

A survey of doctorates by thesis among general practitioners in the British Isles from 1973 to 1988

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SUMMARY. Doctors who were general practitioners in the period 1973–88 and had written a successful MD or PhD thesis were identified. Of 96 doctorates, 64 were MDs and 32 PhDs. Fourteen doctors had obtained their MD before becoming general practitioners and the remaining 50 after becoming general practitioners. Twenty of the 64 doctors were full time or part time members of a university department of general practice; six of these were professors. In this 16 year study the mean annual number of MDs written by doctors while in general practice was three, compared with five in the previous 15 years. Of the PhDs, 11 were obtained before starting a medical course, six during the pre-clinical period, three after qualifying but before entry into general practice and 12 after entry into general practice. Ninety two per cent of the 50 doctors who obtained their MDs while in general practice and 84% of all the doctors with MDs continued to do research afterwards. Further research was carried out by 81% of doctors with a PhD.

The best way of producing good researchers in general practice is to encourage doctors to accept the challenge of writing a PhD or an MD thesis. This study has shown that writing such a thesis encourages rather than discourages a doctor to undertake further research.

Introduction

FOR reasons of simplicity MD/DM and PhD/DPhil will be referred to in this paper as MD and PhD. The present study, covering the 16 year period 1973–88, is an extension of two previous studies of MDs held by general practitioners in the British Isles.^{1,2} The three studies combined cover 31 years. This study also includes PhDs. The purpose of the study was to identify and draw up a profile of general practitioners who had obtained a doctorate by thesis, either before or after entry into general practice.

In the British Isles doctorates are usually obtained by thesis, although an MD may sometimes be given as an honorary degree or following the presentation of previous publications of high calibre. A study carried out in Birmingham in the period 1949–66³ showed that only three out of 75 MDs were from general practice. Another study on MDs in Great Britain in the period 1947–66⁴ maintained that there were only a few from general practice, but did not say how many.

MD and PhD regulations

MD regulations may be altered from time to time, so it is important for candidates to make themselves familiar with the current regulations before embarking on an MD thesis. All the

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universities of the British Isles allow general practitioners to submit an MD thesis. A candidate must normally be a graduate of that university but most universities will make an exception if the candidate has been a member of their academic staff for a specified number of years. The minimum interval between time of qualification and embarking on an MD thesis varies, according to university, between two and five years. The candidate does not usually have to be supervised, although asking for advice is encouraged.⁵ Thus it is important to discuss the project and its title as soon as possible with the dean of the faculty of medicine or another designated academic. The time the work should take varies between universities from two to seven years, but a longitudinal study in general practice may take longer. A doctor working full time in a university department, such as a department of general practice, may, in some cases, be allowed to do the work in less than two years. A few universities make an oral examination mandatory, but at others it is at the discretion of the examiners.

PhD regulations do not vary a great deal between universities. Usually the candidate has to work full time for two to four years in the university or a place recognized by them. The candidate must show from his past scholastic attainments that he would be capable of carrying out such an exercise successfully. The title of the research project has to be approved and the work supervised by a named tutor or supervisor. Candidates can work part time, either in the university or in another recognized place of work, but may have to extend their period of study. In Leicester, for instance, a full time student would work for four years, but a part time student for six years.

Method

As in the previous two studies^{1,2} it was difficult to trace all the general practitioners who had obtained an MD or PhD because of death, change of address or change of job. The *Medical register* was of limited value because a higher degree is only included if the recipient has requested it. The *Medical directory* has a voluntary system for updating degrees, but it was of help in finding some addresses and telephone numbers. The following sources were more useful:

- Personal knowledge of recipients.
- The library of the Royal College of General Practitioners, London (holds the biggest collection of MD and PhD theses by general practitioners in the world).
- A computer printout of RCGP members with doctorates (those who obtained their doctorate before 1973, and honorary fellows of the RCGP were excluded).
- The secretaries of all the RCGP faculties (for names of members and non-members with doctorates in their area).
- The deans, or their equivalent, and heads of departments of general practice in the medical schools.
- Replies to letters placed in the *British Medical Journal*, the *Lancet* and the *Journal of the Royal College of General Practitioners*. A second letter, published in *RCGP News* a few months later, produced a good response.

Questionnaires asking for details of their MD or PhD were sent to the doctors who had been identified. Doctors were also

asked if they had done further research and whether this was in the subject matter of their thesis, in another subject or in more than one subject. Doctors who had both degrees were sent both questionnaires. Various methods were used to trace doctors who had moved; enquiries through another doctor in the vicinity of the last known address were sometimes useful. Non-respondents were sent a second letter and, if necessary, were telephoned. Questionnaires received which appeared to have errors or omissions were returned for correction.

The respondents were included in the study if they fulfilled one of the following criteria:

- MD by thesis in the study period while a general practitioner.
- MD by thesis in the study period but before entry into general practice.
- PhD before starting a medical degree course, provided the respondent qualified in medicine during the study period.
- PhD in the pre-clinical years, provided the respondent qualified in the study period.
- PhD after qualification, provided they obtained this doctorate during the study period.

Doctors obtaining their doctorate outside the British Isles were excluded.

Details of the total number of successful MD theses from universities throughout the British Isles were also sought from the universities themselves.

Results

A total of 126 doctorates were identified and 126 questionnaires sent out — 84 to doctors with MDs and 42 to those with PhDs. Six of the doctors with MDs were excluded because the doctorates were not obtained in the study period, one had died, seven had gained their MDs in other countries (one in the United States of America, one in Canada, one in Italy and four in India), one was not a general practitioner and five did not return their questionnaires. An MD questionnaire was eventually completed by 64 doctors. Of the 42 doctors with PhDs, 32 successfully completed their questionnaire.

PhD and MD degrees

Three professors of general practice obtained both these degrees during the period 1973–88 inclusive. In addition, two doctors who obtained a PhD during this period already had an MD before 1973.

MD theses

Of the 64 MD theses, 14 had been gained in another branch of medicine before entering general practice, so the number gained while in general practice was 50, giving a mean of approximately three theses each year written by doctors while in general practice in the British Isles over the 16 year period (Figure 1).

Among the 14 doctors who had already obtained their MD before entry into general practice the mean age at being awarded the MD was 34.0 years (range 31–45 years) compared with 43.9 years (range 30–63 years) for the 50 doctors who had obtained their MD from general practice. The mean time taken to do the work and write the thesis for those who were awarded the MD before becoming general practitioners was 3.9 years (range 3–7 years) compared with 5.5 years (range 1–17 years) for those who were already in general practice.

Two doctors had left general practice — one to work in the pharmaceutical industry and the other had become a full time historian at Oxford University. Two doctors had left the country — one to live in Canada permanently (still active in general practice research) and the other had emigrated to New Zealand

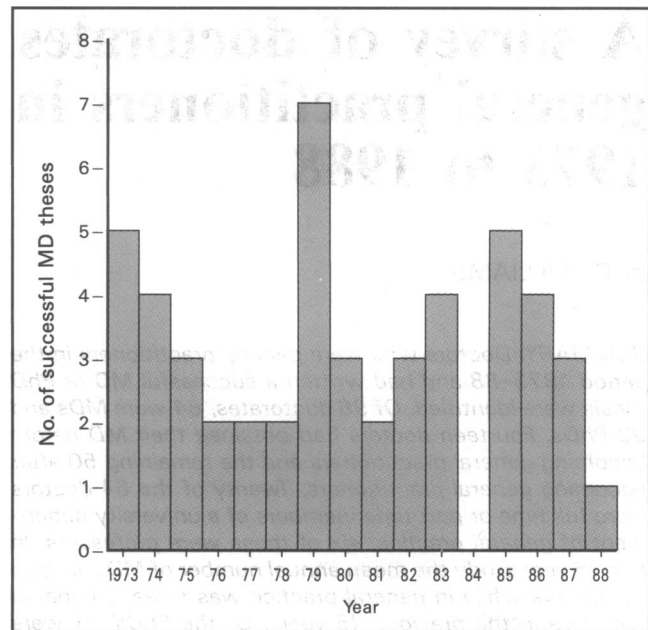


Figure 1. Number of MD theses written by doctors while in general practice.

to become professor of general practice at Dunedin.

Table 1 gives the number of successful MD theses according to university. A total of 3041 MDs were awarded, 50 (1.6%) from general practice.

Only one doctor had not received his degree from his university of qualification — he had qualified in London and obtained his degree from the University of Nottingham.

Subject matter. From the titles of 28 (56%) of the 50 theses from general practice, it was possible to say that they had been written by general practitioners because they contained such words as 'general practice' or 'family medicine'. Five theses were on doctor or patient education or on audit; medical records, the computer and information systems were the basis of a further five. Two theses were on genetics and two were on contrasting subjects — one on frequent and the other on infrequent attenders. Some doctors had studied individual diseases such as asthma, hypertensive disease and Huntington's chorea.

The theses of the 14 doctors who completed their MD before entering general practice covered more specialized fields, such as endocrinology, nephrology, metabolic medicine, pharmacology and physiology.

Further research. Of the 64 doctors with MDs 54 (84%) had done further research. Forty six (92%) of the 50 doctors who had obtained an MD while in general practice had carried out further research after proceeding MD — 30 on the subject of their thesis and 16 on other subjects. Of the 14 doctors who had obtained their MD before entering general practice, eight had carried out further research since becoming general practitioners, two had not done any research in general practice and the remaining four did not supply this information.

Work in university departments of general practice. Of the 64 doctors who had obtained an MD 20 were working either full time or part time in university departments of general practice, six as professors, nine as full time lecturers or senior lecturers and five as part time lecturers. In addition, two were regional advisers in general practice attached to a university.

Table 1. Number of successful MD theses, according to university over the period 1973–88 inclusive.

University	Total no. of MDs	Number (%) from general practice
Aberdeen	93	6 (6.5)
Belfast	213	2 (0.9)
Birmingham	168	0 (0)
Bristol	130	0 (0)
Cambridge	354	7 (2.0)
Cardiff	58	4 (6.9)
Cork	32	1 (3.1)
Dublin	69	0 (0)
Dundee	64	0 (0)
Edinburgh	144	3 (2.1)
Galway	20	1 (5.0)
Glasgow	202	3 (1.5)
Leeds	52	0 (0)
Leicester	23	0 (0)
Liverpool	96	2 (2.1)
London	734	12 (1.6)
Manchester	167	3 (1.8)
Newcastle	89 ^a	2 (2.2)
Nottingham	61 ^b	0 (0)
Oxford	172	2 (1.2)
Sheffield	100	2 (2.0)
Total	3041	50 (1.6)

^a From 1978. ^b From 1977.

Reasons for writing an MD thesis in general practice. The 50 general practitioners were asked to state, frankly, why they wrote an MD thesis while in general practice. Sixteen doctors said it might help them in advancing their career, 13 included 'to satisfy a curiosity' or 'inquisitiveness' among their reasons, 17 stated that it was 'a personal challenge' and eight said it was a test of self discipline. Ten doctors wanted to show that an MD could be carried out as well by a general practitioner as by a specialist in any other branch of medicine and felt that it would help to improve the reputation of general practice. Eight doctors thought the MD was 'good research experience' and seven doctors gave 'charisma', 'vanity' or 'ego' as one of their reasons. One doctor gave a quotation from Kazuo Ishiguro in *An artist in the floating world*.⁵

'If one had failed only where others have not had the courage or will to try, there is a consolation — indeed a satisfaction to be gained'

Another doctor said 'I wanted to go on a journey of exploration where no other doctor had ever been before'. Five said they had been influenced by others and one doctor said he had been influenced by an MD club of which he was a member.

PhD theses

Eleven general practitioners obtained a PhD before starting a medical course, six obtained it in the pre-clinical years and 15 after qualification. Three of the latter group obtained their degree when working in academic departments of medicine before they became general practitioners. Of the 12 doctors who had written their PhD while in general practice, only two said that the work had been carried out entirely from general practice and two that it was partly carried out in general practice

and partly in a university department of general practice. Seven doctors had done the work in a university department of general practice and one in an RCGP research unit.

The subject matter of the PhDs of the two pre-qualification groups was oriented towards specialized scientific research, while the PhDs of the post-qualification group were more clinical and general practice oriented.

Further research had been carried out by 26 of the 32 doctors with a PhD (81%). Four out of the six doctors who obtained their PhD in the pre-clinical years, and eight of the 11 who had obtained the PhD before starting a medical course had gone on to do further research. Among the 15 general practitioners who obtained their PhD after qualification 11 of the 12 who had written their thesis while in general practice had gone on to do further research as had the three who obtained their degree before becoming general practitioners.

One of the 15 general practitioners who had obtained their PhD after qualification had left general practice to become a consultant psychiatrist. The other 14 doctors had remained within the sphere of general practice. Five were professors of general practice in this country and one in New Zealand, and another was an assistant professor of general practice in Bahrain. Six doctors were full or part time staff of departments of general practice in this country and one was a director of an RCGP research unit.

Discussion

The results of this study and two earlier studies^{1,2} allow trends in the number of MDs obtained by general practitioners to be examined over a period of 31 years. While there has been a considerable increase in the number of general practitioners in the British Isles over this period, the number of MDs by thesis written by general practitioners has declined appreciably. The present study, which covers a period of 16 years, shows that the mean number of MDs by doctors in general practice was three each year, compared with five each year in the previous 15 years. A steady decline is also shown in the proportion of MDs obtained by general practitioners — in the first study 3.9% of all MDs in universities were obtained by general practitioners and in the present study 1.6%. A factor which may have some influence on this decline is a greater interest in the MRCGP examination; there has been a rapid increase in the number of candidates, the number having exceeded 1500 in 1989. In contrast to the decline in MDs it was interesting to find that 12 PhDs were obtained by doctors in general practice; the rapid expansion of university departments of general practice may be partly responsible for this.

A PhD obtained before starting a medical course, usually in one of the basic sciences, was included in the study because this provides evidence that the doctor has had good scientific training in research method at some time in his or her career. The hard work and strict discipline involved had not prevented eight of the 11 doctors in this group from doing further research. In their questionnaires two of the respondents in this group volunteered the information that they were not accepted for medical school when they first applied but were accepted on a later application; the possession of a PhD may then have been the influencing factor. There may have been others in this group who had had the same experience.

The relative merits of the MD and PhD are sometimes mentioned,⁶ but they are different disciplines, although the standard of scholarship should be the same.⁷ For a PhD, the student usually works full time for two or three years and is supervised by a named academic who is experienced in scientific method.

An MD candidate is usually much older, has had many years experience in clinical medicine and is not usually supervised. However, doctors who work for a PhD while they are general practitioners would also be older. The establishment of university departments of general practice now makes it more possible for general practitioners, as part time or full time members of the academic staff, to undertake the discipline of a PhD.

The reasons given by doctors in general practice for writing an MD thesis are interesting. Sixteen doctors said it could help them in academic advancement, whereas in the previous two studies^{1,2} this reason was regarded as much less important. This, again, may be due to the development of university departments of general practice. The development of these departments is now a target for academic aspirations and six of the MDs in this study were professors of general practice. Common reasons for wanting to write an MD thesis in all three studies were to prove to oneself that it can be done by a general practitioner, to satisfy a challenge, or, as one doctor put it, 'In the end it became a struggle between me and "it" '.

Practice organization, education and audit were found to be more common subjects for MD theses than in the two earlier studies. It is unfortunate that there is not more research carried out in what general practitioners do most of their time — clinical medicine; there are so many problems still to be solved.

The three most important qualities of a good researcher are inquisitiveness, honesty and obstinate determination. The latter is essential to complete the difficult task of writing a thesis for an MD or a PhD. The difficulties involved in writing an MD thesis did not prevent 84% of the doctors with this degree from doing further research, not only in the subject matter of their thesis, but in many other fields. It is also very encouraging that 92% of those who wrote an MD thesis while in general practice had gone on to do further research as had 81% of doctors with a PhD. There is no doubt that the best way of producing good researchers in general practice is to encourage doctors to accept the challenge of writing a PhD or an MD thesis. Writing such a thesis encourages rather than discourages a doctor to undertake further research.

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