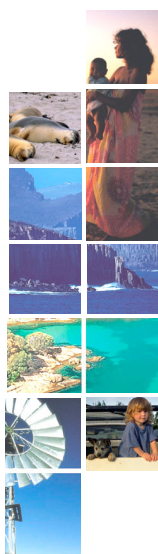


It depends what you expect from life – factors which influence medical students to choose a rural career

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BACKGROUND

In order to address the shortage of doctors in rural areas of Australia, many strategies have been developed to recruit recent medical graduates into rural practice. However most of the research that has been done on the influences on recruitment of doctors into rural practice has been retrospective and quantitative. (Strasser 1992, Rolfe et al 1995, Easterbrook 1999, Leonardson et al 1985, Wilkinson et al 2000, Rabinowitz 2001, Rosenblatt 1992, Kassebaum and Szenas 1993) While there is much evidence that rural background students are more likely to enter rural practice, little research has been done on the factors that influence urban background doctors who make up between 33 and 66% of the rural medical workforce (Kamien 1987, Tolhurst and Lippert 2002, McEwin 2001) to enter rural practice. This paper will present a summary of the findings of the first stage of a longitudinal four year study on the influences on medical students and recent medical graduates to enter rural practice.



METHOD

The sample

Over five months in 2002, ten focus groups of 6 to 10 students were conducted with medical students, including one each with first and final years from Universities of NSW and Sydney, and at a National Rural Club Conference, and separate male and female groups with first and final year students from the University of Newcastle. Each focus group was homogeneous for one factor for example gender, medical school entry or rural interest.

Recruitment of participants

The students were invited to participate in the focus groups either by a notice posted electronically on their medical faculty web sites, a paper notice distributed to tutorial groups or in the case of the students at the rural conference by an announcement made by the researcher at the conference.



Focus group questions

The focus groups were semi structured, and lasted one to one and a half hours, with set questions being posed by facilitators. Most of the groups were facilitated by a male and female facilitator, although some had only one facilitator, for logistical reasons.

The focus group questions were based on a literature review and asked broadly about the students attitudes and intentions in relation to the area of medicine, in which they wished to work; the location in which they wished to work; the practice environments in which they wished to work; influences on their career intentions; and the decision making process.

In order to develop an understanding of the students' decision making processes the researchers also asked the participants to illustrate diagrammatically how they went about making their career decisions

Analysis of data

The focus groups were taped and the tapes transcribed. The transcriptions were analysed for content and for emergent themes after being coded by two researchers independently using N6.

Trustworthiness of the data

The data was checked and coded by two researchers who then discussed their results. Thus researcher triangulation was used. In stage 2 of the project quantitative data will be collected so that the qualitative and quantitative results will be able to be compared and methodological triangulation used.

ETHICS

Ethical issues for this project related to informed consent of the participants in the focus groups, and the maintenance of confidentiality. Ethics approval was given by the Human Research Ethics Committees of the Universities of Newcastle, Sydney and NSW prior to commencement of the project.

RESULTS

Factors influencing choice of future rural location

Although a wide range of issues were covered in the focus groups, data relating to future location only will be discussed in this paper.

The emergent themes about factors influencing choice of rural location are summarised in Figure 1

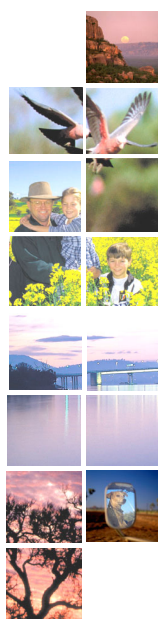


Figure 1 Factors influencing students' choice of future rural location

Student factors

- Age: Younger more interested in short-term experience
- Gender: More females saw family issues as being important
- Experience: From growing up in, visiting or working in rural area
- Value system: The values that students spoke about were altruism and work/life balance.
- Personality: Mentioned by a few students
- Abilities: Determined level of confidence to work in various areas
- Ethnicity: Referred to as one NESB student as reason to stay in urban community; and by Aboriginal students as reason to work in Aboriginal health

Location factors

- Lifestyle: Pace of life, space, leisure and social activities.
- Community belonging: Mostly seen as attraction to rural areas
- Adventure: Younger students wanted adventure and short-term experience
- Income/cost of living: Future work income not mentioned as incentive for rural practice, but short-term income from scholarships was; Cost of real estate disincentive to living in Sydney
- Physical attractiveness of area: In particular coastal areas, vineyards, and lakes.
- Racism: Some had experienced racist behaviour when visiting rural areas
- Social support: Concern about rural economic decline and availability of various services.
- Culture: Some rural background saw urban culture as materialistic and urban saw rural culture as lacking in sophistication

Work factors related to location

- Work availability: Rural location seen as offering diversity and challenge and easy availability of work, but limited ability to work in some specialties
- Making a difference: Ability to contribute in an area of health care need
- Medical learning and support: Positive learning experiences in rural areas, but lack of availability for specialist training.
- Burden of work: Concern about heavy workloads and long hours in rural areas
- Limiting future options: Concerns about difficulty gaining entry to specialist training, and about becoming locked in because of inability to find replacement in the future

Social attachments

- Partner: Concerns about availability of work for partner; partner's support for them; partner's preferences for working or not working; need for partner's income
- Children: "country a good place to bring up children", but concerns about secondary education
- Parents: Need for parents' support with child care, desire to support elderly parents
- Friends: "all my friends are in Sydney"; easy to make friends in rural areas
- Church: One student mentioned as reason to stay in urban area
- Community: Some students had attachments to particular areas, mostly rural background students with their own rural communities

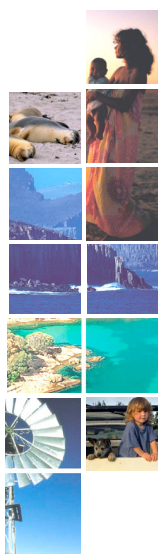
External influences

- Role models: Very important to students; negative or positive
- Rural experience: Very important to students; negative or positive
- Medical faculty: General ethos of medical school; Opinions of individuals
- Random events: Unexpected events, unexpected influences and as yet unknown opportunities
- Opinions of family and friends: Negative attitudes towards general practice
- Scholarships: Motivation to take rural bonded related to scholarship income and entry to medicine; John Flynn seen generally as positive influence on rural intention

Relationship between factors influencing future rural location

Mostly the students spoke of the influence that family members and friends would have on their career decisions differently from the way in which they spoke of the way the influence of other factors related to the location and work.

In relation to family members in particular their partners, children and parents, the students often spoke in terms of a sense of *responsibility and obligation*, indicating that they had a mutually caring relationship. As would be expected in relation to their



partners, they spoke of joint decisions in relation to their careers, often referring in their intentions to “we” rather than “I”.

Some students spoke of a sense of *responsibility* towards their parents in particular the need to care for their parents as they got older. Others spoke of their own *need* for their parents support in relation to childcare.

Some students spoke of a strong *attachment* to particular communities, and others spoke of having observed a strong connection to a community among doctors who were their mentors.

In contrast when the students were talking about their future careers and the areas of medicine and locations in which they might work, they spoke much more in terms of *attraction and appeal, or lack of interest and dislike*.

A few students spoke of a strong *commitment* or “*calling*” in relation to their work and the location at which they might work. These students spoke of having “a driving force” for their career choice and being “passionate” about how and where they would work in the future. However mostly the students spoke of an interest in various specialties or work at a particular location and spoke in terms of appeal, liking, attraction and dislike

A model was developed to describe the interaction between the factors, which were identified in the focus groups.

This model is outlined in Figure 2

Time frame: long term vs short term

Many students spoke of long-term intentions as compared to short-term intentions, and long-term commitments to an area as compared to short-term commitments. When asked to define short term in terms of a time period the students answers varied from 6 months to 5 years, but were mostly about 2 to 3 years.

The students’ short-term plans often involved travel and gaining experience, and the long-term plans more likely to involve settling at a particular location, and establishing a long-term career, and having children. The students priorities in relation to work, family and lifestyle often varied according to the time frame about which they were talking. Many students indicated a strong interest in spending a “short” period (6 months to 5 years) in a rural area but then moving to an urban location in the “long term”.

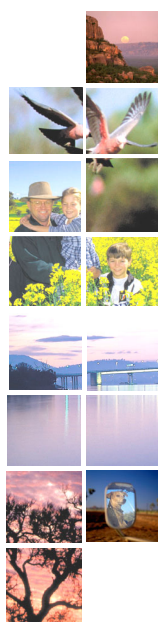
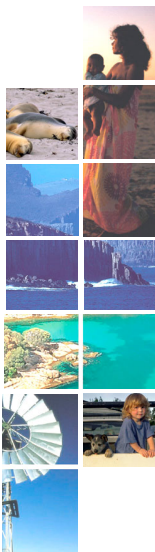
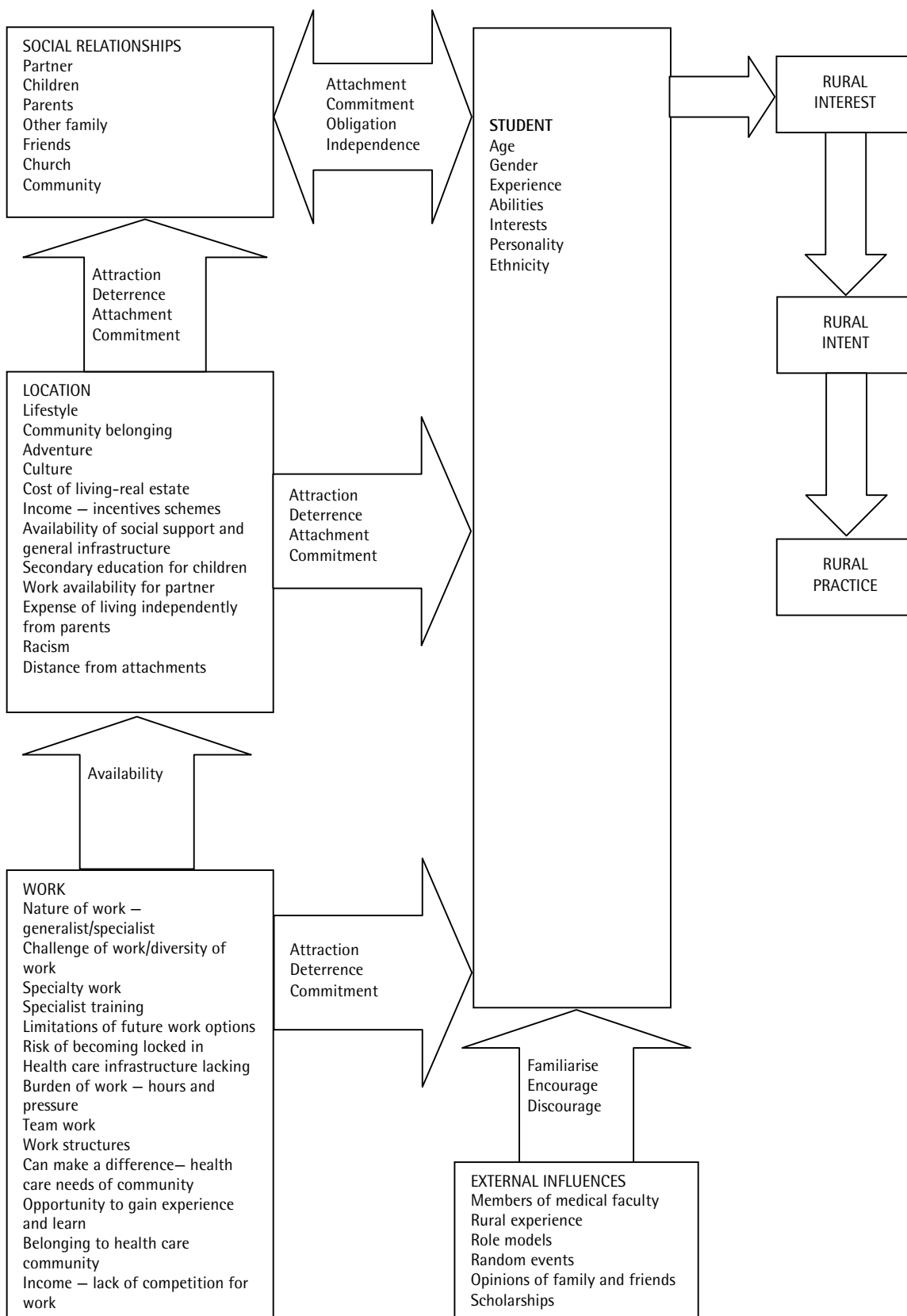


Figure 2 Relationships between student and factors that influence his/her choice of rural location



DISCUSSION

In this stage of the study the students identified a wide range of factors that could influence their future choice of rural location. Most of these factors have been identified in previous research on career choice of medical students and medical graduates, while some factors, such the influence of random events, have not previously been mentioned in the literature on career choice.

The model describing the interaction between the factors influencing the students' future rural decisions (Rural decision model) can be used when considering strategies to modify the students' choice in relation to rural careers. For example some strategies such as repeated placements in the same rural community or long-term placements in a rural community, have the potential to change the student's interaction with the community from an attraction to a community to an attachment to that community. It may be possible to modify some of the location factors to make the location more attractive to the student. For example it may be possible to modify work structures in a way that the students would be more interested in working at that location.

The student's concept of time frame is important in relation to strategies to improve recruitment of doctors to rural areas. The opportunity to spend a fixed time working in a rural area without a long-term commitment would be attractive to many students and the development of such opportunities may improve recruitment of doctors to some communities.

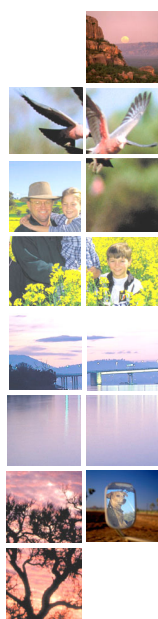
Where to from here?

A number of hypotheses have been developed on the basis of the Rural Decision Model. These hypotheses will be tested using a survey, data from which will be analysed quantitatively.

The data on the students' time frame indicates that the students decision making in relation to rural careers is a dynamic process. For this reason further research, arising from this study will include a series of quantitative surveys of the students, which will provide a series of "snapshots". In addition a series of interviews with selected students will provide longitudinal data linking the "snapshots" and describing the processes by which changes in their decision making occur.

REFERENCES

- Australian Dept of Health and Ageing 2001. Rural Health Policy – Federal Budget 2001.
- Australian Health Ministers' Conference (1994) National Rural Health Strategy. Canberra.
- Australian Institute of Health and Welfare 1998. The Health of Australians living in the rural and remote areas: preliminary results: discussion paper. AIHW Canberra.
- Australian Medical Association and Rural Doctors Association of Australia 1997, Rural Health Strategy AMA.
- Australian Medical Workforce Advisory Committee.(1996) The Medical Workforce in Rural and Remote Australia. AMWAC Report 1996. Sydney.



Commonwealth Dept of Health and Aged Care 1998. Report of the 3rd National Undergraduate Rural Health and Curriculum Conference. Canberra 1998.

Commonwealth Dept of Health and Human Services 1994 Reforming undergraduate medical education for rural practice: Final report of the Rural Undergraduate Steering Committee May 1994.

Commonwealth Dept of Health and Family Services 1998 General Practice: changing the future through partnerships. Report of the General Practice Strategy Review Group Canberra.

Easterbrook M, Godwin M, Wilson R et al. Rural background and clinical rural rotations during medical training: effect on practice location. Canadian Medical Association Journal 160 (8) :1159-1163.

Kamien M (1987) Role of ministerial enquiry into the recruitment and retention of country doctors in Western Australia. Perth: University of Western Australia.

Kassebaum D and Szenas P Rural sources of medical students and graduates choice of rural practice. Academic Medicine 1993 Vol 68 (3) :232-236.

Leonardson G, Lapierre R and Hollingsworth D. Factors predictive of physician location. Academic Medicine Jan 1985.

Mc Ewin K Wanted: New rural workforce strategies for female doctors. Findings of a survey of women in rural medicine. Discussion paper NSW Rural Doctors Network February 2001.

Rabinowitz H, Diamond J et al Critical factors in designing programs to increase the supply and retention of primary care physicians. JAMA 2001; 286:1041-1048.

Rolfe et al. Finding solutions to the rural doctor shortage: the role of selection vs undergraduate medical education at Newcastle. Aust NZ J Med 1995; 25: 512-517.

Rosenblatt et al Which medical schools produce rural physicians? JAMA Sept 1992 Vol 268(12) 1559-1566.

Strasser R (1992) Rural General Practice in Victoria, The Report from a study of attitudes of Victorian general practitioners to country practice and training. Melbourne. Department of Community Medicine. Monash University.

Tolhurst H and Lippert N (2002) Report on National Female Rural General Practitioner Study. Newcastle: University of Newcastle.

Wilkinson D, Beilby J, Thompson D et al. Associations between rural background and where South Australian general practitioners work. MJA 2000 Aug 7; 173 (3) 137-40.

PRESENTER

Helen Tolhurst has recently been awarded the first Rural National Health and Medical Research Council Postdoctoral Research Fellowship in Australia and works as a Research Fellow at the University of Newcastle as well as in part-time general practice at Maitland. In this position she is undertaking a longitudinal study of the influences on the career choices of medical students. She has conducted several rural health research projects, including research on emergency services provided by GPs in rural areas, violence against rural GPs and women in rural practice. The paper to be presented at the NRHC discusses research undertaken in the first phase of NHMRC postdoctoral fellowship research.

