

# Are patients willing participants in the new wave of community-based medical education in regional and rural Australia?

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Community-based medical education is growing in Australia to meet the increased demand for quality clinical education in expanded settings.<sup>1</sup> This demand has been created by rising medical student numbers and the limitations on teaching within tertiary hospitals arising from factors such as shorter admissions and sicker patients.<sup>2</sup> General practice provides a ready source of ambulatory patients with a wide range of medical and health needs. Building capacity for teaching in general practice is integral to providing a quality teaching experience.<sup>3,4</sup>

This is an exciting challenge for general practice,<sup>1,3</sup> and patient participation is vital to its sustainability. Despite the increasing use of clinical skills centres, contact with real patients remains crucial for developing clinical acumen. As proposed by a consumer advocate, "you can play with dead bodies and dummies for as long as you like, but at some stage you've got to meet the real person".<sup>5</sup> Patients have traditionally played a passive role in medical education, but their contribution to clinical teaching is now being emphasised and developed. Their experience complements the expertise of medical educators, offering a different perspective on health, disease and health care. Collaboration with patients can enhance students' awareness of the factors that influence patients' health and quality of life.<sup>6</sup>

Studies show that medical student education does not compromise patient satisfaction with care, and have identified key reasons patients choose to be involved. Although some participate for their own benefit, most are altruistic, wishing to help the student and the doctor and to use their condition to facilitate learning. Patients also feel qualified to assist in developing medical students' professional skills and attitudes.<sup>7-14</sup> In fact, they appear a willing but potentially underutilised resource for training senior medical students; for example, a South Australian study found that general practice patients expected greater involvement in teaching sessions than actually occurred.<sup>14</sup> However, that small study was conducted in traditional teaching practices in urban settings, where patients may be more accepting of senior medical student involvement.

## ABSTRACT

**Objective:** Community-based medical education is growing to meet the increased demand for quality clinical education in expanded settings, and its sustainability relies on patient participation. This study investigated patients' views on being used as an educational resource for teaching medical students.

**Design:** Questionnaire-based survey.

**Setting and participants:** Patients attending six rural and 11 regional general practices in New South Wales over 18 teaching sessions in November 2008, who consented to student involvement in their consultation.

**Main outcome measures:** Patient perceptions, expectations and acceptance of medical student involvement in consultations, assessed by surveys before and after their consultations.

**Results:** 118 of 122 patients consented to medical student involvement; of these, 117 (99%) completed a survey before the consultation, and 100 (85%) after the consultation. Patients were overwhelmingly positive about their doctor and practice being involved in student teaching and felt they themselves played an important role. Pre-consultation, patients expressed reluctance to allow students to conduct some or all aspects of the consultation independently. However, after the consultation, they reported they would have accepted higher levels of involvement than actually occurred.

**Conclusions:** Patients in regional and rural settings were willing partners in developing skills of junior medical students, who had greater involvement in patient consultations than previously reported for urban students. Our study extends the findings from urban general practice that patients are underutilised partners in community-based medical training. The support of patients from regional and rural settings could facilitate the expansion of primary care-based medical education in these areas of workforce need.

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To address the medical workforce shortage in regional and rural Australia, and to foster a commitment to patient-centred health care among medical graduates, the graduate medical school at the University of Wollongong provides students with early patient contact in general practices in regional and rural New South Wales. To assess the potential to sustain and expand these general practice clinical placements, we explored whether patients in Australian regional and rural general practices are willing to accept the involvement of junior medical students in their care, and the level of involvement they find acceptable.

## METHODS

The method and survey instrument were based on those used in a previous study of the views of urban Australian general practice patients on the involvement of medical students in their consultations.<sup>14</sup>

In our study, patients attending six rural (Rural, Remote and Metropolitan Areas [RRMA]<sup>15</sup> category 4: small rural cities) and 11 regional (RRMA 2: other metropolitan centres) general practices involved in student teaching in NSW were invited to participate. The students involved were University of Wollongong graduate-entry medical students (25% of RRMA 2 background and 33%, RRMA 3–7 [rural and remote centres]). The study was conducted at the end of their first study year, in the final two student placements, in November 2008.

Patients were unaware that their consultation would include a medical student until they arrived at the practice. A research assistant was present in the waiting area to obtain informed consent for involvement in the study from patients who agreed to have the medical student present in the consultation, and the assistant distributed and collected the self-administered questionnaires

**1 Themes of patients' free-text responses and illustrative citations**

**Question: What are your reasons for agreeing to student involvement in your consultation today?**

*Student learning:* Because everybody's got to learn.

*Learning from real people:* Because it gives the student good practical, real-life experience, and they will be our doctors in the future.

*Previous experience of patients:* Prior positive experience with students.

*Recruiting more doctors:* We need more doctors so the students need hands-on experience.

*Comfort with student involvement:* No concerns.

**Question: When might you refuse medical student involvement in your consultation?**

*Junior students:* The students involved in my consultation have only been in medicine for 10 months. I would not be concerned for them to perform the functions mentioned above if they had, say, 3 years' experience.

*Intimate issues:* Very intimate issue only.

*Personal factors:* Knowing the student personally.

*Student supervision:* I wouldn't object but would like the doctor to oversee the student.

*Comfort with apprenticeship approach:* Wouldn't refuse because it's part of learning something, like an apprentice learning a trade. ♦

before and after the consultation. The University of Wollongong Human Research Ethics Committee approved the study.

**Questionnaire**

Before the consultation, patients were asked why they had consented to student involvement and possible reasons for refusing this. They had the option of giving a free-text response to each question or ticking one or more of four options. Patients were also asked to indicate the level of student involvement they would expect for the following aspects of the consultation: history-taking, physical examination, and undertaking a procedure. After the consultation, they were asked to indicate the level of student involvement that actually occurred and the level they would have accepted for each of the same aspects of the consultation.

The survey also explored patients' perspectives on involvement in medical education.

They were asked four questions on their feelings about their general practitioner and practice being involved in student teaching now and in the future. Their responses were captured using a Likert scale (1=strongly disagree to 5=strongly agree), with an opportunity for spontaneous written comments.

**RESULTS**

One hundred and twenty-two patients in 18 different teaching sessions were asked to consent to student involvement during their consultation and to complete a pre- and post-consultation survey. Four patients refused to participate, citing language difficulties, ill health or lack of time as reasons.

Of the 118 patients who consented to medical student involvement in their consultation, 117 (99%) completed a pre-consultation survey, and 100 (85%) completed a post-consultation survey. Of these 100, 62 reported no previous experience of medical student involvement.

**What were reasons for consent and possible reasons for refusal?**

Most patients (104; 88%) indicated they consented to the presence of a medical student in the consultation to help the student. Other reasons were that they were asked to (56; 48%), it would help the doctor (43, 36%), and it might benefit the patient (34, 29%).

Forty-six patients (39%) did not indicate any reason they might refuse medical student involvement. Among the tick options, reasons cited for possible refusal were "personal" (49; 42%); "concerns for patient privacy" (23; 20%) and "students lacked experience" (20; 17%). Only eight patients (7%) indicated student personality as a reason for refusing student involvement. Box 1 lists the main themes found in the free-text responses for consent and refusal, and illustrative citations.

**What level of student involvement do patients expect?**

Most patients (94%–96%) expected that the student would observe the doctor taking a history, examining the patient or undertaking a procedure, and most (92%–95%) also expected that the student would undertake some aspect of the consultation with the doctor observing (Box 2). Only about a third of patients (32%–39%) expected that the student would be alone during part of the encounter and would

conduct some aspect of the consultation. There was no difference in expectations between patients who had previous experience of student involvement in consultations and those who did not.

**What happened and what would patients have accepted?**

Students observed the doctor taking a history in 96% of consultations, and this would have been accepted by 98% of patients (Box 2). Less often, students observed the doctor examining the patient (63%) and undertaking a procedure (60%). However, most patients would have accepted the student observing the doctor in these aspects of the consultation (92% and 94%, respectively).

Students were involved in history-taking during 74% of consultations, while this would have been accepted by 91% of patients. Students examined patients in 40% of consultations, but this would have been accepted by 84%. Similarly, students were involved in only 37% of procedures, but this would have been accepted by 81%.

Students were alone during part of the consultation and took a medical history, examined the patient or undertook a procedure in few cases (6%–10%). This would have been accepted by many more patients (41%–45%).

Box 2 also compares the results of this survey with those from the previous study in urban general practices,<sup>14</sup> which used the same survey questions and involved third-year graduate-entry medical students.

**Patients' perceptions of their practice's involvement in student teaching**

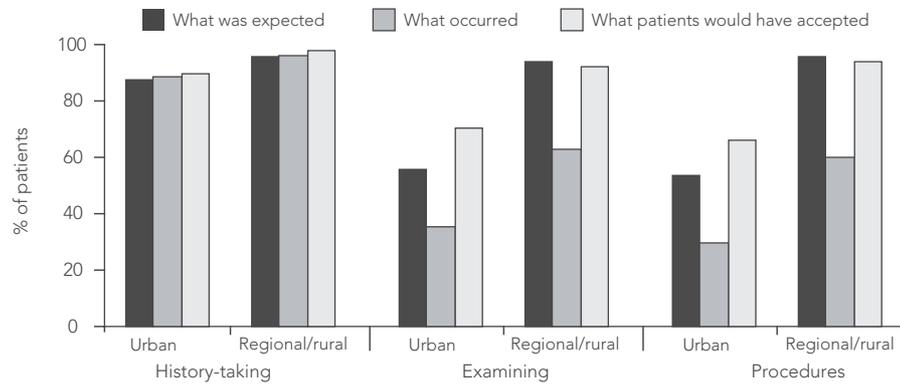
Patients strongly supported the involvement of their general practice in medical student teaching, with 89% strongly agreeing that they were pleased the practice was a teaching practice and 90% that their doctor was involved in teaching (Box 3).

**DISCUSSION**

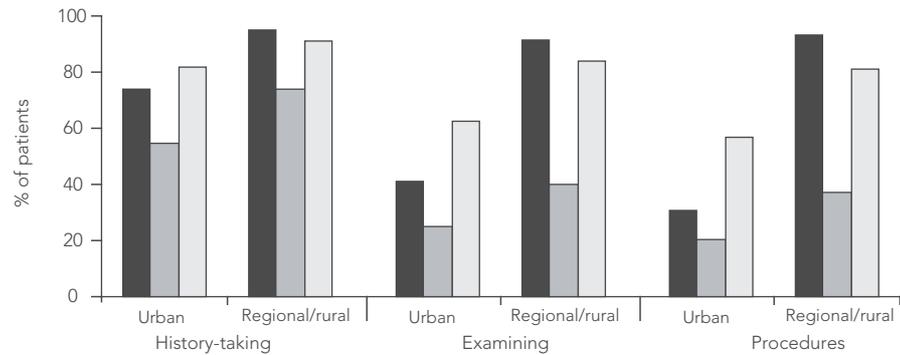
This study replicates an important finding of the previous survey in an urban setting,<sup>14</sup> that patients were willing to accept more student involvement than actually occurred. However, there were substantial differences in the student clinical activities that the two patient groups expected, experienced or accepted. Despite the fact that the regional/rural students had relatively less clinical experience than their urban counterparts at the time of study, the regional/rural patients

**2 Comparison of patient expectations, what occurred and what patients would have accepted between this regional/rural survey and a previous urban survey**

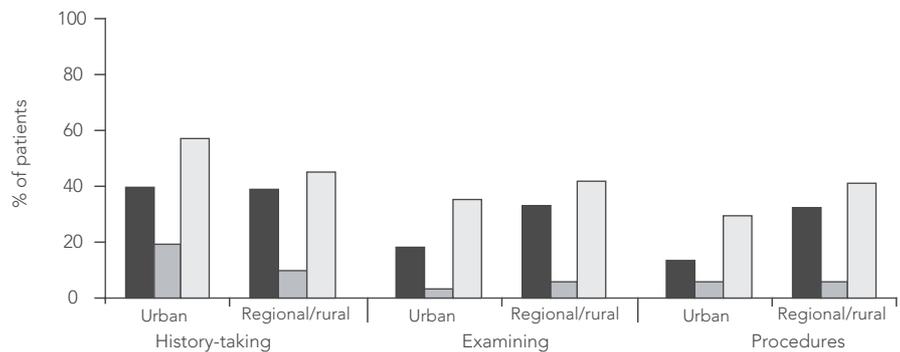
**A: Student observing doctor**



**B: Doctor observing student**



**C: Student alone part of the time**



expected, and would have accepted, higher levels of involvement than occurred. Also, in the regional/rural setting, students were more involved in patient consultation than the urban students.

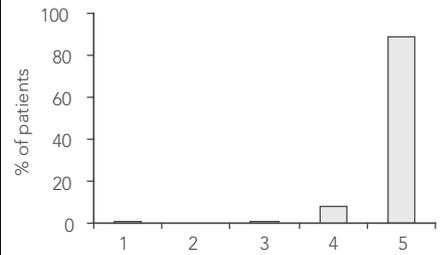
The qualitative data suggest some reasons for the differences reported for urban and regional/rural patients. Pressing workforce shortages in regional and rural areas may have heightened the desire to recruit more doctors and assist in their development at rural sites; for example, a patient commented, "We need more doctors ... they will be our doctors in the future".

Furthermore, there may be significant differences in how the respective communities view students from the two programs. The University of Wollongong program has been widely promoted to the rural and regional communities it serves, possibly influencing patients' attitudes to students from the new school in a positive manner.

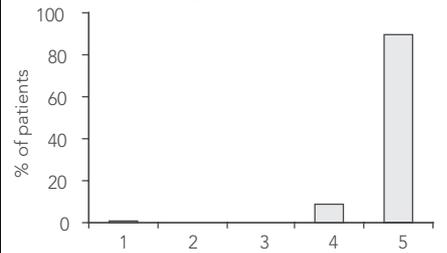
The regional/rural patients were very supportive of training in the real world of clinical practice, and were willing to accept a more active role for students (eg, a patient commented, "This is how they need to learn

**3 Patients' perceptions of their practice involvement in student teaching**

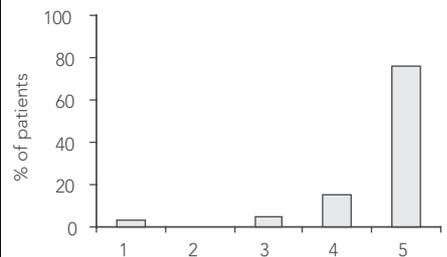
**A: I am pleased this practice is a teaching practice**



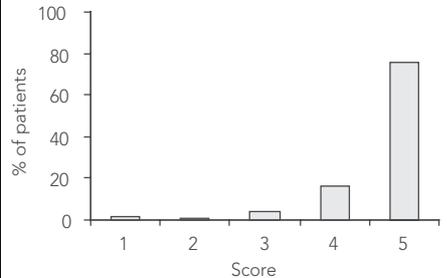
**B: I am pleased my doctor is involved in student teaching**



**C: I feel I am playing an important part in training doctors in my community**



**D: I would be happy to involve medical students in my general practice consultations on an ongoing basis**



1 = strongly disagree, 5 = strongly agree.

[having experience with real doctors and real patients]”).

While previous positive experience of participation in student training facilitated patient consent to student involvement, 62% of the regional/rural patients had no previous experience of student involvement in their consultations. Although one patient

cited the junior status of the regional/rural students as a reason to limit the extent of student involvement in aspects of the consultation, and another valued doctor supervision of students, overall the regional and rural patients expected, and would have accepted, more student involvement than actually occurred, and were accepting of the apprenticeship approach (eg, "No, wouldn't refuse because it's part of learning something, like an apprentice learning a trade").

A comment from a regional/rural patient, requesting that student teaching in general practice should continue, implied that patients see themselves as partners, as well as beneficiaries, of regional/rural training ("I strongly suggest this should be ongoing. It's an excellent opportunity for all involved").

Our results should be interpreted with caution in light of the small number of participants and the fact that patients came from only one regional and one rural area. Although GPs clearly play a central role in deciding what is appropriate, our study confirmed earlier findings of patients' positive views on consulting with students in general practice and the reasons they may consent or refuse to be involved.<sup>14,16</sup> It also repeated the findings of a previous study in urban Australian general practices that patient willingness to be involved in student learning is both underestimated and underused,<sup>14</sup> and extended those findings to regional/rural settings and to patients with no previous experience of medical student involvement in their consultations. The regional/rural patients in our study saw themselves as "part of the real context of health care", a theme also previously described in a study conducted in general practice in Sweden.<sup>16</sup>

Further research should investigate patients' perspectives in other regional and rural community settings and modify the study instrument to explore which specific activities or procedures patients would

accept. The trend to place senior students in long-term community-based placements in regional and rural areas in both Australia and overseas will provide opportunities to explore patients' expectations and acceptance of an "independent practitioner" role for medical students under the supervision of a registered clinician, and the level to which this occurs. With the current shortage of rural and remote medical practitioners with high skill levels, and pressure to provide quality clinical experiences for increased student numbers, we should ensure we maximise the contribution and partnership of community patients as well as clinicians.

### ACKNOWLEDGEMENTS

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### REFERENCES

- 1 Van Der Weyden MB. Expanding primary care-based medical education: a renaissance of general practice [editorial]? *Med J Aust* 2007; 187: 66-67.
- 2 Australian Institute of Health and Welfare. Trend to shorter hospital stays continues

[media release]. Canberra: AIHW, 1999. <http://www.aihw.gov.au/mediacentre/1999/mr19990630.cfm> (accessed Aug 2009).

- 3 Thistlethwaite JE, Kidd MR, Hudson JN. General practice: a leading provider of medical student education in the 21st century? *Med J Aust* 2007; 187: 124-128.
- 4 Pearce R, Laurence CO, Black LE, Stocks N. The challenges of teaching in a general practice setting. *Med J Aust* 2007; 187: 129-132.
- 5 McGhee K. Your patient. *Aust Doct* 2007; (Nov 23): 47.
- 6 Kelly D, Wykurz G. Patients as teachers: a new perspective in medical education. *Educ Health* 1998; 11: 369-377.
- 7 Morrison JM, Murray TS. Preliminary study into the opinions of patients about the presence of medical students in the general practice consultation. *Health Bull (Edinb)* 1995; 53: 343-347.
- 8 Cooke F, Galasko G, Ramrakha V, et al. Medical students in general practice: how do patients feel? *Br J Gen Pract* 1996; 46: 361-362.
- 9 Nair BR, Coughlan JL, Hensley MJ. Student and patient perspectives on bedside teaching. *Med Educ* 1997; 31: 341-346.
- 10 O'Flynn N, Spencer J, Jones R. Consent and confidentiality in teaching in general practice: survey of patients' views on presence of medical students. *BMJ* 1997; 315: 1142.
- 11 Bentham J, Burke J, Clark J, et al. Students conducting consultations in general practice and the acceptability to patients. *Med Educ* 1999; 33: 686-687.
- 12 Wykurz G, Kelly D. Developing the role of patients as teachers: literature review. *BMJ* 2002; 325: 818-821.
- 13 Chipp E, Stoneley S, Cooper K. Clinical placements for medical students: factors affecting patients' involvement in medical education. *Med Teach* 2004; 26: 114-119.
- 14 Salisbury K, Farmer EA, Vnuk A. Patients' views on the training of medical students in Australian general practice settings. *Aust Fam Physician* 2004; 33: 281-283.
- 15 Australian Government Department of Health and Ageing. Rural, Remote and Metropolitan Areas (RRMA) Classification. <http://www.health.gov.au/internet/main/publishing.nsf/content/work-st-bmp-wher-rrma> (accessed Jan 2010).
- 16 Haffling A-C, Hakansson A. Patients consulting with students in general practice: survey of patients' satisfaction and their role in teaching. *Med Teach* 2008; 30: 622-629.

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