Learning in practice

“Not a university type”: focus group study of social class, ethnic, and sex differences in school pupils’ perceptions about medical school

Trisha Greenhalgh, Kieran Seyan, Petra Boynton

Abstract

Objective To investigate what going to medical school means to academically able 14-16 year olds from different ethnic and socioeconomic backgrounds in order to understand the wide socioeconomic variation in applications to medical school.

Design Focus group study.

Setting Six London secondary schools.

Participants 68 academically able and scientifically oriented pupils aged 14-16 years from a wide range of social and ethnic backgrounds.

Main outcome measures Pupils’ perceptions of medical school, motivation to apply, confidence in ability to stay the course, expectations of medicine as a career, and perceived sources of information and support.

Results There were few differences by sex or ethnicity, but striking differences by socioeconomic status. Pupils from lower socioeconomic groups held stereotyped and superficial perceptions of doctors, saw medical school as culturally alien and geared towards “posh” students, and greatly underestimated their own chances of gaining a place and staying the course. They saw medicine as having extrinsic rewards (money) but requiring prohibitive personal sacrifices. Pupils from affluent backgrounds saw medicine as one of a menu of challenging career options with intrinsic rewards (fulfilment, achievement). All pupils had concerns about the costs of study, but only those from poor backgrounds saw costs as constraining their choices.

Conclusions Underachievement by able pupils from poor backgrounds may be more to do with identity, motivation, and the cultural framing of career choices than with low levels of factual knowledge. Policies to widen participation in medical education must go beyond a knowledge deficit model and address the complex social and cultural environment within which individual life choices are embedded.

Introduction

The principle that medical school intake should reflect the ethnic and socioeconomic mix of the population has been endorsed by the UK Council on Heads of Medical Schools and underwritten by generous “Widening Participation” payments to universities that recruit from underrepresented postcodes. Despite these incentives, recruiting applicants from non-traditional backgrounds is proving difficult, and major disparities by socioeconomic status and some ethnic groups remain. A high profile US initiative entitled “Project 3000 by 2000” involved a range of intensive summer schools and supplementary teaching programmes during term time to support students from non-traditional backgrounds. Despite impressive short term successes, it failed to meet its targets. Like many other early “enrichment” programmes, Project 3000 was predicated on a knowledge deficit model in which non-traditional students were seen as requiring additional input of factual knowledge, and underperformance or withdrawal from the course was attributed primarily to inability to make the grade in coursework. Contemporary theories of recruitment and retention in higher education explain students’ choices (and failures) primarily in terms of personal identity, social capital, and the cultural “frames” in which potential options are considered (see discussion). As part of a needs assessment to inform enrichment initiatives at University College London, we sought to find out what going to medical school meant to academically able 14-16 year olds from a range of ethnic and socioeconomic backgrounds, how they constructed their own identity as potential medical school applicants, and what social and material resources they felt they could draw on.

Participants and methods

We approached six schools, deliberately chosen to provide a wide mix of social and ethnic backgrounds (table 1); all agreed to participate. Teachers were asked to identify Year 10 and 11 pupils (pre-GCSE and GCSE years, age 14-16 years old) who were predicted to gain high GCSE grades in subjects relevant to medical school application and who had shown interest in applying to medical school. (Further details of the background of each school and the research process are given in Box A on bmj.com).

After explaining the purpose of the study to the selected pupils, the lead researcher distributed paper and invited the pupils to list any questions they had about medical school. We answered these questions after the focus group was completed; we also took away the sheets of paper for analysis. To begin the focus group, the lead researcher showed a silhouette of a face and told the group: “This is X, who is a 16 year old pupil applying to medical school this year. She/He is probably going to do well—what do you think she/he is like?” After a discussion of the qualities of this “successful” fictitious pupil, the group were shown another silhouette and told “Y is a pupil of the same age who is thinking of applying to medical school—but she/he has got some concerns. What do you think these might be? What do you think the barriers might be to her/him succeeding?” The sex and ethnicity of the fictitious pupils were varied in different socioeconomic groups. There were few differences by sex or ethnicity, but striking differences by socioeconomic status. Despite these incentives, recruiting applicants from non-traditional backgrounds is proving difficult.
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Table 1 Characteristics of the six schools that participated in the focus group study

<table>
<thead>
<tr>
<th>School code</th>
<th>Type</th>
<th>Jarman score of area*</th>
<th>School catchment population</th>
<th>Composition of focus group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ethnicity and religion</td>
<td>Sex</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>52%African,19% black;</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>52%African,19% white;</td>
<td>Mixed</td>
</tr>
<tr>
<td>A</td>
<td>Community comprehensive</td>
<td>53.10 22% white;</td>
<td>Boys</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7white,1black;</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mostly routine, semi-routine, or unemployed</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Voluntary aided comprehensive</td>
<td>45.45  AsianBangladesi;</td>
<td>Girls</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8Asian,3 notdisclosed</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unemployed; 3 ownaccount</td>
<td>Mixed</td>
</tr>
<tr>
<td>C</td>
<td>Community comprehensive</td>
<td>54.59 99% Muslim</td>
<td>Boys</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Asian; non-sectarian</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mostly routine, system-wide</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Community comprehensive</td>
<td>13.56  Muslim</td>
<td>Boys</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mostly routine, semi-routine, or unemployed</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Voluntary aided comprehensive</td>
<td>19.65  Asian; 68% white;</td>
<td>Girls</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>68% white, 2% Catholic;</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mostly routine, semi-routine, or unemployed</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Independent selective</td>
<td>-38.57</td>
<td>Mixed, with &quot;high proportion of Asians&quot;; non-sectarian</td>
<td>Boys</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7Asian,4white,</td>
<td>Mixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mostly routine, semi-routine, or unemployed</td>
<td></td>
</tr>
</tbody>
</table>

*The Jarman (underprivileged area) score is a commonly used ecological measure of socioeconomic deprivation. The mean for England is zero. Scores >30 are considered to indicate substantial deprivation.†These details were supplied by the schools or obtained from their prospectuses; where no detailed breakdown is given this was because the school did not wish to disclose this data.

Results

Sixty eight pupils from diverse ethnic backgrounds took part (table 1). We found few consistent differences in perceptions and attitudes between pupils from different ethnic groups, and relatively few by sex, but marked differences by socioeconomic status as assessed by occupation of head of household. The main themes are listed below, and illustrative quotes are given in box B on bmj.com.

Focus group dynamics

One of our most striking findings was the behaviour of working class boys from both white and black backgrounds (we had few Asian boys in our sample except in the independent school). In both the inner city focus groups that included boys there was a cohort of vocal “lads” with strong peer group identity exhibited through accent, dress, and behavioural norms, whose interactions were directed at subverting the purpose of the focus group through humour and “bad boy” activities (see box B on bmj.com for examples). These boys were highly able (one disruptive pupil from school A, for example, had recently won a national scholarship to study A levels at a leading private school) but presented themselves as non-academic and not really a serious part of the research study. Careers teachers confirmed similar behaviour from these boys in class.

Reasons for wanting to do medicine

Pupils from higher socioeconomic groups viewed medicine as having high intrinsic rewards such as personal fulfilment and achievement, and saw it as one option in a menu of other higher status career paths. Several had been inspired to study medicine by a positive role model or after experiencing illness in themselves or a family member. Many such pupils had done their own research and had a clear strategy for pursuing their goal. Pupils from lower socioeconomic groups, especially boys, talked more about the extrinsic (financial) rewards of medicine and about the “blood and guts” of the job. They had a stereotyped view of doctors, often derived from media images, and had not tried to flesh out the detail of particular options.

Perceptions and concerns about applying to medical school

Many pupils, especially but not exclusively from lower socioeconomic groups, had hazy perceptions of the steps needed to become a doctor (“Do you need any sciences?”). All pupils believed that entry is highly competitive and were anxious about making the grade. Inner city pupils rated their chance of an application being successful at around 1 in 10 (in reality it is around 2 in 3). Pupils from comprehensive schools felt that not having perfect grades would put them at a disadvantage compared with applicants from “better” schools, and that commitment and enthusiasm would not compensate for this.

Few pupils had made a firm commitment to medicine by Year 11 (15–16 years old). They did not feel ready to select their A levels with medicine as the goal. Many admitted to taking science subjects as a means to an end and resented cutting off alternative choices at a young age. Independent school pupils were more confident that they would achieve a place at medical school and were less prepared to “jump through hoops” to bolster their applications. Pupils from the schools in the two most deprived areas often had only a vague idea of the alternative options
financial hardship compounded by long hours and work stress. Financial benefits and that on graduation they would face severe
schools D and E (mostly lower professional and intermediate
choices. Some inner city pupils were dimly aware of schol-
but those from professional families did not see it as influencing
out of university.
these same pupils could only cite individuals who had dropped
and somewhat unreal terms. When asked for specific examples,
gled with the idea of deferred gratification.
intrinsic reward from the academic work (“it’s cruel”) and strug-
But pupils from lower socioeconomic groups often saw no
backgrounds described a trade-off (sacrifice now for rewards later).
differences in what this meant for them. Pupils from professional
raise these issues at all.
about the physical environment at university, especially food
What is medical school like?
Almost all pupils showed a remarkable lack of knowledge about
what actually goes on at medical school and about medicine as a
profession. Pupils from inner city schools had concrete concerns
about the physical environment at university, especially food
choices and type of “dormitories”; more affluent pupils did not
raise these issues at all.
All pupils perceived medical training as a long, hard course
with little time for socialising. But there were important
differences in what this meant for them. Pupils from professional
backgrounds saw intrinsic rewards in the coursework (“tiring but
fun”). Those from the lower professional and intermediate back-
grounds described a trade-off (sacrifice now for rewards later).
But pupils from lower socioeconomic groups often saw no
intrinsic reward from the academic work (“it’s cruel”) and strugg-
gled with the idea of deferred gratification.
A few inner city pupils had a perception of university as
“changing your life,” but this change was seen in distant, global,
and somewhat unreal terms. When asked for specific examples,
these same pupils could only cite individuals who had dropped
out of university.
The high cost of medical training was a concern for all pupils,
but those from professional families did not see it as influencing
their choices. Some inner city pupils were dimly aware of schol-
larship schemes for which they might be eligible. Pupils from
schools D and E (mostly lower professional and intermediate
backgrounds) were concerned that they would be ineligible for
financial benefits and that on graduation they would face severe
financial hardship compounded by long hours and work stress.
There was a big fear about failing and dropping out. Inner
city pupils greatly overestimated the likelihood of failing the
course (one group rated this at 74%), and as the quotes on
bmj.com show, this fear was closely linked to anxieties about
money.
Need for information and resources
Pupils wanted information about what doctors do, what goes on
at medical school, and admissions requirements, especially from
independent sources that would allow them to compare the strengths
and limitations of different courses. Some pupils had tried to
find information to guide their choice of GCSEs or A levels, but had not found what they were looking for. University
websites and prospectuses gave admissions information directed
at pupils aged over 16 years, but this was not experienced as
meaningful by the younger age groups in this study.
School E had received booklets from a London medical
school aimed at GCSE pupils. The pupils in that focus group had
clearly read the booklets and found the information helpful and
credible. They were particularly inspired by a section on “dispelling
myths,” which had reassured them that medical students did
not have to come from “posh” homes or independent schools.
Parental support was often mentioned spontaneously. Boys
were more likely to see parental support in financial terms,
whereas girls saw it more terms of psychological and emotional
support, and, for the Asian girls, the opportunity to live at home.
All groups felt that talking to real students and recent gradu-
ates would be the best way of finding out what medical school
(and medicine) is really like. The crucial characteristic of a cred-
ible person to speak to was homophily with the pupils
themselves. Girls in particular wanted subjective and motiva-
tional information from someone they identified with (and who
could identify with them).
The pupils from inner city schools were cynical about glossy
brochures and people from universities who came round to
market their courses. All groups were keen on work experience
in which they met real patients and gained a flavour of what
medicine is really like. The most useful placements were felt to be
shadowing junior doctors. Some told stories of friends who had
been given “unsuitable” placements (that is, without direct
patient contact) such as microbiology labs or administration.
Several pupils commented that they would like to find out
whether they would be academically able enough to cope with
the medical course before “burning their bridges” for other
options. One suggested that a voluntary aptitude test to be taken
at age 15 could provide pupils with an indication of whether
their aspirations were realistic.

Discussion
This in depth study of London schoolchildren aged 14-16 years
reveals important differences by socioeconomic background in
perceptions of, and aspirations to, medical school, which both
outweighed and moderated the influence of sex and ethnicity.
Working class boys (that is, those who identified their head of
household as in a routine or semi-routine job or unemployed)
showed a common pattern of intense peer group bonding, anti-
school values (enacted as subversive behaviour in the focus
groups), low self confidence despite high academic ability, and
cynicism towards enrichment initiatives—a combination that
may account for the continuing poor recruitment of both white
and black pupils from lower socioeconomic groups to UK medical
schools.4 5

Two main approaches have been used to study how pupils
choose their post-16 options. Large scale quantitative surveys, in
which participants are asked to indicate which of a long list of
possible factors influenced a particular choice, can test

(“There's always cars”) available to them if they failed to make the
grade for medicine, and boys in particular did not plan to make
strategic “insurance choices.”

Who gets in?
All the groups gave a similar picture of the person who finds it
easy to gain a place and succeed at medical school. Typical
descriptors were intelligent, hardworking, dedicated, and tough
(“stubborn,” “headstrong”), interested in people, caring, enthusi-
astic, ambitious, and able to cope with pressure. We did not find
any evidence of perceived prejudice in the admission process by
sex or ethnicity. However, there was a strong perception among
less affluent pupils that high social class and a privileged educa-
tion would confer an advantage in the admissions process:
[in response to a question about why a pupil might find it easy to get
into medical school]
“The way she carries herself and her grades … like at interview if
she does well.”
[facilitator] “How would she carry herself?”
“Respectively [sic], talking properly, and dressing appropriately, a
lot of confidence.”
“Not saying it in a common accent, say it properly.”
“If they speak well then they’ll look more well educated.”
(Boys from school B)
There was a perception among pupils from all the inner city
schools that there is a certain type of person who goes to univer-
sity, and that having non-academic interests makes you the
wrong type even if you’ve made the grade in school exams. But
pupils from more affluent backgrounds were able to counter the
role models of people they knew personally.

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hypotheses about macro-level links between attainment variables (such as A level points) and application success. In depth qualitative studies provide a rich picture of a smaller number of individual decisions and are the method of choice for exploring the reasons for particular choices in defined subgroups.

Comparisons with other studies

Our findings align closely with those of other researchers. In a large questionnaire and interview survey in Britain, Ball et al showed that social class, not ethnicity or sex, was the strongest predictor of both parental choice of school for 11 year olds and post-16 choice by pupils. The same authors interviewed 65 school pupils from minority ethnic groups spanning all socioeconomic groups and found that socioeconomic, rather than ethnic, differences were the most critical influence on university choices. Foskett and Hemsley-Brown have reviewed several smaller studies that produced similar findings. These consistent and dramatic differences by socioeconomic background raise the question of what it is about being "working class" that puts pupils off university.

Paul Willis, who undertook a detailed ethnographic case study of a group of "lads" in their final year of a northern secondary modern school in the 1970s, made the controversial suggestion that the link between traditional working class identity and academic failure was embodied and reproduced in the social relations of the school itself. The lads' resistance to school authority and rejection of its values allowed them to build participation recognise that achieving diversity in higher education the UK government's latest policy documents on widening par-

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We suggest, for example, that the next generation of enrichment initiatives should be locally developed and delivered in targeted deprived areas, use non-authoritarian approaches that embrace the unconventional, make extensive use of mentorship by role models from non-traditional backgrounds, draw on the peer networks and group identity of working class youth, and explicitly address the high personal risk and structural and financial constraints faced by applicants from low income groups.

We thank the focus group participants and wish them success in their future careers. We thank the schools, especially our key contacts, for their work in making this study possible. Marcia Rigby was project manager, and Nazia Ali kindly assisted with the fieldwork in school C. We thank Lewis Elton, Stephen Rowland, Jill Russell, Sean Hilton, and Jane Hemsley-Brown for helpful comments on earlier drafts of this manuscript. We also thank BMJ

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Table 2 Two kinds of higher education choosers (adapted from Ball et al)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Contingent chooser</th>
<th>Embedded chooser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socioeconomic status</td>
<td>Typically low</td>
<td>Typically high</td>
</tr>
<tr>
<td>Family history</td>
<td>&quot;First time&quot; choosers into higher education</td>
<td>Choice is embedded in a &quot;deep grammar of aspiration&quot; which makes higher education normal and necessary</td>
</tr>
<tr>
<td>Link with wider life narrative</td>
<td>Choice is distant or &quot;unreal&quot;</td>
<td>Choice is part of a normal biography or cultural script—&quot;where I have come from&quot; with &quot;where I am going&quot;</td>
</tr>
<tr>
<td>Link with immediate or longer term aspirations</td>
<td>Choice is short term and weakly linked to &quot;imagined futures&quot;—part of an incomplete or incoherent narrative</td>
<td>Choice is long term and often relates to vivid and extensive &quot;imagined futures&quot;—part of a coherent and planned life course</td>
</tr>
<tr>
<td>Information base</td>
<td>Choice uses minimal information, usually from formal sources such as prospectuses and media images</td>
<td>Choice is based on extensive and diverse sources of information, including personal and informal sources and personal role models</td>
</tr>
<tr>
<td>Focus and detail</td>
<td>Few variables are considered when making the choice</td>
<td>Choice is specialist or detailed</td>
</tr>
<tr>
<td>Geographical</td>
<td>Narrowly defined sociocultural and spatial horizons—choices are &quot;local&quot; and distance is a friction</td>
<td>Broad sociocultural and spatial horizons—choices are &quot;national,&quot; distance is not an issue</td>
</tr>
<tr>
<td>Parental</td>
<td>Parents are &quot;onlookers&quot; or &quot;weak framers&quot;; mothers may give practical support</td>
<td>Parents are &quot;strong framers&quot; and active participants in choice</td>
</tr>
<tr>
<td>Financial</td>
<td>Key concern and constraint</td>
<td>Aware of financial issues, but these do not influence decision</td>
</tr>
<tr>
<td>Use of social capital</td>
<td>Minimal social capital (contacts, influence, personal support) is used to underpin choice</td>
<td>Extensive social capital is mobilised to underpin choice (such as providing advice, arranging work experience)</td>
</tr>
<tr>
<td>Ethnic</td>
<td>Ethnic mix of the higher education institution is an active variable in determining choice</td>
<td>Ethnic mix of the higher education institution is marginal or irrelevant to choice</td>
</tr>
</tbody>
</table>

On the basis of their empirical findings, Ball et al produced a theoretical taxonomy of higher education chooser based on two "ideal types": contingent and embedded. Their model (which we have adapted slightly in table 2) accounts for many of the class differences we observed in our study.

Implications for policy

The UK government's latest policy documents on widening participation recognise that achieving diversity in higher education must go beyond the knowledge deficit model and address the root causes of low motivation and cultural disaffection in non-traditional students. US medical schools have embraced "partnership" and "pipeline" models, in which they seek long term relationships with schools in target areas, align their outreach activities with mentorship and community development initiatives, and provide a more culturally inclusive environment on campus. However, there has been little systematic research into how far these models actually address issues of identity, motivation, and "framing" in under-represented groups.

We predict that initiatives to reduce socioeconomic inequalities in medical school admission are unlikely to succeed unless they acknowledge and address the close link between self esteem, personal identity, and particular aspects of working class culture that run counter to traditional academic values and aspirations.
There are wide disparities in medical school admission by social class

Widening participation initiatives in medicine have so far had limited impact

This may be because they often seek to "top up knowledge" rather than addressing motivation, identity, and culture

What this study adds

School pupils from working class backgrounds see medical school as distant, unreal, and culturally alien

They may link their cultural identity to anti-academic values

They also associate a medical education with prohibitive personal risk and greatly underestimate their chances of successful application

Publications for a generous donation of books on learning medicine for the schools' libraries.

Contributors: TG conceptualised the study, TG and KS did the fieldwork.

All authors analysed the data. TG and KS wrote the paper.

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Competing interests: No financial conflict of interest. KS is British Asian, BSc in primary health care. The Widening Participation Unit at University College London undertook part of the work for this study as a dissertation for BaSc in primary health care.

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