

Women doctors' career choice and commitment to medicine: implications for general practice

RICHARD E. WAKEFORD

VIRGINIA J. WARREN

SUMMARY. *This study examined the work experiences and plans of a national sample of 150 female medical graduates of 1976, 1980 and 1984. The sample was exhaustively traced and information obtained about 97% of the doctors, including 100% of the doctors ever likely to practise in the UK. The findings show a high recent and planned participation rate in medical practice, especially general practice, among these women graduates and no involuntary unemployment. Increased numbers of women at medical school will result in manpower changes, particularly in general practice, but these increases will not counter possible over-production of medical graduates. The study also demonstrates that it is possible to achieve a high response rate among medical graduates by using a telephone interview.*

Introduction

CONCERN has recently been expressed that British medical schools are producing too many doctors and that large scale medical unemployment may be on the horizon.^{1,2} Women now make up 46% of the intake to medical school (Universities Statistical Record, personal communication, 1988), and the extent to which women doctors scale down their medical practice to accommodate family roles will affect medical manpower and potential unemployment.

Studies in the 1960s and 1970s showed that nearly half of women doctors worked full-time, a further third were working part-time, and only 15–20% were not working as doctors. Ward's definitive study concluded that women doctors had 'a higher level of professional activity than any other comparable group'.³ But most of these doctors had entered medical school when female quotas of 10% were the norm.⁴ The careers of women admitted to medical school under more egalitarian arrangements might well be different.

It is therefore important to ascertain the career plans and experiences of contemporary women medical graduates. Unfortunately, the only recent national study,⁵ surveying 1974 UK women graduates, 10 years on, traced only 83% of the total and collected data by means of a postal questionnaire with a response rate of 57%. Its findings therefore represented the views and experiences of only 47% of the total population and are clearly inadequate for planning purposes.

This study was undertaken to determine how recent women graduates solve the dilemma of balancing career and family life, and to ascertain their plans for participation in medical careers. It involved a relatively small (150) random sample of graduates, but traced exhaustively so that the findings could be regarded as representative. A telephone interview was the bases for

data collection, a method which has been shown to be reliable and effective for medical populations.⁶

Method

A random sample of 150 women graduates of British medical schools was drawn from the fortnightly lists of those admitted to the provisional medical register of the General Medical Council for 1976, 1980 and 1984.

Tracing the doctors

Current addresses were sought from the *Medical register* and *Medical directory*. The names of doctors who were not in the current editions were checked in previous volumes, in conjunction with the General Medical Council's fortnightly lists of changes to the *Medical register*. In some cases a new, married name was found; in others, the last listed address was noted; in a small number of cases, General Medical Council staff were able to clarify matters. In this way, an address was obtained for each doctor in the sample.

Telephone numbers were then obtained either from the *Medical directory* or from telephone directory enquiries. When the latter were unable to supply a telephone number, an explanatory letter was posted to the doctor, asking her to return a stamped postcard indicating when and on what number she would be prepared to speak to the investigator. When there was no response, a variety of approaches were employed: the doctor's first registered address, often that of her parents, was telephoned; the assistance of appropriate organizations (for example medical schools, local hospitals or colleagues, family practitioner committees and post offices) was solicited; and on three occasions personal visits were made.

Data collection

In spring 1987 each subject was telephoned by the same young woman doctor (V.J.W.) and taken through a previously piloted questionnaire which asked about the following: work outside the home and looking after the family; age and domestic circumstances; nature of any current paid post; major changes of direction in career; any periods of unemployment of three months or more; previous part-time posts; experience of and thoughts about part-time training and maternity leave regulations; higher medical qualifications; expectations about own employment situation in five and 10–15 years time; factors which might make them work without a break; and the country where they intend to practise.

Subjects with addresses outside Europe were sent the explanatory letter with a copy of the questionnaire, modified for them to complete themselves, and an international reply paid coupon was supplied for return. If no reply was forthcoming, attempts were made to telephone them.

Results

Of the 150 doctors 145 (97%) responded. Of the remainder, two (both UK nationals) were lost to medicine — one had committed suicide and the other refused to participate in the study; her name had been erased from the *Medical register*, eight years after qualification, as she had failed to pay her annual retention

R.E. Wakeford, MA, senior research associate, Office of the Regius Professor of Physic, Cambridge University and V.J. Warren, MA, MD, registrar in community medicine, East Anglian Regional Health Authority, Cambridge.

© *Journal of the Royal College of General Practitioners*, 1989, 39, 91-95.

fee to the General Medical Council. It proved impossible to contact three foreign nationals who had returned to their respective countries.

The responding doctors included: three Britons living in Australia; one each in Canada, Chile, the Irish Republic, India and West Germany (British Army of the Rhine); and one in southern Europe, married to a British diplomat. The age of the 145 respondents and the medical school attended for all 150 doctors in the sample are given in Table 1.

Table 1. Age of the 145 respondents and medical school attended by year of qualification for all 150 doctors.

	Year of qualification		
	1976	1980	1984
Total number of doctors	50	51	49
Number of doctors responding	47	49	49
Average age (years)	35.0	30.5	26.3
<i>Medical school (number of doctors)</i>			
Oxford/Cambridge	6	1	5
London	13	14	5
Rest of England and Wales	19	26	26
Scotland and Northern Ireland	10	9	13
Non-university qualification only	2	1	0

Work status

Of the 145 respondents, 138 (95%) worked outside the home (or were on maternity leave) and only one of these women was not using her medical degree. Eighty seven women were only working outside the home (46 were 1984 graduates) while 47, all from the two older cohorts, worked both inside and outside the home. Four women were on formal maternity leave, implying that they would shortly return to work. Only seven women solely looked after their family: three of these regarded themselves as being on informal maternity leave. Two had no jobs promised, but intended (and expected) to find something to return to when their baby was a few months old. One woman living in rural Scotland knew she could get a job if she set up a second household in an urban area and one was the wife of a diplomat who had been posted abroad. None of these doctors regarded themselves as being involuntarily unemployed.

Domestic circumstances

Ninety five of these doctors lived with their husband, fiance or boyfriend. Fifty seven of these women cared for a total of 101 children (for one, they were step-children).

Current post held

The type of job held by the 137 women working in medicine is shown in Table 2. The younger women were more likely to work the heavier rotas, while the older women more often worked part time with an on call commitment. Fifty three women were working full time plus a one in three or four rota (in one case, a one in two rota). One hundred and thirteen of the 138 women worked at least 40 hours a week, a further 14 were working at least five sessions a week, and only 10 worked for four or fewer sessions (data missing for one person).

Unemployment and previous part-time posts

Thirty three women doctors had been unemployed for three months or longer in the past: the reasons for unemployment are shown in Table 3. In addition, nine women had been absent

Table 2. Field of work for the 137 women doctors currently working in medicine.

	Number (%) of doctors
General practice: principal/employee/trainee	77 (56)
Hospital medicine: consultant, clinical assistant or training grades	42 (31)
Community health/family planning/national blood transfusion service	6 (4)
Community medicine	3 (2)
Academe	3 (2)
Time split between different jobs	3 (2)
Industry	2 (1)
Armed forces	1 (1)

Table 3. Number of women giving reasons for unemployment by year of qualification (percentages in parentheses).

	Year of qualification		
	1976 (n = 47)	1980 (n = 49)	1984 (n = 49)
For domestic reasons	14 (30)	5 (10)	1 (2)
Did not want available jobs	3 (6)	4 (8)	4 (8)
No posts available	1 (2)	1 (2)	0 (0)
Never been unemployed	29 (62)	39 (80)	44 (90)

n = total number of respondents.

from the British medical workforce for three months or more while they were abroad. Most had chosen not to work for domestic reasons, only two reporting that there had been no posts available.

Thirty three women, predominantly the 1976 graduates, had had a previous job which had been part time. This had usually been for at least five sessions a week, and lasted for at least a year, a number lasting longer than two years.

Higher qualifications

Of the 145 respondents, 51 (35%) had no higher qualifications. This was, perhaps, not surprising for the 1984 graduates, 32 of whom had no higher qualification; only six of the 1980 graduates and 13 of the 1976 graduates were still in this position. The DRCOG was the most commonly held higher qualification (30 doctors), three held a DO, with the DCH being held by 13. The MRCGP was the most frequent specialty specific qualification (24). The MRCPsych was held by four doctors, as was the FFARCS, and six doctors held a DA. The FRCR and the MRCOG were held by one woman each, the FRCS by two. In addition, 14 doctors held an MRCP and one an MD. Seven held other higher qualifications. Children and higher qualifications were not mutually exclusive — 41 women doctors had both.

Major career changes

Over a third of the sample reported that they had experienced at least one major change in direction in their career — usually away from hospital medicine and frequently to general practice (Table 4). The moves were most commonly made at senior house officer or registrar level. Fifteen women volunteered the information that, while not actually being unemployed, they had spent a few months doing jobs which they did not regard as contributing to their overall career development.

Table 4. Direction of major changes in career.

	Number (%) of doctors (n = 145)
Hospital medicine to:	
General practice	26 (18)
Other hospital medicine	8 (6)
Other than general practice/hospital medicine ^a	6 (4)
General practice to:	
Hospital medicine	1 (1)
Other than hospital medicine/general practice ^a	4 (3)
More than one change	6 (4)
No major change in career	94 (65)

n = total number of doctors. ^a May be in or outside medicine.

Maternity leave and part-time training

Fifty six of the 145 respondents were mothers, of whom 41 had taken formal maternity leave. Only about half of these had found that their temporary absences from work had gone smoothly. The majority of their complaints related to medical employment arrangements — for example, short contracts leading to unemployment, rather than eligibility for maternity leave and pay and having to pay out of their own pocket for the employment of locums in general practice. Only three doctors (2%) had undertaken part-time training, but most (112, 77%) were broadly in favour of it.

Future plans

Table 5 shows where respondents envisaged they would be working in five years time. Commitment to work was high, with 54 women doctors expecting to be working full time and a further 62 at least five sessions. Four planned to work four or fewer sessions, while 25 found the question impossible to answer. Sixty four women did not plan to interrupt their career during the next five years.

Looking further into the future (Table 5), general practice was still the preferred specialty of women doctors. As their children grow up, there is an anticipated shift from part-time to full-time work — 69 doctors expected to be in full-time work in 10–15 years time, with another 36 working at least five sessions; none expected to be working less than this, though 40 were unable to

Table 5. Planned field of work in five and 10–15 years time.

	Number (%) of doctors (n = 145)	
	Five years time	10–15 years time
General practice	75 (52)	67 (46)
Hospital medicine	38 (26)	33 (23)
Community health/family planning/ national blood transfusion service	5 (3)	1 (1)
Community medicine	1 (1)	1 (1)
Industry	2 (1)	1 (1)
Academe	1 (1)	1 (1)
Outside medicine	2 (1)	2 (1)
Clinical medicine, unknown area	0 (0)	3 (2)
Not working	1 (1)	1 (1)
Two of the above areas	19 ^a (13)	28 ^b (19)
Unknown by respondent	1 (1)	7 (5)

n = total number of respondents. ^a Most frequently mentioned: general practice (13), hospital medicine (11), community health (5). ^b General practice (19), hospital medicine (15), community health (5).

make a confident prediction. Eighty women did not expect to be away from medicine in between five and 10–15 years time.

Continuity of career

The 105 women who expected to interrupt their careers in the next 10–15 years were asked what factors might stop them doing this and cause them to work continuously. Infertility, or not having any more children, was the most frequent answer (33); the death of their existing family or partner was also suggested by 20 women. Being offered a very desirable job (14), or it being the only way to get or keep any job (10) were mentioned, the latter often with the caveat that it would be a much resented intrusion on their family life. Twenty nine women said that nothing would make them work straight through.

Place of work

It can be seen from Table 6 that the majority of these women, trained in UK medical schools, intended to practise in the long term in this country. Three UK nationals would probably not return to the UK, and the plans of a further two were uncertain.

Table 6. Current domicile and intentions towards practising in the UK.

	Number (%) of doctors (n = 145)
UK or foreign national, UK domicile; envisaging long term medical or medically-related employment in UK	136 (94)
UK national, temporarily abroad; will return, probably to practise	3 (2)
UK national, currently abroad; likely to remain away from UK	3 (2)
UK national, currently abroad; plans for return and medical practice in UK uncertain	2 (1)
Foreign national, currently abroad; not expected to return to medical practice in UK	1 (1)

n = total number of respondents.

Discussion

For the last quarter of the nineteenth century, Elizabeth Garrett Anderson was on the staff of the London School of Medicine for Women, the development of her own medical career having been a fight every step of the way. What is the picture a century later, when nearly half of young people entering medical school are women?

There are, of course many differences between young women doctors of today. But a typical picture is of someone, convinced that medicine is the right career for her, moving smoothly from school to medical school to house jobs to senior house officer posts. She is likely to work full time and with a demanding rota, for the first three or four years after qualification, and to have married by the end of this time. She is likely to have had her first child by six or seven years after qualification, particularly if she is a general practitioner. She will then probably prefer to work part time and a second child will be born two or three years later, probably signalling the completion of the family. She will take a few months off work to have each child. The doctor/wife/mother then anticipates continuing in her part time job for another five years or so, then returning to full time work for the remaining 20 or 25 years up to retirement.

She will equip herself with suitable higher qualifications for a specialty which tolerates this sort of work pattern —

characteristically general practice, as part-time jobs (that is not more than about 40 hours a week including on call) in hospital medicine are notoriously difficult to find. General practice vacancies are also well-distributed geographically. Thus, British women doctors — like their American counterparts — demonstrate choice of specialty by constraint. Added to this informed career planning, there is a willingness to change specialty if this will allow her to get a job involving roughly the hours she wants, in the right place. Dovetailing her career with her husband's (the factor which is likely to dictate where she works) is therefore not a major source of stress but spending the amount of time she wishes to with her small children (the factor which is likely to dictate how much she works) is. This is ameliorated by the fact that finding and affording satisfactory child care to cover her work hours was not reported as a problem, and she is most unlikely to be involuntarily out of work.

Women doctors in the UK and the USA

It is difficult to set this profile of young women doctors in an international context. There has only been one comprehensive national study in the UK in recent years, and that examined female graduates of 1965.³ Many of the American studies have low response rates so their findings can only be generalized with caution.⁷⁻¹⁰ A recent review of the American literature on specialty choice showed clear gender-related differences — for example, women are more than three times as likely as men to enter paediatrics, twice as likely to enter psychiatry, and five times less likely to enter many surgical specialties; however, the authors regarded hypotheses explaining these differences as unproven.¹¹ The very different health care systems in the two countries make the findings hard to apply in the UK.

British women doctors seem to have broken — or avoided — the vicious circle described by Rinke, an American author,¹² whereby women physicians as a whole fail to establish themselves in a professional position which is compatible with their other roles and which is of reasonably high status within the profession. Rinke sees this leading to low self-esteem and to a poor role model for future generations of girls entering, or thinking of entering, medicine. The more positive situation in the UK could be because general practice is better regarded than is family practice in the USA; and British women doctors can find reliable nannies more easily and — in contrast to their American peers¹³ — are willing to delegate housework.

Two studies of American medical students^{14,15} indicate that women training in the early 1980s were concerned about opportunities for part-time employment as they were keen to be able to play a major part in raising their children — a matter not even considered in a study of the 'career persistence' of older American women physicians.¹⁶

Comparison with the recent DHSS/Policy Studies Institute study

Our study was conducted in parallel with a major piece of research into doctors and their careers, funded by the Department of Health and Social Security and conducted by Isobel Allen at the Policy Studies Institute, London.^{17,18} Using a structured face-to-face interview approach, this reported on the careers of 314 male and 326 female doctors, qualifying in 1966, 1976 and 1981. How do the two sets of data agree?

Male graduates were not included in our study, nor are the dates of graduation of our cohorts the same as in Allen's study. But many of the findings are similar. The proportion participating in a medical career is similar: 94% of our respondents and 94% and 95% of Allen's 1976 and 1981 female qualifiers, respectively.¹⁷ She did not find quite so many female doctors working in general practice (44% and 37%¹⁶ compared with

56% in the present study), but the general trend of career movement — towards general practice — is confirmed. Experience of part-time training, undertaken by only 2% of our respondents, was also limited among the relevant cohorts of Allen's study (8% and 2%¹⁷), but attitudes towards it were similarly positive.

Perhaps the most noticeable difference between the two studies concerns the reported extent of general disillusion about medicine as a career. While critical of many aspects of their training and circumstances, the impression made by our respondents was thoroughly positive — a commitment to medicine which was impressive. In contrast, Allen states: 'There was plenty of evidence in this report that many young doctors, both men and women, had regretted their decision to become doctors'¹⁸ and she reports that 'just under half of the 1981 women qualifiers had regrets'.¹⁸ However, the question actually asked of the respondents was 'Have you ever regretted your decision to become a doctor? In view of the use of the word 'ever', we feel that such pessimistic statements are unjustified and do not fairly reflect the attitude of young women doctors (at least) to a medical career.

The other principal difference between the two studies concerned response rates. In our study we selected 150 doctors, and, using a single part-time researcher, obtained responses from 97% of them without great difficulty. The DHSS/PSI study, despite considerable financial support and the employment of 32 interviewers, achieved only a 75% response rate,¹⁷ and its methodology of necessity excluded those doctors temporarily working abroad. Our interviews were not of course as extensive as those of the bigger study, but such data as we collected may well be more precise for manpower planning purposes. Our study may also have implications for data collection approaches in future careers research.

Implications for British medical manpower planning

Our figures lend support to the suggestion that a consequence of the rising numbers of women doctors may be that women will become increasingly responsible for primary care, while men staff the hospitals. In 1986, 40.3% of general practice trainees in England and Wales were women.¹⁹ This is a higher proportion than the 37.7% of women entering medical schools nine years earlier, when the great majority of these trainees would have started their medical training (Universities Statistical Record, personal communication, 1988). This tendency for women to train for general practice in greater relative proportions than men is consistent (Table 7). Women are entering

Table 7. The ratio between the proportion of women training for general practice and the proportion of women entering medical school nine years earlier.

Year	Percentage of woman among GP trainees in the UK ^a	Percentage of women among UK medical school entrants nine years earlier ^b	Ratio
1981	35.7	31.8	1.12
1982	35.6	33.7	1.06
1983	37.6	34.4	1.09
1984	38.4	35.3	1.09
1985	40.5	35.7	1.13
1986	40.3 ^c	37.7	1.07

^a Sources: Reference 19; Scottish Health Service, Common Services Agency, Information and Statistics Division; Northern Ireland Council for Postgraduate Medical Education. ^b Source: Universities Statistical Record. ^c Provisional figures (for England and Wales).

general practice at about 1.1 times the expected rate, based upon the proportion of women entering medical school. In 1985, 46.1% of students entering medical school were women (Universities Statistical Record, personal communication, 1988); our figures suggest that over 50% of general practitioner trainees will be women by 1994.

Not only are disproportionately more women than men training for general practice, they also perform better in the relevant postgraduate examination; between July 1985 and July 1986 the pass rate for first time applicants in the MRCGP examination was 69% for men and 80% for women (Membership division, Royal College of General Practitioners, personal communication, 1987). The present study also suggests that women general practitioners are able to negotiate successfully with their partners to work part time while their children are small.

However, general practice needs a balance of the sexes. If it is considered desirable to encourage women medical students to plan to work in the hospital service then it must be apparent to them that the system is sympathetic to their wish to have a family in their early thirties. They must be able to expect that after they have worked full time on one in three or four rotas for their general professional training, part-time training will then be available, with the possibility of part-time or job-share career posts thereafter.

These results show that the British taxpayer gets good value from training women doctors. If one supposes two periods of maternity leave of six months and as much as 10 years at half time, a woman doctor only 'loses' six working years, but women doctors are less likely than women in other occupations to retire earlier than men.³ In broader terms, any net loss is a moot point: the doctor is gaining valuable practical experience of obstetrics, paediatrics and management (in the sense of how to be a good employer and how to organize her own and other people's time), which may well make her a better doctor.

Two points about medical unemployment must be emphasized. The first is that there is virtually no involuntary unemployment among women graduates in the UK — and arguably, women are the group most at risk of unemployment, as many have specific geographical and time constraints. Secondly, if British medical schools produce too many doctors in the near future, the effect will not be substantially offset by an increased proportion of women.

Conclusions

The method of data collection used in this study was successful, the entire sample being traced and relevant information obtained from all the doctors likely to practise in the UK. Ninety six per cent of the graduates were currently practising in the UK or likely to return to do so.

The findings show a high participation rate in recent and planned medical practice among relatively recent women graduates. Greatly increased numbers of women at medical school will result in changes to the face of the profession, especially to general practice, but they will not substantially ameliorate the effects of possible overproduction of doctors.

References

1. Nussey SS, Pilkington TRE, Saunders KB. Where will this month's medical school intake go? *Lancet* 1986; 2: 977.
2. Anonymous. Medical student numbers and medical manpower. *Lancet* 1987; 1: 723-724.
3. Ward A. Careers of medical women. *Br Med J* 1982; 284: 31-33.
4. Lefford F. Women doctors: a quarter-century track record. *Lancet* 1987; 1: 1254-1256.
5. Stephen PJ. Career patterns of women medical graduates 1974-84. *Med Educ* 1987; 21: 255-259.

6. Pendleton D, Wakeford R. Studying medical opinion: a comparison of telephone interviews and postal questionnaires to general practitioners. *Community Med* 1987; 9: 25-34.
7. Schermerhorn GR, Colliver JA, Verhulst SJ, Schmidt EL. Women in medicine: factors which influence career patterns. *Proceedings of the conference on research in medical education*. Washington DC: Association of American Medical Colleges, 1984: 167-172.
8. Cohen ED, Korper SP. Women in medicine: a survey of professional activities, career interruptions and conflict resolutions. *Conn Med* 1976; 40: 103-110.
9. Cohen ED, Korper SP. Women in medicine: a survey of professional activities, career interruptions and conflict resolutions. *Conn Med* 1976; 40: 195-200.
10. Adams EK, Bazzoli GJ. Career plans of women and minority physicians: implications for health manpower policy. *J Am Med Assoc* 1986; 41: 17-20.
11. Ernst RL, Yett DE. *Physician location and specialty choice*. Ann Arbor, Michigan: Health Administration Press, 1985.
12. Rinke CM. The professional identities of women physicians. *JAMA* 1981; 245: 2419-2421.
13. Dimond EG, Heins M. Women in medicine: two points of view. The future of women physicians and medicine and motherhood. *JAMA* 1983; 249: 207-210.
14. Bergquist SR, Duchac BW, Schalin VA, et al. Perceptions of freshmen medical students of gender differences in medical speciality choice. *J Med Educ* 1985; 60: 379-383.
15. Kutner NG, Brogan DR. A comparison of the practice orientations of women and men students at two medical schools. *J Am Med Assoc* 1980; 35: 80-86.
16. Mandelbaum DR. Education, medical training, and practice variables related to the career persistence of women physicians. *J Am Med Assoc* 1979; 34: 384-391.
17. Allen I. *Doctors and their careers*. London: Policy Studies Institute, 1988.
18. Allen I. *Any room at the top? A study of doctors and their careers*. London: Policy Studies Institute, 1988.
19. Medical and Manpower Division, Department of Health and Social Security. Medical and dental staffing prospects in the NHS in England and Wales in 1986. *Health Trends* 1987; 19: 1-8.

Acknowledgements

We thank the respondents to our study. Dr M. O'Brien, Regional Medical Director, East Anglian Regional Health Authority, kindly provided financial support for V.J.W.

Address for correspondence

Mr R.E. Wakeford, Clinical School Offices, Addenbrooke's Hospital, Cambridge CB2 2QQ.

RCGP

Information
Resources
Centre



ONLINE SEARCH SERVICE

The Online Search Service offers access to numerous commercial databases such as Medline, Excerpta Medica and DHSS-Data. Online searches take a fraction of the time involved in a manual search and can more easily accommodate multiple search terms or specific research

parameters. The service is provided at a reduced rate to Fellows, Members and Associates, and results are sent out within three working days of receipt of the search request. An Urgent Action Service is available if references are required immediately.

Online Search Service: Morag McFarland or Clare Stockbridge Bland, RCGP, 14 Princes Gate, London SW7 1PU. Telephone: 01-581 3232 Ext 254.