J R Coll Physicians Edinb 2006; 36:59–61

Medical education symposium 2005

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ABSTRACT This symposium addressed a number of pertinent issues relating to this increasingly important aspect of medicine. Topics ranged from medical student selection to changes in specialist training and were presented by key players in the field.

KEYWORDS Medical education, modernising medical careers, foundation programme, run-through programme.

LIST OF ABBREVIATIONS Clinical aptitude testing (CAT), General Medical Council (GMC), Modernising Medical Careers (MMC), Open University Centre for Education in Medicine (OUCEM)

DECLARATION OF INTERESTS No conflict of interests declared.

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SESSION 1

NEW DIRECTIONS IN EDUCATION

The symposium highlighted the Edinburgh College's commitment and justifiable interest in this important aspect of medicine. It was good to see the diversity of those who attended, ranging from Medical Students to Consultants, and from a variety of fields, notably surgery and non-medical educationalists. Professor P Rubin, Chairman of the GMC Education Committee, posed the question 'What is a good doctor and how do we make one?' Professor Rubin is highly qualified to speak on such matters, having been involved in the major shift in direction of medical education, *Tomorrow's Doctors*,[1] emphasising outcome rather than process. He is also currently chairing working parties on the structure, functions and outcomes of the pre-registration year and on reforming the process by which the GMC assures the quality of medical education. He described how a core- and options-based approach to undergraduate (and postgraduate) curriculum was desirable, with all medical students acquiring core knowledge, skills and attitudes that would prepare them for the foreseeable intellectual rigour of being a doctor, with specialist knowledge reserved for specialist training. However, he also recognised that times change and what needs to be taught will change with them. He suggested that a key principle behind medical training must be to prepare doctors for uncertainty: the uncertainties of everyday clinical practice and so to recognise the limits of their competence and show a willingness to consult others. Professor Rubin finished with the comment that better medical education should not only be an aim for health professionals but also form part of the greater architecture and culture of the NHS.

Dr D Thomson, Medical Admissions Director at Edinburgh University, spoke about those who should get the opportunity to go to medical school. He impressively justified what at first appears obvious, that in any one year the opportunity for an individual to study medicine depends not only on the number of applicants but also on the medical schools to which an individual applies. Universities continue to select medical students who combine high academic achievement with the necessary aptitudes they consider important to be a successful doctor.[9] However, it has been suggested that previous academic performance is a less than a perfect predictor of achievement in medical training. Recently, this prejudice has been strengthened by the suggestion that there has been a recent inflation in academic grades awarded in the UK national examinations (the number of individuals achieving three 'A' grades at A level has doubled in the last ten years). In addition, the tools used for selection have not been validated, rendering the current method of selection less than optimum. Although one may blame selection bias for the increasing number of females entering medicine, and the fact that individuals from social classes I and II make up 80% of UK medical school entrants, Dr Thomson showed that this situation simply reflects the demography of those applying. Dr Thomson finished with reference to the new UK CAT system[2] that is to be utilised by UK medical schools in future selection, although this remains the subject of further research.

Professor F Hay, St George's Hospital Medical School, described a recently introduced inter-professional first year medical course combining disciplines such as medicine, nursing, radiography and physiotherapy. The aim of this appears, in part, to be the de-medicalisation of the

medical undergraduate course emphasising early inter-professional collaboration in patient management. Critics, however, would consider this demedicalisation a prelude to a general de-professionalisation of doctors *per se*. Although interesting in theory, Professor Hay's experience suggests that the practical aspects of such a scheme seem somewhat difficult to grasp. Although the students enjoyed this inter-disciplinary approach, the medical students were least certain about its value. Still in its infancy, we shall no doubt hear more about such integrated undergraduate courses in the future.

SESSION 2

TEACHING & LEARNING

Professor J Grant, Director of OUCEM,[3] and the first UK non-clinical lecturer in medical education, spoke about virtual and distance learning and their possible use in the teaching of medicine. It is important to highlight the difference between e-learning and distance learning, with e-learning related to the medium used to send the educational message (computer, telephone), and distance learning related more to the study of prepared educational materials by the individual. We learned a great deal about the structure and function of the Open University, and how the benefits of distance learning may be applied to the medical curriculum, but this left unanswered the question of whether we need a new way, such as this, for delivering medical education.

Professor G Norman, an educationalist from McMaster University in Canada, gave this year's Davidson lecture.[4] He talked about the role of learning theory in clinical teaching, and eloquently described how the application of knowledge in medicine requires clinical reasoning skills. The difference between doctors and students is that doctors (the experts) use the same problem-solving skills as novices (the students), they just do it better. Furthermore, learning is strongly influenced by meaning: if we can understand what we are learning in terms of our pre-existing knowledge, better learning and retention occurs. Professor Norman also explained why, as clinical teachers, we are constantly mystified by the phenomenon that students who have performed well in the pre-clinical stages of medical school appear incapable of recalling most of what they have learned. He suggested that effective transfer of previous knowledge to new problems requires the initial teaching of principles to be by example, and favours active problem solving as opposed to simple memorising. Furthermore, effective learning and transfer requires practice. As teachers, it should be our role to co-ordinate this experiential learning and repeated exposure to clinical scenarios in an ordered fashion.

SESSION 3

POSTGRADUATE MEDICAL EDUCATION

Dr M Watson, Medical Director of NHS Education for Scotland,[5] looked at postgraduate medical education, an area in which a number of changes are taking place simultaneously, making it a very challenging area indeed. Dr Watson discussed the issues surrounding service versus training within a changing NHS. Regarding service delivery in Scotland, he alluded to Professor D Kerr's upcoming report[6] intimating that service in the future will be team-based and delivered close to the patient by individuals with appropriate generalist skills. This leads on to the concept of tiered senior medical grades, with 'credentialed doctors' attesting particular competencies below those of an 'accredited doctor' who would be on the general practitioner or specialist register. Furthermore, as service needs will essentially dictate the type and number of doctors required, training schemes will have to be responsive to this and hopefully match numbers required with those successfully trained. Rigidity in training will lead to situations as seen at present where there is an over-abundance of some specialists without jobs for them to go into. Dr Watson also described how the imbalance of service and training, now affected by the European Working Time Directive, may be corrected by the introduction of other healthcare professionals (such as Nurse Practitioners and Specialist GPs) into domains such as endoscopy, previously thought of as areas exclusive to hospital doctors.

Professor A Crockard, National Director of MMC,[7] the person responsible for the introduction of the Foundation Programme, gave the most thought provoking of the day's talks. He began by giving us a brief overview of the underlying and long-standing need for change in medical training and described the introduction of the Foundation Programme,[8] the first year, F1, of which appears to be proceeding well. The advent of the F2 year next year is clearly the next hurdle but Professor Crockard reassured us that funding had been ring-fenced for at least 70% of these placements, most in general practice. Future specialist training was touched upon, the ideal being that doctors would go directly into specialist training after the F1 and F2 years, the new so-called 'run-through' programme. This will also result in a phasing out of the old national training numbers. How the old and new systems will co-exist in the transition period remains to be seen. Furthermore, the effect of the new run-through programme on trainees currently in other aspects of medicine, such as academic medicine, remains to be decided. It appeared clear from Professor Crockard's talk that some cross-specialty training will be necessary and that junior doctors will potentially have to compromise their choice of future specialty based on the imperatives of supply, demand and policy.

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SESSION 4

IMPROVING STANDARDS

Dr S Maxwell, Consultant Physician at the Western General Hospital, Edinburgh, discussed how to be a better clinical teacher. It is important that clinical teaching is based on real problems in professional practice and is delivered ideally by future role models. However, although clinical teachers may have the knowledge and the skills that the students need and the enthusiasm to teach, there are few with any real training in the field. Practice-based learning and communication were both highlighted as key components of effective clinical teaching.

The symposium concluded with a debate 'This house believes that the education of a doctor requires an apprenticeship and not academia.'

Professor T Sheldon, Pro-Vice Chancellor, Learning, Teaching & Information at the University of York, argued eloquently for the motion. He pushed for an apprenticeship model of medical training stating that only a minority of house officers currently feel adequately prepared for their clinical duties and this is causally related to their teacher-centred training. He also suggested that a significant barrier to a more practice-based learning model is that universities use income from teaching to support research. Thus, academic institutions employ staff funded by income streams associated with medical education, but who contribute little to the training of doctors. This seems less conjecture than fact. Perhaps an 'education assessment exercise' for academic institutions is the answer to this, whereby funds distributed are linked to the standard and quality of teaching attained. An apprenticeship form of medical education may be a hope for the future, but for the present the need is to focus and for teachers to perform more effectively in whatever context they are working.

Professor Sir K Calman, Vice-Chancellor at the University of Durham, gave an amusing counter to the motion which was well-received by the audience. He reviewed the teaching of science in medical schools, and argued strongly that knowledge and understanding of basic principles and mechanisms was a crucial aspect of the education of medical professionals, and helped to distinguish them from other healthcare workers. Perhaps surprisingly, there was a shift in audience opinion during the debate; an initial vote for the motion moved to a vote against the motion at the end.

This interesting and well-attended symposium should pave the way for greater awareness of the importance of medical education in the current and future culture of the NHS. Although most of the discussion pertained to UK medicine, readers working in other medical systems may well find aspects relevant to them.

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