Medical students and rural general practitioners: Congruent views on the reality of recruitment into rural medicine

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Abstract

Objective: In-depth exploration of the perceptions, experiences and expectations of current long-term rural GPs and medical students intent on a rural career, regarding the current and future state of rural medicine.

Design: Qualitative study using semistructured interviews.

Setting: Rural and remote towns in Central and Southern Queensland and the School of Medicine, University of Queensland.

Participants: Thirteen rural GPs with 10–40 years experience. Medical students (five second-and seven third-year), all of whom are members of a rural students' club and have an intention to pursue rural practice. Interviews were conducted between August and December 2004.

Main outcome measures: Emergent themes relating to participant perceptions of the current and future state of rural medicine.

Results: Despite large differences in generation and experience, medical students and rural GPs hold similar perceptions and expectations regarding the current and future state of rural practice. In particular, they cite a lack of professional support at the systems level. This includes specific support for: continuing medical education to obtain and retain the skills necessary for rural practice; dealing with the higher risks associated with procedural work; and consequences of medico-legal issues and workforce shortage issues such as long hours and availability of locums.

Conclusions: Issues relating to recruitment and retention of the rural health workforce are identified by both cohorts as relating to professional support. Medical schools and institutional support systems need to join forces and work together to make rural practice a viable career in medicine.

KEY WORDS: medical students' perception, recruitment and retention of general practitioner, rural general practitioner, rural workforce issue.

Introduction

Over the last 15 years there has been an abundance of initiatives designed to alleviate the growing problem of shortages of rural doctors in Australia.[1] Current initiatives such as the establishment of Rural Clinical Schools and decentralised medical education, scholarships and affirmative entry for rural origin high school students are well underway and in time should help to alleviate this shortage.[2] Research continues to investigate the hows and whys of attracting medical students to rural practice to find solutions and provide a more positive outlook for new graduates.

This paper provides a valuable insight into the important retention factors of long-term rural GPs and why the current generation of medical students is reluctant to enter rural medicine. It adds to the current literature by providing qualitative data from practising rural doctors on what are the most important retention factors to rural practice and corroborates their narratives with statements by current medical students regarding their perceptions on the present state of being a rural doctor and their expectations for a future in rural practice.

It is recognised that retention of rural doctors involves a different set of factors to recruitment,[3–6] primarily because the decisions to enter rural practice are made outside the contextual setting of rural practice while the decisions to remain occur within that setting and are based on experience.[3,6] Comparison of research as early as 1987[7] with subsequent studies[8–10] and the most recent reports[11] indicate the major negative factors regarding GP retention in rural general practice are changes in government policy and economic conditions, which directly impact on professional support issues. The resultant adverse effects on professional support such as workforce shortages, hospital closures, locum relief, consultant support and increasing medico-legal issues are placing growing pressure on rural and remote GPs and are the primary reasons why they leave rural practice.

What is already known on this subject:

The greatest threat to the retention of rural doctors involve professional or system-level support factors including workforce shortages, locum relief and time away from work rather than the social or external factors of income or proximity to a larger centre. These threats to the viability of rural practice are cause for increasing concern over the poor recruitment of recent graduates into rural medicine.

The importance of retention factors is emphasised in studies that investigated practice viability across all degrees of rurality[12,13] where the greatest threat without exception was professional support factors including workforce shortages, locum relief and time away from work rather than the social or external factors of income or proximity to a larger centre. Also important are medico-legal issues including threats of litigation and increasing medical indemnity payments for rural proceduralists, alongside increasing consumer expectations for services matching those in metropolitan centres. These threats to the viability of rural practice are cause for increasing concern over the poor recruitment of recent graduates into procedural medicine.[6,12]

What this study adds:

Medical students and rural GPs hold similar perceptions and expectations regarding the current and future state of rural practice. In particular, they cite a lack of professional support at the systems level. Few reports triangulate student perceptions with those of current long-term rural doctors providing a perspective from both ends of the medical education continuum.

Although these data refer primarily to retention of rural doctors it could be argued that these are issues that also impact on the recruitment of doctors into rural medicine in the first instance. It should be recognised that continuing reductions in system, organisation and hospital support will not only affect retention of current rural doctors but the recruitment of new doctors. But is the poor recruitment of recent graduates into rural medicine to be regarded as a consequence or cause of the workforce shortage?

The recruitment of new graduates to rural practice has been approached in many ways with several government initiatives underway to address and eventually alleviate the workforce shortage. Current understanding is that the best predictors of taking up a rural career is rural origin[14,15] plus early and repeated exposure to rural medicine. This better prepares new graduates for rural living and practice and allows the establishment of networks of social and professional support.[16,17]

During later years of medical school, however, other factors such as provision of a rural mentor, membership in rural undergraduate clubs and rotations through rural medical attachments are more powerful predictors of pursuing rural practice.[18] Somers *et al.*[18] found there was overlap between practising rural GPs and first-year medical students in rating the importance of rural issues influential in choosing a rural career. Given the current and well publicised negative image of the rural medical workforce and the problems or challenges encountered by rural doctors, it is hard to imagine how the career choices of medical students would not be influenced in some way. In particular, this highlights the vulnerable position faced by our current students if in fact they hold unrealistic or negative perceptions of rural practice. As Kamien states 'there is not much sense in recruiting and training rural doctors if the conditions under which they are expected to practise are not viable'.[2]

This paper reports on data from a larger study that is exploring factors that contribute to the long-term retention of rural doctors in Central and Southern Queensland. The aim of this aspect of the study was twofold. The first aim was to gather the perceptions, expectations and recommendations of long-term rural doctors and second-and third-year medical students, intent on pursuing medicine in a rural location, regarding the current state and the future of rural medicine. The second aim was to compare and contrast their perceptions. The hypothesis was that medical students would not have a realistic appreciation of the current state of rural practice and would not concur with practising rural GPs about the major issues concerning the future viability of rural practice. The objectives were to explore in-depth the perceptions, experiences and expectations of current long-term rural doctors and medical students intent on a rural career regarding the current and future state of rural medicine.

Methods

Ethical approval for this study was obtained from the Behavioural and Social Science Ethical Review Committee of the University of Queensland (UQ).

Participants

Rural GPs with at least 10 years of general practice experience in a rural or remote location, Rural Remote Metropolitan Areas (RRMA) 5–7,[19] were recruited from Central and Southern Queensland. Second-and third-year medical students in a graduate entry medical program with an intention of pursuing a rural career were recruited through the rural students' club TROHPIQ (Towards Rural and Outback Health Professionals in Queensland). A purposive sampling logic was used to ensure that participants were chosen for their 'relevance' to the research aim and to allow in-depth analysis of the issues of concern.[20] Purposive sampling is further justified to enhance applicability of the findings to other situations.

Data collection

Semistructured interviews were carried out between August and December 2004. The interview schedule contained prompts designed to provide insight into each participant's perceptions and expectations of the future of rural GPs in Australia. The interview schedule was developed from the literature and based on our research questions. Interviews were piloted with two GP registrars and two medical students not involved in this study to ensure clarity and relevance of the questions.

Questions were worded and revised as appropriate for each group:

(i) what brought them into rural medicine;
(ii) what are the factors that contributed to their staying in rural medicine;
(iii) what are their perceptions of the current state of rural general practice; and
(iv) what are their views on the future of the rural doctor?

Each interview lasted between 45 and 90 min, and was tape-recorded and transcribed verbatim. Three researchers shared the 25 interviews (two undertook eight each nd one undertook nine). Prior to commencement of data collection, the researchers consulted twice to ensure continuity of the interview procedure across all participants.

Data analysis

Qualitative analysis undertaken in this study involved the three-level process as described by Fossey *et al.*[21]

Following transcription, interviews were coded and checked independently by three researchers and thematically categorised. Inter-coder reliability was checked by two coding sessions to ensure consensus of themes and integrity of coding. The data collection ceased after reaching saturation indicating an adequate sample size for the purposes of this study.

Results

Demographics

The demographic characteristics of our participant sample are shown in Table 1.

Themes

The full dataset from the rural GP interviews produced a total of 900 individual references from six major themes. From the medical students' dataset, a total of 563 individual references from five major themes emerged. The overall dominant theme in both the rural general practitioners and medical students full datasets focused on 'professional support' representing 40% and 30%, respectively.

The data are organised at three levels and summarised in Tables 2 and 3. Each table illustrates the overall dominant theme of 'professional support' (Level 1). Level 2 represents subthemes that contribute to the meaning and further detail of 'professional support'. Level 3 are individual quotes, which qualify and illustrate the higher level themes.

TABLE 1: *Demographic characteristics of particpants*

	Rural General Practitioners	Medical Students
Number of particpants	13	12
Male	10	4
Female	3	8
Age, mean (SD)	45 (11.2)	25 (2.5)
Age range	31-65	20-29
Australian by birth	11	12
Number of years experience as a rural GP, mean (range)	23 (10-40)	-
Number of rural GPs practicing in RRMA 5	2	-
Number of GPs practicing in RRMA 7	11	-
Number of GPs and medical students with a rural background	6	5
Number second-year medical students	-	5
Number third-year medical students	-	7
Members of TROHPIQ	-	12

-, no data
RRMA, Rural Remote Metropolitan Area
TROHPIQ, Towards Rural and Outback Health Professionals in Queensland

TABLE 2: *Rural GP's dominant theme – professional support*†

Level 2: Subthemes	Number quotes	Level 3: Representative quote
1. System support *Professional* Dealing with consultants Referrals/Retrievals Lack of manpower/specialists Back-up/locums Lack of support from hospitals *Infrastructure* Staff problems/shortage Practice costs Accreditation Reliance on IMGs Under-equipped	109‡ (30%)	*Queensland has its own set of problems – partly because of its public/private split and partly because of the increased influx of overseas doctors and corporate bulk billing practices pulling in overseas doctors to compete. Having the free health system in towns like this is failing because they can't get doctors with sufficient skills to practice the level of medicine they need. Then you've got corporates who see development of these areas as a reason to stick bulk billing in them with a non-skilled light workforce out here. It needs to be fee for service – proper arrangements, proper finance and not some administrator from the Health Department trying to cut costs all the time.* *Like everyone else I'm disappointed that no decisions in Qld Health are made on medical grounds. They're all made on economic grounds. I think that's just wrong.* *At the moment you can't even get Australian-trained doctors out here! So how are we going to get a specialist if we can't get a GP?*
2. Practice work Increase skills to adapt On-call hours/long hours Workload Obligations Burn-out Responsibilities	100 (28%)	*I'm on call 24 hours a day for 5 weeks every single day then I get a week off. Close to the end of that 5th week, I don't feel safe and I tend to just defer anything major. If I was fresh at the first week I could handle that but not in the last and I think when it comes down to safety issues.* *Learning to say no and not feeling guilty – I still struggle with that.* *He (an urban GP) was bitching because he was on call twice in six months. Imagine that! Imagine being on call twice in six months?*
3. Peer Inequities Urban versus rural CME – difficult to do but vital Rural GP – most difficult Peer inequities Prejudice/stereotype – negative Promotion difficult	99 (28%)	*You can't network with anyone and skills wise we fall behind because we can't attend the workshops our town-based colleagues can go to.* *Brisbane doctors are pretty tunnel visioned. They feel everything has got to be done in Brisbane. Not even a simple appendix in the country.* *My major concern is where we go after this. No clear pathway. It is such an isolated area.*
4. Litigation Ruining future of rural medicine Indemnity Government interference No support/Risks/Restrictions	50 (14%)	*No doctors, no deliveries, no obstetrics, no anaesthetics, no surgery, we will just be flying people out. I feel pretty pessimistic. Surely it's not cost effective putting everyone in a plane.* *It's a generational thing – new grads are not prepared to accept responsibility and take risks.* *Management of the hospital had financial problems, so they were cutting, cutting and the 'golden era', for whatever number of reasons, it finished*

†Total references for this theme = 358; % of total from the full dataset of 900 = 40%; ‡Numbers represent the total number of times each subtheme (Level 2) was mentioned or discussed in the transcripts with the corresponding percentage (in parentheses) reflecting the proportion within that theme. CME, continuing medical education; IMG, international medical graduate; Qld, Queensland.

TABLE 3: *Medical students' dominant theme – professional support*†

Level 2: Subthemes	Number quotes	Level 3: Representative quote
1. Preparation for rural work – all self-directed Self-direction/discipline Seek out extra skills/training Special training for rural Need rural experience Independent learning Bonds and Scholarships	77‡ (47%)	*You don't just tell people you are going to be a doctor, a rural doctor without actually thinking about it hard and actually spending some time in the rural area.* *Rural practice involves a certain degree of autonomy. You need to be confident in decision making, and I don't have that yet, but I'm sure that's just experience.* *To train yes, but you have to be in the area. Well, they have to be in a rural area to train them properly so you can see what you're doing. It's not something you can really learn out of a book.*
2. System support Professional support vital Lack of specialists Consultant support Legal issues/litigation Changing workforce Reliance on IMG Locum support/long hours CME – support throughout career	43 (26%)	*Legal issues are really destroying the medical profession. Litigation and all that kind of stuff. I think it is especially important for rural areas.* *Rural GPs or you know rural hospital workers, or whatever, they really have to rely on their decision-making and clinical skills and of course you can make mistakes and I would say that a lot of doctors now out in the bush would be a little bit reluctant to be going ahead and doing things without having to refer people on to major centres.* *More locums to give them leave when they actually want to take it.*
3. Peer Inequities Rural versus urban GP Big differences Rural more challenging Lack of resources More financial concerns Need to be independent Have broader knowledge base	43 (26%)	*I know you can't really expect the government to throw money at it all the time but some of the measures I've seen trying to recruit rural people, it's just money is the all important factor.* *They (urban GPs) they just refer. I have seen what rural GPs do and they do everything.* *A lot of them (urban GPs) acknouledge that it's different but – don't comprehend the experience.* *I'll need to rely on myself a lot more. I might be the first port of call for hundreds of kms. So I have to have a broad general sense of Medicine. I have to be everything all in one.*

†Total references for this theme = 163;% of Total from the full dataset = 30%; ‡Numbers represent the total number of times each subtheme (Level 2) was mentioned or discussed in the transcripts with the corresponding percentage (in parentheses) reflecting the proportion within that theme. CME, continuing medical education; IMG, international medical graduates.

Rural general practitioners

The rural GPs in this study had very strong feelings about the professional support they have experienced throughout their careers spanning up to 40 years and how that has deteriorated over time. Issues relating to what has been termed *system support* or state and government organisational support were foremost in their narratives (30%). This included professional issues such as dealing with consultants in the city, difficulties in patient referrals and retrievals, the unavailability of back-up or locums and simply a lack of manpower and specialists for them to call on or consult. System support also refers to issues related to infrastructure such as workforce shortages and the reliance on international medical graduates (IMG), practice costs, bulk-billing competition and accreditation.

Twenty-eight per cent of the subthemes referred to *practice work* or the nature of the doctors' rural practice. The majority related to the necessity for rural doctors to keep up their skills. Acquiring and maintaining skills were seen as vital in order to cope with the variety of medicine presented in rural locations and the lack of back-up support and continuing medical education (CME) due to isolation. A variety of comments involved workload and references were made to burnout, on-call hours and long hours in general and were consistent with the subthemes in *system support* relating to workforce shortage. Feelings of obligation and responsibility to patients and the community were also indicated as part of the work related to rural practice.

Peer inequities stood out as another subtheme representing 28% of the data. The meaning of *peer inequities* took on an almost 'them versus us' character with doctors maintaining that rural practice was not only more difficult and demanding but offered little opportunity to obtain CME, maintain procedural skills or establish contacts and network with colleagues seen to be important for promotion and career advancement. All these factors are exacerbated by the shortage of staff and locum relief for time away and contribute to a certain degree of prejudice and stereotype held by many of their urban counterparts that rural doctors are not good enough.

Comments relating to litigation represented 14% of this theme. Most of the doctors had strong feelings that indemnity and the threat of litigation was 'ruining the future of rural medicine'. Here again, government and organisational systems are seen as interfering with the way in which rural doctors work, imposing restrictions but not providing alternatives or adequate support. Rural doctors perceive this as a lack of understanding for the nature of rural practice, which involves a higher level of risk than urban practice and an extension of the prejudice towards rural medicine.

Medical students

The medical students also had strong feelings about factors regarding professional support for rural practice. The most important issue regarded their preparation for a rural career. The self-directed nature of this preparation was most prevalent with 47% of the comments relating to their recognition and acceptance of the fact that they need extra training and special skills to work in a rural location. Also evident is their acknowledgement that they will need to independently seek out opportunities to obtain this level of training.

These comments are closely associated with the next subtheme of *system support* and suggest an acute awareness of the special needs and challenges facing rural doctors. Their comments mirror those of our sample of rural GPs. In particular, the medical students recognise the importance of professional support in its many guises relating to the changing workforce, such as locum support and long hours, specialist and consultant support, the reliance on IMG and in particular, legal issues and litigation.

The final subtheme, *peer inequities*, also reflects comments expressed by the rural GPs regarding what they envision as big differences between urban and rural general practice. In particular, they feel that rural GPs face different pressures due to their locality and workforce shortages and because of this they need to be more independent and have a broad knowledge base to deal with a larger variety of clinical work. They

also recognise that the nature of rural practice calls for a more personal interaction with patients than expected in urban practice.

Discussion

Despite the large difference in age and experience, the perceptions and comments from the rural GPs and the medical students regarding the current state and future of rural practice were strikingly similar. Therefore, our hypothesis was not supported. These results concur with previous findings on attitudes to rural practice.[6,22]

Most prevalent in the medical students' comments was the need for high levels of self-direction and independent learning regarding adequate preparation for rural work, especially in seeking out extra procedural skills and training. There are two explanations for these comments. The first is that medical programs using problem-based learning as one aspect of their curriculum encourage the development of self-directed[23] and independent learners. Consequently, this could be viewed as evidence that our curriculum is producing this type of adult learner. Alternatively, it might appear to contradict or question the current focus in the rural clinical schools, that is, they are not properly focused on providing medical students with necessary workplace skills and knowledge. If medical students' see the need to source their own learning experiences then perhaps rural clinical schools should investigate changes in their rural curriculum rather than simply providing a replica program as occurs in the capital city medical schools.

The overriding priority for rural clinical schools is to train undergraduates who will pursue rural postgraduate medical careers and alleviate the current workforce shortage. But do university medical schools accept this concept? Are they proactive in training students to cope with the demands of rural practice and life? Innovative experiences such as Parallel Rural Community Curriculum[24] and Leichhardt Community Attachment Placement[25] have demonstrated that medical students can learn medicine in alternate locations with non-traditional teaching and patients and UQ Rural Clinical School students perform overall as well or better as their urban counterparts[26]

Of greater concern is the congruity between medical student perceptions of the reality of rural practice and rural GP reporting of that reality. Both concur on negative system-level support and associated professional support such as staffing, specialist referral, reliance on IMG and availability of locums. While it might be argued that medical students were repeating arguments that are well publicised in the media, the fact that these interviews were conducted prior to major negative media reports in Queensland, covered over one quarter of all valid comments in this theme and were based on first-hand knowledge and experience is indicative of impact. There is a need to address this issue of perceived lack of health system organisational support if medical students are to be recruited into rural medicine in the first instance.

As members of Generation X[27] these imminent graduates seek systems or organisations that will help them achieve their goals and perform their jobs. These Generation Xers are, unlike the baby boomers, the generation of current rural GPs, who personify the image of the rural doctor and are characterised by altruism and self-sacrifice. They are unwilling to practice in an unsupported environment. Unlike the current and now dwindling numbers of rural GPs,[28] their first loyalty is to themselves – not to an unsupportive system. To achieve the best out of the new cohort of rural doctors, systems should take this perspective into account. For example, rural doctors have recently received a pay rise at the system level.

Both rural GPs and medical students perceive peer inequities between the urban and rural workforce and acknowledge a certain stigma is attached to being a rural doctor. Rural GPs reported peer inequities with their urban counterparts involving CME, promotion, and stereotypes and these results concur with the literature[12,13] and comparisons of general practice work by urban and rural GPs.[29] Urban and rural differences were also recognised by medical students including the need to be more independent and have an extensive and broad knowledge base. This links directly to their need to seek out extra training and skills to cope with the demands of rural practice. Finally, lack of specialist consultation, difficulties in

referral and retrieval also highlight the isolation experienced and acknowledged by both rural GP and medical students.

This study has triangulated the perceptions of medical students with the reported reality of rural GPs on the current state and future of rural practice. Few reports have provided this perspective from both ends of the medical education continuum. However, a caveat to our findings must be acknowledged. The similarities illustrated between rural GPs and medical students could stem in part from the influence of role models (i.e., rural GPs). The influence of early role models and mentors in guiding them towards a rural career does not make their perceptions any less true. However, we must acknowledge that their perceptions might be part of the doctrine of rural GPs whom they associate with or emulate. These observations are not new – students generally reflect the views of their teachers. Considering this, then the current situation in rural medicine and its impact on the outlook and attitudes of rural GPs can result in a negative effect on future recruitment.

Other limitations to the study involve the self-selected nature of our participants, that is, the students who volunteered to be part of the study were interested in rural medicine. However, our strategy was to gauge the aspects that were going to make rural medicine more or less attractive to them. Furthermore, participants were graduate entry students and likely to be older, more mature and have considerable knowledge of issues related to rural recruitment.

Finally, it is acknowledged that most of the perceptions presented on the deterioration of system-level support would be expressed by GPs in all locations. However, while most of these issues are not exclusive to rural GPs, it could be argued that rurality exacerbates their impact on the recruitment and retention of the rural workforce.

Conclusions

Despite numerous initiatives aimed at recruitment and retention of a rural medical workforce it would appear that significant systematic failures are still occurring. Of even greater concern is that the perception of system failures is congruent for both rural GPs and medical students with a rural interest. Commonwealth initiatives to assist the ailing workforce such as the establishment of rural clinical schools are well underway. For example, at UQ, the provision of rural experience is far from counterproductive. All third-year students undertake a compulsory eight-week rural medicine placement (1261 students since 2002), and 100 third-and fourth-year students, half of whom are from a non-rural background, are currently spending one to two years in a regional school. Furthermore, exam performance of rural clinical school students demonstrate as good or better results as compared with urban counterparts, and student-based research shows that interest in rural medicine as a career increases after rural clinical placements.[30]

The process is slow but the initiatives are working and the momentum of rural interest is growing. However, more work is needed for schools to form and maintain partnerships with state and regional facilities, such as hospitals that will support rural teachers as well as graduates in a program that is vertically integrated. Medical schools and institutional support systems need to join forces now and work together to make rural practice a viable career in medicine.

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