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Career choices for geriatric medicine: national surveys of graduates of 1974–2009 from all UK medical schools

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Abstract

Background: numbers of elderly people are increasing worldwide. This increases the importance of the specialty of geriatric medicine. Recruitment to the specialty may not be keeping pace with need.

Objectives: to report trends in junior doctors’ career choices for geriatric medicine, factors that influence career choice, and
associations between early career choices and later specialty destinations.

Methods: questionnaire surveys of all medical qualifiers from all UK medical schools in selected year-of-qualification cohorts (1974–2009). Survey response rates 1, 3 and 5 years after graduation were, respectively, 65.9% (33,972/51,535), 65.5% (29,400/44,879) and 66.1% (22,600/34,197).

Results: geriatric medicine was the career choice of 0.9% of medical graduates (0.4% of men, 1.3% of women) 1 year after qualification; and of 1.5% (1.2% of men, 1.9% of women) after 5 years. There was a modest increase in recent cohorts. Important influences on career choice included enthusiasm for and commitment to the specialty, experience of working in geriatric medicine and self-appraisal of own skills. Early career choices were not highly predictive of later destinations. Of practising geriatricians in our surveys, 9% (20/212) had told us that they wanted to be geriatricians in their first year after graduation, as had 36% when in their third year and 74% in their fifth year.

Conclusions: a higher percentage of women than men choose geriatric medicine; in recent years its popularity has increased slightly. Early career choice is not highly predictive of an eventual career in the specialty. Flexibility is needed about when doctors can enter training in geriatric medicine.

Keywords: older people, geriatrics, medical education, health policy

Introduction

The World Health Organisation has recognised that meeting the projected increase in health care demands arising from an ageing population is a global concern [1]. Workforce planners considering the specialty of geriatric medicine in the UK agree [2, 3]. Focus is needed on the recruitment, training and supply of the medical workforce in geriatric medicine. Historically, geriatric medicine has experienced recruitment difficulties; and many UK geriatric consultants received their basic medical training overseas [4]. In 2011, it was not possible to fill half the advertised consultant posts in geriatric medicine, mainly because of a lack of applicants [3]. Perceived low prestige of geriatric medicine [5, 6] is one reason that the specialty has faced recruitment difficulties. This may reflect wider societal attitudes towards older people including a culture of ‘disregard for frail older people’ [7] as evidenced by concerns in several recent UK-based reports on health care and older people [8–10].

Most geriatricians are dually qualified in general (internal) medicine and many have specialist interests in areas such as stroke, rehabilitation and dementia, with a significant commitment to other services in addition to core geriatric provision. Commitments to acute adult general medicine, ever increasing demand, and the impact of ‘feminisation’ of the medical workforce and part-time working on the number of whole-time-equivalent doctors, all present challenges [3].

We report on trends in newly qualified doctors’ aspirations for a career in geriatric medicine, on factors influencing choices for the specialty and on the timing of geriatricians’ career choice of specialty.

Methods

All doctors graduating from all UK medical schools in selected years have been surveyed longitudinally by our research group. Cohorts who graduated in 1974, 1977, 1980, 1983, 1993, 1996, 1999, 2000, 2005, 2008 and 2009 were surveyed 1 year after graduation, and at longer intervals thereafter. The surveys are multi-purpose and include, among other topics, questions about doctors’ career intentions and progression. Our methods are described in detail elsewhere [11–13].

Doctors’ contact details were provided by the UK General Medical Council (GMC). This covers all practising doctors in the UK. Contact details are also provided by the doctors themselves when they reply. Postal mailings were sent with several reminders to non-respondents.

We asked doctors to specify up to three choices of specialty for their future career in order of preference, identifying choices of equal preference (referred to as ‘tied choices’). Where a doctor indicated a tied first choice between geriatric medicine and another clinical specialty, we counted this as a first choice for geriatric medicine. The few doctors with a non-medical first choice of career were excluded from the analysis.

Doctors were asked whether each of a list of 11 factors had influenced their career choice ‘a great deal’, ‘a little’ or ‘not at all’.

In successive surveys, we collected details of doctors’ posts, and we analysed the relationship between early choice and later career by linking responses from each individual doctor across surveys.

Main comparisons

Our main comparisons were between doctors who specified geriatric medicine as their long-term career preference and doctors who specified other ‘hospital physician’ specialties, i.e. those specialties led by a physician as distinct from, for example, a surgeon, anaesthetist or radiologist.

Statistical analysis

Responses from groups of doctors were compared using $\chi^2$ statistics. Mantel–Haenszel $\chi^2$ tests for linear associations were used to examine trends over time.
Results

Response rate
Survey response rates were 65.9% (33,972/51,535) in Year 1 after graduation, 65.5% (29,400/44,879) in Year 3 and 66.1% (22,600/34,197) in Year 5.

Career choice for geriatric medicine
We grouped cohort-of-qualification years into three time bands (1974–1983, 1993–2000 and 2002–2009). For the most recent cohorts, 2002–2009, we also show individual cohort years (Table 1).

At Year 1, 0.9% of respondents (0.4% of men, 1.3% of women) specified geriatric medicine as their first choice of career. Over the period of 35 years covered by the study, the percentage who chose geriatric medicine increased for both men and women, see Table 1 for results and statistical tests.

At Year 3, geriatric medicine was selected as their first choice by 1.3% of all respondents (0.7% of men, 1.9% of women) and, at Year 5, by 1.5% (1.2% of men, 1.9% of women). An upward trend in choices for geriatric medicine was apparent in Year 3, with more recent graduation years having higher levels of choice for the specialty; this was less apparent in Year 5. See Table 1 for further details and Supplementary data available in Age and Ageing online, Appendix SI for numbers on which percentages are based.

Factors influencing career choice
We asked doctors from the 1993 cohort and onward whether each of a list of 11 factors had influenced their career choice ‘a great deal’ (Table 2). In Year 1, doctors who selected

Table 1. Percentage of respondents who specified geriatric medicine as their first choice of eventual career at 1, 3, and 5 years after graduation

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Year 1</th>
<th>Year 3</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>All</td>
</tr>
<tr>
<td>1974–1983</td>
<td>0.3</td>
<td>0.7</td>
<td>0.4</td>
</tr>
<tr>
<td>1993–2000</td>
<td>0.4</td>
<td>1.2</td>
<td>0.8</td>
</tr>
<tr>
<td>2002–2009</td>
<td>0.7</td>
<td>1.8</td>
<td>1.4</td>
</tr>
<tr>
<td>2002</td>
<td>0.5</td>
<td>1.0</td>
<td>0.8</td>
</tr>
<tr>
<td>2005</td>
<td>0.4</td>
<td>1.8</td>
<td>1.3</td>
</tr>
<tr>
<td>2008</td>
<td>0.9</td>
<td>2.2</td>
<td>1.7</td>
</tr>
<tr>
<td>2009</td>
<td>0.9</td>
<td>2.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>0.4</td>
<td>1.3</td>
<td>0.9</td>
</tr>
<tr>
<td>χ² linear trend</td>
<td>9.2</td>
<td>26.3</td>
<td>60.4</td>
</tr>
<tr>
<td>P-value</td>
<td>0.002</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Note: Tests of trend were performed with 1 degree of freedom, comparing the combined cohorts of 1974–1983, 1993–2000 and 2002–2009. See Supplementary data available in Age and Ageing online, Appendix SI for the numbers on which the percentages shown here are based.


<table>
<thead>
<tr>
<th>Factor</th>
<th>Year 1</th>
<th>Year 3</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic circumstances</td>
<td>24.2</td>
<td>21.5</td>
<td>28.3</td>
</tr>
<tr>
<td>Hours/working conditions</td>
<td>34.0</td>
<td>35.3</td>
<td>35.3</td>
</tr>
<tr>
<td>Eventual financial prospects</td>
<td>4.3*</td>
<td>10.2</td>
<td>2.1**</td>
</tr>
<tr>
<td>Promotion/career prospects</td>
<td>16.7</td>
<td>20.4</td>
<td>18.7</td>
</tr>
<tr>
<td>Self-appraisal of own skills</td>
<td>59.5**</td>
<td>47.7</td>
<td>58.2</td>
</tr>
<tr>
<td>Advice from others</td>
<td>21.5*</td>
<td>15.6</td>
<td>20.3</td>
</tr>
<tr>
<td>Student experience of subject</td>
<td>39.3</td>
<td>40.9</td>
<td>14.8**</td>
</tr>
<tr>
<td>Particular teacher/department</td>
<td>37.4</td>
<td>30.3</td>
<td>38.9</td>
</tr>
<tr>
<td>Inclinations before medical school</td>
<td>8.6</td>
<td>8.3</td>
<td>3.7*</td>
</tr>
<tr>
<td>Experience of jobs so far</td>
<td>72.0**</td>
<td>59.0</td>
<td>84.3***</td>
</tr>
<tr>
<td>Enthusiasm/commitment: what I really want to do</td>
<td>76.3***</td>
<td>64.1</td>
<td>67.5</td>
</tr>
</tbody>
</table>

Note: In Years 1 and 3 the 2005 cohort was not asked these questions.

Chi-square comparison between geriatric medicine and other hospital physician led specialties indicates significant difference *P < 0.05, **P < 0.01 and ***P < 0.001.
geriatric medicine as their first choice rated ‘enthusiasm and commitment: what I really want to do’ (76.3% scoring as having a great deal of influence), ‘experience of jobs so far’ (72.0%) and ‘self-appraisal of own skills’ (59.5%) as the most influential factors. In Years 3 and 5, these remained the three most influential factors among those choosing geriatric medicine (Table 2).

For doctors who chose other hospital physician-led specialties, the same three factors were the most influential ones. However, the intending geriatricians scored higher than others on ‘self-appraisal of own skills’ and ‘experience of jobs so far’ in all 3 years, and higher on ‘enthusiasm and commitment: what I really want to do’ in Year 1 (Table 2).

The percentage of doctors who chose geriatric medicine and indicated that their ‘student experience of subject’ influenced their career choice fell sharply after Year 1, as it also did for choices for the other hospital physician specialties.

There were no significant differences between men and women.

The relationship between early career choices and later destination in geriatric medicine

Destination data in this analysis were 10 years after graduation for the 1974–1996 cohorts and 7 years for the 1999 and 2000 cohorts (Table 3). Of doctors who selected geriatric medicine as their first choice in Year 1, 20% (20 doctors) became geriatricians; and of those who chose it as their second or third choice 6.6% (8 doctors) did so. Of doctors who chose ‘other hospital physician’ specialties at Year 1, 2.9% (154 doctors) later worked in geriatric medicine, as did 0.3% (30 doctors) of those who selected any of the specialties grouped as ‘all other specialties’.

There was greater correspondence between Year 3 and 5 choices and the destinations of practising geriatricians. About half of those who chose geriatric medicine as a first choice of career in Year 3, and about three-quarters of those who chose it in Year 5, became geriatricians (Table 3).

We also considered the doctors in our study who had become geriatricians, and examined their early career choices (see Supplementary data available in Age and Ageing online, Appendix SII). Of the 212 doctors who were working in geriatric medicine at Year 7 or 10 and whose choices in Year 1 were known, 9.4% (20) had specified that they wanted a career in geriatric medicine as their first choice in Year 1, 3.8% (8) had made it their second or third choice, 72.6% (154) had chosen another hospital physician specialty and 14.2% (30) had chosen other specialties. Of 209 doctors working as geriatricians whose Year 3 choices were known, 36% (76) had chosen geriatric medicine as their first choice; of 187 geriatricians whose Year 5 choice was known, 74% (138) had made it their first choice.

Further detail and results for men and women separately are in Supplementary data available in Age and Ageing online, Appendix SII–SIV.

Discussion

Main findings

The percentage of doctors selecting geriatric medicine as their Year 1 first choice increased in recent years. Doctors who graduated in 2008 and in 2009, the most recent we have

| Year of career choice (after graduation) | Career choice | Number (N) making this choice | Number (n) who later* practised in geriatric medicine | Percentage who later practised in geriatric medicine (n/N,%)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>Geriatric medicine as first choice</td>
<td>100</td>
<td>20</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>Geriatric medicine as second or third choice</td>
<td>121</td>
<td>8</td>
<td>6.6</td>
</tr>
<tr>
<td></td>
<td>Other hospital physician specialties</td>
<td>5,221</td>
<td>154</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>All other choices b</td>
<td>8,684</td>
<td>30</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14,126</td>
<td>212</td>
<td>1.5</td>
</tr>
<tr>
<td>Year 3</td>
<td>Geriatric medicine as first choice</td>
<td>165</td>
<td>76</td>
<td>46.1</td>
</tr>
<tr>
<td></td>
<td>Geriatric medicine as second or third choice</td>
<td>153</td>
<td>25</td>
<td>16.3</td>
</tr>
<tr>
<td></td>
<td>Other hospital medical specialties</td>
<td>2,925</td>
<td>83</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>All other choices b</td>
<td>10,413</td>
<td>25</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13,656</td>
<td>209</td>
<td>1.5</td>
</tr>
<tr>
<td>Year 5</td>
<td>Geriatric medicine as first choice</td>
<td>176</td>
<td>138</td>
<td>78.4</td>
</tr>
<tr>
<td></td>
<td>Geriatric medicine as second or third choice</td>
<td>64</td>
<td>12</td>
<td>18.8</td>
</tr>
<tr>
<td></td>
<td>Other hospital medical specialties</td>
<td>1,995</td>
<td>27</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>All other choices b</td>
<td>9,274</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11,509</td>
<td>187</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Considering doctors who chose geriatric medicine, other hospital medical specialties or all other specialties in Years 1, 3 and 5, we describe the percentage working as geriatricians in Year 10 or 7.

*Seven years after graduation for the 1999 and 2000 cohorts, 10 years after graduation for the 1974–1996 cohorts.

bExcluding non-medical career choices.

Acknowledgements

There were no sources of funding for this study.

Conflict of interest

The authors declare no conflict of interest.

Appendix SII

Further detail and results for men and women separately are in Supplementary data available in Age and Ageing online, Appendix SII–SIV.
surveyed, showed the highest levels of Year 1 choices for geriatric medicine that we have recorded. Among the graduates of 2008, 3 years after graduation this level of interest was sustained. It is, however, too early to tell whether this initial interest will lead to a substantial increase in the number of doctors eventually working in geriatric medicine. Although this increase is unlikely to meet the shortfall in the specialty in the near future, junior doctors who have expressed an interest in geriatric medicine may develop and use some of the key skills in their future practice, even if this is not within geriatric medicine. This increase in interest in geriatric medicine, even if not fully translated into seniors practising in the specialty, is nonetheless important as most older people will not be under the care of a geriatrician.

Women were more likely than men to choose geriatric medicine in all cohorts and years. A recent workforce census confirms a year on year increase in women in the specialty [14]. A majority of practising geriatricians had not decided on a career in geriatric medicine until ~5 years after graduation. Women may have decided sooner than men, though numbers available were too small to be definitive.

The lack of agreement between early career choice, e.g. in Year 1 after qualification, and later destination is more pronounced for geriatric medicine than for many other specialties. For example, we have reported that 82% of doctors who chose general practice in Year 1, and 75% of those who chose psychiatry, eventually practised in the specialty of their first year choice [15].

The most influential factors for a career choice of geriatric medicine were enthusiasm and commitment, self-appraisal of doctors’ own skills and experience of jobs so far. These are factors whose importance did not differ by respondents’ gender.

**Strengths and weaknesses**

This prospective study design avoids recall bias: replies about career intention were contemporaneous rather than recollected. The study is large and includes all medical schools in the UK across a long time span. The response rate is good. However, a level of non-response is unavoidable and responder bias is a possibility.

Seven to 10 years after qualification, the ‘destination’ times we studied, some doctors may not be in their final specialty, particularly those working part-time or those who have had significant career breaks. Particularly with the more recent cohorts, longer follow-up would be useful. Our study was restricted to UK medical graduates: studies of doctors who received their basic medical training outside the UK, and who are now working in the UK, would also be useful.

The surveys were not specifically designed to evaluate career choices for geriatric medicine. Hence, there is no associated qualitative information explaining why trainees specifically do or do not choose geriatric medicine, or any specific information as to why trainees may change their choice away from geriatric medicine.

**Implications and interpretation**

Many countries have experienced recruitment difficulties in geriatric medicine [16, 17]. Researchers report that geriatric medicine is sometimes considered to have low prestige, an important factor in doctors’ career decisions [6, 18]. A focus group of US medical students’ perspectives on geriatric medicine found that geriatric medicine was not engaging the interest of students, and that some were put off by what they regarded as the ‘futility’ of care [19]. There is space for educational experiment in the development of strategies to make geriatric medicine more attractive.

We found that few practising geriatricians made their career choice early. Other research has reported similar findings: in 2006, a British Geriatrics Society survey of doctors in geriatric medicine found that only 4% had made their choice as a medical student, a further 4% as a house officer, but 39% when working as a middle grade doctor in another specialty [20]. It is now becoming more difficult for final career choice to change once the structured programme has been entered, given that the Calman Training reforms (1996–1997) and Modernising Medical Careers (2005) each specified training paths to specialist accreditation [21].

Recent changes to UK training programmes place a premium on early career choices, which may hinder recruitment into geriatric medicine [20, 22]. Doctors in geriatric medicine manage complex co-morbidity, non-specific presentations and frailty rather than simply the aged patient [23]. There is a case for developing more flexible training strategies that make it possible for doctors to move into geriatric medicine, several years after qualification, ‘banking’ some of the clinical competencies that they have already gained or to undertake specific training in geriatric medicine competencies to take back to their own specialty areas.

A British survey of geriatricians found that clinical features of the specialty and senior role models were influential factors in their career choice [20]. However, in the UK in 2012, only 23% of doctors experienced geriatric medicine in their first year of foundation training (i.e. their first compulsory year of medical work after qualification), compared with 82% who experienced general surgery and 59% who experienced general adult medicine [24]. We found that postgraduate experience of jobs was a highly influential factor in determining a career choice for geriatric medicine.

Some studies have found a decline in the teaching of geriatric medicine within the UK curriculum [25, 26]. A comparison of the curriculum for geriatric medicine with the generic guidelines for the undergraduate curriculum for medicine, in the GMC publication ‘Tomorrow’s Doctors’, found ‘uncertainty’ between the guidelines and the actual delivery of teaching in geriatric medicine [27]. Another survey of 18 UK medical schools concluded that in medical school education there was inadequate consideration of geriatric medicine and ageing, which may impact on students’ learning experiences [28]. Lack of exposure to geriatric medicine in undergraduate and early postgraduate medical education and training is of concern not only because this experience is important for
career choice, but also because work with older people seems to influence attitudes towards older people beneficially. Research has shown negative stereotyping occurring in medical schools; students generally started with a positive attitude to older people which diminished during training [29]. A large WHO study found that in Europe undergraduate training in geriatric medicine was associated with an increase in positive attitudes towards older people [30]. There is an important need to study the content and quality of training as well as its quantity.

Conclusions

The move in the UK in recent years towards earlier recruitment to specialty training, following Modernising Medical Careers [22], may reduce the ability of doctors to move into geriatric medicine at a later career stage, and may also reduce the opportunity for ongoing experience and training in the core skills needed in caring for older people. Recruitment and training policies should retain some flexibility in respect of geriatric medicine.

Further development and evaluation of the availability and experience of geriatric medicine, in both medical student and postgraduate teaching, should be considered, especially in the Foundation and Core Training programmes. This should benefit recruitment to geriatric medicine; and also, considering that most older patients within the NHS are not under the care of a geriatrician, it should benefit doctors in all specialties in adult medicine to be skilled in the care of older people.

Key points

• Commitment, job experience and self-appraised skills were important influences on doctors’ choice of geriatric medicine.
• Early career choice of geriatric medicine is not highly predictive of an eventual career in the specialty.
• Of doctors eventually working in geriatric medicine, only one-third had made that choice by Year 3 after graduation.
• It is important to maintain flexibility about when doctors can enter training in geriatric medicine.

Acknowledgements

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Conflicts of interest

All authors have completed the Unified Competing Interest form at www.icmje.org/doi_disclosure.pdf (available on request from the corresponding author) and all authors want to declare: (i) financial support for the submitted work from the Policy Research Programme, Department of Health. All authors also declare: (ii) no financial relationships with commercial entities that might have an interest in the submitted work; (iii) no spouses, partners, or children with relationships with commercial entities that might have an interest in the submitted work; (iv) no non-financial interests that may be relevant to the submitted work.

Ethical approval

This study was approved by the National Research Ethics Service, following referral to the Brighton and Mid-Sussex Research Ethics Committee in its role as a multi-centre research ethics committee (ref 04/Q1907/48).

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Supplementary data

Supplementary data mentioned in the text is available to subscribers in Age and Ageing online.

References

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