

## Roles, risks, and responsibilities in maternity care: trainees' beliefs and the effects of practice obstetric training

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### Abstract

**Objectives**—To document the content of practice obstetric vocational training, the beliefs of general practitioner trainees about the roles of midwives and general practitioners in maternity care, and the risks of providing such care; and to ascertain if undergoing such training affects their beliefs.

**Design**—Confidential postal questionnaire survey.

**Subjects**—Random one in four sample of all general practitioner trainees in the United Kingdom on vocational training schemes or in training practices in autumn 1990.

**Main outcome measures**—Beliefs scored on seven point Likert scales and characteristics of trainer and training practice.

**Results**—Of 1019 trainees sent questionnaires, 765 (75.1% response rate) replied; 638 (83.3%) had done some part of their practice year. Of their trainers, 224 (35.1%) provided full obstetric care. 749 (99%) and 364 (48%) trainees believed that midwives and general practitioners respectively have an important role in normal labour; 681 (91.7%) trainees believed that general practice intrapartum care is a high risk "specialty." Those trainees whose trainers provide full obstetric care were significantly more likely to believe that both midwives and general practitioners have an important role in abnormal labour and to see the provision of intrapartum care as an incentive to join a practice.

**Conclusion**—In this series most general practitioner trainees believed that both midwives and general practitioners have important roles in maternity care. Exposure of trainees to the provision of full obstetric care while in their training practice resulted in a more positive attitude towards the provision of such care by general practitioners.

### Introduction

The role of general practitioners in maternity care has changed over the past 30 years, most now providing only shared antenatal and postnatal care.<sup>1-3</sup> It has been suggested that midwives should extend their role<sup>4-8</sup> to compensate, and there is evidence<sup>9</sup> that midwives are

indeed filling this personal care role vacated by general practitioners.

Vocational obstetric training occurs during hospital senior house officer appointments<sup>10-16</sup> and in training practices.<sup>14, 17</sup> It seems likely that the education which trainees receive in these posts will partly determine their beliefs about the role of the general practitioner in maternity care.

This paper, which is part of a larger study, reports the beliefs of general practitioner trainees about the roles of the general practitioner and the midwife in maternity care and general practice obstetric training and relates the beliefs of general practitioner trainees to this training.

### Subjects and methods

The names and addresses of general practitioner trainees in the United Kingdom who were on vocational training schemes or in training practices were obtained from course organisers and regional advisers in general practice. A random one in four sample of these were sent a confidential postal questionnaire in the autumn of 1990. Information was sought about their practice obstetric training, their trainer and training practice, and their beliefs about various aspects of maternity care, including the roles of midwives and general practitioners. They were asked to state their beliefs on seven point Likert scales (which were later collapsed to three point scales if replies were very skewed).

The returned questionnaires were analysed by means of the SPSS X statistical package. The effect of undergoing practice obstetric training on trainees' beliefs was analysed with the Kruskal-Wallis test. All ranges quoted are interquartile ranges. The Wilcoxon matched pairs signed ranks test and the Friedman test were used to compare beliefs, and the  $\chi^2$  test was also used when appropriate. Because of the large number of comparisons significance was set at  $p < 0.01$ . Not all trainees answered all questions: the number of non-respondents to a specific question is not always shown.

### Results

Of 1019 trainees, 765 (75.1% response rate) replied, of whom 638 (83.3%) had either begun or finished their trainee year. Of these, 227 (35.7%) had completed three months or less in their training practice, 258 (40.6%) four to six months, and 150 (23.6%) seven months or more. Of their trainers, 224 (35.1%) provided full maternity care (antenatal, intranatal, and postnatal) and 191 (29.9%) practices booked women for home confinement. Trainees attended either joint (general practitioner and midwife) (317; 49.7%), general practitioner (217; 34.0%), or midwife (104; 16.3%) antenatal clinics. Sixty eight (10.7%) trainees attended a general practitioner booked woman at some stage of her labour, and 57 (8.9%) attended for delivery.

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TABLE 1—Beliefs of general practitioner trainees about importance of midwives and general practitioners in providing care antenatally, in normal and abnormal labour, and postnatally. Results expressed as numbers (percentages) of trainees believing them to be important in providing care, and median score (interquartile range) on Likert scale from 1=unimportant to 3=important

	No (%) of general practitioner trainees		Median score (interquartile range)		Significance*
	Midwives	General practitioners	Midwives	General practitioners	
Antenatal care	732 (96)	714 (94)	3 (3 to 3)	3 (3 to 3)	$z=1.71$ ; $n=758$ ; $p=NS$
Normal labour	749 (99)	364 (48)	3 (3 to 3)	2 (1 to 3)	$z=16.9$ ; $n=757$ ; $p<0.0001$
Abnormal labour	548 (72)	140 (23)	3 (2 to 3)	1 (1 to 2)	$z=18.7$ ; $n=755$ ; $p<0.0001$
Postnatal care	711 (94)	687 (91)	3 (3 to 3)	3 (3 to 3)	$z=4.6$ , $n=758$ ; $p=NS$

\*Wilcoxon matched pairs test.

ROLES FOR MIDWIVES AND GENERAL PRACTITIONERS

Trainees stated that midwives were more important than general practitioners in providing care in both normal and abnormal labour (table I;  $p < 0.0001$ ). Compared with trainees whose trainer did not provide intrapartum care those trainees whose trainer did provide this service were more likely to believe that midwives are important in providing care in abnormal labour ( $H = 10.1$ ;  $n = 620$ ;  $p < 0.002$ ) and that general practitioners are important in providing care in both normal ( $H = 40.4$ ;  $n = 620$ ;  $p < 0.0001$ ) and abnormal ( $H = 15.3$ ;  $n = 620$ ;  $p < 0.0001$ ) labour (table II).

TABLE II—Beliefs of general practitioner trainees about importance of general practitioners and midwives in providing care in normal and abnormal labour, classified by whether trainers provided or did not provide intrapartum care. Results expressed as numbers (percentages) of trainees believing them to be important in providing care, and median score (interquartile range) on Likert scale from 1=unimportant to 7=important

Trainer provides intrapartum care?	No (%) of general practitioner trainees	Median score (interquartile range)	Significance*
<i>Importance of general practitioner care in normal labour</i>			
Yes	138 (62)	5 (4 to 6)	$H = 40.4$ ; $n = 620$ ; $p < 0.0001$
No	143 (36)	4 (2 to 5)	
<i>Importance of general practitioner care in abnormal labour</i>			
Yes	60 (27)	3 (2 to 5)	$H = 15.3$ ; $n = 620$ ; $p < 0.0001$
No	52 (13)	2 (1 to 4)	
<i>Importance of midwifery care in abnormal labour</i>			
Yes	176 (79)	6 (5 to 7)	$H = 10.1$ ; $n = 620$ ; $p < 0.002$
No	275 (69)	5 (4 to 6)	

\*Kruskal-Wallis non-parametric test.

TABLE III—Numbers (percentages) of trainees stating how important they believed it was to attend antenatal clinics run by either general practitioner trainer or attached community midwife

	Necessary	Undecided	Unnecessary
General practitioner	500 (66.5)	120 (16.0)	132 (17.6)
Midwife	391 (52.3)	158 (21.1)	199 (26.6)

Wilcoxon matched pairs test:  $z = 9.9$ ;  $n = 747$ ;  $p < 0.0001$ .

TABLE IV—Numbers (percentages) of trainees' beliefs about risk attached to "specialties" of general practice, consultant obstetrics, and general practitioner obstetrics (full care)

	Low risk	Medium risk	High risk
General practice	325 (43.9)	211 (28.5)	205 (27.7)
Consultant obstetrics	17 (2.3)	31 (4.2)	692 (95.8)
General practitioner obstetrics (full care)	23 (3.1)	39 (5.2)	681 (91.7)

Friedman test:  $n = 735$ ;  $\chi^2 = 835$ ;  $p < 0.0001$ .

PRACTICE OBSTETRIC TRAINING

Of 627 trainees, 389 (62.0%) believed that the obstetric training they received in their training practice was relevant to their future needs as a principal in practice, 88 (14.0%) were uncertain of its relevance, and 150 (23.9%) believed that it was irrelevant.

Of 707 trainees, 449 (63.5%) felt that future practice obstetric training should be more oriented towards the needs of the trainee as a future principal, 243 (34.4%) were undecided, and 15 (2.1%) felt it should be less oriented.

The majority of trainees (587/753; 78.0%) believed that it was essential for trainees who wished to provide intrapartum care in the future to be trained by general practitioner trainers who specifically provided this service to their patients. Furthermore, 563 (74.5%) of 754 trainees believed that it would be helpful for certain general practitioners to be designated as general practitioner obstetrician trainers to provide the necessary training for interested trainees. Compared with those trainees whose trainers did not provide intra-

partum care those whose trainers did so were less likely to believe that such designated trainers would be helpful ( $H = 12.1$ ,  $n = 621$ ,  $p < 0.0006$ ; median (range) for those whose trainers did not provide intrapartum care = 2 (3 to 1), and for those whose trainers did so = 3 (4 to 1)—where 1 = helpful and 7 = unhelpful).

Most trainees believed that it was important to attend the antenatal clinics of both their general practitioner trainer and the attached community midwife (table III), but most believed that it was more important to attend the antenatal clinics of their general practitioner trainer ( $z = 9.9$ ;  $n = 747$ ;  $p < 0.0001$ ).

INDEPENDENCE FROM SPECIALIST CARE

When trainees were asked how often healthy pregnant women should be seen antenatally by a consultant obstetrician (on a Likert scale of 1 = exclusively to 7 = not at all) the median (range) reply was 5 (4 to 6) ( $n = 755$ ). Compared with trainees who were yet to do any hospital obstetrics those who had done some were less likely to believe that women needed to attend consultant antenatal clinics ( $H = 17.3$ ,  $n = 751$ ,  $p < 0.0001$ ; median (range) for trainees yet to start hospital obstetrics = 4 (4 to 6) *v* those who had started = 5 (4 to 6)).

When asked whether in the future more or fewer women should be delivered in large hospitals which can cope with emergencies (on a Likert scale from 1 = more to 7 = fewer), trainees' median (range) reply was 3 (1 to 4) ( $n = 758$ ). Those who while in their training practice had attended a general practitioner booked woman for delivery were less likely to believe that more women should deliver in large hospitals in the future ( $H = 12.7$ ,  $n = 620$ ,  $p < 0.0005$ ; median (range) for trainees attending such deliveries = 4 (2 to 4) *v* trainees not attending = 3 (1 to 4)).

RISKS ASSOCIATED WITH OBSTETRIC CARE

When asked what risk, in relation to other medical specialties, attaches to the "specialties" of general practice, consultant obstetrics, and general practitioner obstetrics (providing full obstetric care to their own patients) trainees rated obstetrics in both settings as of very high risk (table IV;  $p < 0.0001$ ). Those trainees whose trainers provided intrapartum care were less likely to perceive general practitioner intrapartum care as a high risk activity ( $H = 12.8$ ,  $n = 621$ ,  $p < 0.0004$ ; those whose trainers provided intrapartum care, median (range) = 6 (5 to 7), *v* those not providing intrapartum care = 7 (6 to 7)).

OTHER

Of 752 trainees, 423 (56.3%) believed that a woman is entitled to deliver her children wherever she so chooses, 119 (15.8%) were undecided, and 210 (27.9%) believed that she was not so entitled. Of 756 trainees, 693 (91.7%) believed that continuity of care throughout all stages of pregnancy is important to pregnant women, 42 (5.6%) were undecided, and 21 (2.8%) did not believe that it was important to women.

Of 760 trainees, 144 (18.9%) believed that the type of maternity care provided by a practice would be a very important consideration which would affect their decision when choosing a practice, 560 (73.7%) believed that it was of some importance, and 56 (7.4%) believed that it was irrelevant to their choice. In particular, 346 (45.6%) trainees stated that the provision of intrapartum care by a potential practice would be an incentive to them to choose that practice, 225 (29.6%) would be indifferent, and 189 (24.9%) would view it as a disincentive. Those trainees whose trainers had provided such a service were more likely to see it as an incentive to join a practice ( $\chi^2 = 37.7$ ,  $df = 2$ ,  $p < 0.0001$ ; table V).

TABLE V—Numbers (percentages) of trainees stating that provision of intrapartum care by potential practice would affect their decision to join that practice, classified by whether trainer provided this service

	Trainer provides intrapartum care?	
	Yes	No
Incentive	128 (55.9)	126 (34.4)
Irrelevant	68 (29.7)	111 (30.3)
Disincentive	33 (14.4)	129 (35.2)

$\chi^2 = 37.7$ ;  $df = 2$ ;  $p < 0.0001$ .

## Discussion

Women want choice in maternity care.<sup>2,18,19</sup> The government states that women still have this choice,<sup>20</sup> and over 50% of general practitioner trainees believe that women are entitled to this choice. Women's choice of place of delivery continues to decrease as more isolated general practitioner units close and fewer general practitioners offer full obstetric care (that is, intrapartum care in addition to the usual antenatal and postnatal care).<sup>1-3</sup> Nevertheless, midwives seem to be compensating somewhat for this decline in general practitioner involvement by providing domino services,<sup>9</sup> where the community midwife provides the personal continuity of care which general practitioners used to provide. These changes have been noted by the recent report of a House of Commons select committee, which has recommended that such closures should halt and that midwives should be central to the provision of maternity care.<sup>21</sup> To facilitate women having a choice of carer and place of birth in the future it is crucial for future general practitioners to believe that they have an important role in maternity care and that this is complementary to that of the midwife.

Nearly all general practitioner trainees believed that both midwives and general practitioners have an important role in the provision of antenatal and postnatal care which is consistent with the present maternity services offered by the primary care team. Furthermore, most believed that both groups should be involved in the training of trainees in antenatal clinics. Interestingly, over half believed that general practitioners have an important role in providing care in normal labour and about a quarter in abnormal labour. These beliefs are supported by the fact that nearly half stated that the provision of intrapartum care facilities by a potential practice would be an incentive to them joining that practice, and by over one third of trainees stating that they would like to provide full obstetric care as a general practitioner in the future.<sup>15</sup> The acknowledgment by trainees that midwives have a more important role in labour than general practitioners agrees with the views of other professionals,<sup>22,23</sup> but trainees' belief that general practitioners have an important contribution to make to intrapartum care is welcome in view of the dwindling contribution that general practitioners are making at present to such care.<sup>1-3</sup>

## FUTURE YEARS

Despite trainees attending fewer women in labour while in their practice year than 25 years ago,<sup>24</sup> exposing general practitioner trainees to general practitioner trainers who actually provide full care (and therefore who educate them about the actual responsibilities, risks, and benefits of such care) significantly affects their beliefs about maternity care. Such exposure makes them believe more strongly that both midwives and general practitioners have an important role in providing care in labour; less likely to believe that such care is highly risky or that more women should be delivered in large hospitals in the future; and more likely to perceive the provision of intrapartum care facilities by a potential practice as an incentive to join the practice.

It has been reported that the practice component of vocational training has improved over the years,<sup>14,17</sup> but over 60% of trainees in this survey thought that their practice obstetric training should have been more oriented towards their future needs as a principal, although their practice training seemed to need less improvement than their corresponding hospital obstetric training.<sup>15</sup> The majority of trainees believed that their practice obstetric training could be improved by designating certain general practitioners as "general practitioner obstetrician" trainers, who would be

providing full obstetric care to their own patients, to provide the necessary training for interested trainees.

Trainees believed that obstetrics, whether consultant or general practitioner, is a high risk "specialty." It could be inferred that this risk attaches to intrapartum care because only half of the trainees believed that women are entitled to deliver their baby where they choose and most believed that women should deliver in large hospitals. In contrast, they tended to believe that normal antenatal care does not need to involve consultant obstetricians. Despite their perception of risk, over one third of trainees wished to provide full obstetric care to their patients in the future.<sup>15</sup>

The basic question still remains of whether general practitioners should be providing intrapartum care. If they should, then it is suggested that more trainees should be exposed to low technology maternity care provided by the primary health care team. Such full care may be provided by the general practitioner and community midwife, or by one of them,<sup>9</sup> so that pregnant women receive continuity of care. Nearly all trainees believed that this was important, and it is said to be an indicator of high quality care<sup>25</sup> which women value.<sup>26,27</sup>

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- 1 Marsh GN, Cashman HA, Russell IT. General practitioner participation in intrapartum care in the Northern region in 1983. *BMJ* 1985;290:971-3.
- 2 Campbell R, MacFarlane A. *Where to be born? The debate and the evidence*. Oxford: National Perinatal Epidemiology Unit, 1987.
- 3 Smith LFP, Jewell D. Contribution of general practitioners to hospital intrapartum care in maternity units in England and Wales in 1988. *BMJ* 1991;302:13-6.
- 4 Street P, Gannon MJ, Holt EM. Community care in west Berkshire. *BMJ* 1991;302:698-700.
- 5 Towler J. Midwives' units: wishful thinking or reality? *Midwives Chronicle* 1984;97:3-5.
- 6 Coupland VA, Green JM, Kitzinger JV, Richards MPM. Obstetricians in the labour ward: implications of medical staffing structures. *BMJ* 1987;295:1077-9.
- 7 Hare MJ, Miles RN, Lattimore CR, Southern JP. "Short report" staffing in practice: five years' experience of a consultant based service in obstetrics and neonatal paediatrics. *BMJ* 1990;300:857-9.
- 8 Smith H. Working without registrars. *Nursing Times* 1989;85:75.
- 9 Smith LFP, Jewell D. Roles of midwives and general practitioners in hospital intrapartum care, England and Wales, 1988. *BMJ* 1991;303:1443-4.
- 10 Styles WMcN. Training experience of doctors certificated for general practice in 1985-90. *Br J Gen Pract* 1991;41:488-91.
- 11 Reeve H, Bowman A. Hospital training for general practice: the views of trainees in the North Western region. *BMJ* 1989;298:1432-4.
- 12 Ronalds C, Douglas A, Gray DJP, Selly P, eds. *Fourth national trainee conference*. London: Royal College of General Practitioners, 1981. (Occasional paper 18.)
- 13 Grant J, Marsden P, King R. Senior house officers and their training. I. Personal characteristics and professional circumstances. II. Perceptions of service and training. *BMJ* 1989;299:1263-8.
- 14 Crawley HS, Levin JB. Training for general practice: a national survey. *BMJ* 1991;300:911-5.
- 15 Smith LFP. GP trainees' views on hospital obstetric vocational training. *BMJ* 1991;303:1447-52.
- 16 Ennis M. Training and supervision of obstetric senior house officers. *BMJ* 1991;303:1442-3.
- 17 Kelly DR, Murray TS. Twenty years of vocational training in the west of Scotland: the practice component. *Br J Gen Pract* 1991;41:492-5.
- 18 Taylor A. Maternity services: the consumer's view. *J R Coll Gen Pract* 1986;36:157-60.
- 19 Ford C, Iliffe S, Franklin O. Outcome of planned home birth in an inner city practice. *BMJ* 1991;303:1517-9.
- 20 Department of Health. *The NHS reforms and you*. London: HMSO, 1990.
- 21 House of Commons Select Committee on Maternity Services. *Second report*. Vol 1. London: HMSO, 1992.
- 22 Robinson S. Providing maternity care in the community. *Midwife, Health Visitor and Community Nurse* 1988;21:274-9.
- 23 Coupland VA, Green JM, Kitzinger JV, Richards MPM. Obstetricians in the labour ward: implications of medical staffing structures. *BMJ* 1987;295:1077-9.
- 24 Whitfield MJ. Training for general practice: result of a survey into the general practitioner trainee scheme. *BMJ* 1966;i:663-7.
- 25 McWhinney IR. Continuity of care. *J Fam Pract* 1982;15:847-8.
- 26 Shear CL, Gipe BT, Mattheis JK, Levy N. Provider continuity and quality of medical care. *Med Care* 1983;21:1204-12.
- 27 Flint C, Poulengeris P, Grant A. The "know your midwife" scheme—a randomised trial of continuity of care by a team of midwives. *Midwifery* 1989;5:11-6.

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