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Informing rural and remote high school students about careers in health: the effect of Health Careers Workshops on course selection.

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Abstract

Objective: Since 1994, as part of the Health Careers in the Bush program, Queensland Health has run residential workshops to provide secondary school students from rural and remote areas with information about health careers. This study reports on the influence of the program on tertiary course selection.

Design: Self administered mail survey and telephone interviews.

Setting: Secondary schools.

Subjects: Past students who had in Year 10 attended residential career workshops run by Queensland Health.

Main outcome measures: Tertiary courses; self-reported influence of the workshop programme on raising awareness and course selection.

Results: Over 90% of participants reported that the workshops had a major impact on their course and career selection. The workshops provided exposure to a wide variety of health-related disciplines enabling students to be better informed about their course and career plans within the industry. Half of the students changed their course as a result of attending a workshop and 83% enrolled in a health-related course. The 17% who did not enrol in a health-related course also recognised the value of the workshop program.

Conclusion: The workshop program raised awareness of health professions and offered valuable information to rural students about a wide range of health careers. Results suggest that provision of such information in a residential workshop format contributed significantly to tertiary course selection of rural and remote students. The benefit to the health industry from these workshops has been substantial in relation to the small amount of funds invested.

Key words. Secondary schools, tertiary education, health occupations, career guidance, Queensland.

What this paper adds

What is already known on the subject?

- Secondary school students in rural and remote areas are poorly informed about career opportunities in health.
- Strategies to promote the health professions to rural and remote students are required.

What does this study add?

- The study demonstrates that the residential program offered to rural and remote high school students in Queensland provides valuable insight into health careers, course requirements and university life. This information was found by the students to assist them greatly in tertiary course and career decisions.

Introduction

A major problem associated with providing health services to rural and remote communities is the difficulty in attracting personnel to those areas. People who have previously lived in rural and remote areas are more likely to return to work in these communities (see for example [1]), however there are often low numbers of rural or remote area students admitted into health-based university courses [2].

There have been a number of initiatives introduced across Australia in an attempt to address shortages. Examples include sponsored education and training programs, student sub-quotas and entry schemes [3] and incentive packages for new employees [4]. Some improvement to medical enrolments by students from rural areas have occurred [4], however by enlarge, despite these initiatives, students from rural and remote areas remain disadvantaged [5].

Disadvantages cited include financial resources and lack of information about the courses at universities and employment opportunities upon graduation [5]. These factors contribute to participation of rural and remote students in tertiary education at 40% of the rate at which they should relative to population share [5].

Informing Year 10 students about future options and about the support programs and services has been recommended to be a valuable strategy to increase participation [6]. Since 1994 Health Career Workshops have been run in Queensland for secondary school students from rural and remote areas. Three workshops per year, each for up to 25 students, are organised by the Queensland Health Rural Health Training Units in Toowoomba, Townsville and Rockhampton.

In Queensland the week-long residential workshops emphasise the array of health professional programs available in Queensland. They also provide information on tertiary entrance requirements, college and university life and personal and professional career development. Health professionals give talks about their chosen professions and students visit hospitals and clinics to gain first-hand experience.

Students who attend the workshops all come from areas classified as 4 to 7 (small rural towns to remote areas) in the Australian Government's Rural, Remote and Metropolitan Area classification (RRMA). Applications for participation are made by students through their schools. Selection is based on a combination of factors including a stated interest in health, an essay and nomination by their teachers. All costs of attendance are met by the workshop program.

The program's main objective is to provide students from rural and remote areas in Queensland with a further understanding of the health career pathways available to them. In so doing they are encouraged to enrol in tertiary level programs that lead to a career in health. Ideally the information provided will also encourage subsequent employment in rural and remote areas.

In 2004, the Centre for Rural and Remote Area Health was commissioned by Queensland Health to evaluate the outcomes of the Health Careers Workshops. This paper reports on the value of the workshops in course and career choices.

Materials and Methods

In December 2002, 277 past participants to Year 10 Health Careers Workshops held from 1995 to 1999 period were sent a postal questionnaire. Fifteen of the 68 questions on the questionnaire related to course and career choices and the effect that the workshops had on those choices. In January 2005, an identical postal questionnaire was sent to 208 participants of the 2000 to 2002 workshops.

In 2004, the 94 respondents to the 2002 questionnaire were invited to take part in a telephone interview to collect additional data related to the course and career choices.

The telephone survey questionnaire was designed by the research team in response to the requirements of the evaluation. Questions were developed and modified for clarity after consultation with colleagues and members of the Queensland Health Rural Health Training Units. The questionnaire sought information about the course and career decisions of the participants and their opinions on the effect their attendance at a Health Careers Workshop had on those decisions. All telephone interviews were conducted by the same person in November and December 2004.

The study received approval from the University of Southern Queensland Ethics Committee and a Plain Language Statement/Consent Form detailing the confidentiality of the study and withdrawal procedure was provided to all participants.

Results

Responses

There were 148 responses to the 485 mailed surveys (Table 1). For telephone interviews contact was re-established with 81 of the 94 respondents to the 2002 questionnaire and 70 were interviewed. Eleven were not interviewed because of refusal (1) or unavailability owing to leave or work schedule (10).

Health courses chosen at tertiary education

Six of the 148 respondents did not pursue tertiary education. However 118 of the 142 that did (83%) had applied for health-related courses as their first choice. The 21 disciplines undertaken are listed in Table 2. Nursing was the most popular course taken by 30 students followed by medicine (15), science (9) and occupational therapy (9). Most students who took science did so as a prerequisite to a postgraduate medical course.

Effect of Health Careers Workshops on course choice

The workshops were considered by 63 of the 70 people interviewed to have played an important role in their course and career decision making process.

I had no idea what I wanted to do before the workshops.

The workshop took an abstract idea and gave it life and a real identity.

The workshop provided advice on how to achieve the outcome that I wanted.

The influence of attending the workshop, although positive, was not always in the direction of a choice in health. For example:

I realised that health was not a career pathway for me.

It made me realise that my interest lay in animal and not human health.

Even though I have not chosen a health career, the workshop made me aware of a career in general and discussed many options about tertiary education, which have helped me immensely in the career I've chosen.

Only seven respondents reported that the workshops had not been useful to their tertiary education course choice. All seven did however go to study health-related professions.

I had already made my mind up and the workshop did not affect my decision.

Changes in course choice

Changes in course choice as a result of the workshops were determined through the telephone interviews. Thirty-four participants (49%) stated that they made a change to their course choice as a result of the workshop. Examples of the types of change are given in Table 3.

When asked what caused the change some indicated that it was learning about the existence of other professions.

The Health Careers Workshop opened my eyes to other opportunities in the industry.

Coming from a rural area the only health professional I had met was a doctor. I had never even been to a physiotherapist and I had no idea what an occupational therapist did. The workshop enabled me to see the options and to also appreciate what was involved in each profession.

During the workshop I met a podiatrist and became really interested.

Learning more about employment practice and career opportunities were other stated reasons for change.

I initially wanted to be a pathologist but the workshop made me appreciate the routine of pathology and the fact that there is very little people contact.

I realised what was involved with being a surgeon and realised that I wasn't prepared.

I didn't know anything about occupational therapy before the workshop; it interested me.

The Health Careers Workshop convinced me that I didn't want to be a dietician.

I realised that I wouldn't be able to be self employed if I did radiography so I concentrated on podiatry instead.

Others changed as they learned more about life at university or opportunities that were available.

I did not realise until I attended the workshop that there were scholarships available for studying medicine.

The course wasn't offered at the nearest university and I wanted to stay close to home.

Studying in Brisbane was going to be too expensive.

The career with the most change pre and post workshop was medicine. Twenty of the 70 interviewees said that before the workshop they wanted to do medicine. This was reduced to 13 post workshop. The seven people who dropped their pre workshop choice of medicine to another discipline changed to nursing (5), veterinary science (1) and psychology (1).

As a result of the information that was provided at the workshops two major reasons were given for the change in discipline. The first was the time involved.

I realised that studying medicine would just be too long.

The second reason was the realisation that entry requirements for medicine were unlikely to be achieved.

I expected too low an OP to be a doctor.

Discussion

In order to increase the number of health professionals working in rural and remote areas there must be a progression of events; i) generating an interest in the health profession, ii) enrolment and education in a health program, iii) employment in health, and finally iv) employment in a rural or remote area.

One of the strategies employed by the Queensland Health to support this outcome is the Health Careers Workshop program which has an objective that specifically addresses the second step i.e. enrolment and education in a health program. A similar motivated program was operated in New South Wales from 1997 – 2002 [7] and the University of Tasmania has had residential Health Careers Camps running since 2000 [8]. Outcome of these programs are limited to news releases from the universities.

This therefore would appear to be the first detailed report of a residential program aimed at informing high school students from rural and remote origins about courses, careers and life at university. Evaluation of the courses taken, combined with the participants' own views, has determined that the program has achieved considerable success in meeting its objective.

As with all studies of this type a limitation is the response rate to the questionnaires. Whilst the 30% return rate to the mailed questionnaires is quite acceptable for a single mail out, the question remains as to how representative are the respondents of the cohort. Demographically respondents were representative of all participants in terms of age, gender, interest in health prior to attending the workshop, academic ability, places of residence and schooling. Furthermore there is no evidence to suggest that non respondents differ from respondents in their chosen academic course and career paths. Nevertheless results must be viewed with this limitation in mind.

It is documented that rural and remote students are disadvantaged in terms of the course and career information made available to them [5]. This was confirmed by the participants to this study who by their own admission were uninformed about the vast array of disciplines on offer. They stated they were attending the workshops in order to obtain more information either about a specific health profession or to find out the variety and alternatives in the professions.

The choice of tertiary course was of great interest as a measure of success of the Health Careers Workshops. The wide variety of courses chosen and the comments offered by the students demonstrate the success of the workshops in providing the information that allowed informed choices to be made. Similarly Fraser noted that health career expos were instrumental in changing the interest of Year 9 to Year 11 students in New South Wales from nursing career to allied health [9].

Rural students are restricted in the variety of professional role models and in health career information [8]. However following the workshops half of all participants modified their career choice. The largest change was from medicine to another health discipline. The data revealed that information about the variety of professions acquired during the workshop enabled participants to make decisions. This is exemplified in the

interest in occupational therapy in latter years which followed introduction of the subject into the workshop program.

Participants to the workshops had to express an interest in a health career to be selected. However one in seven students ultimately chose a non health-related tertiary course. The evidence from pre and post workshop choice suggests that this figure would have been higher if not for the workshops informing of alternatives.

It was previously reported that rural parents saw cost, competition for places and distance between university and family as being barrier to people pursuing a health course [10]. These and other pragmatic issues are of concern to parents and students alike [6]. The workshops not only provided information about professions but also general information about tertiary education; for example application procedures, finances and life at university. Recognition was given by those interviewed as to the value of this information.

Conclusions

It can be concluded that workshops provided in year 10 address some of the disadvantages that reduce participation in tertiary education by rural and remote students. Provision of valuable information about course variety, length of courses, entry requirements and career opportunities improve participants' understanding about careers in the health industry. This in turn encouraged their enrolment in tertiary health courses.

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Table 1. Responses to surveys

	Survey date	
	2002	2005
Questionnaire distributed	277	208
Questionnaire returned	94	54
Percentage response	34	26

Table 2. Subject area of enrolment in tertiary education courses

Subject area for tertiary education	2002	2005	Subject area for tertiary education	2002	2005
Health related subjects			Non health subjects		
Applied Science	5	4	Arts	3	
Biomedical Science	3		Business	3	1
Environmental Science	1	1	Education		2
Health Informatics	1		Engineering	4	1
Health Science	2		Commerce	1	
Medical Science	1		Creative Industries	1	1
Medical Imaging	1		Hospitality	1	
Medicine	4	11	Justice Studies	1	
Naturopathy	1	1	Law		1
Nursing	25	5	Music	1	
Nutrition	1		Town Planning	1	
Pharmacy	6	2			
Physiotherapy	5	4			
Podiatry	2				
Psychological Sciences	3	2			
Occupational Therapy	1	8			
Science	6	3			
Social Work	3				
Speech Pathology	3	1			
Sport & Exercise Science	1	1			
Vet Science	2				
total	77	43	total	16	6

Table 3. Pre and post workshop career plans and actual university course taken

Type of change	Pre workshop	Post workshop	University course
From uncertainty to a more definite decision	Didn't know what I wanted	Not health	Law
	Not sure which health area	Physiotherapy	Physiotherapy
	Sciences in general	Medicine	Pharmacy
	No idea at all	Health profession	Medical Science
From one profession to another	Teaching	Pharmacy	Pharmacy
	Occupational therapy	Speech pathology	Speech pathology
	Pharmacology	Physiotherapy	Physiotherapy
	Dietician	Nursing	Nursing
Addition or removal of a profession	Nursing	Nursing/podiatry	Podiatry
	Social work	Social work/nursing	Nursing
	Psychology/medicine	Psychology	Psychology
	Podiatry/radiography	Podiatry	Podiatry