

Factors that influence Australian medical graduates to become General Practitioners

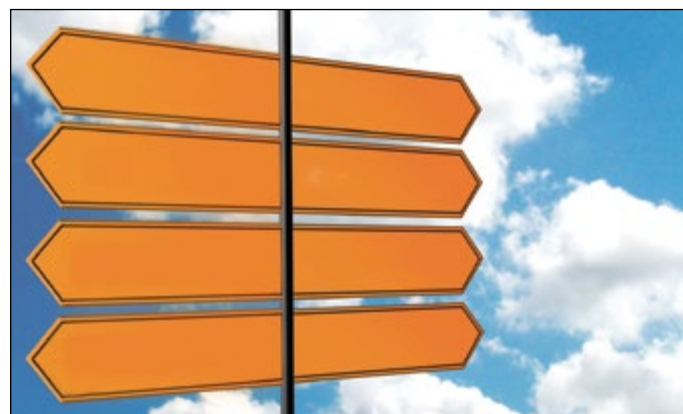
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Karan is a third year medical student at James Cook University. He has been the recipient of the GPSN First Wave Scholarship which gave him the opportunity to explore his research interests. He hopes to become a rural generalist when he graduates and has an immense passion for research.

Aim: To determine the factors that influence Australian medical graduates to become general practitioners. **Method:** A literature review was conducted. Medline, PubMed and Cochrane Library were searched using the terms; "Australia", "medical", "graduates", "interns", "students", "choice", "specialty", "general", "practice", "factors" and "influencing". **Results:** The factors were grouped into intrinsic (age, gender, personality and skill set,) and extrinsic influences (lifestyle, income, stress, location and role models), with extrinsic influences regarded as the most influential. Most importantly, 72% of the Australian medical graduates viewed work culture as important, while 56% prioritised flexibility of working arrangements and hours of work. **Conclusion:** There are a variety of both intrinsic and extrinsic factors influencing medical graduates to choose General Practice over others. This can be seen as an opportunity for Australian workforce planners and policy makers to target the extrinsic factors with the aim of balancing the medical workforce to combat the shortage of rural general practitioners.



widely and include both qualitative and quantitative studies.

Introduction

In the field of medicine, a specialty is simply a specific study of medical science. [1] Dermatology, Obstetrics and Gynaecology, Cardiology, Neurosurgery and General Practice are just a few of the vast array of medical specialties that medical graduates must decide between before embarking on a long, strenuous but nevertheless, highly rewarding journey. Students endure four to six years of medical school, only to begin a new journey as junior doctors. Internship is followed by residency, and the pathway after this depends upon the choice of specialty. [2] Medical students and junior doctors are faced with the tough challenge of selecting a specialty. This review seeks to precisely identify the factors influencing medical graduates to undertake General Practice.

This narrative review aims to explore the intricate complexities that invade the mind of medical graduates faced with the dilemma of choosing a specialty; in particular, what influences them to choose General Practice. The aims of this literature review are to highlight the spectrum of factors that play a role in medical students and interns choosing to undertake General Practice, and present medical colleges, recruitment agencies, workforce planners and national organisations with a platform upon which they can correct the imbalances in the medical workforce.

Methodology

This literature review covered recent literature that has focused on the factors influencing choice of medical specialisation (in particular General Practice) in Australia. Medical and social science databases were searched for publications from 1990-2013. Medline, PubMed and Cochrane Library were searched using these terms; "Australia", "medical", "graduates", "interns", "students", "choice", "specialty", "general", "practice", "factors" and "influencing". 7670 papers were identified through the database searches. These were then reviewed to only include studies conducted in Australia and concerning Australian medical graduates, which narrowed it down to 25 papers. 9 of these papers were excluded because they were not completely relevant to the topic. In addition, the bibliographies of articles were searched for further relevant publications. Studies referred to in this review vary

Results

The primary influential factors involved in the selection of a particular specialisation can be separated into intrinsic and extrinsic factors.

Intrinsic Factors

Intrinsic factors include age, personality and gender. Individuals have little or no control over such factors. [8]

Age is an intrinsic factor that plays a role in the selection of a particular specialty. The majority of medical students in Australian universities are under the age of 24. [9] Despite this, there has been an increase in the number of 'mature age' students over the past two decades. One Australian study, that compared the career choices of medical graduates, found that older students were more likely to specialise in a primary care field such as General Practice. [3]

An individuals' personal set of skills and the satisfaction they receive from using these skills are intrinsic factors which play a large role in influencing medical graduates to undertake General Practice. In 2005, Harris et al examined the factors influencing the choice of specialty of 4259 Australian medical graduates. [3] The study showed that 79% of graduates considered their own skills and aptitude to be of importance when selecting General Practice. Personal satisfaction was also linked to choosing General Practice as a specialty. Laurence and Elliot supported this in their 2007 study which concluded that personal satisfaction arises from procedural skills, activities involved and patient contact. [4] All of the 54 Pre-Registration Junior Medical Officers (PMJOs) interviewed in South Australia, agreed with this however, this was only a small sample size.

Gender has been shown by studies to be a vital influencing factor for Australian medical graduates when choosing General Practice as a specialty. Whilst the responsibilities of raising children have evolved over the past few decades, Prideaux *et al* found that Australian female medical graduates are more likely to become specialists in General Practice due to child bearing responsibilities and family commitments. [10] It has been noted the Australian literature that female doctors tend to work shorter hours and have a preference for working shorter hours due to family commitments. [11] Despite this, there has been a rise in male doctors choosing to work fewer hours due to family reasons. [10] This reflects the fact that both partners now commonly work.

Extrinsic Factors

Extrinsic factors include stress, work hours, family commitments, lifestyle and mentors. They are variables that may be controlled. [8]

Lifestyle plays the greatest role in influencing medical graduates to choose particular specialties over others. Laurence and Elliot found that 100% of the 54 South Australian PMJOs interviewed regarded lifestyle as a vital factor in choosing General Practice as a specialty. [4] This included hours worked, stress, career potential and potential for travel (55%). Most participants described their ideal job as having shorter working hours and less time on call. Most PMJOs also wanted a certain amount of control over hours and hence chose anaesthesia and GP practice. Wanting a life outside of medicine (85%) for example, spending more time with family and friends was also important. [4] Similarly, Harris et al also rated extrinsic factors as the most influential factors of choosing a medical specialty in Australia. [3] Seventy two percent of the Australian medical graduates viewed work culture as important, while 56% prioritised flexibility of working arrangements and hours of work. In contrast, Thomas concluded that only 28% of Australian medical graduates saw work life balance and lifestyle as important to selecting General Practice as their specialty. [7] However, this study had a small sample size and focused on only one speciality (General Practice).

Location is of importance when choosing a medical specialty. Stagg *et al* found that key influences on choosing a rural pathway specialty were mentors and undergraduate rural exposure. [6] In contrast, Ward *et al*, in a longitudinal study that followed 229 UWA medical graduates, showed that a rural background is the most important predictor of rural general practice. [5] Clearly, there factors that influence an individual to undergo a rural generalist pathway are multifactorial and more research is needed in this area.

The studies used in this literature review all stressed the importance of role models in influencing Australian medical graduates to choose particular specialties. Laurence and Elliot studied when, what and how SA pre-registration junior medical officers made their career choice. [4] Fifty four percent of the 54 graduates perceived the role of mentors, supervisors and consultants to be of importance in selecting General Practice as a specialty. Their interaction with 'mentors' was through observing and asking questions. Role models were seen to demonstrate specific characteristics admired by the students. [12]

Discussion

The results confirm that choosing General Practice as a specialty is a complex decision strongly influenced by personal qualities (intrinsic factors), individual experiences and opportunities (extrinsic factors), and domestic circumstances. Whilst parenting dynamics have changed over the last century, there is still a trend for females to choose General Practice over other specialties due to flexibility and option of part time employment, which may be helpful when choosing to start a family. [13]

The most important extrinsic factors include lifestyle, work experience since graduation, flexible hours, influence of mentors and hours of work. [3] In Australia, it was concluded that factors relating to lifestyle and job satisfaction were the most important influencing factor. [4] This is consistent with the belief that recent graduates regard lifestyle factors as more important than income. [14] The younger generation of graduates also prioritise potential for travel. These graduates are influenced by their experience of General Practice and confirm that work experience is helpful for developing knowledge within medical. [3]

The results also suggested that trainees in different specialties prioritised certain influencing factors over others. Surgical trainees viewed mentors and role models as more important than trainees in

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other specialties. Additionally, General Practice trainees were more likely to prioritise flexibility, whilst this factor was of less importance to trainees in Adult Medicine. [15] Compounding this notion is the fact that surgical and emergency trainees found it extremely important to do procedural work compared to trainees in other programs. [3]

Clearly, there is not one single factor that influences an individual to undertake a particular career path, rather a vast array of factors. A medical graduate's choice of career is dependent upon a wide range of intrinsic and extrinsic factors. [3] Whilst there is not much chance of altering intrinsic factors, the nature of extrinsic factors allows for an interventionist approach. [16]

The main goal of medical workforce agencies and groups is to ensure a balance of doctors across a vast array of specialties to provide equal, effective and holistic medical care to the community. For 80% of doctors, the decision about choice of specialty has to be made by the end of the third postgraduate year (PGY3). [3] As such, training programs, teaching facilities and recruitment agencies involved in medical workforce planning should aim to educate medical students and graduates up until PGY3 and allow them to make an informed decision. Given the importance of extrinsic factors, there should be a review of the work culture typical of specialties that are under-represented. [13] Training providers can therefore implement strategies that attempt to increase entry to less well-represented specialties. [4]

This literature review has a number of limitations. Firstly, this review was limited to articles concerning the Australian medical workforce. This review excluded international medical graduates, which may have given greater insight into the factors influencing the specialty choice of graduates. A comparison study could be done in the future, comparing the mindset of Australian medical graduates to overseas graduates. Secondly, whilst certain conclusions can be made concerning the factors which influence choice of General Practice as a specialisation, this review did not focus on the factors that influence doctors to change specialties or even the percentage of medical students that graduate without having made a decision about their future career. Research on the factors influencing General Practice specialty choice could be improved by including a larger number of schools and students, studying trends over several years, and using validated measures and outcomes.

Conclusion

The main factors which were identified as influencing medical graduates to choose General Practice included both intrinsic and extrinsic factors. Additionally, a career choice that is made when an individual is young may not represent how they will feel as they progress through life and their priorities will often change. While there remains a continuous need for valuable research in the area of factors affecting medical specialisation, it appears that we need to use this information to prevent imbalances and skews in medical workforce planning. There is a great opportunity for governments, health authorities and the medical profession to influence extrinsic determinants of choice of specialty. [13]

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Conflict of interest

None declared.

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