

Medical students' attitudes to Modernising Medical Careers: will it affect training or career choice?

Introduction

August 2005 was a landmark in medical education in the UK as this is when the changes suggested in the 2004 Department of Health white paper Modernising Medical Careers (MMC) were implemented. MMC is a bold attempt to address the conflicting demands of the European Working Time Directive, the educational needs of junior doctors, and quality service delivery to patients.

The origins of MMC lie in Sir Kenneth Calman's reforms of higher specialist training in the 1990s. These reforms acknowledged the historical 'bottle-neck' at the registrar level, and addressed this by tightly controlling the numbers of higher specialist trainees. Each specialist registrar was given a 'Calman number', and followed a clear progression to their Certificate of Completion of Specialist Training (CCST) over a period of 4–6 years.

Reform of higher trainee grades necessitated a substantial review of postgraduate medical education, in particular the quality and educational purpose of senior house officer (SHO) and house officer grades. This resulted in the Department of Health publication of *Unfinished Business* (Donaldson, 2002), a report on the 'lost tribe' of SHOs. This document concluded with 19 recommendations and five key reforms of SHO training, in particular structural changes to the early years of postgraduate training, including a 2-year foundation programme. The foundation programme was designed to 'enhance core or generic skills essential for all doctors' before entry to specialist training pro-

grammes. A total of 832 doctors were involved in piloting foundation programmes (MacDonald, 2003), and all house officers taking their positions in August 2005 commenced on approved foundation year 1 positions, with some also already committed to foundation year 2 positions.

However, the evolution of foundation programmes has not been without controversy. Student leaders were concerned about candidates accepting job offers while unsure of their rotations, there have been concerns as to when new graduates would be able to practise independently (Poole, 2004), and whether it would eventually result in the dumbing-down of the consultant grade (Grant, 2003). Medical students expressed concern that they had not been consulted on the structure of the new curriculum, and the proposed changes may affect their ability to end up in a career of their choice. As it is students that will be most affected by these changes, this project aimed to assess the opinion of final year medical students about the proposed changes, and how they may impact on their training or choice of career.

Methods

The attitudes of final year medical students at Warwick Medical School to changes in postgraduate medical training were determined by a questionnaire. The following questions were asked:

- How well informed they felt about MMC changes
- Whether they had been to the MMC roadshow or looked at the MMC website
- If they knew how progression through the foundation years would be assessed
- If they knew which branch of medicine they would like to specialize in
- Whether they thought the new programme would affect the likelihood of ending up in their preferred choice of career
- Whether they thought the quality of training would be better or worse in the new programme

- How important they thought various jobs were to their training
- Whether they were prepared to change regions to pursue their chosen career
- Which choice of rotation they obtained in the matching scheme.

The responses were given by a mixture of free response answers, scoring on a visual analogue scale and yes/no tick-boxes. The visual analogue scores were measured on a scale of 0 to 100, with 0 being in full disagreement and 100 being full agreement to the statement given. The questionnaire was piloted and, after a few modifications were made, given to 92 final year medical students attending the last lecture of their course before their exams. This lecture was chosen as it was expected that there would be a high attendance and that thoughts of the forthcoming foundation programme would be high in their minds.

The responses of the questionnaire were entered into an Excel spreadsheet and analysed using this and Statistical Package for Social Sciences (SPSS for Windows, version 11, SPSS inc, Illinois, USA). Statistical analysis was done by the senior author using analysis of variance (ANOVA), chi-squared tests and paired *t*-tests as appropriate, with *P* values less than 0.05 being taken as significant.

Results

Of the 92 students questioned, 81 (88%) completed and returned the form. Of the students asked 60% knew what they would like to end up specializing in: 17 (35%) wished to specialize in general practice, 16 (33%) in a hospital medical speciality, 12 (25%) in surgery and 3 (6%) in anaesthetics (*Figure 1*).

Knowledge about the new training programme

Overall most students felt fairly well informed about the MMC programme, with a mean score of 56. Although 57 (76%) had been to the MMC roadshow, only 38 (51%) had seen the curriculum, 38 (51%) had visited the MMC website (www.mmc.nhs.uk) and 24 (32%) were

Mr MF Nixon is Clinical Research Fellow, Department of Orthopaedics, Glenfield Hospital, Leicester LE3 9QP.

Dr DR Wordsworth is Foundation Year 1 Doctor, Department of Haematology, Warwick Hospital, Warwick, and

Dr DD Wall is Deputy Regional Postgraduate Dean, West Midlands Deanery, Birmingham

Correspondence to: Mr MF Nixon

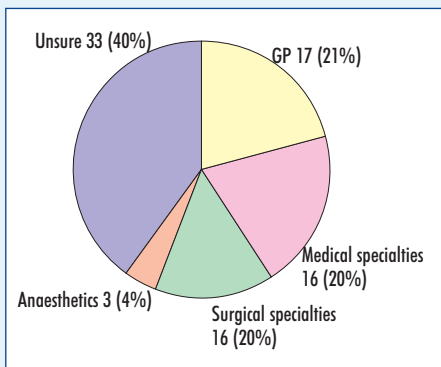


Figure 1. Which branch of medicine would you like to specialize in?

aware of how assessments were going to be made. There was a strong difference in opinion about different methods of assessment. While there was approval (mean score 69) for using 360° assessment, there was significant disapproval of being required to do case portfolios during the foundation programme (mean score 31, $P < 0.001$, chi-squared test).

The majority of students (65%) who applied for jobs within the region they had trained as students in achieved their first choice job and 89% achieved one of their top three choices. Those who achieved their first choice post (and who may be considered to be 'high-flyers') were no more likely to have already chosen a career to specialize in compared to those who obtained a lower choice post. Many students were prepared to change region to pursue their chosen career (mean score 67), particularly those wishing to do surgery, and only 27% stated that they were planning on becoming a GP or consultant in the West Midlands.

Attitudes to the impact on quality of training

Although as a group, the students rated the new training methods significantly higher (mean score 67) than the old training scheme (mean score 49, $P < 0.001$, paired t -test), there was a variation in attitudes depending on what (if any) branch of medicine the students had chosen to specialize in. Those students who already knew which branch of medicine they wished to specialize in were more in favour of the old training methods than those who had not yet made a career choice (mean scores 53 and 44 respectively, $P = 0.02$, ANOVA).

With regards to the new training methods, those wishing to do general practice were most strongly in favour of new training methods (mean score 78), while those wishing to pursue a medical speciality ranked the new training methods slightly lower at 66. Both these groups ranked the new training methods significantly higher than the old ($P < 0.0001$, t -test). Those wishing to pursue a surgical speciality were the only group to rank the new training methods lower than the old (although this did not reach statistical significance – mean scores 43 and 47 respectively, $P = 0.35$). This is summarized in *Figure 2*.

Attitudes to impact on choice of career

Collectively, there was no statistical difference with regards to whether students

thought they would end up in their chosen career between the new and old systems (mean scores 59 and 56 respectively). A similar pattern was seen if the students had already chosen a career (be it GP, medical or surgical specialities) or were undecided, with no significant difference in any group between the old and new training schemes. Those wishing to do a surgical speciality were the least confident about ending up in their chosen career (mean score 38) as opposed to general practice who were the most confident (mean score 71). This is likely to reflect how competitive certain careers are currently (*Figure 3*).

Attitudes to jobs that should be part of the foundation programme

All students agreed that a general medical and general surgical job should be part of

Figure 2. Mean scores (out of 100) for the quality of training in the new and old systems among the different groups.

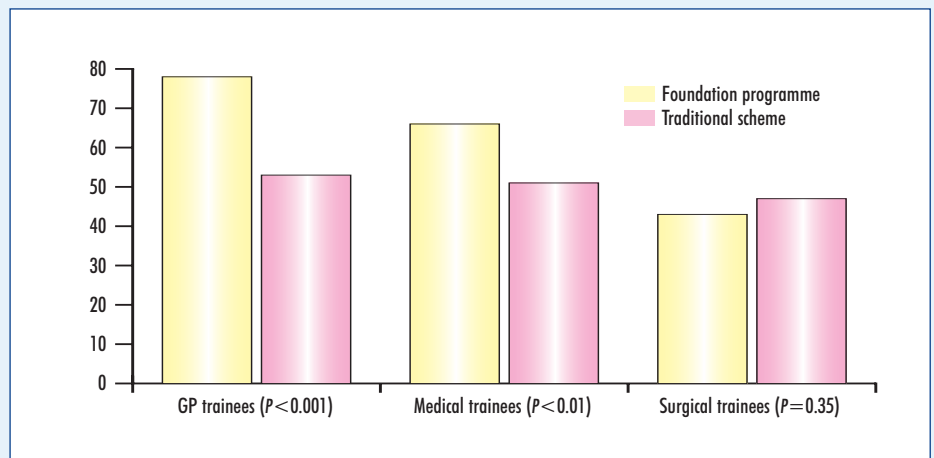
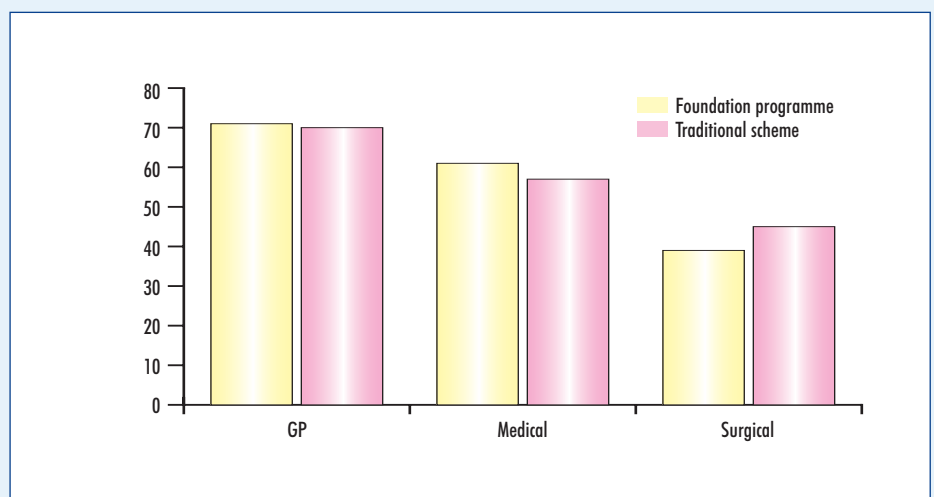


Figure 3. How would you rate (out of 100) the likelihood of ending up in your chosen speciality in the foundation programme and traditional systems?



the foundation programme (99% and 94% in favour respectively). Those wishing to become GPs were similarly in favour of doing general practice (94% in favour), although overall this view was less popular, particular with those wishing to do surgery (Figure 4). Those who were aware of the new curriculum were significantly more likely to wish to do an academic job (mean scores 50 vs 34, $P=0.008$, ANOVA), while attending the MMC roadshow did not influence people into thinking that certain jobs were more important than others.

Discussion

This study from Warwick Medical School has achieved a very high response rate of 88%. Bowling (1997) considers a response

rate over 75% to be good for such a questionnaire, so this high response rate helps to conclude that the results are reliable. This is also much higher than a similar study done across London by Malawana et al (2004), which achieved only around 50%.

The question of adequate consultation still remains. Although junior doctors of the British Medical Association were consulted, doctors of the future who will most be affected by changes were not. Additionally the curriculum has been criticized on several points, not least its length, lack of referencing and academic credibility, having used the wrong curriculum model, and an over-emphasis on assessment (Wall, 2005).

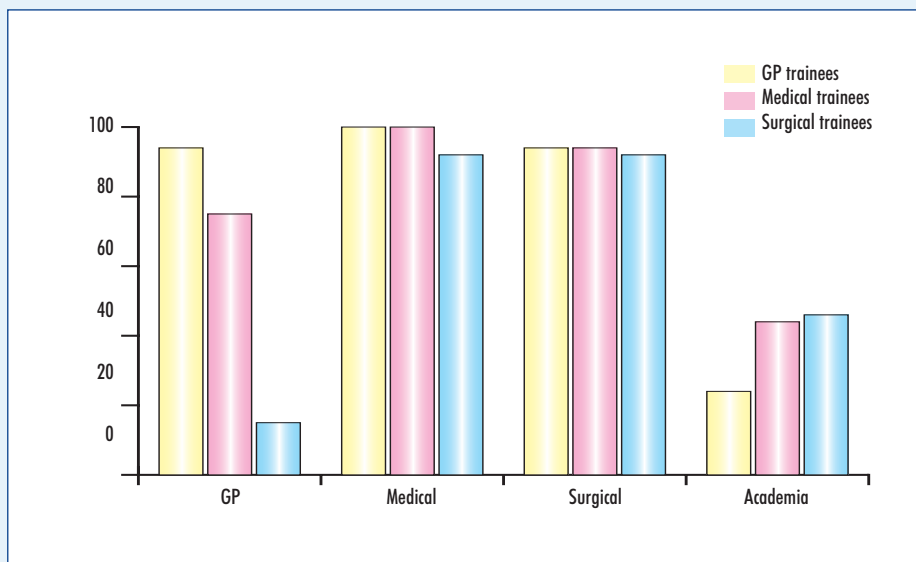
For postgraduate training, the students thought that structured training will be significantly better in the new system. This contrasts with the study done in London (Malawana et al, 2004) which found that the foundation programme was viewed negatively and seen more as a delay to the students progressing with their careers. This may be because now more details of medical training beyond the foundation programme are now known. The current study highlighted that although potential GPs and physicians were in favour of the new system, there are concerns among those wishing to do surgical specialities. Phillip et al (2003) and Chikwe et al (2004) estimated that the number of hours required to become a consultant surgeon has dropped from 30 000 to 8000 (with a drop to 6000 hours with the further reduction in working hours proposed).

Becoming a consultant at the age of 30 years may be the Government's aim, but there is anxiety on the part of junior doctors that this may not be long enough to gain enough experience in the technically demanding specialties. This worry fits in well with Swanwick's theory (2005) on the development of expertise – that moving from novice to expert within the workplace is heavily dependent on hours worked.

Regarding the selection process for jobs, students were happy with the new multi-Deanery appointments process. Of respondents, 65% had achieved their first choice jobs in foundation year 1, and 89% had achieved one of their top three choices. All thought that a general medical job and a general surgical job should be part of the training package in foundation year 1. The choice for a GP placement is interesting, in that 75% of potential physicians and 94% of potential GPs wanted a GP job, but only 15% of potential surgeons did so.

Generally students felt well informed about the foundation programmes. Most (76%) had attended an MMC roadshow, but fewer (51%) had seen the curriculum, and only 32% were aware of how they would be assessed. This is worrying as much of the responsibility for gaining completed assessment lies with students themselves. Students welcomed the 360° assessment, but were very disapproving of portfolio learning, a highly significant

Figure 4. Attitudes to which jobs should be part of foundation training, according to choice of final career.



KEY POINTS

- Final year students at Warwick largely welcomed the new MMC initiative, especially the idea of transparent career progression.
- The vast majority of students still wished to have a general medical and surgical job as part of their training programme, and the potential physicians and GPs also wished to have experience in general practice. The potential surgeons were less keen.
- There were strong differences of opinion on methods of assessment in the foundation programme. Many were supportive of 360° assessment, but unhappy with written case-based portfolios.
- More work needs to be done on effectively communicating the aims of the foundation programme to medical students and trainees.

result. The roadshows did not appear to have affected career choice despite 76% of the students here having attended one.

It was not generally felt that the new system would affect career choice. Many doctors change their choice of career while exposed to specialities as an SHO. One of the aims of the new system was to expose young doctors to a career in some specialities that are not well covered in medical school and where recruitment is a persistent problem (such as histopathology, psychiatry and radiology).

Finally it is worrying that many students were prepared to move and change their postgraduate region in pursuit of their chosen career. Only 27% were planning on remaining in the West Midlands. The West Midlands has formerly been a net importer of young doctors, and recently founded two new medical schools (Warwick and Keele) to boost local numbers. It is worrying that three quarters of West Midlands graduates are going to move out.

Conclusions

The students at Warwick broadly welcomed the new MMC initiative. They felt that their career choice would not be affected. Roadshows had reached over three quarters of the students, and just over half had visited the website. However, only one third knew about assessment, which does need to be improved.

For the future, it would be useful to follow up this cohort as they progress through their foundation years and see how many do end up in their chosen careers and whether their career progression will be continuous or if career bottlenecks will persist as has been suggested by Sritharan (2005). Only time will tell. **BJHM**

Conflict of interest: none.

Bowling A (1997) *Research Methods in Health*. Open University Press, Philadelphia, PA

Chikwe J, de Souza AC, Pepper JR (2004) No time to train the surgeons. *BMJ* **238**(7437): 418–19

- Department of Health (2004) *Modernising Medical Careers: the next step*. Department of Health, London www.dh.gov.uk/assetRoot/04/07/95/32/04079532.pdf
- Donaldson L (2002) *Unfinished Business: Proposals for Reform of the Senior House Officer Grade*. Department of Health, London www.dh.gov.uk/assetRoot/04/07/18/35/04071835.pdf
- Grant S (2003) Doctors divided by plan to create younger consultants. *Hospital Doctor* **27 February** (www.hospital-doctor.net/hd_archive/hd_refarticle.asp?ID=9771)
- MacDonald R (2003) Update on modernising medical careers. *BMJ* **327**(7416): s89–90
- Malawana J, Aitken M, Heard S (2004) Medical students' views about Modernising Medical Careers: a questionnaire survey of London students. *Hosp Med* **65**(7): 431–3
- Phillip H, Fleet Z, Bowman K (2003) *The European Working Time Directive — interim report and guidance from The Royal College of Surgeons of England Working Party*. Royal College of Surgeons, London
- Poole A (2003) UK postgraduate education: all change. *studentBMJ* **11**: 219–62
- Sritharan K (2005) Senior house officers: the lost tribe? *student BMJ* **13**: 353–96
- Swanwick T (2005) Informal learning in postgraduate medical education: from cognitivism to 'culturism'. *Med Educ* **39**(8): 859–65
- Wall D (2005) Curriculum for the foundation years in postgraduate education and training. *Med Teach* **27**(4): 298–301

RSM STUDENT MEMBERS' GROUP RESEARCH PRESENTATION

Who owns the child? Parental responsibility and how often is consent given by the wrong person

The British Journal of Hospital Medicine is pleased to be publishing some abstracts from the Royal Society of Medicine's Student Members' Group Bicentenary Research Presentation. This is one of the runners up. For information about entering this year's prize, please contact youngfellows@rsm.ac.uk

Abstract Objectives

- Discover what percentage of paediatric procedures are consented for by a person with no parental responsibility
- Discover who parents believe is legally allowed to consent for their child.

Method

Two hundred people who gave consent for a procedure on a child were interviewed.

An anonymous questionnaire was used which determined what relationship they were to the child, whether they had parental responsibility, and who they believed is legally allowed to give consent.

Results

Of all procedures in this study 3% were consented for by someone with no parental responsibility. Two per cent of the participants accurately identified who can give legal consent for a child. At least 25.5% of the participants gave at least one incorrect answer.

Discussion

Increasing concerns about the propriety of treatment has raised doctors' awareness of the need for valid consent. There are a number of paediatric procedures

being performed without valid consent. This could be a result of lack of education on the rules governing parental responsibility, and could have serious consequences.

Conclusions

In 3% of the cases, the procedure was performed without valid consent. A substantial majority of those asked did not know who can legally consent for a child. **BJHM**

Miss Eleni Duncombe was a medical student in the Department of Medicine, University of Southampton, Southampton

Correspondence to: Dr E Duncombe, F1 Doctor, Royal Hampshire County Hospital, Winchester, Hampshire SO22 5DG