Demographic characteristics of doctors who intend to follow clinical academic careers: UK national questionnaire surveys

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ABSTRACT

Objectives It is well recognised that women are underrepresented in clinical academic posts. Our aim was to determine which of a number of characteristics—notably gender, but also ethnicity, possession of an intercalated degree, medical school attended, choice of specialty—were predictive of doctors’ intentions to follow clinical academic careers.


Results At the end of their first year of medical work, 13.5% (368/2732) of men and 7.3% (358/4891) of women specified that they intended to apply for a clinical academic training post; and 6.0% (172/2873) of men and 2.2% (111/5044) of women specified that they intended to pursue clinical academic medicine as their eventual career. A higher percentage of Asian (4.8%) than White doctors (3.3%) wanted a long-term career as a clinical academic, as did a higher percentage of doctors who did an intercalated degree (5.6%) than others (2.2%) and a higher percentage of Oxbridge graduates (8.1%) than others (2.8%). Of the graduates of 2005, only 30% of those who in 2006 intended a clinical academic career also did so when re-surveyed in 2010 (men 44%, women 12%).

Conclusions There are noteworthy differences by gender and other demographic factors in doctors’ intentions to pursue academic training and careers. The gap between men and women in aspirations for a clinical academic career is present as early as the first year after qualification.

INTRODUCTION

Internationally, recruitment to clinical academic posts can be difficult1–4; sometimes there are too few excellent candidates for available jobs. It is also well recognised that, at least in the USA and Europe, women are underrepresented in clinical academic posts and in leadership positions in academic medicine.5–7

In addition to the concerns about the underrepresentation of women, other concerns in the UK include the fact that the clinical academic workforce is ageing with possible shortfalls in its success; the possibility of a reduction in numbers of medical students taking intercalated degrees (science degrees taken during the years of study for the medical degree); immigration restrictions on academics from outside the European Union; and the lack of flexible working patterns that might otherwise encourage more women into clinical academia.8–11 In the USA, the number of women academic physicians increased between 1997 and 2008, but by 2008 women were still underrepresented in senior academic positions.7 In the UK, there was a similar increase in the number and percentage of women clinical academics between 2004 and 2012, but, in 2012, just 28% of all clinical academics were women and only 16% of professors were women.12 A US study found that only 17.5% of editorial board members are women11 and women are less likely to be senior authors in peer-reviewed British journals.13 In 2007, the UK Women in Clinical Academy Working Group recommended greater flexibility for clinical academics (career breaks, ability to work less than full time), more encouragement for women to take up leadership positions and more visible role models and mentors.10 These, and other initiatives, such as return to work grants, may be having an impact in increasing the numbers of women in clinical academia, but there is also a cohort effect on increasing numbers with more women doctors graduating from medical school than ever before.15

Doctors in the UK who undertake an intercalated degree gain an advantage over those who do not when competing for jobs.14 There is also evidence that doctors who hold an intercalated degree are more likely to pursue an academic career.10 Despite the benefits of taking an intercalated degree, there is concern that fewer students are doing so.9, 14 The reasons for this include not wishing to study for an extra year or to incur more student debt.9, 14

In box 1, we have summarised the progression of training and careers in clinical academic medicine, including the current use of terminology, in the UK. In multipurpose national surveys of the graduates of 2005, 2009 and 2012 from all UK medical schools, we asked about future career intentions including doctors’ intentions about entering clinical academic medicine. Our aim in this paper is to determine which of a number of characteristics—gender, ethnic group, medical school attended, possession of an intercalated degree—were predictive of doctors’ intention to follow a clinical academic career.

METHODS

The surveys

We surveyed the UK medical graduates of 2005, 2009 and 2012 one year after qualification and surveyed the graduates of 2003 five years after qualification in 2010. Questionnaires were sent to all medical graduates from every UK medical school,
Box 1  Clinical academic training and careers in the UK

Some UK medical students undertake a science degree in parallel with their medical degree. This is called an intercalated degree. These students typically take a further year to graduate with their medical degree. A higher proportion of them subsequently apply for clinical academic training than of those who do not undertake an intercalated degree. It is also possible to do a short placement in clinical academia after graduation, and prior to committing for specialist training. This may help the doctor to decide whether to train as a clinical academic.

Clinical academic training is a distinct, separately structured training programme. It includes a substantial research component alongside clinical training in the chosen clinical specialty. Doctors in academic training are typically called ‘academic fellows’. Clinical academics typically have an academic job title and employer (eg, lecturers, senior lecturers and, as they progress, readers and professors employed by universities). These job titles are usually held in parallel with a clinical service job title and role (eg, specialist registrar, consultant, general practitioner (GP) in the National Health Service (NHS)).

Holders of career grade posts in the NHS in the UK, who are in posts that are not primarily academic, may, nonetheless, have an academic component of their work; indeed, some will hold honorary academic university contracts. With or without honorary academic contracts, many doctors will do at least a small amount of teaching, and some will also undertake research. We have categorised the career intentions of the respondents to our surveys in five groups, namely clinical academic posts (those employed primarily as lecturers, senior lecturers, readers, professors), clinical service posts without teaching or research, clinical service posts with some teaching responsibility, clinical service posts with some research time and clinical service posts with some teaching and research. Respondents to our surveys will be aware of the UK distinction between clinical academic posts, which are typically university posts, and clinical service posts (generally, in the NHS) with a research or teaching component that are not clinical academic posts.

Clinical academics are responsible for teaching the undergraduate curriculum and make substantial contributions to postgraduate medical training in addition to undertaking medical research.

with postal and email options for completion. Up to four reminders were sent to non-respondents. The surveys covered a variety of topics, including career intentions, and our methods have been described in detail elsewhere.16 17

Trainee doctors in the UK undertake 2 years of foundation training (comprising an F1 and an F2 year), before being admitted to specialty training. Our first year surveys were undertaken at the end of the F1 year, a time when doctors were considering their choice of specialty training following the F2 year.

The questions
We asked the cohorts of 2005 and 2012, “Have you applied for an academic F2 placement?” (yes or no). We asked all cohorts two further questions about their intentions regarding academic medicine. The first was ‘After F2, do you intend to apply for an academic training post?’ (answers were chosen from: yes-academic specialist, yes-academic GP no or undecided). The second was ‘If you intend to practise medicine, in your long-term career do you intend to work mainly in’: answers were chosen from clinical service posts without teaching or research, clinical posts with some teaching responsibility, clinical posts with some research time, clinical posts with some teaching and research, clinical academic posts and undecided. For analysis for this paper, we recoded the answers to this question into three categories: clinical academic posts, clinical posts with some research (comprising answers of clinical posts with some research time and clinical posts with some teaching and research) and clinical posts without research (comprising answers of clinical service posts without teaching or research and clinical posts with some teaching responsibility). This question was asked again in the study of the 2005 cohort when they were surveyed 5 years after qualification.

All three cohorts were asked, “Have you made up your mind about your choice of long-term career?” with possible responses of definitely, probably or not really. They were also asked about their preferred choice of clinical specialty, or non-medical job if applicable, for their long-term career.

Data analysis
The data were analysed by univariate cross-tabulation. To test statistical significance, we used χ² statistics (reporting Yates’s continuity correction where there was only one degree of freedom), binary and multinomial logistic regression. Only variables that were significant as single variables using univariate analysis were subsequently used in the multivariate analysis; in this, we assessed the individual effect of each variable after allowing for the effects of others. Respondents were grouped according to gender; ethnic group (Asian, White and Other); whether or not they had an intercalated degree; region/type of clinical medical school (England old schools, England new schools, London, Oxbridge, Scotland, Northern Ireland and Wales); and first choice of specialty, grouped as hospital specialties led by physicians, surgical specialties, other hospital specialties combined and general practice.

RESULTS
Response rates
Survey questionnaires were sent to 17 126 UK doctors covering all three cohorts. After excluding doctors who were untraceable, were known to have died or who declined to participate, response rates 1 year after qualification were 63% (3128/4939) for the 2005 cohort, 47% (2918/6250) for the 2009 cohort and 46% (2413/5262) for the 2012 cohort. Forty-nine per cent (2363/4841) of the 2005 cohort responded in year 5. Shortened questionnaires that omitted some questions about academic careers were completed by some respondents; this reduced the number of respondents to 2547 for the 2009 cohort and 2348 for the 2012 cohort.

Intentions to apply for an academic placement in the F2 year
Applications for academic F2 placements were significantly lower among the 2012 cohort (12.4%; 285/2303) than among the 2005 cohort (20.9%; 649/3099) (χ²=67.2, p<0.001). Among the 2005 cohort, 20.0% of women (385/1927) and 22.3% of men (264/1172) applied for academic placements (χ² =2.7, p=0.10). In the 2012 cohort, 9.8% of women (142/1448) and 16.7% of men (143/853) did so (χ²=23.1, p<0.001).
Intentions to apply for an academic training post after F2

Combining all cohorts, 9.5% (726/7623) of respondents intended to apply for clinical academic training after F2, either as an academic specialist in the hospital specialties (7.7%) or as a general practitioner (GP) (1.8%) (table 1). Most respondents (64.3%; 4903/7623) did not wish to do so and the rest (26.2%; 1994/7623) were undecided. The cohorts differed in their responses ($\chi^2=221.7$, $p<0.001$). Graduates of 2009 were less likely than those of 2005 to choose academic specialist training (6.0% compared with 9.1%). Graduates of 2009 and 2012 were less likely than those of 2005 to choose academic GP training (1.5% compared with 2.5%) and less likely to choose academic specialist training. Taking all cohorts together, responses from women were more likely than those of 2005 to choose academic specialist training (6.0% compared with 9.1%). Graduates of 2009 and 2012 were more likely than women to want to apply for academic specialist training (12.1% men, 5.2% women) and men were less likely than women to want to apply for academic GP training (1.4% men, 2.1% women). Responses from men and women followed a similar pattern in each cohort, but the difference between the percentage of men and women who wanted to apply for academic GP training narrowed in the 2009 and 2012 cohorts.

Long-term career intentions

All cohorts were asked which kind of post they intended to work in for their long-term career. 45.3% (3586/7917) said that they wanted to work mainly in ‘clinical posts with some teaching responsibility’, 35.5% (2807/7917) wanted to work in ‘clinical posts with some teaching and research’, 8.7% were undecided, 3.6% wanted a service post with neither teaching nor research and 3.6% wanted a clinical academic post. Men were more likely than women to want a clinical academic career (6.0% men, 172/2873; 2.2% women, 111/5044; all cohorts combined). Over the three cohorts, 111 female and 172 male respondents intended, 1 year after graduation, to pursue a clinical academic career. Assuming that the respondents are a random sample of the entire cohorts, with respect to intention to work in academia, we estimate that over the whole of the three cohorts, 225 women and 413 men intended to enter clinical academia. Similarly, 1844 women and 1233 men respondents intended to enter a career with some research component (table 1). Scaling these numbers for the whole cohorts, 3738 women and 2962 men intended to undertake research.

Qualifiers of 2009 were less likely to want a clinical academic career (2.5%) than those of 2005 (4.2%) or 2012 (3.9%). Other combinations of career intention are shown in table 2.

Comparison of intentions to pursue an academic career, comparing choices 1 and 5 years after graduation

Of 76 doctors who specified that they wanted a clinical academic career in their replies in year 1, only 23 (30%) did so in year 5. Men were more likely to maintain a choice for a clinical academic career (44%; 19/43) than women (12%; 4/33); $\chi^2=9.1$, $p=0.003$, table 3. Of 80 doctors who specified in year 5 that they wanted a clinical academic career, only 23 (29%) had done so in year 1; this percentage was higher for men (40%; 19/48) than for women (12%; 4/32); $\chi^2=6.9$, $p=0.01$, table 3. Other combinations of career preference are shown in table 3.

We also looked at intention to undertake posts that involved teaching, regrouping the data in table 3 into posts with some teaching but no research, posts with both teaching and research and posts without teaching or research. Among those who chose posts with teaching and research in year 1, in year 5, 55% (175/316) of men compared with 42% (179/429) of women also chose posts with both teaching and research; 36% of men and 49% of women chose posts with teaching but no research; and 8% of men and 9% of women chose posts with no teaching.

Intentions to apply for an academic training post after F2: multivariate modelling

We further analysed the factors affecting the choice of academic training after F2 (the data in table 1). Four response categories were reduced to two, by combining those who intended to apply for academic specialist training and GP training into one group and those who did not wish to apply for academic training or were undecided about doing so into a second group. A binary logistic regression model was fitted with ‘intention to apply for an academic training post’ as the dependent outcome, and cohort year, gender, ethnic group, intercalated degree.

Table 1 Intention to apply for academic training after the F2 year: responses from UK medical graduates of 2005, 2009 and 2012 at 1 year after graduation

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
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<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>yes, academic specialist</td>
<td>330</td>
<td>255</td>
<td>585</td>
<td>38</td>
<td>103</td>
<td>141</td>
<td>1580</td>
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<td>1994</td>
<td>2732</td>
<td>4891</td>
<td>7623</td>
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<tr>
<td>yes, academic GP</td>
<td>12.1</td>
<td>5.2</td>
<td>7.7</td>
<td>1.4</td>
<td>2.1</td>
<td>1.8</td>
<td>57.8</td>
<td>67.9</td>
<td>64.3</td>
<td>28.7</td>
<td>24.7</td>
<td>26.2</td>
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<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>no</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>undecided</td>
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<td>119</td>
<td>258</td>
<td>17</td>
<td>53</td>
<td>70</td>
<td>506</td>
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<td>579</td>
<td>956</td>
<td>1039</td>
<td>1795</td>
<td>2834</td>
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<td>9.1</td>
<td>1.6</td>
<td>3.0</td>
<td>2.5</td>
<td>48.7</td>
<td>58.2</td>
<td>54.7</td>
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<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>yes, academic specialist</td>
<td>89</td>
<td>62</td>
<td>151</td>
<td>11</td>
<td>26</td>
<td>37</td>
<td>592</td>
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<td>474</td>
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<tr>
<td>yes, academic GP</td>
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<td>6.0</td>
<td>1.3</td>
<td>1.6</td>
<td>1.5</td>
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<td>76.6</td>
<td>73.9</td>
<td>19.8</td>
<td>18.1</td>
<td>18.7</td>
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<td>100.0</td>
<td>100.0</td>
</tr>
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<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>undecided</td>
<td>102</td>
<td>74</td>
<td>176</td>
<td>10</td>
<td>24</td>
<td>34</td>
<td>482</td>
<td>997</td>
<td>1479</td>
<td>236</td>
<td>328</td>
<td>564</td>
<td>830</td>
<td>1423</td>
<td>2253</td>
</tr>
<tr>
<td>total</td>
<td>12.3</td>
<td>5.2</td>
<td>7.8</td>
<td>1.2</td>
<td>1.7</td>
<td>1.5</td>
<td>58.1</td>
<td>70.1</td>
<td>65.6</td>
<td>28.4</td>
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<td>25.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

GP, general practitioner.
status, region/type of medical school and mainstream career choice (see the Methods section) as predictors (table 4).

Cohort year, gender, ethnic group, intercalated degree, medical school region and first choice of career were significant predictors of intention to apply for academic training, both separately and when all factors were included in the model. In summary, doctors from the 2005 cohort, male doctors, Asian doctors and doctors with intercalated degrees were more likely to opt for academic training than their counterparts. Respondents from Oxbridge were more likely to want to apply for academic training (20.8%) than the overall average (9.4%). Respondents whose first choice of career was surgery were more likely than average to want to apply for academic training, and intending GPs were less likely.

There were some comparisons within subgroups that are of interest. The intercalated degree ‘effect’ differed between the cohorts: the percentage of doctors without an intercalated degree who wanted to apply for an academic post decreased from 11.3% (2005 cohort) to 4.8% (2009 cohort) and 5.3% (2012 cohort) (χ²=60.1, p<0.001), while the percentage of doctors with an intercalated degree who wanted to apply for an academic post remained similar between the cohorts (χ²=5.4, p=0.07).

Variation by medical school region differed between the cohorts: among graduates from Scottish schools the percentage of doctors intending to apply for an academic post decreased from 15.4% (2005 cohort) to 5.8% (2009 cohort) and 7.0% (2012 cohort) and it declined from 11.0% (2005 cohort) to 6.7% (2009 cohort) in English old schools (both p<0.001). By contrast, the percentage of Oxbridge graduates intending to apply for an academic training post was higher in the 2012 cohort than in the 2005 cohort (it increased from 13.2% to 28.6%, p<0.01).

Long-term career intentions regarding academic work: multivariate modelling

We examined how long-term intention to work in posts with no research, clinical posts with some research and clinical academic posts (with ‘no research’ used as the reference category) varied by six factors: year of graduation, gender, ethnic group, intercalated degree status, medical school region and first choice of career. Each factor, considered separately, showed significant variation in the percentage opting for academic careers (p<0.001 using χ² tests, table 5).

We entered the factors together into a model using multinomial logistic regression to analyse their effects in combination (table 5). All six factors remained predictors of the intention to work long term in clinical academia, either in predicting the intention to work as a clinical academic or the intention to work in a clinical post with a research component, or both. For details of results, see table 5.

The multivariate analysis confirmed that men, doctors with intercalated degrees, Oxbridge graduates and intending surgeons were more likely to want a long-term career as a clinical academic than, respectively, women, doctors without intercalated degrees, non-Oxbridge graduates and intending hospital doctors in non-surgical posts (p<0.001 in each case). The significance of Asian ethnicity was less pronounced (p=0.05) in the multivariate model.

This pattern was similar for clinical posts with some research, except that there was no significant difference between men and women doctors, and the contrast between Asian and White ethnicnicity was more pronounced.
DISCUSSION

A smaller percentage of women than men intend to undertake an academic training post and a smaller percentage of women than men want an eventual career in clinical academia. This matches with the actual shortfall of women in clinical academic posts, particularly at senior level. Our study shows that differences between women and men, in these respects, are established very early in the careers of doctors. This said, it is also clear that early intentions about clinical academic careers are not highly predictive of what doctors eventually do. For example, while very similar numbers of 2005 graduates surveyed in year 1 and year 5 intended to follow a clinical academic career, many who comprised the group of aspiring clinical academics in years 1 and 5 were different individuals. It is important that flexibility is maintained in possibilities for switching into (and out of) clinical academic career pathways.

Table 3  Number of doctors by long-term career intention regarding academic work at 1 year and 5 years (2005 cohort)

<table>
<thead>
<tr>
<th>Intentions in 2006</th>
<th>Intentions in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical academic posts</td>
<td>Clinical posts with some research</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>All</td>
<td>Clinical academic posts</td>
</tr>
<tr>
<td>Clinical academic posts</td>
<td>23</td>
</tr>
<tr>
<td>Clinical posts with some research</td>
<td>45</td>
</tr>
<tr>
<td>Clinical posts without research</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
</tr>
<tr>
<td>Men</td>
<td>Clinical academic posts</td>
</tr>
<tr>
<td>Clinical academic posts</td>
<td>19</td>
</tr>
<tr>
<td>Clinical posts with some research</td>
<td>24</td>
</tr>
<tr>
<td>Clinical posts without research</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
</tr>
<tr>
<td>Women</td>
<td>Clinical academic posts</td>
</tr>
<tr>
<td>Clinical academic posts</td>
<td>4</td>
</tr>
<tr>
<td>Clinical posts with some research</td>
<td>21</td>
</tr>
<tr>
<td>Clinical posts without research</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
</tr>
</tbody>
</table>

Table 4  Intention to apply for academic training: UK medical graduates of 2005, 2009 and 2012 1 year after graduation by cohort year, gender, ethnic group, intercalated degree status, medical school region and first career choice

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Group</th>
<th>Intending to apply for academic training</th>
<th>Univariate analysis</th>
<th>Multivariate analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Per cent</td>
<td>n/N</td>
<td>df</td>
</tr>
<tr>
<td>Cohort year</td>
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<td>11.4</td>
<td>309/2705</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2009</td>
<td>7.3</td>
<td>174/2385</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>9.1</td>
<td>190/2080</td>
<td>3</td>
</tr>
<tr>
<td>Gender</td>
<td>Men</td>
<td>13.2</td>
<td>337/2555</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>7.3</td>
<td>336/4615</td>
<td>3</td>
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<tr>
<td>Ethnic group</td>
<td>White</td>
<td>8.2</td>
<td>437/5323</td>
<td>3</td>
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<tr>
<td></td>
<td>Asian</td>
<td>13.0</td>
<td>173/1331</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>12.2</td>
<td>63/516</td>
<td>3</td>
</tr>
<tr>
<td>Intercalated degree</td>
<td>Yes</td>
<td>11.9</td>
<td>242/2032</td>
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<td></td>
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<td>7.9</td>
<td>242/2058</td>
<td>3</td>
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<td>261/3099</td>
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<td>England, new schools</td>
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<td>274/489</td>
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<td>London</td>
<td>9.0</td>
<td>149/1648</td>
<td>18</td>
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<td></td>
<td>Oxbridge</td>
<td>20.8</td>
<td>86/414</td>
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<td>Scotland</td>
<td>10.4</td>
<td>101/973</td>
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<td>Northern Ireland</td>
<td>10.1</td>
<td>21/207</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Wales</td>
<td>8.2</td>
<td>28/340</td>
<td>18</td>
</tr>
<tr>
<td>First choice of career</td>
<td>Hospital medical specialties</td>
<td>10.9</td>
<td>168/1545</td>
<td>9</td>
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<td></td>
<td>Other hospital</td>
<td>8.5</td>
<td>211/2478</td>
<td>9</td>
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<td></td>
<td>General practice</td>
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<td>120/1915</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Surgery</td>
<td>14.1</td>
<td>174/1232</td>
<td>9</td>
</tr>
</tbody>
</table>

*Univariate* denotes single factor χ² test for each predictor. *Multivariate* denotes binomial logistic regression result for each predictor with all other predictors in the model. We excluded cases where one or more predictors were missing, which reduced the sample size from 7623 (see table 1) to 7170.
Doctors of Asian ethnicity were more likely than others to intend to have a career in clinical academia. Doctors who had undertaken an intercalated degree, as well as the medical degree, were more likely than others to want to pursue an academic career. There were also noteworthy differences between medical schools in the likelihood that their graduates wanted a clinical academic career.

F1 doctors in 2013 had lower levels of intention to apply for academic F2 training placements than their predecessors in 2006. Intentions among F1s to undertake academic specialty training were lower in 2010 and 2013 than in 2006, and larger percentages were definite about not wishing to undertake academic training, with fewer being undecided. Looking further ahead, intentions to follow an academic career, as the preference for eventual career, were only slightly lower among the F1s of 2013 than among the F1s of 2006. However, the overall figures masked a fall among women and a rise among men. Most doctors wanted a job with teaching opportunities.

Recently in the UK, initiatives such as the Academic Clinical Fellowship (ACF) programme (introduced in England in 2007), UK academic foundation programmes and clinician scientist fellowships have established new pathways for doctors into clinical academia. Three-quarters of academic foundation trainees wanted to work in academia after their foundation programme, and ACF trainees report that they are highly motivated by variety in a job, intellectual environment and the challenges of an academic career. There was an increase in clinical academic post-holders of 8% between 2006 and 2012 in the UK; the number of UK clinical academics remained steady in 2010-2012, but the number of clinical academics was still 10.8% lower in 2012 than it was in 2000.

While there was a rise in the number of clinical academics in the UK between 2006 and 2012, our findings indicate that recent graduates may be less likely to contribute substantially to a further rise. A decline in interest in clinical academic careers in recent years has been documented elsewhere.

The number of women doctors on the UK Medical Register grew by 4.3% between 2011 and 2012 compared with 1.5% for men doctors. This feminisation of the medical workforce has contributed to a 54% increase in the number of women lecturers by 2014, and ACF trainees report that they are highly motivated by variety in a job, intellectual environment and the challenges of an academic career. There was an increase in clinical academic post-holders of 8% between 2006 and 2012 in the UK; the number of UK clinical academics remained steady in 2010-2012, but the number of clinical academics was still 10.8% lower in 2012 than it was in 2000.

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changing their mind later in their career. In one study of academics who had left academic medicine, reasons for this included a lack of role models, mentors and funding opportunities, poor work-life balance and a biased work environment. Women working as clinical academics have reported feeling as if they ‘don’t belong’. The extent to which academic training posts and long-term research careers can be made more attractive to women needs to be investigated. Others have called for flexibility and work-life integration to be seen as beneficial to a career rather than detrimental.5

The strengths of this study are that the surveys are national, longitudinal and confidential. Because the study is prospective, recall bias about career intentions is not possible. As with all surveys, non-responder bias is possible.

Further study should address the reasons why fewer women than men choose academic training and careers, even when early in their careers. It is important, too, to understand more about why more women than men change their minds about an early choice for academic training and jobs. An early expressed intention to follow an academic career is often not followed through. This may suggest that flexibility in moving into and out of academic training may be helpful to support doctors’ changing intentions in their early postgraduate years. Our findings also suggest that an interest in clinical academic careers, as a possible eventual career destination, may be waning among junior doctors.

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Data sharing statement The authors may be available to provide aggregated data on which the analysis is based on request.

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REFERENCES


Main messages

- As early as 1 year after graduation, a significantly smaller percentage of women than men intended to pursue a clinical academic career.
- Factors that may deter women from an academic career warrant study.
- Asian doctors were more likely than others to intend to have a career in clinical academia, as were doctors who had an intercalated degree.
- Graduates from some medical schools, notably Oxford and Cambridge but also others, were more likely to be aspiring academics.

Current research questions

- Why do fewer women than men choose clinical academic training?
- Why do more women than men reject an early choice for a clinical academic career?
- What can be done to enable women doctors to pursue clinical academic careers successfully?

Key references

Demographic characteristics of doctors who intend to follow clinical academic careers: UK national questionnaire surveys

Fay Smith, Trevor W Lambert and Michael J Goldacre

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