Change: imposed and desired in health-professional education

30th Annual Scientific Meeting of the Australian and New Zealand Association for Medical Education, Sydney, 5–8 July 2002

Balakrishnan R Nair and Ian Hardie

THE AUSTRALIAN AND NEW ZEALAND ASSOCIATION FOR MEDICAL EDUCATION (ANZAME) was established in 1972 as a medical education society, but has gradually evolved into an association for health-professional education. In July 2002, ANZAME held its 30th Annual Scientific Meeting in Sydney in a collaborative arrangement with the Australian Postgraduate Federation in Medicine (APFM). There were about 150 registrants, the majority from the medical and nursing professions. There were many health-professional educators, as well as delegates from South-East Asia and the United Kingdom.

The formal conference was preceded by workshops on qualitative research, university departments of rural health and the challenges of continuing medical education (CME).

Ronald Harden opened the pre-conference workshop session with a stimulating exposition entitled “Challenges for continuing medical education in the new millennium”. He highlighted the pressures on the health practitioner that accompany a busy clinical life and the need to keep up to date — a “pressure cooker” existence that persists for at least 30 years after graduation. These pressures give rise to the desperate feeling that “I have so much to learn that I have no time to learn”. Harden elegantly expanded on “CRISIS” in CME, which ought to be Convenient, Relevant, Interactive, based on Self-assessment, Individualised and Systematic (outcome-based). The aim of CME, as for all medical education, should be “doing the right things, doing the things right, by the right person”.

The following day, Harden opened the conference with the Australian Postgraduate Federation in Medicine’s Copleson Oration. The theme was “The changing scene in health professional education: the past, present and future”. He stressed the need for curriculum planning to be outcome-oriented to produce the best graduates. Medical schools must keep up with the latest information technologies, and “virtual medical schools” (run via computer networks) are in the (cable) pipeline. These schools will employ reusable modules (like “Lego blocks”) that can be applied anywhere in place and time, with study guides and task lists to enable learners to plot their way through the course. Assessment in medical schools should be evidence-based, and both “formative” and “summative”:

- The aim of formative assessment is to encourage learning and understanding among students. The learning environment should be relevant and non-threatening, and should foster the application of knowledge, skills and attitudes.
- The aim of summative assessment (done at the end of each year and the end of the course) is to determine whether educational objectives have been achieved. It should involve analysis of evidence from as many sources as possible, including answers to multiple-choice questions, reports of performance and supervisors’ reports.

Harden discussed the usefulness of the Objective Structured Clinical Examination (OSCE), portfolio learning and progress tests. Portfolios have been in use for some years to assess students in other disciplines. They are literally “a collection of papers” that incorporate evidence of learning, how that learning relates to the course, objectives and the aims of further learning. Portfolios encourage independent and reflective learning as well as critical thinking and professionalism. Progress tests are part of the formative assessment. They should be used as checklists by students themselves to see how they are progressing.

Harden argued that lateral thinking should be encouraged, quoting Einstein’s statement that “If the first idea is not absurd, there is no hope”. He highlighted the issue by expanding on the model of a core curriculum with special study modules. This approach is a key recommendation of the General Medical Council’s report to UK medical schools to tackle the issue of information overload in the curriculum.[1] In a typical program, about 70% of the curriculum should be core information and the rest special study modules. All students should have competency in the core curriculum, which contains the basic minimum information required to practise as a doctor and forms the foundation for further learning. The special study modules allow students to study topics of their choice in greater depth, encourage them to take responsibility for their own learning, and help them develop lateral thinking and critical appraisal skills.

Changes in the health professions, including medicine, were the theme of the first plenary session. Jenny Graham (*Executive Dean, Southern Cross University, Lismore*) argued for patient-related outcome and evidence in education. Rosemary Roberts (*Director, National Centre for Classification in Health, Sydney*) argued for patient-related diagnoses as well as medical diagnoses. The patient should be far more important than the disease itself. Unless the profession does

University of Newcastle and John Hunter Hospital, Newcastle, NSW.
Balakrishnan R Nair, FRCP, FRACP, Professor and Director of Geriatric Medicine.
Southern Clinical Division, School of Medicine, University of Queensland, and Princess Alexandra Hospital, Woolloongabba, QLD.
Ian Hardie, MB BS, FRACS, Head.
Reprints will not be available from the authors. Correspondence: Professor Balakrishnan R Nair, John Hunter Hospital, Locked Bag No 1, Hunter Region Mail Centre, NSW 2310. knair@mail.newcastle.edu.au

the right thing by patients, their confidence cannot be retained or regained.

Eva Cox (*Senior Lecturer, Discipline of Humanities and Social Sciences, University of Technology, Sydney*) spoke about the social changes influencing health-professional education. She pointed out that six major health determinants — clean water supply, nutrition, sanitation, public health, education and equity of access — are just as important as physiology and pathology. Cox urged that university ethics committees go beyond deliberation on research activities to oversee how the universities conduct their business in other areas, such as research and publications. She argued that trustworthiness is the social capital of universities. Universities should have ethical guidelines on publications and authorship as well as research-fund distribution. Most business organisations are now "locally responsible" (ie, sensitive and responsive to the needs of local communities), and must be mindful of the "triple bottom line" of money, energy utilisation and ethical responsibilities. Universities should follow suit.

In another keynote address entitled "Change in education methods that influence health-professional learning", Harden explored changes in educational methods. He reminded the conference that it is a "new world", and universities that do not deliver electronic educational programs will wither. He illustrated this fate with the metaphor of ice-suppliers in Scotland, who were forced to close up shop with the advent of refrigerators because they failed to appreciate the implications of the new technology. Information overload, student diversity, and the explosion in Internet use have all rocked the world of graduate education. Harden said educationalists range from pessimistically intimidated to irrationally enthusiastic about "e-learning". However, e-learning must be complemented with face-to-face learning — even when the "virtual medical school" starts operation it must be customised for individual sites.

Adrian Lee (*Pro-Vice Chancellor of Education, University of New South Wales, Sydney*), in his keynote address on changes within the university structure that influence health-professional education, continued the theme of e-learning. He highlighted the need for face-to-face learning, social bonding, small-group learning and hands-on learning, which are beyond the scope of the virtual curriculum. Lee stressed that globalisation is a major force and, unless we change to keep up with it, it will be imposed on us. One of the innovations in his university is the Fellowship in Innovative Teaching using Educational Technologies. Faculty members are freed from normal duties to learn theory and practice of learning and to develop teaching and assessment materials. This has been a great success and has brought the teaching faculty together. The University of New South Wales is a member of "Universitas 21", a network of 18 universities in 10 countries. Shared resource materials are available online. Students of universities in the partnership will be able to undertake degrees in a range of programs online. Another change implemented at the University of NSW is the introduction of online formative assessment in some disciplines.

Julie Wells (*Strategic Consultant in Higher Education, Royal Melbourne Institute of Technology, Melbourne*) looked at the big picture in her presentation on "Changes in political and social policy that influence health-professional education". She emphasised that research and scholarship are integral parts of effective teaching and that there are dangers in separating these elements for funding purposes. Educationalists need to engage the community and the government in driving changes. If we want to be a clever country, we must put more money into learning.

Heather Alexander (*Senior Lecturer, Medical Education, University of Queensland, Brisbane*) discussed changes in assessment methods. She highlighted the need for communication, ownership and staff development in medical schools and stressed that teaching and learning are a continuum. Assessment is becoming broader, with new instruments being developed to ensure flexibility, reliability and validity. Error in medical practice is a major problem, and the challenge is to minimise this by recognising and measuring error as part of undergraduate education. Error has rarely been addressed in teaching and learning, but as medical schools are asked to certify a student's "fitness to practice" the issues of safety and medical error come to the fore. Students of all abilities make errors, and deciding on the consequences for students who do so is problematic.

ANZAME is renowned for its informal, innovative meetings, which include the very popular "PEARLS" (Personally Arranged Learning Sessions). During these sessions, a speaker is allowed up to 10 minutes to present a topic. This is followed by 30 minutes of discussion and debate. At this year's conference, there were 85 PEARLS on health-professional education topics. Most participants in these sessions highlighted the need for learning (active) rather than teaching (passive). As Rufus Clarke (*Professor of Medical Education, University of Sydney, Sydney*) noted, "students are now passive cross-sectional observers, but they should have longitudinal participatory roles".

The main take-home message from the conference was that change is constant and that education should be outcome-oriented. This involves fundamental rethinking in curriculum development and planning. Educators have a societal contract and we should be sensitive to this. Electronic learning is here to stay, and more and more universities are embarking on e-learning. However, the most important message is that education should be student-centred and we should focus on learning rather than teaching.

Conference participants returned home with a strong feeling that our region of the world is at the cutting edge of many educational innovations. There is a vibrant group of committed people who are making changes, be they imposed or desired.

Reference

1. Tomorrow's doctors: recommendations on undergraduate medical education. London: General Medical Council, July 2002. Available at: http://www.gmc-uk.org/med_ed/tomdoc.htm (accessed Dec 2002). ❑