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ORIGINAL RESEARCH

A student view of the difference between general practice and rural and remote medicine

H Denz-Penhey, JC Murdoch

The Rural Clinical School of Western Australia, Perth, Western Australia, Australia

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Denz-Penhey H, Murdoch JC

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ABSTRACT

Introduction: Shortages in the Australian medical workforce have been a concern for the rural sector and government alike for many years. The Commonwealth Department of Health and Aged Care has implemented the *Government's Regional Health Strateg* to secure a rural education and training network which, it is hoped, will increase the availability and viability of rural health services in the long term. The University of Western Australia's Rural Clinical School was established in 2002 and has delivered a one-year clinical course to a total of 81 students at eight rural and remote sites throughout Western Australia. Aim: To identify student perceptions of rural general practice and whether they perceived any differences from city general practice.

Methods: All available students in 2005 participated in a mid-year semi-structured interview with an evaluator. This article reports the findings relating to the question: 'In your experience so far, do you think there is a specialty that could be called rural and remote medicine that is different to general practice?' Analysis focussed on aggregating responses to the question so that the greatest variety of differences that students perceived could be identified. A thematic analysis was undertaken.

Results: Thirty of 33 (91%) 2005 students were interviewed. All but one student believed that rural practice was different to the general practice they observed in the metropolitan region. All but two students thought that rural and remote medicine was a specialty on its own and needed its own training program that was different from city general practice. Five themes were identified from the data to justify the suggestion that the way medicine is practised is different: the importance of a broader and deeper clinical knowledge; the necessity to develop a different way of thinking and organising knowledge; a more socially oriented, patient-centred model of care; community expectations of social roles; and the personal cost of being a rural doctor.

Discussion: This study provides us with a student view of rural medicine as a discipline distinct from general practice, and one that requires its own training program. Our students recognised the level of expertise of rural practitioners in managing complexity in rural medicine with its lack of resources, its internal diversity of peoples in its communities, the differences of rural living and the

tyranny of distance. They also recognise the importance of training additional to the city level of general practice skills, in order to satisfactorily meet healthcare needs in the rural setting.

Key words: curriculum, education, internship, medical, residency, post-graduate, undergraduate, workforce.

Introduction

Shortages in the Australian medical workforce have been a concern for the rural sector and government alike for many years[1-5]. The Commonwealth Department of Health and Aged Care has implemented the *Government's Regional Health Strategy* which has provided funding to universities for the establishment of rural clinical schools on a national basis to secure a rural education and training network[6-8]. This is one arm of a strategy to improve rural medical workforce recruitment and retention; the hope and expectation is that students who have had substantial rural experience during their training are more likely to return to the rural sector than if they did not have that experience.

The recognised workforce problems are exacerbated by the demographics of rural medical practitioners who are older than their city counterparts[9]. Unless this is addressed workforce numbers will become critical for even larger numbers of rural centres as the older practitioners retire or move to city or coastal centres. This brings up issues of preparing the potential workforce for the rural settings.

Rural practice is not the same as city practice, a situation recognised by rural doctors around Australia[10,11]. The Australian College of Rural and Remote Medicine (ACRRM) was set up as a grass-roots response to the very difficult situation of insufficient training and representation at a national level for rural care of people outside of metropolitan Australia. It was recognised that training for this type of medicine could be improved[12] and a training program was developed, leading to a fellowship[10]. At about the same time, the Royal College of General Practitioners set up a rural training program[13] and National Rural Faculty within their College, recognising the need for rural GPs to have more say as to how their needs were met. In 2006 a Fellowship in Advanced Rural General Practice has been added as post-FRACGP training.

Traditionally internships have been in tertiary hospitals. Western Australia has had few incentives or opportunities to stream interns into rural pre-vocational training due to the paucity of large populations in the state's hinterland. Limited numbers of three-month placements are available but students who wish to spend a whole year of their internship in rural areas often move to other states. However it appears that other states and territories have similar issues to Western Australia in relation to availability of extended rural internships and specialist vocational training[14,15].

Background and aim

The University of Western Australia's Rural Clinical School (UWA RCS) was established in 2002 and has delivered a one-year clinical course to a total of 81 year 5 students at eight rural and remote sites throughout the state. The aim of this study was to identify student perceptions of rural general practice, and whether they perceived any differences from city general practice.

Methods

All available students in the 2005 cohort participated in a mid-year semi-structured interview with the evaluator. This article reports the findings relating to the question: 'In your experience so far, do you think there is a specialty that could be called rural and remote medicine that is different to general practice?' Students were asked to clarify or expand

their responses where these were sparse. All students in this cohort had spent at least five sessions in urban general practice in each of the first 3 years of their medical course.

Analysis focussed on aggregating responses to the question so that the greatest variety of differences that students perceived could be identified. A thematic analysis was undertaken.

Results

Thirty of 33 (91%) 2005 students were interviewed. All but one student believed that rural practice was different from the general practice they observed in the metropolitan region. All but two students thought that rural and remote medicine was a specialty on its own which needed its own training program that was different from city general practice. Summary statements came from two students:

> *General practice in the country is starkly different to general practice in the city, they have a lot more responsibility.*

> *The variety and the responsibilities that rural GPs get. It's a different job, I don't think anything's the same.*

The following five themes were identified from the data to justify the suggestion that the way medicine is practiced is different: (i) the importance of a broader and deeper clinical knowledge; (ii) the necessity to develop a different way of thinking and organising knowledge; (iii) a more socially oriented patient centred model of care; (iv) community expectations of social roles; and (v) the personal cost of being a rural doctor.

Broader and deeper knowledge level required

> *You see more, do more, don't refer away as rapidly and have to be able to deal with more… It's a different way of thinking.*

The most obvious differences between rural and city GPs were in the additional procedural skills required for rural medicine. One or more of the following specialty skills was expected: obstetrics, anaesthetics, emergency skills (eg setting fractures, stabilising patients for long periods of time), radiology, surgery, and undertaking mobile clinics.

Students also reported that they saw a broader range and greater severity of medical conditions presenting in the country.

> *You see the diseases that in our lectures in the city they say 'you will never see this in your medical career', you see them up here… rheumatic heart disease, syphilis, a lot more STIs than in the city, leprosy occasionally, very, very severe chronic diseases, diabetes and stuff, don't see these as often in the city or in people as young or as sick.*

In addition, conditions had to be managed in greater depth due to difficulties inherent in referring away. Medical practitioners exhibited the increased level of knowledge required to deal with such patients who, in the city, would be seen by specialist colleagues. In many areas doctors also still have admitting rights to the local hospitals and therefore stay current with both in-patient and out-patient skill sets.

'A different way of thinking'

Students reported that their rural teachers exhibited a greater professional independence and a greater responsibility for patient care that required a different way of thinking as compared with their metropolitan colleagues. This was largely due to complications caused by long distances and isolation. There was a constant lack of resources, both human and equipment. One student's view was that 'rural people have different technology', and illustrated the comment with details about making decisions with less information because the technology taken for granted in the city is not necessarily available in the bush. There may be no CT scanner, or the patient may be too overweight for the local scanner and they are more than 1000 km from

alternative equipment. The problem was not so much the severely ill patients, as they can be airlifted out, but the patient who is 'probably OK', but who would normally receive a CT scan in the city to rule out a subdural haematoma. Access to tests also could not be taken for granted:

> *A lot of our tutorials say 'you have to do this', or 'what about those results', but we don't have the pathology out here... takes days to get results, so what do we do today?*

An additional problem occurred when the only qualified person left the community:

> *The radiologist left town, it was a nightmare because the hospital doesn't have its own radiologist… it's hard to make decisions.*

Some treatment protocols were reported to be different in the bush. Immuno-compromised patients or those with less than desirable living conditions might be given antibiotics when this would not have occurred in the metropolitan centre; or patients might be kept in hospital for observation when in the city they might be sent home and told to come back if the condition did not improve. Going home was sometimes 400 km out in the desert. Students noted the importance of 'thinking outside the spectrum of white medical approaches'. Rural doctors had to 'think laterally about all the factors that impact on a rural person's health'.

> *When you are in Perth a consultant would ask 'Why on earth would the GP do that? That's just ridiculous'. But when you are out here and you have less resources or less people to turn to, you think 'that was really sensible problem solving'.*

In addition, when the doctor only visits a community two-monthly, or the patient is only 'in town' for a day or two, interventions must be focus on the pragmatic, practical, do-able most-desirable outcomes.

> *People wander around with rheumatic heart disease… turn up at 37 weeks in labour and they shouldn't be delivering here… they had to deliver their last baby in Perth because they had open heart surgery… scabies everywhere, everyone with perforated ear drums, diabetes, everyone drinks, everyone smokes... you feel like you are only scratching the surface.*

Management of people was also different when there are major language difficulties. For many patients English was a second or even their fifth language, and almost no practitioners are able to speak the local Aboriginal dialect. Hence, learning to communicate across cultural and language barriers was another necessary rural skill.

A 'more holistic' socially oriented patient care model

A frequent comment from students was that rural health was less biomedical and more holistic than their experience in the city, which was interesting in view of the pragmatic short biomedical interventions they were talking about. However it seemed to relate to being aware of the multiple cultures in rural Australia. The focus was not on Australians of European and Indigenous descent, but of multiple subdivisions within the groupings. Was the Indigenous person a desert Aboriginal, a local, a townie, or one from out of the area? Who were they? Where did they come from? Who were their parents? Where did they come from? And the same questions were asked about their non-Indigenous patients. Are they a pastoral farmer, a townie, a local, employed, unemployed or retired? How long have they been here? Are they a refugee, or a previous refugee? Are they passing through, a visitor, a tourist, or a 'grey nomad'? The patient was as important as the condition and impacted not only on the communication during the consultation, but also on how the condition should be managed.

Students developed an awareness of local social problems and their impact on health and illness. They reported that more time was and had to be given to patients to improve communication and outcomes.

If patients were to be referred to a tertiary care, the student practitioners indicated the need to consider costs for the family and for local hospital budgets. This included the impact that time away would have on family finances and business, the interruption to family dynamics and whether the patient would go if referred.

Where referrals were necessary, the GPs had to consider fitting in all investigations likely to be required at once because patients couldn't keep returning for 'one more test'. It was also recognised that families may have more than one member needing referral, and so liaising with health providers in the city was considered a priority so, for example a parent's MRI might need to be coordinated with a child's hearing appointment when the distance from the city was 700 km. This was seen to be both important and time consuming.

They also identified local physicians' passion and dedication to their patients that they didn't see in the city

> *For example she was flying out to this little community and she took four different plants and a little pot of fish and things for various people that she knew they needed and she cared for their WHOLE wellbeing.* [Plants and guppy fish for the old people's home in a very remote community.]

Social roles and accountability

Students reported that rural doctors had an increased social standing compared with those in the city. Leadership was expected of the doctor, and local roles would have to be filled. They liked the fact that doctors were known and their idiosyncrasies accepted.

The other side of the coin was that small communities make the doctor much more accountable both for skills and outcomes.

> *You have to be proactive to make sure you have the skills* [required] *and there is quite a high demand for your skills.*

These skills are both medical and relational. Patients can't leave to attend another doctor if there is only one doctor in the community, so the doctor 'had better learn to get on with them'. The local doctor is the one who has to deal with very personal issues. The patient treated for a sexual health problem may not want to make eye contact at the local supermarket. And one student reported that:

> *…you may be the one who has to get the local netball player back on the court to play in the local final, and you can't afford to get the treatment wrong. They are counting on you. We want to win this year.*

Personal

Students were very aware of the personal costs of practising in a rural community where colleagues and hospital staffing issues impact more quickly and more severely than in the city. They talked of the need to develop stronger coping mechanisms to avoid burnout, stress and depression. These matters were to be seriously considered if and when they intended to return to practice in rural areas.

Discussion

There are several limitations to this study. The question was part of the overall evaluation of student experience in their rural placements for the year while at the rural clinical school and was not a primary reason for the interview. Students were not asked to clarify all aspects, and so full saturation of data was not achieved. Some categories were not mentioned by all students and if they were asked about these there may not have been full agreement as to all findings. Those students who lived in the larger centres or to the south of the state felt less strongly than those who had

placements in the north or who spent greater amounts of time in remote settlements.

One of the characteristics of rural undergraduate teaching in Australia and New Zealand is that students report a high level of satisfaction with the clinical experience they receive[16,17]. Rural medicine is perceived by our students to be interesting, exciting and enjoyable, and these students were happily prepared to spend a year in rural and remote locations[16]. However these students became aware very early in their rural experience of differences in training required for competent rural practice.

A similar reaction by undergraduates contributed to the reawakening of interest in family medicine in the USA in the early 1970s. Stephens[18] drew attention to this fascination but added that it was at a time of general social reform. He stated:

> *Family practice set about to establish the legitimacy of a generalist vocation in medicine, serving underserved populations, especially in smaller towns, rural areas, and inner cities and coordinating medical care through comprehensiveness and continuity. Family practice had a focus on families and communities. It emphasized personalizing and humanizing medical care and stressed cost-effectiveness. In these respects, we were in touch with the deepest roots of reform.*[18]

In a similar way, the development of rural clinical schools in Australia could assist the development of rural and remote medicine as a medical specialty distinct from, but strongly allied to, the discipline of general practice as previously articulated by Smith and Hays[10] in 2004. This move back to a more comprehensive delivery system could help to correct the division between specialist and generalist delivery which has served to deprive rural and remote areas of specialist services.

The other issue raised by the differences noted by our students, concerns whether the development of the specialty of general practice in Australia has left rural populations worse off, in that deskilling occurs[19], and training now attempts to provide a 'one size fits all' model rather than and one designed to serve rural populations. Magill and Kane[20] in a thoughtful essay on the development of family medicine in the USA, argue that the move away from internal medicine, paediatrics, obstetrics and gynaecology was 'a bad deal' which had impoverished patient care.

> *Our field sought to distinguish itself from its roots in general practice and to do so in an era in which a new name seemed necessary for respectability in medicine. We chose family medicine for the discipline and family practice for its clinical application. While much good resulted from selection of these names, the good also came with a price.*

The price in Australia, has been that young graduates undergo a four-year postgraduate training in general practice, which seems to work better in urban locations because of the paucity of rural postgraduate positions. Undergraduate medical students in our rural clinical schools and those who are teaching them are expressing a real enthusiasm for rural and remote practice, a factor which augers well for our future. About 80% of our three cohorts who have spent a full year in rural Western Australia have indicated a desire to return to the country for at least a portion of their future practice (H Denz-Penhey, C Murdoch; unpubl. data). However, unless we provide the postgraduate training in the country, our new graduates will continue to put down roots in our towns, and our rural areas will be served by a rapidly ageing rural general practitioner workforce9 assisted by overseas trained doctors.

Trumble, in an editorial discussing the application of ACRRM to the Australian Medical Council to have its discipline recognised as a specialty and to set up a pathway to provide rural communities with an adequate supply of appropriately skilled doctors, stated that there '…are several intervening blanks that need to be filled in' before we can be sure of providing rural communities with an adequate supply of skilled doctors[21]. The first intervening blank was 'the need

to select trainees with the right aptitudes and attitudes for rural practice'. The UWA RCS has now had 80 students undertake a full year of their training in rural and remote areas (with another 36 students in 2006) and most of them want to come back to practise in the country for at least some of their career.

Trumble's second 'intervening blank' was the provision of training which would make these enthusiastic young people both competent and confident to use the skills in general practice, internal medicine, paediatrics, surgery, emergency medicine and other specialties where no specialist can fulfil these responsibilities.

The key focus here would be a rural internship which would provide a pre-vocational and vocational superhighway to rural primary and procedural care without their having to endure the 'black hole' of unnecessary clerking in urban tertiary hospitals. Even the best of intentions to practice rurally can be lost if the medical education postgraduate system requires an unnecessarily long training in metropolitan hospitals.

The third 'blank' is that of a transparently valid assessment process. This process would be well within the skills and abilities of the rural academic workforce and the method has been foreshadowed by the ACRRM pathway leading to the FACRRM. However it is really important that this is seen to be the work and responsibility of the whole of the profession working in the rural and remote sector. All the colleges need to combine to find the common ground between rural generalists and specialists, in the same way that faculties of medicine have done with the undergraduate rural streams.

This study provides us with a student view of rural medicine as a discipline distinct from general practice that requires its own training program. Our students recognise the level of expertise of rural practitioners in managing complexity in rural medicine[22] with its lack of resources, its internal diversity of peoples in its communities, the differences of rural living and the tyranny of distance[23,24]. They also recognise the importance of training additional to the city level of general practice skills, in order to satisfactorily meet healthcare needs in the rural setting.

A recent survey concluded that most rural Australians value highly the provision of adequate local 'safety net' services that can deal with emergencies and acute-care needs as a priority[25]. Since GPs remain the preferred cornerstone of care for rural consumers, solving the current rural medical workforce shortage and implementing measures to ensure that rural Australians can obtain effective primary healthcare at the local level, must remain a national priority for government, particularly for small rural communities where sustaining a resident practitioner is most problematic.

Rural clinical schools are now established around the country. They are charged with ensuring that one-quarter of all medical students have a full year of training in the country. It is now up to the whole profession to support the ongoing development of training opportunities to ensure that graduates who wish to gain further rural clinical skills and practise in the country are able to do so.

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