Will Australian rural clinical schools be an effective workforce strategy? Early indications of their positive effect on intern choice and rural career interest

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ABSTRACT

Objective: To use short-term indicators (hospital internship choice, and interest in a future rural career) to assess how the University of Queensland rural clinical school is meeting its program objectives.

Design: Cross-sectional quantitative data collected through self-report questionnaires.

Setting: University of Queensland rural clinical school (UQRCS).

Participants: Year 4 students who attended the UQRCS for their entire clinical year in 2006.

Results: Most students were from an urban background. Over the year, interest in a future rural medical career increased measurably across the cohort. The most important factors in choosing to study at the UQRCS were the quality of teaching, level of student contact with clinical teachers, increased patient access, and accommodation facilities. Comparison of graduates' choice of internship location for 2006 compared with 2005 showed a trend away from urban or metropolitan toward regional or rural hospitals.

Conclusions: Our results suggest that the primary attraction of UQRCS is the quality of education, and rural undergraduate training is a popular choice for urban students. Although the long-term effect on rural medical workforce remains to be determined, the trend at UQRCS of new graduates choosing non-urban internships is encouraging.

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Rural clinical schools are now established through federal funding in most medical schools in Australia,[1] and are required to provide 25% of medical students with at least 50% of their clinical training. A major expectation is that this will encourage rural medical workforce recruitment and retention.[1]

The rural clinical school at the University of Queensland (UQRCS), established in 2002, is part of the School of Medicine's 4-year graduate MB BS program. Year 4 students may elect to train in the Central or Southern (capital city) Divisions, or the Rural Division, comprising teaching sites throughout regional and rural central and south-west Queensland. This report presents an update on how the UQRCS is addressing the need to prepare and encourage its students to enter rural medical practice.

METHODS

University of Queensland Year 4 MB BS students undertook their entire fourth year (2006) of clinical training in the UQRCS. Two questionnaires, the entry survey (administered at the start of Year 4) and exit survey (end of Year 4) were developed or modified (2003–2005) to capture the most important variables related to choosing rural medicine as a career.[2]

Here we report the perceived effect of the UQRCS on desire to pursue a rural career, the most important factors in choosing the UQRCS, and choice of internship location (rural versus urban).

Results were analysed using descriptive, frequency, *t* tests and χ^2 statistics, and we compared variables between sex, age and UQRCS locations.

RESULTS

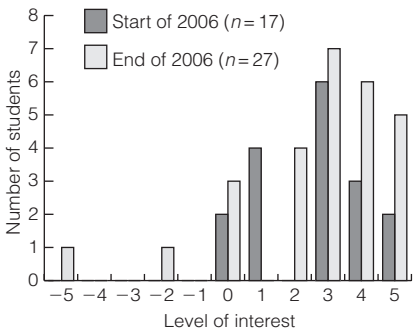
Analysis revealed no significant differences in responses by sex, age or UQRCS location. Results are presented in aggregate as the 2006 UQRCS cohort ($n = 28$). Surveys were administered on the first (entry) and last (exit) day of their clinical year, but, because of absences, 17 and 27 students completed the surveys, respectively. Most students were male (18), aged 25–29 years (17), and single (19). Eight students reported a rural background.

Effect of the rural clinical school on rural intention

The entry survey asked students to rank their *degree of interest in pursuing a rural medicine career* on an 11-point scale of –5 to –1 (*no interest*) to +1 to +5 (*strong interest*), with a midpoint of *neutral*. Fifteen of the 17 students rated their degree of interest in the positive, with two reporting neutral interest.

Likewise, the exit survey asked, *How did your year at the UQRCS alter your interest in pursuing a rural medicine career?* Using a similar 11-point scale of –5 to –1 (*discouraged my interest*) to +1 to +5 (*encouraged my interest*) with a midpoint of *no change*, only two students registered discouragement. Twenty-two were encouraged and three reported no change. Box 1 shows the trend toward a positive effect of the UQRCS on interest in a future rural medicine career.

1 Effect of the University of Queensland rural clinical school over the year on Year 4 students' interest in pursuing a career in rural medicine



For start of 2006, –5 = no interest in rural career, 5 = strong intention in pursuing rural career. For end of 2006, –5 = discouraged from rural career, 5 = encouraged to pursue rural career. ◆

Factors important in choosing the UQRCS

On exit, the most important factors related to choosing to study at the UQRCS were the quality of teaching, level of student–teacher contact, and high patient access (Box 2). Availability of free accommodation also ranked highly, as did rurality (location) of the UQRCS.

Internship choice

The choice of internship location on exit of student cohorts from 2005 and 2006

2 Important factors in choosing to study at the University of Queensland rural clinical school (UQRCS)

Rank	How important were the following factors in your decision to study at the UQRCS?	*n*	Mean	SD	Frequency distribution of student responses 1	2	3	4	5
1	Quality of teaching or 1:1 teacher contact	27	4.37	0.88	0	2	1	9	15
2	Patient access	27	3.85	1.0	1	1	7	10	8
3	Academic reputation of UQRCS	27	3.41	1.2	2	5	5	10	5
4	Quality of accommodation on offer	26	3.19	1.1	2	4	11	5	4
5	Rural focus and rural location/exposure	27	2.93	1.0	1	9	11	3	3
6	Social life	27	2.81	1.0	3	6	12	5	1
7	Extracurricular activities	26	2.65	1.0	4	6	12	3	1
8	My friends	24	2.54	1.0	4	8	8	3	1
9	My spouse/partner's needs	14	2.43	1.5	6	2	1	4	1

Student responses, means and standard deviations are represented as ratings of each statement on a Likert scale of 1 (not at all important), 2 (somewhat important), 3 (important), 4 (very important) and 5 (extremely important). ◆

3 Intern location choice for Year 4 University of Queensland rural clinical school (UQRCS) graduates in 2005 and 2006

(RRMA) Internship hospital location	Number of students choosing this location 2005	2006	Total
RRMA 1 = Capital cities	5	7	12
RRMA 2 = Other metropolitan centres (population > 100 000)	6	6	12
RRMA 3 = Large rural centres with population 25 000–99 000	6	14	20
Total number of UQRCS Year 4 students	17	27	44

RRMA = Rural, Remote and Metropolitan Areas classification. ◆

showed a trend away from Rural, Remote and Metropolitan Areas[3] (RRMA) 1 (urban/metropolitan) hospitals toward internships in RRMA 3 locations (rural/regional) (Box 3).

DISCUSSION

We measured the effect of the UQRCS on students' desire to pursue a rural career and found a positive effect on interest from the start to the end of their final year. Furthermore, more than half of the 2006 cohort chose internships in large rural centres rather than in other urban or metropolitan centres.

Our study is limited by its cross-sectional design, using a small cohort of rural clinical school students from one university. It emphasises the need for longitudinal tracking of medical graduates' careers, in particular from rural clinical schools, to provide evidence for any effect of rural clinical schools on the shortage of rural doctors.

Evidence is mounting in support of a strong relationship between rural educational exposure and an increased interest in pursuing a rural career or selecting a rural internship.[4] Students' choice of internship location (urban hospital versus regional or rural hospital) is an important indication of their desire to pursue rural medicine.

Our cohort reported that rural location was not of the highest importance in their decision to train at the UQRCS. Given the importance of rurality to the rationale underpinning the rural clinical schools program, this may appear disappointing. However, a quality educational program would be expected to attract students, and if clinical training within the UQRCS encourages rural career intentions, the aim of workforce recruitment through rural clinical school placement appears satisfactorily managed.

Most of our cohort was of urban origin, a feature noted in other rural clinical schools or programs with a rural focus.[2] There is strong evidence for a relationship between geographical background and predictors of practice locality,[5,6] but studies have identified that up to 74% of rural doctors have an urban background.[6] This illustrates the important role that rural clinical schools play in developing and encouraging an interest in rural medicine among students of both urban and rural backgrounds.

This report adds to the growing body of evidence that a positive medical education with a rural focus is conducive to an increased interest in a rural medical career.

COMPETING INTERESTS

None identified.

AUTHOR DETAILS

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