Lack of integration of medical education in Australia: the need for change

Barry P McGrath, Ian S Graham, Brendan J Crotty and Brian C Jolly

ABSTRACT

- The lack of cohesion across health and education sections and national and state jurisdictions is counterproductive to effective national policies in medical education and training.
- Existing systems in Australia for medical education and training lack coordination, and are under-resourced and under pressure.
- There is a need for a coordinated national approach to assessment of international medical graduates, and for meeting their education and training needs.
- The links between prevocational and vocational training must be improved.
- Tensions between workforce planning, education and training can only be resolved if workforce and training agencies work collaboratively.
- All prevocational positions should be designed and structured to ensure that service, training, teaching and research are appropriately balanced.
- There is a need for more health education research in Australia.

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This is a time of considerable challenge for medical education and training in Australia. Belated recognition of medical workforce shortages by the Australian Government has led to six new medical schools being added to the 10 that existed up until 2004, and two more are planned.[1] The shortage of hospital doctors puts considerable stress on education and training programs — this also raises important questions about work practice reform. Workforce shortages, and the increasing age of graduates, fuel concerns about the length of training programs. Also clearly linked to workforce shortages is a growing number of international medical graduates (IMGs) entering the workforce and seeking lateral entry into vocational training programs.

While positive steps are being taken by bodies such as the Confederation of Postgraduate Medical Education Councils (CPMEC) to develop national policies in medical education and training, there is a lack of cohesion, across health and education sections and across national and state jurisdictions, which is counterproductive. All of these issues have been noted by the Productivity Commission in its preliminary report.[2] While this report discusses the need for a national health education council, there is an urgent need to examine the continuity and sustainability of medical education across the spectrum, from undergraduate to postgraduate training.

Are our medical graduates ready for practice?

The dynamic nature of medical education has seen the great majority of Australian medical schools, as well as about 75% of those in the United States and Europe, evolve curricula that are centred on or include substantial "problem-based learning" (PBL). This has caused some disquiet, particularly among practitioners whose own medical training had the traditional science-based foundation before clinical learning.[3] Although PBL seems to have become widely accepted in many quarters, there is still considerable debate about its efficacy.[4] However, recent research is challenging its detractors.[5]

Readiness to practise — how do we measure this? Are there core competencies that all graduates should have? And how should we be measuring doctor performance?

Previous attempts to define core clinical skills required by medical graduates have met with limited success.[6] A study currently being undertaken under the aegis of the Australian Government Department of Education, Science and Training is examining the question of preparedness for practice of Australian graduates. This study will provide data on what is required for the future roles of graduates as interns and as a foundation for postgraduate programs. This will enable medical schools to benchmark their existing programs against defined standards. A second aim of the study is to identify models of clinical training that appropriately address the need for more effective and efficient delivery of the medical workforce at intern level, and that prepare interns well for further training.

One problem with evaluating curricula is that there is often no common yardstick. Unlike Canada and the US, and more like the United Kingdom, Australia does not have a standard national qualifying examination. Australian medical schools have very different curricula and assessment procedures, and there has been a move away from barrier examinations in the final year of medical courses. On the other hand, the Australian Medical Council (AMC) conducts qualifying examinations for IMGs. The AMC assessment process is highly regarded internationally, and IMGs who successfully complete the AMC examinations are deemed equivalent to a final-year graduate from an Australian or New Zealand medical school. To an outside observer, it may seem paradoxical that we have a national examination, but only for IMGs!

Arguments for a common examination include the need for explicit national standards, the potential homogenising effect on curricula, the efficiency of administration, and the interpretability of the result. However, there are many contrary views, including: the inhibition of diversity or regeneration of educational programs; the inappropriateness of some examinations to locally specified outcomes, aims and objectives; the slowness of national examinations to respond to rapidly developing science; the loss of touch with clinical reality that extraneously designed examinations can have (particularly those that assess only knowledge); the difficulty of producing national assessments that reflect all dimensions of clinical competence; the lack of a locally sensitive special considerations process; and the inability to reflect local variants of content (for example, related to Indigenous affairs); and others.

Prevocational medical education

Despite the defined needs for supporting the increasing numbers of trainees, the fact is that prevocational medical training in Australia is

significantly under-resourced, and no single national body is charged with coordinating this task. In the US and Canada, universities oversee prevocational education and training. In the UK, postgraduate deaneries are funded to do this. However, in Australia, there is variable and generally inadequate funding for postgraduate medical councils (PMCs) and to support directors of clinical training and medical education officers, all of whom are responsible, at different levels, for training junior doctors in their first postgraduate year. Access to simulation centres and hospital skills laboratories by prevocational doctors in most states and territories is inadequate, and influenced by many factors, including availability of resources, cost and doctor shortages which result in difficulty in maintaining workforce numbers while releasing junior doctors for training sessions. There is also no serious credentialling of doctors in training in terms of "hospital skills" to date. Most postgraduate medical teaching in hospitals is performed by visiting medical staff in an honorary capacity, reflecting the time-honoured apprenticeship model. The Productivity Commission has recognised the problems associated with an education system that is so reliant on "pro-bono" contributions, and recommends more explicit payment for clinical training services.[2]

In 2003, the CPMEC approved national training and assessment guidelines for junior medical officers in their first and second postgraduate years.[7] A national curriculum framework for Postgraduate Years 1 and 2, with flexibility to allow for state and territory needs, is a priority for the CPMEC. There have been significant initiatives from various states in curriculum development, and a national study supported by the Australian Government's Medical Training Review Panel is developing a draft national curriculum to be released in early 2006. This is an important step forward, and parallels developments in the UK with the recent release of the *Curriculum for the foundation years in postgraduate education and training* by the Academy of Medical Royal Colleges, a strategy supported by the health departments in all four home countries within the UK.[8] Like the UK curriculum, the Australian curriculum for the first and second postgraduate years will set out the core knowledge, skills and attitudes to be acquired. It is essential to ensure that Australian prevocational trainees are involved at all stages of this curriculum development, particularly in assessment processes. The impact of these changes will need to be carefully evaluated. A more detailed analysis of the UK and Canadian programs is provided in an accompanying article in this issue of the Journal (*page 349*).[9]

The CPMEC and its PMCs have supported the development, accreditation and evaluation of out-of-hospital prevocational training posts in rural and general practice settings. South Australia and Western Australia have taken a lead role in this, and the PMCs in states with new medical schools (Queensland, Western Australia and New South Wales) are examining new training posts for the projected large increases in the number of medical graduates. Potential barriers to prevocational placement programs have been discussed previously in the Journal.[10]

International medical graduates' assessment and training

A CPMEC reference group has recently completed a scoping study on information and resources relating to the education and training available to IMGs in Australia.[11] This study identified the following six key areas for improvement: international perspective; information access; orientation; communication; assessment; and education and training support to ensure "readiness for work". A common theme identified by stakeholders in this study was the complexity and lack of coordination of these processes in Australia. IMGs are meeting a significant workforce shortage, but their integration into the Australian health care workforce requires careful management.

Key to recognising a doctor's fitness for safe practice in Australia is a lengthy period of expected observation of their clinical skills by a large number of skilled practitioners. This starts in the undergraduate clinical training programs and extends to a year of supervised practice as an intern, followed by basic and advanced training programs with colleges. In contrast, assessment of IMGs, or indeed in some cases, the lack of it, is a critical issue. There are a number of alternative routes to registration and employment for IMGs in Australia that bypass the AMC examination process. There is no national oversight body or uniformity about the minimum standards of assessment for entry to clinical practice. Direct observation of IMGs' clinical skills is generally informal, and often outside a clinical training framework. The limited education and training support programs for IMGs has been identified as an issue by all stakeholders.[11] The current focus on international recruitment is unbalanced when there is no national assessment program and limited support programs for IMGs, most of whom are working in hospitals. These issues are of major concern to the CPMEC and its state and territory PMCs.

Linking prevocational and vocational training

The links between prevocational and vocational training are not well developed. Colleges act as independent national bodies which have their different sets of training requirements. Although there is a fair degree of flexibility in accreditation of clinical rotations for basic training, there has been little attempt by colleges to work together, and to work with PMCs, to develop generic modules of training. As a result, we have postgraduate training programs that are inefficient, lengthy, and do not adequately recognise prior learning and competencies.

The CPMEC is seeking to address this problem through its efforts to deliver a better-characterised trainee "product" to colleges. To this end, the CPMEC has developed national training and assessment guidelines, and is working towards a national curriculum. PMCs have also supported a number of relevant projects: assessment; training portfolios; analysis of prevocational trainees' learning needs; modules of professional development; and "train-the-trainer" programs, such as "teaching on the run". In turn, colleges need to interact more effectively with the CPMEC and its PMCs. Opportunities for collaboration include accreditation processes; co-development and evaluation of training modules; professional development of medical educators; and development and evaluation of assessment tools. There is some evidence that collaboration is starting to occur, as in NSW with the founding of the Institute for Medical Education and Training. It is expected that the national prevocational curriculum will provide an important framework for further dialogue. In addition, colleges themselves are actively engaged in curriculum review as part of the AMC accreditation process.

The training and service dichotomy

After internship, in the second postgraduate year and subsequent prevocational years, there is perceived to be a dichotomy between "training" and "service" positions in hospitals. Prevocational trainees see "service" posts as being routine, often involving repetitive administrative tasks, and not contributing to the development of

their knowledge and skills. They are unpopular among trainees, and are often filled by temporary locums or IMGs. Conversely, "training" posts are popular and seen by trainees as interesting, challenging and providing a valuable learning experience. There is adequate time for reflective learning, research and other activities. Such positions may be prospectively or retrospectively accredited as prevocational training for college candidates.

In reality, the link between the service and training is indivisible, and emphasis should be on optimising both aspects in all prevocational positions. There is a general need for better definition of learning objectives, particularly in the second postgraduate year and beyond, and linkage to accreditation processes. Service-education models have been proposed to ensure that the work of all prevocational trainees includes a balance of service, education, training and research.[8]

The need to align workforce planning, education and training

The lack of alignment between workforce planning, and education and training needs of the workforce, is problematic. Recent developments, with new Hospital Networks in NSW and Hospital Consortia in Victoria, have seen state health departments and postgraduate training organisations work in collaboration to try to align workforce distribution and education requirements of physician trainees. The model has important implications for all prevocational trainees and the trainees of other colleges. It has significant advantages in ensuring that meeting the needs of rural and outer metropolitan hospitals is a priority for the whole network/consortium. In addition, there is a great potential for organising education and training within each grouping; for better links across the training spectrum; and for the development of multidisciplinary education teams with critical mass. However, there is the considerable variation in structure and responsibilities of the various state and territory PMCs, and in the way they relate to health departments. Moreover, PMCs are neither formally linked to colleges nor to universities. This situation needs to change.

Health education research

The CPMEC strongly supports and promotes research into education and training, particularly through interaction with the Medical Training Review Panel and its national grants scheme; sponsorship of national conferences and education research workshops; and the collaboration engendered among PMCs. In different states and territories, university medical education departments are working closely with PMCs. This has provided significant opportunities for development of research programs that bridge undergraduate and postgraduate medical education and interprofessional learning. It needs to be said, however, that health education research does not have a significant profile within our major national grants bodies, the National Health and Medical Research Council and the Australian Research Council.

The way ahead

Other contributors to the Journal have advocated strongly for a more coordinated approach to medical education in Australia.[1,2] Following on from the national medical education conference, MedEd2005, held in Canberra in March 2005, and in light of the Productivity Commission Inquiry,[2] it is appropriate to revisit this issue. Australia needs more effective and transparent national policies on medical education and training. The existing systems for delivery of education and training are inefficient, under-resourced and under pressure, and they will not be sustainable into the future. In particular, a coordinated national approach is required for postgraduate medical education and training, and this must include assessment and support of IMGs. Finally, there are tensions between workforce planning, education and training that can only be resolved if workforce and training agencies work collaboratively. This may require a radical rethink of organisational structures. The Productivity Commission's proposal for the establishment of a national advisory health workforce education and training council has merit.[2]

Competing interests

None identified.

Author details

Barry P McGrath, MB BS, MD, FRACP, Chair, Confederation of Postgraduate Medical Education Councils of Australia, and Professor of Vascular Medicine[1]
Ian S Graham, MB BS, MHP, FRACMA, Medical Director[2]
Brendan J Crotty, MB BS, MD, FRACP, Chair[2]
Brian C Jolly, PhD, Director, Centre for Medical and Health Sciences Education[1]
1 Monash University, Melbourne, VIC.
2 Postgraduate Medical Council of Victoria, Melbourne, VIC.
Correspondence: barry.mcgrath@med.monash.edu.au

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