Enhancing Equity in a Widening Participation Scheme for School Students

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ABSTRACT

OBJECTIVES: The Royal College of Surgeons (RCS) Diversity Review 2021 found that premedical school students from ethnic minority backgrounds were dissuaded from pursuing a surgical career. Gloucestershire is in the bottom 20% of disadvantaged counties; there is no widening participation (WP) scheme in the county. We implemented a fully inclusive WP scheme in Gloucester, with means of accessing virtual and face-to-face work experience, to enhance the equity of work experience.

METHODS: A three-stage project was conducted. Stage 1; two separate virtual Q and A sessions, to allow students to ask questions about life as a doctor. Stage 2; conversation between student and patient held virtually, to gain insight into working as a doctor to help determine whether medicine is the career for them. Stage 3; face-to-face work experience. Distribution sent to all 58 schools (state and private) in the county, targeted at secondary school children.

RESULTS: One hundred twenty-nine people attended the Q and A; 70 feedback responses received. Of the total, 86% female and 56% of ethnic minority background. 26% did not have an immediate family member that attended university, 10% had care-giving responsibilities. Eighty-one percent rated the session >8/10 for usefulness. Twenty-seven undertook the virtual conversation, feedback from 11; 91% female, 45% of ethnic minority background, and 27% did not have an immediate family member that attended university. All rated the session 10/10 for usefulness. 10 attended the face-to-face experience, 50% from an ethnic minority background.

CONCLUSION: The RCS Report identified barriers to aspiring students from less-privileged backgrounds pursuing a medical career. More needs to be done with WP schemes to promote equity. Targeted distribution of WP schemes to all schools, utilization of a variety of means of offering work experience, and accessibility to any school-aged student were aspects of our WP to improve exposure to the medical profession.

KEYWORDS: Equality diversity inclusion, careers, widening participation

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Introduction

The Royal College of Surgeons (RCS) Diversity Review 2021[1] stated, "Why does diversity, inclusion and a sense of belonging matter? For a start, it is better for patient outcomes. Doctors who are valued will in turn provide a higher level of care for their patients." It states that "learning multiples when it takes place in groups of people who are different. We learn from difference, not from homogeneity." Studies have shown that patients of an ethnic minority background have improved healthcare experiences when treated by physicians of their own race. Access to a diverse group of doctors can lead to improved patient involvement with care, higher levels of patient satisfaction and better health outcomes.[2] However, one aspect of the RCS report that was particularly poor was the engagement of aspiring doctors. The review found that those from ethnic minority backgrounds reported negative experiences, with the College having a nearly "nonexistent" strategy to improve its diversity. Reports of premedical school students suggested that someone's ethnicity or social background could dissuade them from pursuing a career in medicine or surgery.[1] Some reports from medical students stated schools had attempted to dissuade them from thinking of medical careers due to their ethnicity, social background and teachers not being able to make the leap of imagination that someone who "looked like them" (the student) could become a doctor or surgeon.[1] Furthermore, students who were in medical school, but from nonmedical or less economically privileged backgrounds described negativity towards a medical career; "*I feel [as a Black surgeon] that I suffer a different level of scrutiny from others.*"[1] The feeling of having to change yourself to fit in is concerning when we know that the representativeness of frontline hospital staff in relation to their communities predicts patient experiences of civility and care quality.[1] To diversify, there needs to be a change in the current culture and environment, by listening and adapting to the needs of others to cultivate a sense of belonging for everyone.

Despite efforts to increase gender parity and ethnic diversity among U.K. doctors, the lack of people from lower

socioeconomic backgrounds entering the profession is still a reality. Across the United Kingdom, approximately 75% of applicants to medicine have a parent in the highest occupational socioeconomic group.[3] Widening Participation (WP) schemes exist across the United Kingdom, offering opportunities to groups of people who are underrepresented in higher education.[4] WP is described as "the process of encouraging underrepresented socioeconomic groups to apply for Higher Education."[5] These schemes aim to encourage students with the potential to study medicine to regard it as a viable option.[4]

Gloucestershire County is in the bottom 20% of deprivation out of 317 English Authorities and ranks as 126th out of 151 most deprived authorities in England.[6] The population of Gloucestershire was just under 650,000 in 2021. Gloucestershire had an estimated dependency ratio of 0.64 which means for every 100 people who are of working-age there are 64 people who are dependent on them. England and Wales, in comparison, have a lower ratio of 0.59.[6] Gloucestershire has a lower proportion of 0 to 19-year-olds and 20 to 64-year-olds when compared to the national figure, while the proportion of people aged 65 and over, exceeds the national figure. Gloucestershire is characterized by a comparatively small Black and Minority Ethnic population. The 2011 census showed Black and Minority Ethnic groups accounted for 4.6% of the population, however, the 0 to 19-year-old population is more diverse than other age groups, which may have implications for service delivery.[6] At present, there is no WP scheme based in the county. Students from the most deprived/poorer areas therefore face added barriers to pursuing a career in medicine.

In light of the RCS Diversity Report, we aimed to implement a new WP scheme. By targeting the program at secondary school (provides education to children aged 11-16) children would offer an opportunity to "get in early" to motivate, inspire and identify possibilities. Our program differed from most conventional work-experience schemes, as it was designed to be fully inclusive, with means of accessing both virtual and face-to-face work experience, in order to enhance the equity of the program, particularly for the least-privileged students. We aimed to instill a sense of confidence in the students, to see what is possible rather than to feel that certain careers are impossible.

Methods

A WP scheme was conducted through Gloucestershire Hospitals NHS Foundation Trust between December 2021 and September 2022. This was a new initiative, which was established by the authors of this paper, in collaboration with the Apprenticeships and Careers Team within the Trust. Within Gloucestershire, there are 58 state and private secondary schools. Any student who attended a school within the Gloucestershire catchment area was eligible to apply for the scheme. The Apprenticeships and Careers Team within the Trust were used to contact the schools. Weekly schools' emails were sent to a distribution list of 148 contacts across all schools, to advertise the events. Social media (advertisements on Twitter) were also utilized to recruit the students.

A three-stage project was conducted. The first two stages were conducted during winter when COVID-19 numbers remained high, and restrictions were in place on traditional face-to-face work experience. These sessions were deliberately designed as remote/virtual sessions in order to enhance accessibility for students with limited travel options, care needs, or financial limitations. Although the final stage (as detailed below) provided more conventional work experience opportunities, we believe the remote/virtual aspect of our program to be a novel approach to providing work experience.

The Q and A sessions

Two separate Q and A sessions held over Microsoft Teams, booked via Eventbrite. Faculty included both junior (doctors in training) and senior (consultants or equivalent) doctors from a variety of specialties and ethnic backgrounds. Students, teachers, and parents were invited and were encouraged to ask questions about life as a doctor.

Patient conversation

Students were invited to have a conversation with a patient over Microsoft Teams, facilitated by a junior doctor, to allow the student to gain further insight into whether medicine is the right career for them by gaining an understanding of both the patient experience and how a doctor can impact this. It also allowed students to get guidance from the doctors facilitating personal statement impact, using experiences learned virtually to provide evidence that they are ready to embark on a medical degree and career.

Face-to-face work experience

The final stage consisted of in-house face-to-face work experience with the students visiting the Hospital Trust over a 2-day period, hosted by a surgical consultant, spending time in the clinic, theater, and wards.

As mentioned, any student within the catchment area was eligible to be involved with stages 1 and 2 of the project. As per the rules of the Trust, in order to attend face-to-face work experience, the students then had to be aged 16 or over. All students involved in the patient conversation had to return signed consent forms from both themselves and a parent or guardian. These specifically acknowledged that some topics discussed might be triggering. Patients were recruited with consultant approval and also returned signed consent forms. In order to attend the face-to-face work experience, any student had to complete the required paperwork from the Trust; which included a generic risk assessment identifying which services the student would come into contact with and

infection control and manual handling protocols in place, and next of kin paperwork so that next of kin details were held for each student. As the Apprenticeships and Careers Team engage with school-aged students regularly, and work-experience rules are well-established in the Trust, ethical approval was not required for this project. A Standards for Reporting Qualitative Research checklist as per the Equator guidelines can be found in Appendix 1.

Statistical analysis

Qualitative and quantitative feedback were gathered throughout each stage of the project by use of a feedback form.

Results

The Q and A sessions

129 people attended the two Q and A sessions (December 2021 and January 2022); 70 feedback responses were received from students from 25 different state and public schools. Eighty-six percent were aged >16, 86% female, 13% male, and 1% nonbinary. Although 29 students who provided feedback were white British, 26 were Asian; in total, 56% were of an ethnic minority background (Figure 1). Religion or belief is shown in Figure 2. Twenty-six percent did not have an immediate family member that attended university, only 19% had a family member with a career in medicine, 7% reported a disability, and 10% had caring responsibilities.

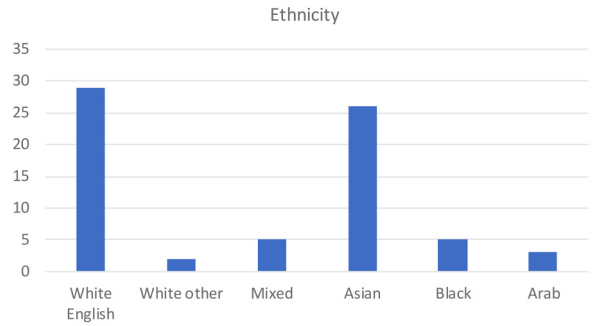

Figure 1. Ethnicity of students.

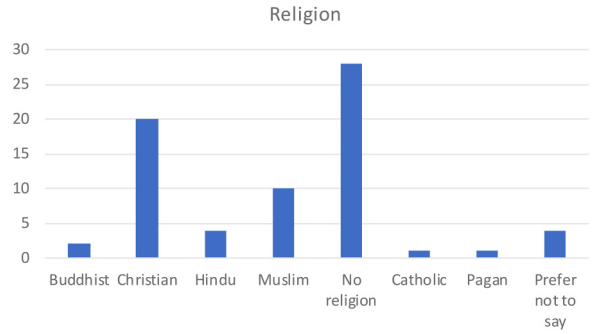

Figure 2. Religion of students.

Eighty-one percent rated the session >8/10 for usefulness and enjoyed the use of Microsoft Teams to host the discussion. Qualitative feedback was received and some of the quotes are detailed verbatim in Table 1.

Patient conversation

Twenty-seven students from 12 schools (all state or grammar) participated in the patient conversation, in Spring 2022. Eight sessions were run: one patient, one junior doctor and 2 to 4 students per session.

Fifty percent of the junior doctors were registrars (specialty doctors in training); 50% were of an ethnic minority background. All felt the session gave the students a unique opportunity to talk about life in the NHS. Topics discussed included receiving a diagnosis, processing bad news and professional support available, the mental health impact of chronic diseases, loneliness in hospital and the importance of effective communication. All the patients felt the conversations were well-facilitated, held in a "safe-place" environment and importantly, all would participate in another session.

Student feedback was gathered from 11 participants from 7 state and grammar schools. Ninety percent of the students were aged >16, 91% female, 9% male. Although six students were white British, the remainder were Asian or mixed race; in total, 45% were of an ethnic minority background (Figure 3). Twenty-seven percent did not have an immediate family member that attended university, only one had a family member with a career in medicine, one reported a disability and one had caring responsibilities.

Importantly, 100% found the session useful and rated it 4 or 5/5 for enjoyment. All found the session helped develop their

Table 1. Qualitative feedback from the Q and A sessions.

1	"It was amazing to have insights from people who understand what it is like to go through studying medicine, and to have their honest answers when it came to matters like balancing family and career"
2	"I could not have been gladder to have signed up to this. So many questions that have accumulated in my mind over the years were answered"
3	"It gave us all an opportunity to ask any questions that we needed to, to a person able to better answer then than anyone else that I know"
4	"It was very relevant because I was able to get valuable information that would help in my personal statements and interviews! This was helpful as it is very hard to find work experience right now"
5	"It was great to have the Q&A session over Teams as my parents could listen to the answers too"
6	"It was really easy to fit in around school"
7	"I don't think you often get the opportunity to ask all these questions to doctors—having their attention for a full hour was amazing"

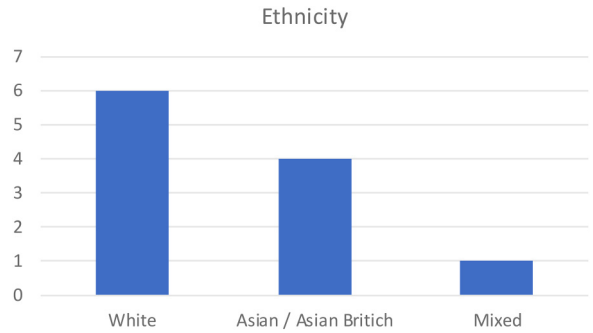

Figure 3. Ethnicity of students.

Table 2. Qualitative feedback from the patient conversation.

1	"I enjoyed the way that it was set up in small groups to make it very personal, and I liked that everyone had their cameras on so it felt like a real discussion"
2	"I enjoyed the fact the conversation was held online as it gave the opportunity to have a proper conversation with the patient without any distractions"
3	"It was really easy to attend the session and because it was 1-on-1 teaching I got loads out of it"
4	"I just loved getting to know about the patient's experiences it was really interesting to see his perspective of his condition"
5	"I learnt more about the role of doctors, and how they have such a big impact on the patients they look after. It also gave me an insight into the key skills/qualities that doctors would need"
6	"I liked that it was quite informal and that we could easily ask our own questions"
7	"I really enjoyed the opportunity to speak to a patient, as it allowed me to better understand the patient's experiences and the impacts that doctors have on their care. I also enjoyed the debrief with one of the doctors, as it allowed me to find out more about their role"

understanding of what a career in medicine would involve, thought it would help enhance their personal statement, and would recommend the program. Qualitative feedback is detailed in Table 2.

Face-to-face work experience

Face-to-face work experience was conducted in Summer 2022. 10 students from 7 state and grammar schools, 50% from an ethnic minority background and 90% female, attended the Trust for a two-day attachment, supervised by a diverse group of surgical consultants. All students were over 16 as per the Trust policy for face-to-face work experience. All found the experience useful and enjoyable.

Discussion

This WP program encouraged students from less privileged backgrounds to consider a career in medicine. All students who took part were from public, state and grammar secondary schools, with the majority from ethnic-minority backgrounds. The use of both virtual and face-to-face programs made the accessibility of the work-experience scheme more equitable and easier to access, regardless of background or home circumstances. Utilization of the Careers team within the Trust ensured communication was distributed to all schools in the county, and successfully enrolled students who might not otherwise have had access to work experience. The program was fully inclusive and has inspired these students from non-medical, ethnic minority and less privileged backgrounds to pursue a career in medicine.

Medicine is typically regarded as a "selecting" subject, with more applicants than places. However, underrepresented groups are also underrepresented in applications. Of those taking the U.K. Clinical Aptitude Test (UKCAT), required by most U.K. medical schools for school-leaver entry, 80% came from higher socioeconomic groups.[7] Medicine, dentistry and veterinary are the university courses with the lowest proportion of disadvantaged applicants, with 4.3% applicants from disadvantaged backgrounds compared to 10.9% for other subjects.[8] Representation of lower socioeconomic groups in medicine is particularly poor,[9] and seen as an elitist course.[10] All U.K. medical schools are required to have outreach schemes that widen access to these students. However, these vary depending on geographical location. WP in medicine often falls under the bracket of WP for the university, meaning that WP schemes make up a small part of a university's WP portfolio. As a result, there is no obligation on medical schools to fill a compulsory minimum number of WP student places.[11] Furthermore, each Trust in the United Kingdom has its own work experience rules and pathways, with many requiring students to seek out consultants who are willing to host them. For students without school or family contacts, this makes accessibility to work experience very difficult. Research commissioned by the Medical Schools Council in 2014 found that approximately half of schools and colleges in England had no applicants for medicine and 80% of applicants came from only 20% of schools and colleges.[12] With regard to surgery, careers outreach from the RCS appears patchy and to rely on volunteers. There may be further work needed to develop the college career guidance in the literature to ensure it effectively communicates with this target audience.[1]

Social mobility considers the ethical component of WP in medicine and refers to the extent to which people can move between socioeconomic strata during their lifetime and between generations.[13] The BMA stated, "*The struggle for social mobility within the profession is still in its infancy, although the chief obstacle is not outright opposition so much as inertia.*"[14] Historically, sexist beliefs and institutions created active barriers to women entering the medical profession.[15] However, with students from lower-income backgrounds, a different problem exists. It is not just the perception that people from less-privileged backgrounds cannot pursue a career in

medicine,[1] but the more significant issue is that some of these students may lack the resources, incentive, and academic preparation required to do so. As a result, the inertia mentioned above is one of the main issues with current WP schemes.[11]

Furthermore, the benefits of a diverse workforce are also important from a patient perspective. The quality of the patient–physician relationship plays an influential role in patient outcomes. The ethnicity and gender of the patient and the physician are two aspects that have emerged as potential reasons for the differential health outcomes experienced by some patients.[2] Compared with patients in race-concordant relationships, Black patients were significantly more likely to give lower ratings when treated by White physicians.[2] Access to a diverse group of doctors can therefore lead to improved patient involvement with care, higher levels of patient satisfaction and better health outcomes.[2] As a result, greater investment is needed in recruiting, mentoring, and retaining medical students and doctors who identify as members of underrepresented minority groups. Promoting a diverse representation of "what doctors look like" remains critical for eradicating stereotypes that prevent patients from viewing physicians who are members of underrepresented minority groups.[2]

All aspiring doctors should have equal opportunities and the same chance of success in medical applications, regardless of background. The BMA highlighted that disadvantaged students should be supported both throughout an application to medical school and subsequent medical education, to provide an equitable chance of vocational success.[9] It has a widening participation in medicine initiatives providing opportunities to those underrepresented in higher education.[4] It aims to create links between doctors and local schools by providing work experience, helping with personal statements, and preparing for admission tests.[4] Yet at present, most U.K.-wide WP programs focus on equality (defined as ensuring every individual has an equal opportunity to make the most of their lives and talents[7]) and not equity (giving more to those who need it which is proportionate to their own circumstances). The difference between equality and equity must therefore be emphasized. Although both promote fairness, equality achieves this through treating everyone the same regardless of need, while equity achieves this through treating people differently depending on need. However, this different treatment may be the key to reaching true equality.[7] The priority audience with WP should not be those who are likely to go to medical school, but those that are not. Earlier intervention to improve the equity of applications is necessary, as evidence suggests disadvantaged students see medical school as "culturally alien."[16] Martin et al[17] found that schools that do not regularly send students to medical school may lack staff with the knowledge to prepare students for the application. Furthermore, these students have fewer contacts who can support a medical school application.[17] Current WP schemes therefore need to do more to ensure there is equity in medical education. Our WP program aimed to bridge this gap, by ensuring that publicity and accessibility were sent to every school in the county, so access and take-up to the scheme were available for all. Utilizing both "virtual" Q and A sessions and patient discussions, as well as the traditional face-to-face work experience meant that work experience was offered in a variety of means, both virtually online and in person. This ensured that students who might have poor transport links or caring or work responsibilities and would therefore traditionally struggle to attend face-to-face work experience, still had the opportunity to access the program. This was especially important coming out of the COVID-19 pandemic where travel restrictions, the need for isolation for family or personal reasons and extra care roles were additional factors to consider. We provided students with the specific opportunity to discuss with both doctors and patients what a career as a doctor is like, the role of a doctor and the variety of career paths available, demonstrating to these students the breadth of opportunities available to them. Furthermore, to help achieve equity, we offered the opportunity to provide support to the students in writing their personal statements if they wanted it. We had to abide by the face-to-face work experience rules of the Trust which dictate that only students aged 16 or over can visit the Trust for an attachment. Although this may be a limitation to our work, students of any age were able to take part in the Q and A and patient conversation aspect, ensuring our program was able to "get in early" to motivate and inspire these students. Lack of technology at home may be a barrier for some students accessing the virtual component of the project, however advertising the work experience program through schools hopefully meant that those with restricted access were able to use the available school technology to take part. Although the study took place in just one county so findings might not be transferable to other locations, Gloucestershire is one of the more deprived areas of the country. Furthermore, the feedback form used to collect the data was not validated or pilot tested which may be a further limitation to our data collection. However, the questions asked were generalizable and applicable to the nature of this work. This was the first year this scheme has been run, and further work to explore the challenges around engaging the most disadvantaged groups will be a key component of the scheme going forward.

Conclusion

The RCS Diversity Report has identified that barriers exist with aspiring students from less privileged backgrounds pursuing a career in medicine and surgery. It is vital to address this so the profession reflects the wider communities requiring their services as this will lead to improved care for all patients. More needs to be done with WP schemes across the United Kingdom to focus on promoting equity and not just equality. Targeted distribution of WP schemes to all schools, facilitated by a diverse faculty, utilization of a variety of means of offering work experience and

exposure to the frontline of healthcare delivery, and accessibility to a younger age group were all aspects of our WP which aimed to improve the equity of work experience in the county. Further WP schemes are needed that focus on the targeted involvement of the more deprived and younger classes.

Consent and ethics

Ethical approval was not required for this work. All students involved in the project were required to provide written consent from a parent, guardian or teacher.

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Supplemental material

Supplemental material for this article is available online.

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