months, and 15% waited more than six months. By contrast, general paediatric outpatient departments seemed to be coping well.

In addition to reinforcing the need for more general paediatric training, these results highlight the importance of rotating ENT—ophthalmology—dermatology appointments in vocational training programmes. These and analogous refresher courses are both rare. Perhaps greater knowledge in these fields would reduce these referral rates.

Developmental screening and clinics

Only 45% of practices set time aside for developmental screening at a special clinic — a percentage consistent with that reported by a national sample survey that focussed on training practices.¹² A further 11% of the practices claimed to screen opportunistically during surgery appointments and 13% had plans to introduce special clinics. Only 23% of practices used a developmental card in children's notes, despite the availability of these from both the DHSS and the RCGP. With this exception, however, the results suggest that the personnel and equipment for developmental screening were available in most practices. Nevertheless, the facilities appeared limited: 73% of health visitors claimed to have no room for their sole use and 81% no clinic area for their sole use. Although building schemes for group practices have increased during the last two decades, they seem not to have provided adequate space for preventive health care or facilities for health visitors. Practices considering expansion in the future should take this issue seriously, preferably by involving health visitors in planning.

Although these results relate to 1985 we suspect that many

practices will currently fail to satisfy the government's criteria for extra remuneration for child health surveillance spelled out in their proposals for a new contract.⁴ Accordingly, three aspects of the results point to ways of encouraging the 31% of practices who have no plans for developmental screening. First, it should be noted that the most common clinics in general practices were maternity (83%) and paediatric immunization (79%) — work for which practitioners are paid fees. We predict that the introduction of fees for developmental screening will immediately boost this activity. Secondly, 12% of practitioners and 29% of health visitors considered that, within the primary health care team, the health visitor should be primarily responsible for developmental screening. Moreover, 19% of development screening clinics were staffed by health visitors without doctors. We suggest that practitioners with limited time need only encourage and facilitate developmental screening by their health visitors without overburdening themselves. Thirdly, over half the doctors who had no plans for developmental screening would be prepared to have clinical medical officers do it for them on their premises. Since 5% of the practices which ran developmental clinics already had clinical medical officers working with them, a precedent for this has already been established. Thus there is still a need for a third force in community paediatrics, and even an opportunity for clinical medical officers to expand their activities by working within general practices. Given the trend towards developmental screening by the primary health care team, however, the need for a third force may not persist for much more than a decade.

This survey has generated evidence that developmental screening, and even general paediatrics, is not yet safe with general practitioners. However, there are grounds for hoping that a similar survey in 10 years' time would show a different picture.

References

1. British Medical Association. *A charter for the family doctor service*. London: BMA, 1965.
2. Royal College of General Practitioners. *Quality in general practice. Policy statement 2*. London: RCGP, 1985.
3. Committee on Child Health Services. *Fit for the future (Cmnd 6684)*. London: HMSO, 1976.
4. Department of Health and the Welsh Office. *General practice in the National Health Service. A new contract*. London: Department of Health and the Welsh Office, 1989.
5. SPSS Inc. *SPSSX user's guide*. New York: McGraw-Hill, 1983.
6. Armitage P. *Statistical methods in medical research*. Oxford: Blackwell, 1971.
7. Marsh GN, Cashman HA, Russell IT. General practitioner obstetrics in the Northern region in 1983. *Br Med J* 1985; **290**: 901-903.
8. Marsh GN, Cashman HA, Russell IT. General practitioner participation in intranatal care in the Northern region in 1983. *Br Med J* 1985; **290**: 971-973.
9. Royal College of General Practitioners. *Healthier children — thinking prevention. Report from general practice 22*. London: RCGP, 1982.
10. Secretaries of State for Social Services, Wales, Northern Ireland and Scotland. *Promoting better health (Cm 249)*. London: HMSO, 1987.
11. Department of Health and Social Security. *The annual report of the National Health Service for the year 1985*. London: HMSO, 1986.
12. Burke P, Bain J. Paediatric developmental screening: a survey of general practitioners. *J R Coll Gen Pract* 1986; **36**: 302-306.

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