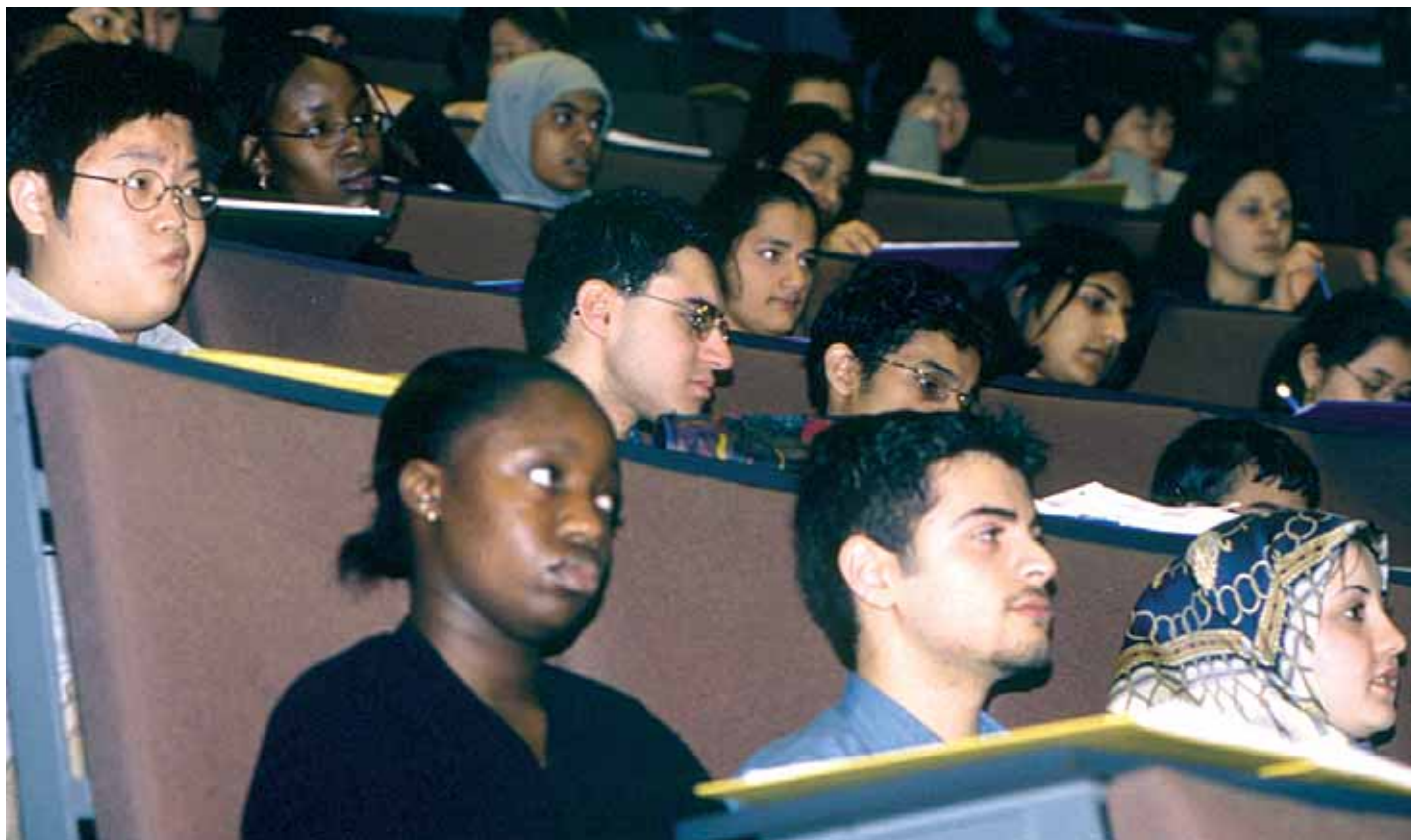


Who will be tomorrow's pharmacists and why did they study pharmacy?

In this article, Sarah Willis, Phillip Shann and Karen Hassell present analysis of data collected for the first survey from a longitudinal cohort study about pharmacy careers, focusing on the demographics of the sample and describing students' motivations for entering pharmacy school



As pharmacy changes, shifting away from a product-focus and towards a patient-focus,¹ the demographics of pharmacists is changing, too.² Pharmacy is moving away from being a predominantly male, white, profession working in or owning small pharmacies, towards a younger, female workforce working in a wider range of jobs.³ As a result of these changes, pharmacy and pharmacists have a much more diverse identity.³

Future changes in pharmacy are likely to be affected by the demographics, motivations, attitudes, values and expectations of those entering the profession — pharmacy students.⁴

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Starting with an understanding of those entering the profession, our study aims to capture cross-sectional and longitudinal data on a number of different topics relating to what motivates students to choose to study pharmacy, their career expectations, and whether these expectations are met in the early stages of their career.^{1,5}

Tomorrow's pharmacists

The cohort of 2006 pharmacy graduates studying at 14 schools of pharmacy in Great Britain were surveyed in March 2005 when they were third-year students. This survey had an explicit focus on choices made before studying pharmacy, and for this reason was called "Early choices". It was designed to explore respondents' occupational awareness, ie, how their views of a career in pharmacy were informed and shaped. Some of the contextual factors which we hypothesised might influence occupational awareness and career choice included the roles played by occupational inheritance, the influence of family members and gender and ethnicity. The survey also collected data about respondents' future preregistration and work intentions,

which future articles will discuss. The following analysis is based on data from the "Early choices" survey relating to the demographics and motivations of the cohort.

Gender The overall response rate to the "Early choices" survey was 67 per cent, and 71.5 per cent of those who completed it were female.

The high proportion of women responding to our survey indicates that the trend reported by recent analysis of the 2005 Register of Pharmaceutical Chemists⁶ of increasing numbers of women qualifying as pharmacists looks set to continue.

Proportions of male and female respondents were found to vary by school of pharmacy, with males comprising between 16.7 and 44.2 per cent of respondents when analysed at school level.

Although the impact of feminisation on the pharmacy workforce is far from clear, the question of why female students are choosing to study pharmacy in increasing numbers also remains unanswered, as does the question of whether it is also the case that males are purposefully avoiding studying pharmacy.

Ethnicity The largest group of respondents, proportionally, were white British (40.6 per cent), and the single largest ethnic minority group were Indian British, representing 19.2 per cent of the cohort. This finding demonstrates that the trend towards increased participation in pharmacy by ethnic minority groups is also set to continue.

The growing representation of ethnic minority groups within pharmacy is especially remarkable when viewed in relation to the population as a whole, since the 2001 UK census data showed that the total ethnic minority (non-white) population in England to be only 9.1 per cent.⁷ In part, the growing numbers of ethnic minority groups either newly qualifying as pharmacists or studying pharmacy, can be explained by differences in the age profiles between different ethnic groups because, despite representing a low overall proportion of the population, the 2001 UK census demonstrates that ethnic minority groups tend to have a higher proportion of younger people than the population as a whole.⁷

However, although the demographic characteristics of the cohort reflect a wider growing ethnic diversification of the under 25 population, this does not explain why the representation of white males is falling both among those who have recently qualified as pharmacists,⁸ and within our cohort, where they comprise 9.2 per cent of respondents completing the "Early choices" demographic question. This figure is particularly striking when compared with the proportion of white females in the cohort (31.2 per cent).

The growing representation of ethnic minority groups among pharmacy students has parallels with other research, which has consistently found that applications and admissions to higher education from most ethnic minority groups are proportionally higher than applications and admissions from the rest of the population.⁹

In relation to the 2006 pharmacy graduate cohort, we found that the distribution of ethnic minority groups across schools of pharmacy varied significantly from 8.2 to 92.5 per cent of respondents (47.2 per cent of all respondents were from ethnic minority groups). Ethnic minority students were under-represented among students studying at schools of pharmacy in Scotland and Wales, since 93.7 per cent of all ethnic minority students were studying at schools of pharmacy in England.

Motivation We found across all groups of respondents that the strongest motivator for choosing to study pharmacy was that it was a science-based course. Choosing an undergraduate course on the basis of factors that are not directly related to future career prospects has, once again as reported elsewhere, been shown to be the main motivator behind choice of undergraduate courses for students applying to study both vocational and non-vocational degrees.¹⁰

Other motivators perceived as being most influential by the cohort indicate that students were driven to study pharmacy by a combination of external motivators, such as the reputation of the profession and financial reward, as well as by intrinsic motivators, relating to personal qualities, experiences, intentions and values such as wanting to help people.

Finally, we found that more ethnic minority males were influenced by extrinsic factors such as pharmacy being a respected profession and because of the opportunity to open a business. For ethnic minority females the influence of the family was significant, with 7.7 per cent of them but only 1.7 per cent of white females selecting this as the item most strongly influencing their decision to study pharmacy.

These results suggest that the processes of career-deciding are socially located and related to gender and ethnicity, and that career-deciding strategies are complex, involving both advice from others and more pragmatic factors such as future pay.

Practice implications

Clearly, the profile of tomorrow's pharmacists will continue to diversify, with the progressive entry of both female and ethnic minority groups to the profession set to take place as the cohort enters pharmacy practice. However, the potential effects of this diversification of the workforce are difficult to determine. Since there is evidence that male and female pharmacists follow different career paths and follow different work patterns, further feminisation of the profession is certain to have an impact on workforce supply. But if, for example, tomorrow's female pharmacists have similar employment patterns to those described by Hassell¹¹ then they are likely to work part-time once they reach their 30s, to be under-represented in hospital management, and to be concentrated in temporary and flexible community pharmacy jobs. The implications, then, if these gendered career paths and patterns of work are followed by the 2006 cohort are of a perpetuation of pharmacy workforce shortages, despite the increases in pharmacy student numbers.

With the strongest motivator being that pharmacy is a science-based course, it appears that a large proportion of the cohort were not primarily motivated to study pharmacy by future career prospects. Such lack of focus is not necessarily a bad thing, since in a changing profession and pharmacy labour market it is of benefit for graduates to be adaptive, to be adaptable, and to have the potential to be open to new opportunities and ways of working.¹⁰ On the other hand, if students are entering pharmacy because they are attracted to the scientific basis of the course then the realities of practising pharmacy, which requires both a pure science knowledge and a social science understanding of the principles of patient-centred care, may give rise to a

mismatch between expectations of a career in pharmacy and experience of professional practice. The message for those responsible for recruiting, managing and retaining pharmacy students and staff must be that it is important that students have realistic expectations of what working as a pharmacist is like both before they enter pharmacy school and before they enter the pharmacy workforce.

A further potential source of dissatisfaction with a career in pharmacy may arise in relation to those members of the cohort who were primarily motivated to study pharmacy because of the opportunity to open a pharmacy business. With the decline in entrepreneurial pharmacy careers it is possible that those respondents who studied pharmacy in order to become a pharmacy owner may be prevented from putting their intentions into practice, with the result that they will be unsatisfied with any alternative pharmacy career pursued and hence they will be more likely to leave the profession before retirement.

Future surveys in the longitudinal study will help us to understand workforce diversification, in relation to when, how and whether some groups follow different career paths, take career breaks, or have different working patterns.

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