

# Influences on final year medical students' attitudes to general practice as a career

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## ABSTRACT

**INTRODUCTION:** General practice is under-represented in student career choices. This study aimed to identify and explore factors that influence the attitudes of final year medical students to general practice as a career.

**METHODS:** This qualitative study used semi-structured interviews of focus groups of final year undergraduate medical students at the University of Otago, Christchurch, New Zealand. Thematic analysis and grounded theory were used to interpret the data.

**FINDINGS:** General practitioners (GPs) play a key role in influencing medical students' attitudes to general practice as a career. Students identified their general practice placement during medical school training and personal contact with their own GP as principal factors. The media portrayal of general practice and the attitudes of friends and family were also influential. Students were positively influenced when they were made to feel part of the team, involved with consultations, allowed to carry out practical procedures under supervision, and witnessed what they perceived as good medical practice during clinical placements. Positive experiences often occurred later in training, when students felt more confident of their clinical abilities. While students reported occasional negative comments about general practice by some hospital doctors, these had a lesser role in influencing their perceptions of general practice compared with their own experiences, both as students and patients.

**CONCLUSION:** GPs have a strong influence, positively and negatively, on the attitudes of medical students to general practice as a career. Effective influences include being made to feel welcome, involved, valued, and given legitimate roles during clinical placements.

**KEYWORDS:** Career choice; general practice; general practitioners; medical education; students, medical

## Introduction

General practice is under-represented in the career choices of medical students,<sup>1-3</sup> contributing to a shortfall in the number of medical graduates choosing to pursue general practice.<sup>4</sup> While 52% of University of Otago medical graduates from 1983 entered general practice, this dropped to 18% of those who graduated in 2003.<sup>5</sup> This is a problem in New Zealand, particularly in rural general practice.<sup>6</sup> To ensure that the future health workforce is able to meet demand, it is important that general practice is promoted as an attractive career choice. During early undergraduate years, general

practice as a career is rated poorly by students; however, it appears to become a more popular career choice throughout medical training.<sup>7,8</sup>

Identifying students' attitudes to general practice helps to explain what influences their career choices. A recent review indicates that general practice is perceived by students as less interesting, less challenging, and less prestigious than subspecialty hospital careers.<sup>9</sup> This review and other studies<sup>10</sup> have shown that students encounter derogatory comments about general practice from hospital specialists and a negative portrayal of general practice in the media.<sup>11-14</sup> These factors

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may contribute to the unpopularity of general practice as a career amongst medical students.

Students at the University of Otago, Christchurch, have two general practice placements during their training—one eight-week module in their fourth year and a four-week rural placement in their final year. The fourth year module consists of group tutorials and two afternoons a week in general practice. The final year placement is a four-week module: two days are based at the university and the remaining time is spent with a general practitioner (GP) in a rural practice.

It is known that the learning environment and role models are influential for career choices.<sup>15,16</sup> This means that context is important and that the findings from one area may not be generalisable to another. The aim of this study was to identify final year medical students' attitudes to general practice as a career in New Zealand, specifically identifying key factors influencing these attitudes. This information could be used to implement changes to help improve the standing of general practice compared with other medical specialties and to attract high calibre trainees to general practice.

## Methods

A qualitative study using exploratory focus groups was selected as the most suitable design to answer the research question: what are the key factors influencing final year medical students' attitudes to general practice as a career? This was a University of Otago-based study involving final year medical students. Ethical approval for the study was obtained from the University of Otago Human Ethics Committee (Ref. 13/066) and all participants were given an information sheet and completed a signed consent form and a short questionnaire.

All 84 final year medical students at the University of Otago were invited to participate. A semi-structured interview question design was used to explore the students' attitudes to general practice (Table 1). Both focus groups were conducted in English by the same author and audiotaped and transcribed verbatim. Each group lasted between 55 and 65 minutes. The transcripts were reviewed by all authors.

Thematic analysis and grounded theory were utilised to analyse the data.<sup>17,18</sup> Two authors (the first and third authors) independently reviewed and coded the transcripts to identify key themes and subthemes. This involved highlighting and coding recurring topics and patterns in the data. The first author, a GP trainee, and the third author, a consultant geriatrician, were chosen to analyse the data to provide a balanced view from both a hospital doctor and GP's perspective. The two authors met to compare their ideas and to formulate a set of themes.

## Findings

Two focus groups were conducted during 2013, with a total of 11 students. Four students responded to the initial invitation and further participants were recruited by snowball sampling and further email invitations. In all, 11 students responded, all of whom were included in one of the two focus groups conducted in May 2013 at the University of Otago, Christchurch.

Participants were aged 23 years to 27 years, nine were female and two male, eight were New Zealand European, two were Chinese and one was Korean. The sample had a higher proportion of female students than the total year group; however, the sample was representative in terms of age and ethnicity. Four students ranked general practice amongst their current top three career choices, two ranked general practice as their first

Table 1. Interviewer questions

*Tell me your views of general practice as a career and what your peers say about general practice.*

- What are the positive aspects of a career in general practice?
- What are the negative aspects?
- Tell me your thoughts about rural practice.

*Where do you think these views and opinions have come from?*

- Who influences your views? Friends, peers, family, role models, senior medical practitioners, media, public image?
- What is said, suggested or implied about general practice in everyday life?
- What situations or experiences influence your views?

*What experience would change your opinion of general practice?*

choice. Two students were undecided and the remaining five were considering other specialties. All students had started their training in February 2008 or 2009, and two had completed and one was completing an intercalated Bachelor of Medical Science additional year as part of their training. Four students had completed summer scholarship research projects and one student had completed a previous Bachelor of Science degree majoring in biochemistry. None of the students reported having a previous occupation or profession prior to starting their medical training.

The data were subdivided into three groups: influences, career perceptions, and what can be done to improve attitudes of medical students to general practice as a career?

### Influences

Analysis of the data revealed five key themes influencing students' attitudes to general practice as a career: contact with general practitioners, medical school effect, role models, comments from others, and the effect of the training scheme.

#### *Contact with general practitioners*

The most significant factor influencing students was contact with GPs, both as students during placements and teaching sessions, and as patients. This was the most important factor for all participants and, they believed, for their peers.

I definitely think that GPs we spend time with influence us massively. (#11)

The experiences of students placed at different practices were reported to be highly variable, as was the quality of the teaching they received. The common themes that were reported from students who had a positive experience were: being included, made to feel welcome and part of the team.

In [general practice placement] you'll either feel really special and part of the practice and really involved or you'll feel really weird and they don't really know what to do with you. (#7)

Students' exposure to general practice later in their training was valued more highly than earlier

placements. Those students who had completed their rural general practice placements were much more positive about their experiences. They reported that being involved with patient care and having their own patient list was a positive and rewarding experience. Students reported having many opportunities for practical experience during rural general practice placements, which they valued and enjoyed. In addition, they were often given the opportunity to spend time with other health professionals, such as physiotherapists and practice nurses. This made them feel included and part of the multidisciplinary team.

Observing GPs perceived as practising good medicine and with an excellent bedside manner was a strongly positive influencing factor. Some students felt that when observing during their general practice placement, they were learning new consultation techniques and would try to emulate this in their own practice. However, most reported that observing became boring and some reported feeling awkward whilst sitting in during consultations. Patient interaction was valued highly by students. For example, performing simple tasks, such as blood pressure monitoring, made the student feel involved and useful.

In contrast, some students had negative experiences. Two students reported observing what they considered poor medical practice. They felt that decisions made in general practice are less well regulated. This may have been partly because they identified that GPs' decisions are less scrutinised by colleagues compared with decisions made by hospital doctors. This finding was linked to a sense of isolated decision making in general practice. Exposure to perceived poor practice and negative personal experiences with GPs was a significant negative influence.

I suppose that influences me as well, in that I don't want to be like these people... how they practice medicine or how they are with their patients. (#9; talking about the effect of experience as a patient)

Some students had only observed during their sessions in general practice in their fourth-year module, and two students reported a lack of teaching from their host GP. In addition, some felt that the quality of teaching in general

practice was much more variable than in hospital medicine. The students reflected that this may be because hospital doctors have more contact with trainees and are more practised in teaching. They believed that GPs should engage in teaching regularly, as education and teaching is and remains a key role for all doctors, whether they are working in general practice or hospitals.

More GPs need to realise that just because they go into general practice and don't stay in a teaching hospital, that their job of teaching isn't finished. Like everyone, when you sign up to medicine you have to accept that it's going to be a lifelong learning and teaching experience... I think more GPs need to be open to have us... If we don't get enough exposure, we're not going to want to do it [general practice]. (#1)

Students' personal experience with their own GP was a strongly positive factor. Many of the students reported that they considered their own GP an excellent doctor who they looked up to.

So my own personal GP would probably be the biggest positive influence on me and my views of general practice because he's so cool. I'd really like to be like him. (#1)

#### *Medical school effect*

Students reported that the popularity of general practice as a career had increased throughout their medical training amongst their peers. They reflected that this was due to increasing exposure to general practice and more positive experiences later in their training. Most felt that general practice was under-represented in the medical school curriculum. However, one student disagreed, saying that there was too much general practice during their training.

Matching the experiences to the students' stages of learning was seen as influential: students repeatedly stated that their experiences later in their training were more positive. This was commonly associated with being given greater responsibility and getting the opportunity to be involved with patient care. However, one student stated that being given their own patients to manage, under supervision, was very stressful

### WHAT GAP THIS FILLS

**What we already know:** General practice as a career choice is under-represented amongst medical students. To meet future service provision demands, it is important that general practice remains an attractive career choice.

**What this study adds:** This study identifies that contact with general practice, through student placements and as a patient, is the most significant factor influencing attitudes of final year medical students to general practice as a career in New Zealand. Effective positive influences include being made to feel welcome, involved, valued, and given legitimate roles during clinical placements in general practice.

and they worried about them constantly. Other students appeared to relish the extra responsibility and opportunity to manage patients.

Likewise, an important factor was the fit between student learning needs and GP's teaching. To benefit their learning, students recognised that the teaching by their host GP needed to match their stage of development and learning needs. Some students felt the host GP did not match the provision of learning opportunities to the students' needs. Students wanted to feel confident before being left to manage patients alone and GPs who were able to gauge the students' level of competency and give them appropriate responsibility were popular as supervisors.

I felt very isolated and I was worrying about the patients... For me it was very stressful. (#10; talking about their final year general practice placement)

I guess just being a TI [trainee intern] as well you get to do a bit more and in [rural town], I just basically had my own clinic and saw all the patients and got to do quite a few interesting procedures which made me think it might be a better option after all. (#5)

A strongly negative influence was being made to feel unwelcome as a student at a general practice placement. Students expressed the view that a negative placement experience was worse than having no general practice placement in terms of influencing their career choice.

Also, as a student going to a GP that doesn't want you to be there, that doesn't teach you anything... it's a pretty bad experience." (#5)

### *Role models*

Most students could identify a hospital doctor who was a role model but not all had a good GP role model. Junior doctors wanting to pursue general practice as a career and GP trainees working in the hospital had a positive influence, especially if the students perceived them as being good doctors.

There are the house surgeons that want to be GPs... they make you realise that it's not just lazy ones that want to do general practice. They are actually a lot of talented, smart, good doctors. (#6)

Positive and negative comments made about general practice appeared more influential if they came from a hospital role model.

### *Comments from others*

The students identified comments about general practice from hospital staff, friends, family, and the media. Students reported both positive and negative comments from hospital staff. These were less influential than comments from friends, family and the media, unless the comments had been made by a hospital doctor who was also a significant role model.

Perceptions of general practice in the media and amongst students' friends and family were a key theme, and were generally more negative than positive. There was a strong feeling that the public view general practice as less prestigious compared with hospital specialists. The students speculated that this is because the public see GPs about routine ailments and if patients' conditions are more complicated or serious then they are referred for an expert opinion. In addition, the students identified that some people are unaware of the current additional training GPs undertake after completing their medical degree. The students perceived that the public feel strongly that going into general practice was an inferior career option compared with pursuing a hospital specialty.

I just want to tell you about my non-medical friends... I think they think that anyone who is in medical school is really, really smart and so that they think I should be a brain surgeon or something like that, and they're like, 'Why would you waste yourself on general practice when you could operate on brains?' (#5)

The media was seen to portray general practice in a less positive light compared to hospital specialists. One group identified that general practice is poorly represented in mainstream primetime television programmes compared with other specialties, such as surgery and emergency medicine.

I think media is a definite influence. Like when have you ever seen a TV show about GPs? It doesn't make good television does it, so you've got your House [TV show] and Grey's Anatomy [TV show]. (#9)

Students reported that their families' personal experience of general practice was often good and that some would like their children to enter the profession.

My mum is really positive about general practice. She would love me to be a GP. (#7)

### *Training scheme*

Although the shorter, more flexible training scheme in general practice was seen as attractive by some of the students, these factors also devalued it. Students thought that the broad knowledge base required to be a good GP was not reflected in the shorter training.

The training you touched on is a bit of a detractor for me. I think that it's so short that it means that my view is that it's easier to become a GP but then it's really hard to specialise. So it's easy to become a 'rubbish' GP and that's the view that people have. (#2)

### **Career perceptions**

The students' perceptions of what general practice is like as a career are summarised in Table 2. These perceptions were mixed and influenced students both positively and negatively.

### *What can be done to improve attitudes to general practice as a career?*

The students had suggestions about how GP supervisors could improve student experiences. The most important aspects were that they were made to feel welcome, involved and given legitimate tasks by the GP, tasks appropriate to their level of training. It was suggested that medical schools could provide a list of procedures and skills that the students should be competent in performing so that supervising GPs are informed of what is appropriate for the student's level of training. Teaching between each patient or giving students patient information literature to read was identified as a good way to involve students. A short GP teaching refresher course run by the university was suggested to help identify the important aspects of having a student.

Importantly, students felt that GPs were good at promoting the positive lifestyle factors of general practice as a career but failed to persuade students that the medicine they practise is interesting.

I think that every time we've had a GP come and speak to us, I think they've told us about how good the lifestyle is as a GP and actually I think they need to focus on how good the medicine is as a GP. (#7)

## Discussion

The key findings from this research demonstrate that GPs have a strong influence, positively and negatively, on determining attitudes of students to general practice as a career in New Zealand. Many of the factors found to be influential are under the direct influence of GPs. These findings are consistent with a similar study conducted in Canada, which identified the importance of positive exposure and concluded that high quality, early experiences, true to actual clinical practice, would be positively influential.<sup>10</sup> This is supported by our study, but our research builds on this by also suggesting that negative experiences of general practice play an equal if not more significant role in influencing attitudes of students. In addition, early exposure to general practice may be detrimental if students aren't given the appropriate responsibility during the placement.

Table 2. Medical students' perceptions of general practice as a career

Positive aspects	Negative aspects
Lifestyle, sociable hours, part-time, flexible, location of practice	Lifestyle, unsociable hours if in a rural practice, role of GP seen as less demanding
Special interests	Less academically challenging and less opportunity for research
Longitudinal, get to know patients	Urban GPs losing longitudinal care
Opportunity for procedures	Have to refer on to specialists
Respected member of the community	Isolating; making decisions without support, especially if in a small community
Variety of presentations	Financial salary smaller than hospital specialists

Our study also highlights the influential role of family, friends and the media.

This research supports the need for GPs to help address the current under-representation of students selecting general practice as a career choice—by ensuring excellent student experiences and promoting the positive aspects of general practice, whilst involving students to give them an experience which is appropriate for their level of training.

In addition, this study highlights the importance of good role models. Most students could identify a hospital doctor whom they considered to be a good role model. This was not always true for GPs. This may be because there is less contact with GPs during medical training. However, a good GP role model was significant in positively influencing students' attitudes and longer exposure with poor role models is likely to do harm. This is something that can be addressed by GPs. Medical schools could also review the timing and amount of general practice students are exposed to during training. Students felt that GPs need to be more actively involved in medical education. This may also help reverse the observed trend of decreasing numbers of graduates choosing to pursue general practice as a career.<sup>5</sup>

Comments made by other doctors about general practice played a small role in influencing medical trainees and negative comments were less frequent and significant than has been reported in previous studies.<sup>19,20</sup> This may be due to the

high level of integration between primary care and secondary care services in Canterbury.<sup>21</sup> Comments made by family, friends and the media were influential. Family and friends' comments were also strongly influenced by personal experience with their own GPs.

When promoting general practice as a career, students wanted to hear more about what is interesting, challenging and stimulating about the medicine. Although less 'on-call' work and more flexible working conditions are an attractive part of working in general practice, focusing too heavily on the lifestyle aspects was seen as detracting from the medicine practised by GPs. Students were interested to know why GPs chose a career in general practice and they wanted to hear GPs talking about what they enjoy in their work.

Career perceptions were linked with experience in general practice, both as a student and as a patient. Students' perceptions of rural general practice were much more positive compared to their urban general practice experience. This may be explained by the timing of placements.

The students felt that the quality of the teaching at different practices was highly variable. Students highlighted the importance of being involved in patient care and being given tasks appropriate to their level of learning. There appeared to be greater discrepancy between placements in terms of level of student participation in fourth year compared with the final year. There was also more continuity in the final year placements for the students who are placed at one practice for the whole four weeks, rather than multiple practices, as in the fourth-year module.

Students often described their rural GPs as excellent role models. Common themes that they reported and admired about these doctors included good rapport with patients and other staff, practising good medicine, and involving the students in patient management. Involving students in practical procedures was very important; even simple tasks, such as measuring blood pressure, made a large difference to the student's experience. Involvement in practical procedures was more common in rural placements, as students were given more responsibility. Such tasks

involve the student and legitimise their presence in the consultation. It has been suggested that learning is facilitated when students feel 'legitimate participants'<sup>22</sup> in a nurturing environment. This is helped by giving them roles to make them feel that they are allowed to be in, and welcomed within, the consultation.<sup>22,23</sup>

This study has identified that student contact with GPs has a very strong influence on their attitudes to general practice as a career. However, a sizable proportion of the total general practice workforce in New Zealand is already involved in some form of teaching and practices report that there is limited capacity for teaching.<sup>24</sup> This may restrict the amount of exposure to general practice medical schools are able to offer students.

### Limitations

This was a small study of 11 medical students studying at the University of Otago. Although all 84 final year students were invited to take part, no selection process was undertaken of the 11 students who participated in the focus groups; therefore, this may not be a representative sample.

It is uncertain if data saturation was achieved. However, the key themes reported were common to both focus groups. This is the first qualitative study using focus groups of New Zealand medical students to explore the factors influencing their attitudes to general practice as a career. It identifies some significant factors that influence students.

In summary, our findings suggest that GPs have a very strong influence, positively and negatively, on the attitudes of medical students to general practice as a career choice. Advice for GPs involved in medical student education is that positive influences include being made to feel welcome, involved, valued, and being given legitimate roles. This study provides a basis for further research exploring the importance of the role of GPs in medical student training.

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## COMPETING INTERESTS

None declared.