Higher professional training in general practice: provision of master's degree courses in the United Kingdom in 1993

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Review of a 1993 survey of the 29 United Kingdom departments of general practice (or equivalent) identified seven master's degree courses available for general practitioners. Up to another 11 are planned within the next five years. Around 50 general practitioners undertake all such courses at any one time. Possible reasons for this low uptake include cost, lack of flexibility of courses, and the prospect of writing a thesis. Appropriate master's courses are essential to the future development of general practice, and this paper postulates the characteristics of an "ideal" course.

Many calls have been made for an increase in higher professional training for general practitioners.[1-3] A major reason is the need to have a cohort of skilled and trained general practitioner researchers to increase the depth and breadth of general practice research.[4-10] Also, any medical discipline requires rigorous training as an essential defining feature.[11] Arguably the lack of such higher professional training is one of the present weaknesses of general practice. Widely available relevant rigorous higher professional education for general practitioners could be the final part of general practitioner training.

Education for general practice comprises medical undergraduate education, the well established vocational training schemes, and optional higher professional training. Any higher professional training usually takes the form of continuing medical education for principals to enable them to claim the postgraduate education allowance. Such continuing medical education may be obtained in various ways, such as by attending courses or lectures, reading selected journals, or subscribing to distance learning packages, none of which is particularly rigorous. The MRCGP examination and fellowship by assessment (a clinical and service based concept of higher professional training) can add more rigour to training. The most rigorous way of obtaining higher professional training would be to undertake a higher degree, either a doctorate or a master's. This paper analyses the past, present, and possible future contribution that master's degree courses in general practice can make to rigorous higher professional training for general practitioners.

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GLOBAL PROVISIONS

The first master's degree course specifically for general practice began at the University of Western Ontario, Canada, in 1978.[12,13] No others have started in Canada since. There is one master's degree course in general practice in Australia[14] and one in New Zealand (W Weston, personal communication). There is no master's degree course in general practice in the United States, but there are many fellowship programmes in family practice[15] which are designed to train young family physicians to fill faculty positions to teach and do research. Only a minority end in degrees, usually a master's degree in epidemiology.[16]

In the United Kingdom the first master's degree course for general practitioners was instituted at Glasgow University in 1982,[3] and the second at Leeds as a result of "consumer demand."[17] A more recent survey identified only two master's courses in the United Kingdom, one at Exeter and one at the United Medical and Dental Schools, London.[3]

The aims of this survey were to document the present and likely future provision of master's degree courses, to obtain information about course content and costs for general practitioners considering taking such a course, and to provide details of organisation, funding, and resource use for those departments contemplating running such courses in the future.

Methods

A draft questionnaire was designed and reviewed by members of the academic staff of two departments of general practice to ensure face and content validity. This confidential postal questionnaire was sent in the spring of 1993 to all departments of general practice (or equivalent) in the United Kingdom. The questionnaire asked for information about present and likely future provision of master's degree courses, course content, numbers of students, duration, thesis requirements, course teachers, funding, postgraduate education allowance approval, and cost to individual general practitioners. Non-respondents were sent three reminders and those still not responding were contacted by telephone. Summary results were sent back to departments with present or planned courses to ensure accuracy of completed questionnaire interpretation and ask if they would agree to be named in any subsequent publication. Not all agreed. No statistical analysis was attempted, as this was an exploratory study.

Results

Of the 29 departments of general practice (or equivalent) contacted, 28 returned the questionnaire and one responded by telephone. Seven of the respondents provided a master's degree course in general practice or primary health care. Some departments mentioned other master's courses which they provided (or were about to provide). These included health care ethics, sports medicine, and practice management, which are excluded from this report. Existing courses are described in tables I and II.

FUTURE DEGREE COURSES

Of the 22 departments that did not offer a master's course, one had done so in the past but stopped owing to lack of general practitioner interest and funding problems. Five definitely intended starting a degree

course, two within two years and three within five years. Six planned possibly to start a course within five years, four were undecided, and six had no plans.

Of those departments stating in their initial reply that they definitely intended to start a master's degree course, two had commencement dates in 1994 and one in 1996. The remaining two gave no date for starting their course. The three with commencement dates were drawing up their curricula at the time of the survey; the other two had only held departmental meetings to discuss the course. After receiving summary results the two with 1994 commencement dates stated that they had been compelled to delay the start of their proposed courses for at least one academic year.

One of the courses initially planned to begin in 1994 would be open to general practitioners (maximum 10) and other health care professionals (at Manchester University) and the other limited to general practitioners (maximum 90). Both would be part time, one over two years and one over three years. The first would require a thesis and the second credit accumulation of sessions of continuing medical education. Both had postgraduate education allowance approval, but the final fees were not decided at the time of the survey. One has regional health authority funding of over 60% of running costs, and one has no external funding.

The master's course (in primary health care at Queen's University, Belfast) starting in 1996 would be open to general practitioners, other doctors, and other health care professionals and be part time over three years with a maximum of eight students at one time (half being general practitioners). A thesis would be required. Postgraduate education allowance approval was under discussion and course fees would be in the £501-1000 a year range. External funding had been agreed through local family health services authorities and the Department of Health; the final amounts had yet to be finalised.

Discussion

Primary care is undergoing major changes at present. There is a continuing need for general practitioners to organise postgraduate education for principals and trainees. It is highly likely that there will be an increasing need for general practitioners to teach undergraduates as more teaching is transferred into primary care. The need for accurate primary care research and clinical audit will continue to increase, as will demands to increase the quality of care provided to patients. Finally, general practitioners will need to further develop their personal skills of critical analysis, communication, and ethical practice, especially in view of the inclusion of these topics in the undergraduate curriculum.

Masters' courses might appeal to general practitioners who wish to respond to these needs by either developing an academic career in teaching or research or by completing a rigorous training in general practice. There is evidence from other countries that higher professional training changes general practitioners' subsequent activities such as research output, teaching, and attendance at educational meetings.[15 16 18] Therefore, the content of any master's degree aimed at general practitioners should partly be determined by the learning needs of general practitioners.

UPTAKE OF COURSES

This survey has identified seven master's degree courses with varying curricula that are available in the United Kingdom for general practitioners. A further 11 may become available within the next five years. The present courses are not flexible and may well not match the needs of general practitioners. Annually only about 50 British general practitioners are master's students in general practice. If all available places were taken up this number would double to only about 100, equivalent to roughly one third of 1% of all general practitioners. Why do so few take such master's

TABLE I—*Course details for those seven master's degree courses (general practice or primary care) in existence in spring 1993*

	Master's degree course (date first offered)						
Course identifier	Glasgow (1982)	United Medical and Dental Schools (1986)	Exeter (1986)	Nottingham (1989)	Keele (1989)	Sheffield (1991)	Birmingham (1991)
Restricted to general practitioners?	Yes	Yes	No	No	Yes	No	Yes
Offered full time?	Yes	No	No	No	No	Yes	No
Average No of general practitioners on course	1	9	2	3	12	2	12-18
Maximum No of general practitioners possible	NK	12	10	12	12	12	24
Duration of course (years)	1-2	2	2	2	3-4	1-2	2-3
Thesis required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ratio of regular department to external teachers	4:0	9:6	7:0	3:15	9:17	3:1	11:9
Fees to general practitioner (£)	<1000	≥1000	≥1000	≥1000	<1000	≥1000	≥1000
Postgraduate education allowance approved?	No	Yes	Yes	Yes	Yes	No	Yes
Any external funding?	No	No	No	No	No	No	Yes

NK=Not known.

TABLE II—*Content of seven master's degree courses for general practice divided into general practitioner as service provider, as teacher, and as researcher and personal development of general practitioner*

	Course content			
Course	Service provider	Personal development	Researcher	Educator
Glasgow	*	*	*	*
United Medical and Dental Schools	Social science; psychology	Ethics; process of learning; clinical reasoning	Research methods; epidemiology	*
Exeter	Quality assurance; NHS and social policy; philosophy and economics of health care	Leadership	Research	Education
Nottingham†	Sociology of health and health care; health care organisation and management; current clinical issues	Communication skills	Research methods	*
Keele	Audit; advanced clinical topics	Personal development; critical review; ethics; communication skills	Research	Teaching
Sheffield†	Health care systems; management	*	Research methods; epidemiology; biostatistics	Education
Birmingham	Management; health economics; sociology; psychology; current clinical issues; audit	Ethics; learning; communication skills; clinical reasoning	Research methods; epidemiology; biostatistics	Teaching

*No taught module.
†Course has elective module.

Outline of learner centred master's degree course in general practice

To graduate, students must complete the following:

- *Eight core modules*

(*a*) Research (1.5)	Basic epidemiology, research methods, and biostatistics
(*b*) Education (1.5)	Education theory and teaching methods
(*c*) Service (2.5)	Medical audit (0.5)
	Sociology and psychology (1.0)
	Teamwork and health care (0.5)
	Prevention (0·5)
(*d*) Personal development (2.5)	Communication skills (0.5)
	Critical appraisal (0.5)
	Learning process (0.5)
	Ethics (1.0)

- *A combination of any of four elective modules*

(*a*) Research	Advanced quantitative research methods (1.0)
	Advanced biostatistics (1.0)
	Advanced qualitative research methods (1.0)
(*b*) Education	Faculty of education courses (2.0)
(*c*) Service	Economics of health care (1.0)
	Theories and philosophy of health care (1.0)
	Organisations and management (1.0)
	Current issues in primary health care (1.0)
(*d*) Personal development	Any modules from other university departments (2.0)

- *Original research*

Either (*a*) Thesis
Or (*b*) Research project and a literature review essay

Course consists of six terms each of 10 weeks over two years. Students will attend one whole day per week during term time over two years (equivalent to six hours' education per day). Course will be approved for postgraduate education allowance and external funding will be maximised. It consists of (*a*) 12 modules (each requiring coursework and essay), where one module is equal to 10 three hour (half day) teaching sessions, and (*b*) original research, either thesis or project.

courses, and can anything be done to encourage more to undertake one?

The cost of course registration, textbooks, educational material, and travel is a likely disincentive. Most of the present courses charged students £1001-2500 a year, and only five of the seven eligible courses were approved for postgraduate education allowance. This financial disincentive could be eased in several ways.

The most important way to ease the financial disincentive would be for the rules governing prolonged study leave payments to be changed so that general practitioners on prolonged part time study leave on recognised courses would be eligible to claim under the scheme. With the present level of uptake of master's degree courses this would cost the government as little as £250 000 a year nationally. Secondly, all courses should be approved for postgraduate education allowance (three new courses have approval or have sought approval). Thirdly, course organisers should seek to secure external funding to reduce costs; only one of the present seven compared with two of the three planned new courses have such funding. The Royal College of General Practitioners could extend its funding of research training fellowships and limit it to one day a week so that more general practitioners could be helped. Finally, individual departments of general practice could fund more training posts. At least one department has done this already.[19]

Two less obvious ways of encouraging general practitioners to undertake higher professional training are to re-examine course content and consider the appointment criteria of general practitioners to academic and research posts. This study did not address the aims of the courses, but it seems possible that the aims of the course designers and those of potential individual general practitioner students may differ. The present courses have their emphasis on research, only half having teaching modules and modules concerned with personal development. Thus, for example, general practitioners wishing to develop a career in postgraduate general practice education are not well served by several courses. Following the example of the General Medical Council[20] and the principles of adult learning, courses could be changed to core and elective modules, either within or outside a department of general practice. Only two courses offer any elective module at present.

MAKING A HIGHER DEGREE MANDATORY

It is likely that general practitioners wishing to follow an academic career will consider taking a master's degree course in general practice. At present general practitioners can be appointed to educational posts in the postgraduate education organisation, vocational training posts, and departments of general practice without having any higher degree. To bring general practice into line with many other medical disciplines, the possession of a higher degree could become mandatory to progress up the academic ladder.[21] This should improve the teaching and research of those appointed and thus ultimately improve patient care.

Finally, students in the United Kingdom could be given the option of not doing a thesis, as occurs elsewhere,[13] because the prospect of writing a thesis might be a disincentive to some general practitioners. A student choosing such an option would still be required to do original research (a research project) and write it up to a standard acceptable to external referees. If this option was combined with a literature review, then this would also reduce emphasis on the research aspect of such a master's course. In my view the primary aim of a master's degree should be to broadly teach and educate students, not for them to write a thesis.

Very few general practitioners complete an MD while in practice, the mean having been three each year between 1973 and 1988.[22] Williams concluded that the best way of producing good researchers in general practice is to encourage doctors to accept the challenge of undertaking a doctorate.[22] However, such general practitioners on graduation may still lack key skills for high quality general practice, partly because of the specialised nature of doctorates but mainly because the courses rarely contain any taught component. By contrast, in North America commonly two years of a doctorate is spent in formal education. Thus master's degree courses seem more likely to produce the "rounded" academics which general practice needs.

The outline of a theoretical master's degree course which includes several of these points is shown in the box. Advantages of such a proposed course over existing ones would be threefold. Firstly, students would have a large input into their personal course; they could choose one third of their taught modules, their research topic, and whether to do a thesis. Secondly, the core curriculum would cover four key aspects relevant to academic general practice—education, research, service, and personal development. Thirdly, the course would be flexible enough by using electives to educate a student in depth in any of these four aspects depending on their personal interests.

Conclusion

It is argued that higher professional training in the form of master's degree courses in general practice is essential to future academic general practice. This study has found that seven master's courses in general practice are available in the British Isles and that this number is likely to more than double over the next five years. Courses are at present generally undersubscribed and only a very small proportion of general practitioners undertake a master's degree.

There are several possible disincentives preventing

General practice implications

- General practice is undergoing major changes and the profession needs to respond to these changes
- One response could be the widespread involvement of general practitioners in higher professional training
- At present only 1 in 300 general practitioners are enrolled on the seven general practice (or primary health care) master's degree courses in the United Kingdom
- Present master's courses lack flexibility, have little student input to content, and could be less costly to students and have less emphasis on research
- The provision and uptake of innovative and flexible master's courses should improve the quality of care that patients receive in general practice

general practitioners taking such courses at present which could be ameliorated. It is suggested that course content needs to be more flexible to match more closely the needs of the learners. This can be achieved by increasing elective modules within courses. The option of not doing a formal thesis might help, as might the introduction of the requirement of possession of a relevant higher degree before appointment to various academic general practice posts. The personal financial cost to general practitioners could be reduced by including prolonged part time study leave as a claimable expense within the NHS regulations, by ensuring all courses were approved for a postgraduate education allowance, increasing external funding of courses, and increasing the availability of paid research fellowship posts funded by departments of general practice or the Royal College of General Practitioners.

Increasing the size of the cohort of appropriately trained general practitioners who can teach, research, and lead general practice into the next century should improve patient care throughout the primary care setting.

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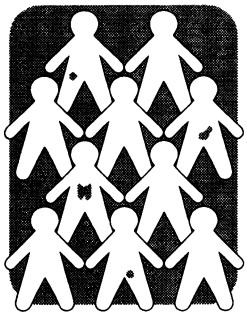
Cancer Prevention in Primary Care



This is the fifth in a series of articles looking at how cancer can be prevented in general practice

Melanoma: prevention and early diagnosis

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Over the past two decades there has been a rapid rise in the numbers of people developing and dying from maignant melanoma. Sunlight is the main aetiological factor linked with melanoma. Exposure to the sun is a risk factor that can be modified provided that people are aware of the dangers. Health promotion campaigns can play a part in producing such change. General practitioners and practice nurses have an important part to play in providing those most at risk with information and advice about sensible sun exposure and sun protection measures. Campaigns to reduce delay in diagnosis by a combination of professional and public education have been reported from several centres around the world. The effects of these campaigns in reducing the depth distribution of cutaneous malignant melanoma have sometimes been encouraging, but in other instances have shown little effect. Until there is clear evidence that early detection reduces mortality from melanoma, the opportunistic promotion of early detection may not be cost effective and will fail to reach all sections of the community at risk. At the present time, therefore, the emphasis should be on the primary prevention of skin cancer.

Skin cancer: current facts

Skin cancers are common in many parts of the world, and the number of cases is increasing. In the United Kingdom there are some 40 000 new cases each year. There are three main types of skin cancer. The most frequently occurring types are basal cell carcinoma (rodent ulcer) and squamous cell carcinoma, both of which tend to occur in older people. Over 95% of these types of skin cancer are curable. They can, however, be disfiguring if not diagnosed and treated early.

The third type is malignant melanoma, which is comparatively rare (11% of all skin cancers). There are four main types of melanoma (table I). There were 4438 new cases of melanoma in the United Kingdom in 1988, but this is probably an underestimation because of incomplete ascertainment (except in Scotland). There are roughly six to seven cases in women for every four cases in men. Malignant melanoma occurs most frequently on the leg in women (particularly between the knee and ankle) and on the trunk (especially the back) in men (figure). In elderly people melanomas develop most commonly on the face. Overall, 1288 people in the United Kingdom died of malignant melanoma in 1991. Both incidence and death rates