Australian and New Zealand medical education for rural practice

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ABSTRACT

Australia has experienced a division of traditional general practice into the more procedural rural workforce represented by the Australian College of Rural and Remote Medicine, which is not exclusively general practitioners, and the established Royal Australian College of General Practitioners. Government initiatives for over a decade have fostered student education in Rural Clinical Schools and University Departments of Rural Health, so there is now considerable infrastructure of academics, clinical teaching sites, research programmes and student accommodation throughout rural Australia. Medical education is spreading away from tertiary urban hospitals into community-based education, and the reaction to the knowledge explosion is resulting in an emphasis on understanding rather than rote learning and preparing medical students as generalists with potential to differentiate after graduation.

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Professor Jonathan Newbury *moved to the University of Adelaide in 1997 after 14 years in general practice in Yarrawonga, Victoria. As Head of Spencer Gulf Rural Health School (SGRHS) his academic responsibilities include rural education for medical, nursing and allied health students, fostering relevant rural and indigenous health research and teaching International Health. He continues in general practice at the Investigator Clinic, Port Lincoln and leads the management of SGRHS from the University of South Australia's Whyalla campus.*

General practice colleges

Australia has had a Royal College of General Practitioners (RACGP) since 1958 (http://www.racgp.org.au/). When my generation of medical graduates were moving into general practice training in reasonable numbers, we had the option of joining the Family Medicine Program (FMP). The FMP was run by the RACGP and provided us with a variety of job rotations in procedural hospital posts and rural and urban general practices. These positions were keenly sought, although some of my contemporaries chose to seek out their own training, without contact with the RACGP. After three to five years we sat the exam run by the RACGP and were awarded Fellowship of the College, although at the time there was no advantage in having FRACGP, nor any sign that advantage might accrue in the future.

Throughout the 1980s procedural general practice continued to provide most of the service required in rural Australia, but procedural general practice contracted in urban centres. In the 1990s the shortage of rural GPs became serious and rural medical political organisations were formed (the Rural Doctors Association of Australia and its state branches – http://www.rdaa.com.au/). The perception that a specific college of rural general practice (later rural medicine) would better serve the interests of rural doctors led to the formation of the Australian College of Rural and Remote Medicine (ACRRM) – http://www.acrrm.org.au/. Fellowship of either College now entitles the holder to a higher rebate scale from our universal health insurer Medicare.

The Australian Government's Department of Health and Ageing

The Australian Government's response to the rural health workforce shortage is the Rural Health Strategy (RHS) together with the Healthy Horizons policy about 'health programs and service' provision (http://www.health.gov.au/ruralhealth).

The Rural Health Strategy includes:

- University Departments of Rural Health (UDRH), since 1997, which have established rural learning opportunities for the whole range

of health professional students as well as undertaking research in rural and indigenous health issues. Each university with a medical school has a UDRH.
- The Rural Clinical Schools (RCS) established from 2001 specifically to provide long rural placements for medical students in the clinical years of their education.
- Additional places for students to study medicine, either at new medical schools or by expansion of places at existing schools. Scholarships are available for rural origin students, but now approximately 25% of all medical school places are bonded to provision of service in 'areas of workforce shortage' after graduation. Most of these bonded places do not include a scholarship.

Other strategies in the RHS support allied health professionals, medical specialists, rural GP registrar training, graduates being able to reduce fee debt by rural service and GP without fellowship of the Colleges.

In NZ the Primary Health Care Strategy from 2001 sought to do similar things and evaluations of these initiatives have recently been published in *NZFP*.[1,2]

Spencer Gulf Rural Health School

The Spencer Gulf Rural Health School (SGRHS) http://sgrhs.unisa.edu.au/ is a regional multi-disciplinary school of health science created as a joint initiative of the University of Adelaide and the University of South Australia. The two universities are adjacent in Adelaide and between them provide the full range of health professional student education, with very little overlap.

SGRHS is funded by the Australian Government's Department of Health and Ageing through the RCS, the UDRH, the Rural Undergraduate Support and Coordination programme (RUSC) and the Primary Health Care Research Evaluation and Development (PHC_RED) programmes. SGRHS research and evaluation projects are funded by competitive grants from national schemes (e.g. NHMRC), from the South Australian State Department of Health, from regional health services and from other rural organisations including Aboriginal Community Controlled Health Services.

SGRHS has had to cope with the complexity of being part of two universities, but is also able to build synergies from having such a range of undergraduates mixing in rural education sites. Our educational focus in recent years has been short medical student placements to inspire interest in rural medicine early in the MBBS course; longer placements later in the medical course and nursing curriculum writing and delivery on-line. Our student support services provide free travel, accommodation and local orientation and pastoral care. Students on longer placements also receive a living allowance (up to $120 per week).

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General practitioners in medical education

The Australian Medical Council (AMC) http://www.amc.org.au/home.asp has conducted accreditation of medical schools and more recently accreditation of all the medical learned colleges. Australia had 11 medical schools from the 1970s onwards, some of which changed their admission to graduate entry and four-year medical courses. In the last decade there has been an accelerating proliferation of new medical schools with up to 17 operating now. Most of these have four-year graduate entry courses, but some new schools have created undergraduate entry five- to six-year courses (James Cook University, Townsville and the University of Western Sydney).

The AMC exam is the conventional pathway for doctors with international medical qualifications to be recognised as medical practitioners in Australia. In 2007 the AMC has given ACRRM initial accreditation to provide general practice training. The deans of Australian and New Zealand medical schools are now collectively known as 'Medical Deans' (http://www.medicaldeans.org.au/) and their most recent conference focussed on training a generation of doctors who have different work expectations than in the past. Generations X and Y are progressing through our medical school and staffing our junior doctor posts in hospitals, but with a different expectation of a diverse lifestyle not preoccupied with medical practice.

A recent edition of the *New Zealand Family Physician* noted the appointment of a New Zealand GP to head the medical school in Canberra:

'Kiwis can fly

Congratulations to Nick Glasgow, a fellow of the RNZCGP, on his appointment as the new Dean of the ANU Medical School ...Nick is both a New Zealander and a general practitioner.' (NZFP 2007; 34:75)

Professor Nick Glasgow's appointment is part of an emerging trend in our medical education. In the last decade GPs have come to considerable prominence in Australian medical schools and filled senior positions once reserved for tertiary hospital specialists. Individual GPs who hold or have held posts as Dean, Executive Dean or Pro-Vice Chancellor include:
- Prof. John Marley (Newcastle)
- Prof. Richard Hays (James Cook University)
- Prof. Roger Strasser (Northern Ontario, Canada)
- Prof. Justin Beilby (Adelaide)

and the very recent appointments of:
- Prof. Nick Glasgow (Australian National University, Canberra); and
- Prof. Paul Worley (Flinders)

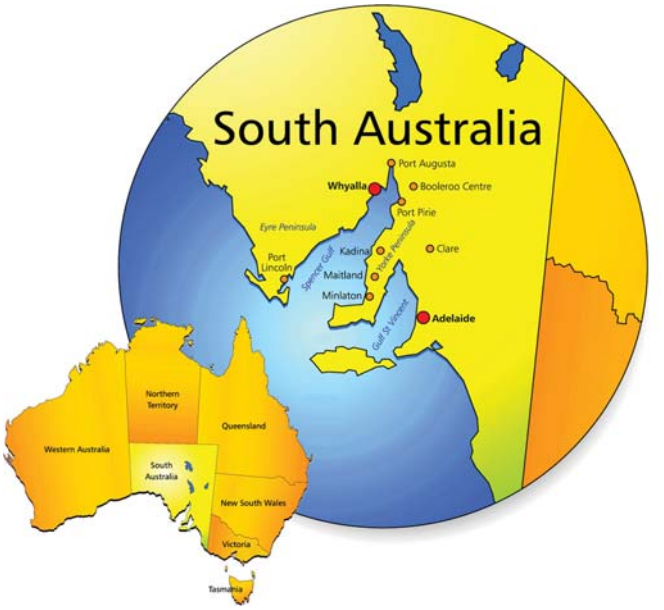
Similarly, GPs are leading medical and clinical education units in the new medical schools (Ian Wilson, University of Western Sydney and Nicky Hudson, University of Wollongong). By contrast, the rural university departments are led by a range of rural medical clinicians; GPs, physicians, paediatricians (RCS) or researchers, epidemiologists, social scientists, pharmacists and public health physicians in the more research-orientated UDRHs.

The knowledge explosion in science and medicine has led to advances in treatment and care, but it has also led to an overloading of medical curricula. New knowledge that is changing care has been incorporated into curricula to the point where students (and current grass roots clinicians) cannot hope to know it all. Our response to this has been to focus on teaching principles, not detail; on ensuring undergraduates know how to seek out information and encouraging them to remain enthusiastic life-long learners.

In this newer style of medical education, general practitioners become invaluable as teachers. The University of Adelaide has an innovative six-year undergraduate entry course and the Problem Based Learning (PBL) cases in 3rd year cover a different clinical area each week. The content of any case will cover bio-medical science, clinical skills and psycho-social issues. Medical and science graduates who have narrowed their working to any one of these areas will cover part of the content very well, but only GPs will have a working knowledge of all areas. The academic who runs our PBL programme is always looking for new GPs interested to tutor 1st, 2nd or 3rd year MBBS.

Traditionally medical schools produced graduates who were expected to function as interns with procedural skills after six years of didactic learning. For Australian students this could have included time in NZ as a clinical assistant in a pre-intern post (I spent 16 weeks in Palmerston North hospital in 1978). Today's graduates are better prepared for the organisational task of interns, mostly because they have exams at the end of the penultimate year of their course (even in four-year courses) and a final year including pre-internship placements. The graduate qualities the medical schools hope to generate are similar to the principles of undergraduate learning (understanding, not just rote learning, thirst for knowledge and interest in medicine as a career – even though generation X might not commit to medicine full-time).

Figure 1. Map of Spencer Gulf Rural Health School



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Medical education in general practice

Just as general practitioners are making good PBL tutors, there is also a realisation of how good the clinical training for students can be in the GP clinic. General practices all have a diverse clinical load that covers the spectrum of medical problems and in doing so covers the university's medical curriculum. The people seen regularly in a practice are mostly community members, who present numerous times for management of ongoing problems or for different reasons (medical, psychological and social). This normal general practice load provides the ideal learning opportunity for medical students, but the logistics and structure of the practice need to be made available.

Benefits

Group practices are more flexible to allow for the needs of generation X students who expect everything provided. Students learn best by doing things; they learn how to consult by consulting, not by watching others consult. So they need a separate consulting room, fitted out with IT and equipment the same as the other consulting rooms. Group practices are busy but necessarily well organised, space is often at a premium but GPs are often away from the rooms (procedural work or leave etc.), so paradoxically a busy practice often has space.

Seeing the evolution of disease from presentation and the resolution with treatment of acute illness is not always possible in teaching hospitals. General practice is ideally suited to students seeing the same person a number of times and in different clinical situations (e.g. at presentation, specialist referral, theatre and convalescence).[3,4] My own practice initially overloaded students with clinical material, which they didn't have time to reflect on, read about and absorb.[5]

Professor Paul Worley and Flinders University, South Australia, have led the world in this community-based medical education, having initiated the Riverland Parallel Community Curriculum (PRCC) in 1996.[6] They have demonstrated that the breadth of the curriculum can be covered in a local group of six practices, each with only one student, but close enough that the students can spend a day a week together for group learning.[7] The students progressively become more productive in the practice throughout their year in one town, until they start having a positive effect on the productivity of the practice by the amount of work they can progress under supervision.[8] In this situation they learn well and sitting their end of course barrier exam after one year in the Riverland they demonstrate how well they have progressed compared with their urban contemporaries.[9]

Providing feedback on how they are progressing is an essential part of teaching students within your practice. Feedback is most effective if it is timely (as soon as possible after the consultation) and specific about what was well or poorly done. It should be interactive so that errors recognised by the student or the GP are discussed from both perspectives. Essentially it must be discrete and honest, preferably given without interruptions, and including both accolades for things done well and negative feedback for things that need improvement.[10] (This reference is one of the *'teaching on the run'* series by Associate Professor Fiona Lake et al., printed in the *Medical Journal of Australia* and all available on-line at www.mja.com.au).

Give students in your practice:

- Space – a room of their own, equipped with everything needed to work.
- A few patients to see at a speed they can cope with.
- Some time to watch you consult, but increasingly less of this as your confidence in them improves.
- Time consulting, with you watching quietly; only interrupt their consultation when really necessary, and
- Feedback afterwards on things done well and things they could do better.

Costs

This model of teaching in general practice is not cheap, but does produce quality medical education. Experienced clinicians make great teachers but a fee-for-service environment means that if teaching they are foregoing income until the students learn skills to progress most of the consultation on their own. In Australia, general practices are assessed and accredited for a Practice Incentive Payment scheme. One part of the funds that subsequently flow is for student teaching within the practice ($100 per session).

For the students, moving to a rural clinical school for a year is expensive and may be disruptive to their social life, so despite a realisation that the education is good, students may not leave their urban medical school for a year in the country.[11]

Consulting space within the practice is essential as is IT equipment and consumables. Group practices have been making expansion decisions which incorporate medical education in their plans as they see education of the next workforce as crucial for their own survival and reasonable lifestyle. The Rural Health Strategy funds flowing to the universities include capital works money, which has been used throughout rural Australia to build teaching space in clinical practices. The universities have also employed clinicians as academics for education and professional support staff to manage programmes and student logistics.

Post graduation

These programmes have begun producing medical graduates who are looking for rural posts after graduation. In some states there are junior doctor position in rural hospitals where they can continue to accumulate experience for rural practice. In less populated states the number of junior doctor posts is small but gradually increasing as governments realise what else they need to do to produce a rural workforce.

Training for general practice is provided by Regional Training Providers (RTPs) in urban and rural regions. This programme is funded by the Department of Health and Ageing and administered by Australian General Practice Training (http://www.gpet.com.au/praxis.php/home). GP registrars complete rotations of hospital and GP terms with choice to follow their own training requirements for their perceived future career.

Conclusion

Australian general practice has become polarised into either urban or procedural rural medicine with a college representing each of these careers. In both there is a shortage of doctors, a rapidly changing medical service model and a generation graduating with different career expectations. General practice is becoming increasingly important as a discipline for understanding medical knowledge and as a site for medical education. But education in general practice is expensive if it is to be of high quality. The Australian government has contributed heavily to the Rural Health Strategy and good quality medical education is occurring in rural general practice. A new rural workforce has not yet emerged from this process and the form this will take in a changing health service delivery environment is not yet apparent. Whatever form it takes people will continue to need generalist doctors who practise a wide range of skills, not least among these skills is teaching medical students.

Acknowledgements

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Competing interests

None declared

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