MEDICAL EDUCATION IN THE UNITED KINGDOM

Femi Oyebode

Medical education and training is changing worldwide and United Kingdom is no exception. Prof Femi Oyebode has not only observed these changes being the Chief Examiner of The Royal College of Psychiatrist for almost a decade but also has implemented many. This article comprehensively outlines these changes which, although pertain to medical education in general, are particularly relevant to the mental health professional in view of now increasing emphasis on generic skills in medical education such as communication skills and the role of psychological and social factors in health care in general. — Editor

Medical education and training is currently undergoing considerable changes in the United Kingdom. These changes embrace the shift away from the care of the individual to concerns about the health of the community, from cure of disease to preservation of health, from episodic care to continuous and comprehensive care, and from in-patient care to community or home treatment[1] . Other features of this changing climate are development of appraisal systems for consultants and revalidation every 5 years for all doctors [2] In many respects, these changes are part of desire of politicians to control medicine and include the introduction of clinical governance by the new elected Labour government in 1998[3].

The social impetus for these changes is complex and multifold. It is certainly true that public concern about the quality and safety of clinical practice increased in the wake of the inquiry into the management of the care of children receiving complex cardiac surgical services at the Bristol Royal Infirmary between 1984 and 1995 (http://www.bristol-inquiry.org.uk/index.htm). Two further high-profile inquiries questioned not only clinical performance but also personal behaviour. These were the Royal Liverpool Children's Hospital Inquiry concerning the removal and retention of organs following post-mortem examinations[4] and the inquiry into Harold Shipman's clinical practice[5]. What is also inescapable is that these scandals paved the way for much tighter control of the independence of clinicians by National Health Service (NHS) managers as well as by politicians [2]. Much of the wide-ranging reforms in clinical medicine including the strictures on clinical autonomy and the challenges to the independence and status of the Royal Colleges as purveyors of standards of clinical care and education derive their justification directly from the scandals described above.

Many developing countries including Pakistan had traditional links with education and training system in UK. In fact many countries closely follow the postgraduate examinations systems of UK. It is therefore very important to understand the recent changes. In this paper I will be concentrating on the changes in undergraduate and postgraduate medical education. Although the appraisal system for consultatns, is important part of the whole system, will not be discussed here. I will draw attention to principles that are likely to influence postgraduate medical examinations for the next generation indicating, where appropriate, the practical consequences of these principles. What is important in understanding these changes is the sociopolitical climate that brought them into being. Thus, it will become clear why there is an emphasis on a broad range of issues besides technical competence and why there is a growing involvement of the lay public in decisions about medical curricula, assessments of competence, etc.

UNDERGRADUATE MEDICAL EDUCATION

Curricula

The General Medical Council[6] recommended in *Tomorrow's Doctors* that 'Attitudes and behaviour that are suitable for a doctor must be developed. Students must develop qualities that are appropriate to their future responsibilities to patients, colleagues and society in general. The core curriculum must set out the essential knowledge, skills and attitudes students must have by the time they graduate. The core curriculum must be supported by a series of student-selected components that allow students to study, in depth, areas of particular interest to them. The core curriculum must be the re-

Correspondence:

Prof. Femi Oyebode, MBBS, MD, PhD, FRCPsych, Professor of Psychiatry & Head of Department of Psychiatry University of Birmingham, Chief Examiner Royal College of Psychiatrists, Queen Elizabeth Psychiatric Hospital, Mindelsohn Way, Edgbaston Birmingham B15 2QZ

sponsibility of clinicians, basic scientists and medical educationalists working together to integrate their contributions and achieve a common purpose. Factual information must be kept to the essential minimum that students need at this stage of medical education. Learning opportunities must help students explore knowledge, and evaluate and integrate (bring together) evidence critically. The curriculum must motivate students and help them develop the skills for self-directed learning. The essential skills that graduates need must be gained under supervision. Medical schools must assess students' competence in these skills. The curriculum must stress the importance of communication skills and the other essential skills of medical practice. The health and safety of the public must be an important part of the curriculum. Clinical education must reflect the changing patterns of healthcare and provide experience in a variety of clinical settings. Teaching and learning systems must take account of modern educational theory and research, and make use of modern technologies where evidence shows that these are effective. Schemes of assessment must take account of best practice, support the curriculum, make sure that the intended curricular outcomes are assessed and reward performance appropriately'.

The emphasis on active learning and student selected components definitely altered the methods of teaching. In practice this has meant that many medical schools have fully or partly adopted problem-based learning methods. Medical schools that have not done this now have well developed small group teaching in all subject areas. With respect to student selected components, students have the opportunity to select up to 25% of what they learn. This takes the form of special study modules that allow students to attend academic modules in areas as diverse as the molecular basis of mental illness to the role of doctors in preventing accidents at work. These modules are usually assessed by written or presented projects. There are also student selected activities that include the opportunity to take time to study a subject in depth with some supervision by an academic staff. There is little doubt that these modules are welcome by students and some of the very best student works are done during these projects. However, there is some anxiety that the balance in favour of selected components may go too far and that students may lose out because they have not been taught what is core to the practice of medicine. The same case can be made against problem-based learning where students are left very much to their own devices in so far as they have to work in groups to discover what is important, of course under a modicum of supervision. It is likely that these methods are too labour and resource intensive to be readily adapted to medical education in the developing world.

POSTGRADATE MEDICAL EDUCATION

Pre-registration house office posts

It is only 50 years since pre-registration house office (PRHO) posts were created as a pre-requisite to full registration with the GMC. *The New Doctor* (publications@gmc-uk.org) sets out the content of training for PRHOs. Thus it is explicit what principles of treatment, clinical and procedural skills, communication skills, teaching and learning skills, personal and professional skills, etc that a PRHO must acquire in the 1-year period following qualification in order to meet the criteria for full registration with the GMC. The expectations are transparent. For example, with regard to communication skills, it is expected that a PRHO will have training in breaking bad news to patients or their relatives, explaining illness and discussing possible treatments, and finally dealing with violent, confused, anxious, depressed or suicidal patients. Furthermore, it is expected that PRHOs will demonstrate competence in the following procedures: use of local anaesthetics; giving intramuscular and subcutaneous injections; preparing and administering intravenous medicines; taking and measuring blood pressure; performing and interpreting and ECG; performing and interpreting a peak flow reading; etc.

Until now it has been the case that a PRHO must be engaged in at least 2 branches of medicine prescribed for the purpose, namely general medicine and surgery, and must spend minimum periods of time prescribed for each of these branches of medicine, usually interpreted as 6 months. In the future, PRHOs will be able to spend periods in specialities other than medicine and surgery, including general practice and psychiatry. The minimum duration spent in each speciality will no longer have to be 6 months, but 4 months.

Senior house office posts

In August 2002, Professor Sir Liam Donaldson, the Chief Medical Officer for England, published a consultation document, *Unfinished Business*[7] in which he set out proposals for reform of the senior house office (SHO) post. The principles underlying his proposal was that SHO posts should be programme based, broadly based to begin with for all trainees, be time-capped, and support the movement of doctors into and out of training and between training programmes. One of the most significant changes put forward was the development of a foundation programme comprising two years, including the current PRHO year, the objective of which would be to develop and enhance core or generic clinical skills essential for all doctors. In addition, he mooted the possibility of single, that is, unified training grade encompassing foundation, basic specialist, general practice, and higher specialist training programmes. In practice,

how this unified training grade will work is yet to be fully established but it is expected that they will start in August 2007. In all specialities, the aim is for there to be a single point where all applications are dealt with and an electronic system is envisaged. (Furhter Information is available on the Royal College of Psychiatrists website www.rcpsych.ac.uk).

The visa requirements for international medical graduates (IMGs) have changed significantly since March 2006. Until March 2006 medical doctors in training were exempted from needing work permit. This is now required and it is unlikely in the current climate that IMGs will qualify for work permit if a UK or EU citizen was available.

Postgraduate Medical Education and Training Board

The Postgraduate Education and Training Board (PMETB) was established in October 2003. The government's objective was to put in place a body that will act independently of government as a professional UK competent authority to supervise postgraduate medical education and training. Furthermore, it is intended that this body will improve the supervision of postgraduate medical education and training; consolidate and strengthen the position of the medical Royal Colleges and Faculties as essential elements of the education and training process; and raise standards and quality in education and training. It is also intended that the body provide robust arrangements for assuring the continued high quality of postgraduate medical education in the UK; provide managed structures and processes to ensure that all interests are aligned and represented in the arrangements for postgraduate medical education. In addition it will work closely with other regulatory bodies such as the GMC (www.publications.doh.gov.uk/).

It is certain that PMETB will have significant influence in determining the curricula, training arrangements and methods of assessing trainees' competence. The composition of PMETB is itself significant, as it comprises 25 members, 16 of who are doctors and 9 lay people including the Chairman.

Postgraduate Medical Examinations

There is a growing consensus about the principles and standards for any assessment (examination) system for postgraduate medical education. These principles are that the purpose of the assessment must be explicit, the content of the assessment must be based on curricula, that the methods used must be selected in the light of the purpose and content of the assessment framework, and the method used for standard setting must be transparent and in the public domain. It is also expected that trainees must receive feedback, examiners to be recruited against criteria and there must be lay input into the development of the assessment.

It is clear that medical Royal Colleges must endeavour to assure the quality of their postgraduate examinations. In the case of methods of assessment, the choice must be on the basis of validity, reliability, feasibility, cost-effectiveness, and impact upon learning. Validity for these purposes is determined by the congruence of the examination content and the curricula. The technical method for ensuring this congruence is the use of examination specification, the so-called blueprint, which ensures that the content of the examination fully maps to the curricula. Reliability is determined by the degree to which one can be certain that the same candidate will attain the same scores if he or she were to re-sit the same paper[8].

With respect to methods of standard setting, it is now expected that the criteria for deciding pass/fail decisions must be explicit. But, more importantly pass/fail decisions must be based on test content rather than on the candidature. In other words, the criteria must be independent of the quality of the candidates, that is, it must be a criterion-based judgement rather than a norm-based judgement. A detailed description of these methods is outside of the scope of this paper.

There is a desire to combine tests of knowledge such as multiple choice question papers, tests of competence such as objective structured clinical examinations (OSCEs), and tests of performance such as workplace assessments. The use of multiple choice question papers is already well established. However, the favoured format of multiple choice questions is changing. Single best option format and extended matching item format are regarded as superior to other formats. These formats have the advantage of a much-reduced probability of guessing correctly compared to the simple true/false multiple choice formats. In addition to this advantage, the extended matching item format allows clinical reasoning to be tested and also allows multiple best possible correct answers, which is of course, not uncommon in real life.

Most postgraduate clinical examinations in the UK have now incorporated tests of competence such as OSCEs. For example, the Royal College of Psychiatrists has 12-station OSCE in MRCPsych Part 1[9]. OSCEs have largely been introduced to replace the traditional clinical long case. The traditional long case which has been around now for approximately 150 years has face validity because it involves the assessment of a real patient and the presentation of clinical findings to and discussion of management with clinicians. However, it has the drawback that a high stakes decision is based upon a candidate's performance on a single case. There is little doubt that cases differ in complexity between candidates,

and that a single case can hardly represent all the possible clinical scenarios that a candidate may face in real life. Essentially, the traditional long case suffers from inherent unreliability and lacks what is termed generalisability. In other words, it is perfectly possible for a good candidate to be given an unusual case and for the candidate's performance on that case not to be generalisable, that is, representative of his or her usual ability across the board. OSCEs on the other hand by definition, are a series of 'stations', comprising of tests of history taking, physical examination, practical skills, communication with patients or relatives, interpretation of investigations, etc. Since all candidates carry out the same tasks and see the same simulated patients, the adverse influence of a lack of standardisation is eliminated. Furthermore, the marking can be rendered more objective, given that the score sheets can have objectives explicitly stated for each 'station' with variable weighting, determined *a priori.* The clear advantage of OSCEs is that if the number of stations is adequate, then failure is demonstrable evidence of poor performance across a number of skill areas. In other words, the examination is reliable.

The development of workplace assessments is still an ideal yet to be implemented. The interest in workplace assessment derives from the assumption that success in a test of competence such as the OSCE does not inform us about behaviour in real life, workplace situations. The idea is that workplace assessments may involve systematic observations of clinical practice using direct observation or video film. It could also involve case records reviews and reviews of clinical letters. Whilst this method of assessment is attractive and has face validity, it is likely to be expensive to run and achieve. This is the distinction between *competence* in a given skill and *performance* in real life. It is also likely to be hampered by the need to train large numbers of potential examiners in such a way that objective assessments can be assured. A number of potential instruments have been identified including the mini-CEX, the Direct Observation of Practical Skills (DOPS), and Case Based Discussion (CBD)[10] .

CONCLUSION

The medical profession is undergoing revolutionary change. For many doctors in the UK, the feeling is of constant scrutiny, of restrictions on clinical freedom, of erosion of status, and of a re-negotiated contract with the general population. However, repeated polls continue to show that the general public holds doctors in very high esteem. Social and political forces determined the context of change. There is little doubt though that medicine is a resilient profession that readily adapts to societal pressure yet retaining its distinctiveness and core values. The medical profession has responded positively to the demands put upon it. One of the broad thematic changes is that relating to medical education and training including assessments of education and training. This paper has sought to draw attention to the more important structural and conceptual changes. The consequence of many of the matters discussed in this paper will be a much-improved education and training environment. There is concern that the changes to undergraduate training may produce doctors with insufficient knowledge and that the changes to postgraduate medicine is at risk of producing specialists of insufficient clinical experience. Both of these outcomes are undesirable. It is likely though that the role of doctors in Western societies will alter and that the kind of doctor needed is likely to differ from the current cohort of practising doctor. In my opinion, the changes in medical education are designed to produce doctors more suited to the new and emerging clinical environments. It is a time of rapid and bewildering change, the hope is that future generation of doctors and the society at large will benefit from these changes.

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