Differential attainment: how can we close the gap in paediatrics?

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ABSTRACT

Differential attainment is the gap in attainment between different demographic groups undertaking the same assessment. Across the UK, we see differences in outcome in undergraduate and postgraduate medical education on the basis of gender, age, ethnicity and country of primary medical qualification which cannot be explained by a difference in ability. The largest gaps appear when we look at the variation in outcome between UK and international medical graduates (IMGs) and between white British and black, Asian and minority ethnic (BAME) doctors in postgraduate medical education. If we look to postgraduate medical examinations, the differences in attainment are stark and occur across all medical specialties, with paediatrics being no exception. The differences are also seen in the rates of relative success in recruitment to training posts and in a trainee's likelihood of getting a satisfactory outcome at the Annual Review of Competence Progression. Ensuring all doctors reach their full potential is undoubtedly an issue of fairness that is of particular significance to paediatrics as IMGs make up 47% of our medical workforce and 36% of the paediatric workforce identifies as being from a BAME group. It is clear that if we fail to close the gap in differential attainment, there will be both a personal cost to affected individuals, but also a cost to the wider paediatric profession and the children they serve. This paper hopes to summarise the background and causes to differential attainment and look towards possible interventions that might tackle this issue.

Key messages

- Differential attainment is the gap in attainment between different demographic groups undertaking the same assessment.
- Differential attainment is not caused by examiner bias, differences in prior educational achievement or socioeconomic status.
- It reflects wider societal and workplace inequalities.There are risk factors that can negatively affect the progression of doctors in black, Asian and minority ethnic and/or international medical graduate groups and protective processes that can mitigate against these.
- Differential attainment will not be solved by a single intervention and rather by cumulative change at many different levels.

INTRODUCTION

Differential attainment is the gap in attainment between different demographic groups undertaking the same assessment.[1] Across the UK, we see differences in outcome in undergraduate and postgraduate medical education on the basis of gender, age, ethnicity and country of primary medical qualification which cannot be explained by a difference in ability. The largest gaps in attainment appear between UK medical graduates and international medical graduates (IMGs) and between white British and black, Asian and minority ethnic (BAME) doctors in postgraduate medical education. In postgraduate medical examinations, the differences in attainment are stark and occur across all medical specialties, with paediatrics being no exception. The pass rates for different groups are illustrated in table 1 [2 3]

Differences are seen in the rates of relative success in recruitment to training posts and in a trainee's likelihood of receiving a satisfactory outcome at the Annual Review of Competence Progression (ARCP).[4] In a meta-analysis reviewing the relationship of ethnicity of 23 742 UK trained doctors and medical students to their academic performance, the conclusion was that over the course of undergraduate and postgraduate training 'the odds of failure in non-white candidates (were) 2.5 times higher than for white candidates'.[5] Ensuring all doctors

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Table 1 UK exam pass rates, 2014–2019, for all medical specialty postgraduate exams and Membership of the Royal College of Paediatrics and Child Health Exams (MRCPCH), General Medical Council (GMC)

	UK white medical graduates	UK BAME medical graduates	International medical graduates
All medical specialties' exams	75%	63%	46%
All MRCPCH exams	75%	61%	44%

BAME, black, Asian and minority ethnic.

reach their full potential is an issue of fairness that is of significance to paediatrics as IMGs make up 47% of our medical workforce, compared with 40% of the total medical workforce, and 36% of the paediatric workforce identifies as being from a BAME group.[6] If we fail to close the gap in differential attainment, there will be a personal cost to affected individuals, but also a cost to the wider paediatric profession and the children they serve.

While there is no research relating to reducing differential attainment within paediatrics, it is hoped that this paper will raise awareness of this important issue among paediatricians; hopefully stimulating further interest and investigation within the specialty. The research presented here relates to other specialties in the UK, but it seems reasonable to assume a high degree of transferability to paediatrics.

BACKGROUND

National awareness of differential attainment among key stakeholders in postgraduate medical education was increased when the Royal College of General Practitioners (RCGP) was taken to judicial review over perceived discrimination within its Clinical Skills Assessment.[7] IMGs had a pass rate of 36.8%, compared with a 90.6% pass rate for UK graduates (UKGs).[8] A review suggested that 'subjective bias due to racial discrimination' could be the cause of this difference.[8] While ultimately the courts found in favour of the RCGP, the judgement in 2014 highlighted the need for the medical establishment to work to reduce differential attainment. 'If it (RCGP) does not act and its failure to act is the subject of a further challenge, it may well be held to be in breach of its (public sector equality) duty'.[9]

The public sector equality duty places an extra duty on public sector organisations to advance equality of opportunity between those who share a protected characteristic and those who do not and to foster good relations between such groups.[10] This judgement clarified that if such organisations were not working to reduce differential attainment, they could be reasonably subjected to a challenge for a perceived breach of their public sector equality duty. Differential attainment is not exclusive to general practice having been seen across other specialities.[11] The General Medical Council (GMC), the UK Medical Royal Colleges and the Statutory Education Bodies (SEBs) are working together on the issue of differential attainment. There is a small, but growing body of evidence to underpin this work.

CAUSES OF DIFFERENTIAL ATTAINMENT

No one factor can entirely explain why differential attainment exists. Doctors' prior attainment or socioeconomic background[12 13] are not the sole cause of these differences. Even when such differences are accounted for, the gap only narrows, not closes. This suggests ethnicity and country of qualification could act as independent risk factors for poorer outcomes in medical education. Assessing the impact of ethnicity and country of qualification is hampered by medicine in the UK being dominated by individuals from the most affluent groups.[14] Similarly, it is unlikely that examiner bias alone is at fault, as gaps in attainment persist in machine marked exams as well as live examiner marked exams.[5] There is minimal evidence as to the result of intersectionality on differential attainment for BAME IMGs. However, when UK citizens trained overseas and returned to the UK they were deemed more appointable to training than other IMG groups, despite subsequently having poorer ARCP outcomes than other IMGs.[15]

Systemic inequalities appear to be present in medical education, reflecting wider societal workforce and employment inequalities.[16] 'Fair Training Pathways for All',[17] sought to understand the reasons for differential attainment in postgraduate medical training. They collected qualitative data from trainees across four deaneries, different levels and different specialties (Medicine, Surgery, Psychiatry, General Practice, Clinical Radiology, Obstetrics and Gynaecology, and Foundation). This research identified 12 risk factors, summarised in table 2, that made individuals from BAME and/or IMG groups more vulnerable to differential attainment. While medical training was found to be psychologically risky for all groups, there were additional risk factors experienced by BAME UKGs and IMGs when compared with white UKGs, placing extra barriers in the way of their progression.

HOW CAN WE TACKLE DIFFERENTIAL ATTAINMENT?

'Fair Training Pathways for All'[17] identified a number of protective processes that lessen the attainment gap, listed in table 3.

The GMC funded a subsequent study: 'What supported your success in training?'.[18] This identified 10 success factors which, when present in a training programme, led to reduced levels of differential attainment. These success factors fell across three areas;

Table 2 Summary of risk factors and vulnerability processes taken from 'fair training pathways for all', Woolf K *et al*, 2016

Risk factors and vulnerability processes affecting both BAME and IMG doctors	Risk factors and vulnerability processes particularly affecting IMGs
Poorer relationships with seniors and problems 'fitting in' at work can lead to fewer learning opportunities, lower confidence and increased chance of mental health problems.	Inexperience with UK assessments, recruitment, UK cultural norms including communication and National Health Service/work systems.
Perception that unconscious bias in recruitment, ARCPs, and at work can lead to poorer outcomes, as can anxiety about potential bias.	Cultural differences can impede relationships with colleagues and potentially patients, because of unfamiliarity with UK cultural norms, a feeling of not being understood by UKGs and because trainers can lack confidence in IMGs' prior training.
Poorer performance in exams and recruitment can mean less autonomy in job choice, increased likelihood of being separated from family and support networks, and increased chance of mental health problems. Failing exams can lower confidence and resits can be felt to interfere with workplace learning.	Lengthy time to learn cultural norms.
	Potential stigma of supplementary help.
Fear of being labelled as problematic can impede trainees reporting problems, including perceived racism.	Anxiety about increased probability of exam failure.
Potential for lack of recognition from trainers about environmental stressors, especially because within medicine there is a belief that failure results from lack of motivation or ability.	Visa difficulties and costs, and ineligibility for jobs can reduce training opportunities.

ARCP, Annual Review of Competence Progression; BAME, black, Asian and minority ethnic; IMG, international medical graduate; UKG, UK graduate.

the working environment, the people who support learning and strategies used to support learning. This strongly echoes the protective processes illustrated in table 3, suggesting that change which enables effective supervisee-supervisor relationships, supportive work environments and the availability of support structures is what impacts on reducing differential attainment.

The onus of making change must not be solely placed on affected groups, rather it should be everyone's responsibility, but any interventions made should include views and inputs from members of affected groups to ensure inclusivity. The risk factors and protective processes identified suggest what we can do, but putting these into practice will require change at varying levels. We make a number of our own suggestions based on these and case studies from other specialties[19] as to what that change might look like. At an individual level, we can make the effort to learn and pronounce names correctly. We can facilitate opportunities to get to know our colleagues or share advice and learning widely, not just within silos. Supervisors can focus on developing relationships with those they supervise, to better understand and support them. It is important to remember that while reference is made to groups such as IMGs or BAME UKGs, these terms and groupings are in themselves inadequate. While used to reflect the terminology used in this area, it should be noted that the vast heterogeneity within these groups

Table 3 Summary of protective processes taken from 'fair training pathways for all', Woolf K *et al*, 2016

Protective processes	
Trainers having time to get to know trainees can increase trust, understanding and confidence, especially for IMGs where cultural differences might impede relationships forming quickly.	IMGs reported valuing meeting other IMGs who they felt understood them and would not judge them.
Trainers telling trainees they have faith in their abilities can help them relax and concentrate on learning.	Role models who were aspirational, had succeeded, and could give advice.
Trainers helping trainees overcome exam anxiety—including anxiety about discrimination—can increase confidence and performance.	Deaneries, clinical supervisors and educational supervisors could help deal with problems, for example, bullying, racism, health and other personal problems.
Trainers providing tailored advice about CVs and job applications or who explained UK cultural norms, especially for IMGs.	Deaneries being supportive of flexible working could help pregnant trainees and those with children or other caring responsibilities achieve work-life balance.
Support from family and friends outside work helped trainees who were having difficulties at work including bullying and exam failure	Online resources.
Good relationships between trainees from different cultural groups helps trainees realise problems are not due to discrimination or their own failings, and provides emotional and practical support.	Keeping in mind their love of medicine and their goals helped keep trainees motivated and fight for what they needed to progress.
	Framing of challenges as opportunities, for example, exam failure as an opportunity to learn.

IMG, international medical graduate.

means a universal experience cannot be assumed. The emphasis should be on supervisors getting to know supervisees as unique individuals, each with their own challenges and strengths, while recognising that for some there may be additional hurdles along the way, that may require tailored support.

At an institutional level, organisations can adopt and enforce antidiscrimination policies. At an individual level, being seen to actively uphold these values is just as important. When a new doctor joins an organisation, ensuring that their induction is thorough and more than just a password exchange will safeguard those new to the National Health Service so they are not left unsure of expectations and processes. Institutions can also prioritise supervision within job plans and provide opportunities to access mentoring.

At a policy level, it is important that organisations such as the Royal College of Paediatrics and Child Health (RCPCH), GMC and SEBs are making culturally competent decisions about matters such as recruitment or high stakes assessment. This is best achieved by ensuring diversity in appointments to these organisations, something the RCPCH has openly committed to following publication of its 'Putting Ladders Down'[20] report, with clear recommendations to improve the diversity of those appointed to college roles. Specific research into the drivers of differential attainment within paediatrics is needed. This could start with quantitative research using national data sets from the GMC, UK Medical Education Database or the RCPCH.

The case for reducing differential attainment is clear. While the courts may have brought this to the fore, it is not just a matter of serving justice, it is about doing what is right. With change, we can make medical education and paediatric training fairer for all, ensuring that we really do harness the full potential of our current and future paediatricians.

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