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What factors influenced the choice of medical specialty for doctors surveyed in the final year at medical school and again having entered their specialty training destination?

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An overall shortfall in the number of medical graduates for current service demand and the desire for more flexibility, coupled with more rigid post-graduate medical training pathways, have emphasised the need to improve careers guidance at undergraduate and postgraduate level. Decision making in medical careers has become of growing interest particularly with current and anticipated future shortages of doctors in some areas of medical practice.

The need to understand why and how junior doctors decide on their specialty of choice has never been more relevant in establishing if these decisions can be influenced towards areas in greatest need of increased manpower. Evidence on the factors influencing medical careers continues to evolve but there remains limited information on whether these influences change for individual doctors over time.

A small cohort study at University of Dundee Medical school set out to explore prospectively how the influences on specialty choice change as medical trainees progress through their training journey. Questionnaires to examine career intentions and the factors influencing the choice of career were distributed to under-graduate final year students for two consecutive years between 2006 and 2008 (n=220). Follow up questionnaires were distributed to those who could be identified and located from the same two cohorts seven and eight years later (n=124) to establish training destination and associated career influencers at that stage in their careers.

The most significant influencing factor reported by the students, was exposure and positive experience as an undergraduate. For those trainees who were training in their original first or second choice of specialty, this experience was still felt to be the most important influencing factor in deciding their choice as a specialty trainee. However, for trainees who were pursuing different career paths than those preferred when they finished medical school, domestic circumstances followed by hours and conditions of work had become the pertinent influencers.

Nearly half (47.6%) of the doctors were pursuing a career in the same specialty they had identified as their first choice when they were in final year – emphasising that positive early exposure and experience in a specialty is a long-term influencer. These findings agree with previous work highlighting the importance of previous experience in shaping career choice¹ but a number of complex and evolving factors² such as the role of domestic circumstances have an increasing effect as careers develop and circumstances change.³

Doctors selecting general practice as a first career choice vary widely between medical schools, suggesting that medical schools that place more importance upon demonstrating a positive experience of GP amongst their students are more likely to produce trainees choosing GP as a speciality.^{4,5} However, experience of a particular teacher or department has been found to have a significantly larger effect on doctors choosing surgery as a career compared to general practice.⁶ A negative attitude expressed by teachers to certain specialties also appears to discourage certain choices with reported denigration towards psychiatry and general practice adversely affecting the desire to apply to these specialties.⁷ The quality of experience or the enthusiasm of a particular tutor at medical school may therefore increase the attractiveness of particular specialities for future doctors.

Crisis in recruitment and retention in general practice, emergency medicine, core psychiatry and paediatrics is well recognised. In order to translate medical students into doctors in these specialties, positive teaching and clinical experiences in these areas at medical school is paramount. Some initiatives, in which the curriculum has a community focus largely taught by general practitioners, aim to encourage recruitment to general practice.

Experience in specialties as a medical student has a strong and long-lasting influence on specialty destination. The undergraduate curriculum must be continually reviewed to influence career choices to produce a workforce that meets evolving healthcare needs. Similarly, recognition that domestic circumstances become an increasingly relevant influencer in specialty choice for post-graduates and flexibility in training structures have become increasingly important.

References:

1. Ko H, Lee T, Leung Y, Fleming B, Vikis E, Yoshida E (2007) Factors influencing career choices made by medical students, residents, and practising physicians. *BCMJ*, Vol. 49, No. 9, page(s) 482-489.
2. Cleland, J., Johnston, P., Mattick, K., Rees, C., Skåtun, D., Watson, V. and Krucien, N. (2013) *Understanding push-pull factors in medical careers decision making. Final report*, NHS Education for Scotland, accessed online from { [HYPERLINK "http://www.smerc.org.uk/projects/understanding-push-pull-factors-medical-careers%E2%80%99-decision-making"](http://www.smerc.org.uk/projects/understanding-push-pull-factors-medical-careers%E2%80%99-decision-making) }, 5th June 2016.
3. Smith F, Lambert T, Goldacre M, (2015) Factors influencing junior doctors' choices of future specialty: trends over time and demographics based on results from UK national surveys. *J R Soc Med.* 108 (10), 396-405.
4. Lambert T and Goldacre M, (2011), Trends in doctors' early career choices for general practice in the UK: longitudinal questionnaire surveys. *Br J Gen Pract.* 61 (588), 397-403.
5. Sharon Wiener-Ogilvie, Drummond Begg & Guy Dixon (2015), Foundation doctors career choice and factors influencing career choice. *Education for Primary Care*, 26:6, 395-403, DOI: 10.1080/14739879.2015.1101869
6. Goldacre M, Laxton L, Harrison E, Richards J, Lambert T, Parks R, (2010) Early career choices and successful career progression in surgery in the UK: prospective cohort studies. *BMC Surg.* 10:32
7. Ali Ajaz, Rhodri David, Damien Brown, Melanie Smuk, Ania Korszun. BASH: badmouthing, attitudes and stigmatisation in healthcare as experienced by medical students *EDUCATION & TRAINING. BJPsych Bulletin*, 1-6, doi: 10.1192/pb.bp.115.053140

Ethical approval

The study received the approval of the University of Dundee Research Ethics committee.

Contributorship Statement

All listed authors fulfil the criteria for authorship and have made a substantive contribution to this study as follows:

EM, CJM and GM conducted the initial project plan and maintained continuous overview of the project.

EM conducted the first undergraduate survey design and GM disseminated to both cohorts.

GM analysed and summarised the results.

GH conducted the literature review and designed the follow-up survey, secured ethical approval, identified both cohorts and distributed the survey.

JR conducted the comparative analysis of all the results and produced the initial study report.

CJM and EM wrote the study paper and conducted the subsequent editing of the letter submission with joint responsibility for overall content.

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Competing interests: none

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