

## MEDICAL EDUCATION

## Current means of obtaining a MD degree in the UK

Joseph Raine

### Abstract

To investigate the current means of obtaining a MD a questionnaire was sent to 55 doctors who had obtained a MD in a paediatric subject between 1984 and 1993; 53 (93%) responses were obtained.

Ten (18%) of the respondents had done their MD during a clinical post. The remainder had research posts lasting 10-87 months (median 24). Only 29% of those in research posts were able to submit their MD by the end of their post. The time from submitting the MD to confirmation that it had been obtained was 21-102 months (median 54). Of those in research posts 0-80% (median 20) of their time was spent on non-research related activities and 45% had regular on call commitments. It took 2-15 months (median 6) before candidates received their MD back from their examiners. Altogether 46% of candidates had to make revisions to their MD and 47% of candidates had a viva.

There is great variation in the current means of obtaining a MD and it is suggested that nationwide regulations are adopted for the conduct of MD degrees.

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A MD degree is regarded as an important step in becoming a consultant, particularly for people aiming for an academic career. The author's personal experience of obtaining a MD and his reading of the limited literature available on this subject prompted him to research this area further.

### Method

A questionnaire was sent to the 55 doctors whose MD thesis and abstract was quoted in the paediatric/perinatal section of the *Index to Theses with Abstracts* journal (published by ASLIB and Expert Information Ltd) in the years 1986-95. The MD theses had been obtained in the years 1984-93. The specialties of these doctors are detailed in table 1. The questionnaire is outlined in table 2. One month after the questionnaires were sent a second mailing of questionnaires was made to those who had not replied to the first mailing.

Table 1 Specialties of the 55 doctors sent a questionnaire

Paediatrics	40
General practice	3
Obstetrics and gynaecology	3
Ear, nose, and throat	1
Haematology	1
Ophthalmology	1
Neurosurgery	1
Paediatric surgery	1
Geriatrics	1
Community medicine	1
Neurophysiology	1
Pharmaceutical research	1

### Results

There were 41 replies to the first mailing followed by a further 10 replies from the second mailing. Thus, a total of 51 responses were obtained (93%).

Forty eight per cent of respondents felt that the current system for obtaining MDs was satisfactory, 42% felt it was unsatisfactory, and 10% did not know. Ten (18%) of the respondents had done their MD during a clinical post. The remainder had research posts lasting 10-87 months (median 24). Only 29% of those in research posts were able to submit their MD before the end of their research post. The time from starting the MD to submitting it was 15-96 months (median 45). The time from submitting the MD to confirmation that it had been obtained was 21-102 months (median 54). Of those in research posts 45% had regular on call commitments during their research.

Eighty per cent of supervisors had a MD or PhD. Six per cent of candidates had regular meetings with their supervisors, 20% had weekly meetings, 8% fortnightly meetings, 16% monthly meetings, 48% meetings less than monthly, and 2% (one candidate) claimed never to have discussed his MD with his supervisor.

Seventy per cent of candidates felt they had appropriate examiners, 16% felt they had had inappropriate examiners, and 14% did not know. In 47% of cases both examiners had a MD or PhD, in 20% only one did, in 6% neither did, and in 27% of cases the candidates did not know if their examiners had a higher degree.

On the first submission 88% of candidates were required to submit their MD properly bound and 12% submitted it in a loose leaf folder. It took 2-15 months (median 6) before candidates received their MD back from their

Department of  
Paediatrics, Whipps  
Cross Hospital,  
Whipps Cross Road,  
Leytonstone, London  
E11 1NR

Correspondence to:  
Dr Raine.

examiners. Forty six per cent of candidates had to make revisions to their MD. Of those that had to resubmit their MD it took 1–6 months (median 5) before it was returned. Forty seven per cent of candidates required a viva.

Eight per cent of candidates came very close to giving up their MD, 8% were moderately close, 20% occasionally considered it, and 64% never considered it. Fourteen per cent of candidates were registrars when they obtained their MD, 51% were senior registrars/lecturers/research fellows, 29% were consultants, 4% were general practitioners, and 2% were pharmaceutical physicians. Sixty seven per cent of candidates became teaching hospital consultants, 22% became district general hospital consultants, and 11% were not hospital consultants. Twelve per cent of candidates did not publish papers after the acquisition of their MD, 52% published 1–3 papers, 32% published 4–9 papers, and 4% published  $\geq 10$  papers per year.

### Discussion

The very high response rate (93%) obtained to the questionnaire suggests that doctors with MDs are committed and disciplined. Nearly half the doctors with MDs (42%) felt that the system for obtaining MDs was unsatisfactory. Given that there are significant numbers of doctors who start research with the aim of obtaining a MD, but who for a variety of reasons give up or do not succeed, the percentage of doctors dissatisfied with the system is likely to be well above 50%.

There seems to be great heterogeneity, compared with PhDs, in the conduct of MDs. Nearly a fifth (18%) of candidates did their MD while doing a full time clinical job. Though most candidates had a two year research post the length of the post varied enormously from under a year to over seven years. Furthermore, and as a result of the above, the period from starting the MD to submitting it also varied greatly from just over a year to eight years. It was disheartening to discover that less than a third (29%) of candidates

were able to submit their thesis by the end of their research period. This would suggest a defect in the way that MDs are planned. There is also likely to be a large number of doctors who, unable to complete their MD in the designated period, give up their MD. An important reason for doctors not completing their MD on time was that some had to spend a significant amount of their time (0–80%, median 20) on non-research related activity. Furthermore, almost half (45%) of those in research posts had on call commitments. Whether these were imposed on the researcher by their supervisor or by clinical pressures, or whether the researchers wished to do the on call to keep their clinical skills up to date or for financial reasons is not known. In any case keeping the research period free of clinical and on call commitments is very likely to have increased the number of candidates who would have been able to submit their MDs on time.

Twenty per cent of supervisors did not have a MD or PhD. Though some of these supervisors would have been eminent professors others should not have been supervisors. Clearly several qualities are required to make a good supervisor. The possession of a MD suggests not just the ability to do original research and of being an expert in a particular subject, but also an understanding of the stamina, discipline, and heart ache that accompany most MDs and that is required to supervise appropriately a MD. It would seem best if in the vast majority of cases supervisors did possess a higher degree. Candidates meetings with their supervisors varied from daily meetings to none at all! It would seem sensible to set down minimum intervals, for instance once a fortnight, during which a candidate should be able to discuss their MD with their supervisor. Grant *et al*, in a study comprised of questionnaires to MD candidates, highlighted the importance of a period of intensive initial research training that should be provided by the supervisor and suggested that special teaching materials should be designed to aid supervisors to fulfil this function.<sup>1</sup>

Table 2 MD questionnaire

1. Do you think that the current system for obtaining MDs is satisfactory? (yes/no/don't know)
2. How long was your research post? (years, months)
3. Were you able to submit your MD within your designated research period? (yes/no)
4. How long did it take from the start of your MD project to submitting it for the first time? (years, months/can't remember)
5. How long did it take from the start of your MD to getting written confirmation that you had obtained the MD? (years, months/can't remember)
6. Approximately what percentage of your research time was spent on non-research related clinical activities? (%/can't remember)
7. Did you have to do regular on call during your research years? (yes/no/can't remember)
8. Did your supervisor have a MD or PhD? (yes/no/don't know)
9. How often did you meet your supervisor to discuss your research? (daily/weekly/fortnightly/monthly/less than monthly)
10. Do you think you had appropriate examiners? (yes/no/don't know)
11. If not, why not? Please comment
12. Did your examiners have a MD or PhD? (both did/only one did/neither did/don't know)
13. Did you have to submit your MD the first time properly bound or in a loose leaf folder? (bound/not bound/can't remember)
14. How long did it take before you received your MD back from your examiners? (years, months/can't remember)
15. Did you have to make changes to your original MD? (yes/no)
16. If you had to resubmit your MD, how long was it before you were informed if the MD had been accepted or if further changes were necessary? (years, months/non-applicable/can't remember)
17. Did you have a viva? (yes/no, university did not viva candidates/no, not required in my case/do not know if university vivas candidates)
18. How close did you come to giving up your thesis? (very close/moderately close/occasionally considered it/never considered)
19. What grade were you when you obtained your MD? (registrar/senior registrar/consultant)
20. If now you are a consultant are you a DGH or teaching hospital consultant? (DGH/teaching/not a consultant)
21. How many papers a year do you publish? (0/1–3/4–9/ $\geq 10$ )

DGH = district general hospital.

Some institutions, for example London University, have tried to deal with the problem of poor supervision by also appointing a London University supervisor to candidates working outside London who are submitting their MD to London University as that is where they qualified. It is unclear why candidates working in an institution other than the one in which they qualified should still have to submit their MD to the university where they qualified. This contrasts with PhDs where the thesis can be submitted to the institution where the work was carried out.

Most of the candidates (70%) felt that they had appropriate examiners. In at least 6% of cases neither of the examiners had a higher degree. Though it is possible that both these examiners were eminent doctors and appropriate examiners, it would seem preferable if in all but the most exceptional instances at least one of the examiners had a higher degree. In some universities the policy is for examiners to be anonymous and for the candidates not to know who their examiners have been. It would seem unfair and unnecessarily secretive for this to be the case.

The majority of candidates (88%) had to submit their MD properly bound. Given that approximately half (46%) needed to make revisions to their MD it would seem preferable, as well as saving money and paper, if all theses were submitted in a loose leaf folder. Conversely, one could take the view that if as many as half of all theses need resubmission, that MDs are either not adequately supervised and/or examined.

Some universities viva MD candidates but others do not. It can be expensive to pay for examiners to travel to the necessary location and spend the required time examining the candidate. Approximately half (47%) the candidates required a viva. However, we do not know what proportion of the remainder submitted their thesis to universities who do not viva candidates. It would be interesting to know, but was not possible in this study, if having a viva and the opportunity to discuss the thesis with the examiners lessens the necessity to resubmit the thesis and decreases the number of necessary revisions. It would appear sensible to have a nationwide policy about whether vivas should or should not be carried out and in what circumstances. My own view is that they should only be necessary in borderline cases where it is unclear whether the thesis should be passed or failed, or passed or awarded distinction.

Over half the candidates received their MD thesis back from their examiners within six months. However, in some cases it took up to 15 months, which is an unacceptably long time.

It would seem best if in the majority of cases the thesis was returned within six months. In those candidates who had to make revisions and had to resubmit their MD the median time taken to receive the MD back was five months. The time needed to assess the necessary changes would depend on the number of changes required but should ideally be no more than three months. The lengthy periods of time

taken to examine the thesis and the large number that required revision and resubmission contributed to the very wide range of times (21–102 months) taken from submission of the MD to obtaining the MD. However, the fact that most candidates had to complete their MD while doing a full time clinical job was probably the most important factor accounting for the inordinately long length of time (median 5.5 years) taken to obtain a MD. Nearly a third (29%) of candidates did not obtain their MD until they were consultants. A further reason why candidates should be returned their MD thesis promptly is that it may well affect the success or otherwise of their next job application.

The majority of candidates (64%) never considered giving up their MD and 20% only occasionally considered it, suggesting that most successful MD candidates are highly motivated and committed. However, we have no data on the number of doctors who commenced research with a view to acquiring a MD who gave up. Two thirds of those who obtained their MD became teaching hospital consultants, a high proportion of whom presumably obtained academic appointments. Though most doctors with MDs published papers after getting their MD, 12% published no papers after getting their MD, suggesting that they had little interest in research and that obtaining their MD was simply a hurdle to be crossed on route to a consultancy.

The large variations in the means of obtaining a MD outlined above have also been documented in other studies. Kelly, in a questionnaire survey of MD and MS degrees, showed that universities varied markedly in such aspects as the need for title acceptance and a detailed outline of the MD, the acceptability of published material in the thesis, whether the examiners names are secret, whether examiners have a higher degree, and whether a viva is required.<sup>2</sup> McManus also carried a survey of the MS and MD degree by sending a questionnaire to the academic registrar of the universities that award medical degrees.<sup>3</sup> He demonstrated that regulations at different universities varied markedly, particularly in the use of viva examinations for failed candidates, in permissible subject matter, and in allowing the submission of previously published papers. These authors pointed out that the different regulations and examination procedures in the universities affect the ease of achievement and quality of higher medical degrees and suggested that national guidelines govern the conduct and examination of higher degrees.

It may well be that this article, that only deals with candidates who successfully obtained their MD thesis, has only addressed the “tip of the iceberg” in that many candidates embarking on research with the aim of obtaining a MD do not even get as far as submitting it due to the various difficulties outlined above.

There are also alternative ways of obtaining a MD. The Oxford DM, for example, can be obtained by published work and a brief, optional (2000 word) essay. Swedish doctorates are based on publications. Alternately,

there may be better ways of assessing doctors' research potential. For example, one could conduct an assessment of the candidate's three best peer reviewed articles, though it can sometimes be difficult to assess an individual's contribution in a multiauthor paper. A paediatric MSc, such as that conducted at the Institute of Child Health at London University, combines research with a study of statistics and epidemiology and may be a better option for doctors wishing to be acquainted with various aspects of research but who do not wish to become academics.

The implementation of the Calman proposals on training is likely to lead to a decrease in the number of candidates attempting a MD. It is suggested that the means of obtaining a MD, especially now that higher specialist training

has been shortened and become more structured, is revised and made uniform across the country. The ideal length of a research job needs to be determined and should probably be three years. Closer supervision for candidates and more specific regulations for examiners need to be in place to enable more MDs to be completed successfully and assessed fairly within a designated period. A study comparing and contrasting the means of obtaining MDs and the rather more rigorous PhD degree is about to be started.

- 1 Grant J, Gale R, Anderson RH, *et al.* MD candidates want better training in research. *J R Coll Physicians Lond* 1994;**28**:564-6.
- 2 Kelly MJ. The MD and MS degrees in Britain. *BMJ* 1988;**297**:687.
- 3 McManus IC. The MD and MS degrees in Britain. *BMJ* 1988;**297**:115-7.