

# Widening access to medicine for “under-represented” groups

## Defining “under represented” is far from straightforward

Diversity matters in universities. As in natural ecosystems, variation and interactions underpin innovation and resilience. As Robert J Sternberg says, “Without diversity, the intellectual life of a [university] campus is constricted. People may come to believe that their own point of view is the only sensible one, or even the only one.”<sup>1</sup> Different medical schools can produce graduates with different outlooks,<sup>2</sup> but creating effective diversity is difficult.

Widening participation, according to the Higher Education Funding Council for England, means that “people with the potential to benefit from successful participation in higher education should have the opportunity to do so,” which “is vital to creating a fairer society, improving social mobility, and supporting economic growth.”<sup>3</sup> Student diversity, however, which relates to access and participation, inevitably depends upon which applicants are selected—although obviously selectors can choose from those who apply. Nor does diversity among entrants always result in diversity of interaction, as students with similar backgrounds tend to associate more closely than do those from more diverse backgrounds,<sup>4</sup> and the result is sometimes “a college that looks diverse on paper, but is not as diverse in terms of actual student interactions.”<sup>1</sup>

The emphasis in medical student selection has traditionally been on academic attainment, which has been shown to be a valid selection criterion,<sup>5</sup> although recently there have been concerns about grade inflation, undue influence of secondary schooling, and over-represented private sector students underperforming at university.<sup>6</sup> In 2006, a consortium of UK medical schools introduced the UK clinical aptitude test, UKCAT, which aimed to predict performance in medical school and beyond, and to increase the diversity of medical students, but whether or not UKCAT predicts medical school performance is unclear.<sup>7</sup>

Tiffin and colleagues<sup>8</sup> have now published an important but statistically complex prospective cohort study of UKCAT’s impact on widening access. Their study looked at the outcome during selection of 8459 applicants who made 24 844 applications for entry to UK medical schools in 2009. The 22 consortium members used UKCAT differently, allowing a comparison of UKCAT’s effects—seven schools used UKCAT strongly,

taking only those students who passed a “threshold score”; nine schools combined UKCAT with other information as a “weighted factor”; and six schools used light-touch UKCAT, for “borderline cases.” The results strongly suggest that schools using UKCAT have broader access, with “threshold” schools admitting more candidates from low socioeconomic backgrounds. Knowing what the study actually means is more difficult.

Firstly, is UKCAT itself responsible for widening access? Not necessarily. Even if applicants received random lottery numbers for admission into medical school, then schools that selected students solely using those lottery numbers would have wider participation, as any potential bias from other selection processes, such as educational achievement, would be excluded. The entrants would then be a random, representative sample of applicants.

An additional and difficult problem is defining under-represented groups. In the published study, somewhat unexpectedly, men are “a disadvantaged category” because they are less likely to be accepted, and “there is clear evidence that females are over-represented in medical school intakes, compared with the UK population.”<sup>8</sup> Those dual principles are clear, if debatable, particularly because not all categories in the study met them: for instance, non-white applicants were over-represented—30% of medical students are non-white compared with 17% of the population.

Especially contentious is the group who have “low academic attainment,” defined as below the median level of medical school applicants (grades of ABB at A level (secondary school) in these data), whom the study shows are less likely to be accepted. As

an argument for disadvantage, though, this is surely wrong. Would it also mean that, for example, unfit people are disadvantaged in selection for the Olympics 100 metre final? The meaning of “UK population” as discussed by the authors is also problematic, when (in England and Wales) 59% do not take A levels and 5% have no GCSEs.<sup>9</sup> Should all such attainment levels be represented (and if they don’t apply, should we seek them out?).

If reflecting population proportions were really such an unassailable ideal in selecting medical students then why don’t medical schools do it properly? As a thought experiment, consider a scheme whereby each year medical schools offer places to a randomly selected 8000 people. Young and old, men and women, rich and poor, honest and criminal, sane and insane, and bright and less able, all would be present in population proportions. If few medical educators would subscribe to that process, it presumably is because most recognise that educability and suitability are key attributes of competent medical professionals

Population proportions alone clearly cannot determine policy on admissions. That is why the Higher Education Funding Council for England talks instead of “equality of opportunity” and of ensuring success in programmes of study. Whether groups with “low academic attainment” actually do become successful, competent doctors, or perhaps instead continue to underperform, is the key empirical question here, which is now beginning to be explored,<sup>10</sup> and the answers will have important implications for selection and healthcare.

Outcomes, therefore, matter as much as intakes. Widening access needs to reconcile possible benefits from a broader spectrum of students, with possible risks from technically less able doctors. The inevitable calculus of “equity and efficiency”<sup>11</sup> is ultimately not statistical, but political.<sup>12</sup>

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**▶ LIFE, p 13, RESEARCH EXPLAINED, p 39, VIEWS AND REVIEWS, p 42, p 43**



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