Improving the Medical School Experience for Students from Widening Participation Backgrounds: Setting the Scene for an Action Research Approach

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Abbreviations

BMA: **British Medical Association**

GMC: **General Medical Council**

MSC: **Medical Schools Council**

WP: **Widening Participation**

Abstract

Introduction: In the UK, the medical profession has long drawn its ranks from the most privileged in our society. Widening participation (WP) is a policy agenda that aims to increase representation and support students from underrepresented groups to access higher education. The Medical Schools Council (MSC) has committed to increasing access for students from lower socioeconomic groups through reforms in outreach and admissions policies. New medical schools have also opened with strong commitments to WP. However, despite broader admissions, limited attention has been given to the experiences and support needs of WP students during their medical school years. This study examines both student and faculty perspectives and prioritises recommendations to enhance WP student experience, with the aim of answering the following research questions:

1. What are the lived experiences of WP students during their time at medical school, and how do they make sense of the barriers and supports that shape their wellbeing, belonging and progression?
2. How do medical educators articulate their understanding of the challenges faced by WP students and of institutional responses?
3. Which interventions to enhance WP student experience, do students and faculty reach consensus on, for implementation by medical schools?

Methodology: This study employed a participatory approach, informed by the principles of action research. This methodology was selected to advance beyond descriptive accounts of disadvantage by positioning students and educators as co-researchers. Thematic analysis was conducted using a reflexive approach. Data collection included the following components:

- 20 WP students and faculty took part in interviews and workshops, these included:
    - Semi-structured interviews with nine WP students from Aston and Oxford University.

    - Workshops and interviews with 11 faculty and clinical educators across UK institutions.

- A two-round Delphi study involving 51 participants (40 faculty and 11 WP students) was conducted to develop consensus recommendations.

Results and Discussion: The Interviews and workshops identified the following themes:

Theme A: Barriers before and during medical school

- Sub-theme A1: Pre-admission Barriers and their Legacy
- Sub-theme A2: Economic and Structural Constraints on Student Experience
- Sub-theme A3: Uneven Academic Preparation
- Sub-theme A4: Belonging, Identity and Social Experience

Theme B: Educator Perspectives on institutional responsibilities and support for WP students

- Sub-theme B1: Recognising Structural Constraints

The Delphi process consolidated these findings, resulting in consensus on institutional policies and interventions. Top priorities included annual reviews of financial support, mentorship programmes linking WP students with faculty or senior peers, and comprehensive postgraduate career guidance. Students placed a higher emphasis on career progression and opportunities for paid healthcare-related roles than faculty, underscoring the importance of integrating the student voice in policy design.

Conclusion: Although WP has improved access to medical education, students from lower socioeconomic backgrounds continue to encounter structural barriers. A participatory approach led to the consensus on interventions to be prioritised by medical schools to support WP students. By incorporating student and faculty perspectives, this study provides evidence-based recommendations to inform institutional practice and national policy.

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Finally, I dedicate this dissertation to my family — my wife, Ghaniah; our daughter, Levizah; and our son, Rafi, as well as our parents and extended families. Their love, support, and patience made it possible for me to complete this dissertation and my studies.

Chapter 1: Introduction

Access to the medical profession was long the preserve of a privileged few. In recent years, widening participation (WP) initiatives and reforms to medical school admissions have opened medicine to a broader section of the population. Yet medical schools and universities exist in a wider society where structural barriers exist. “Cold spots” persist, and applicants from low-income families and some ethnic minority groups remain underrepresented (Woolf *et al.*, 2025).

The *NHS Long Term Workforce Plan* (NHS England, 2023a) included commitments with clear relevance for WP: a doubling of medical school places by 2031/32, with growth in areas of greatest workforce shortage; an ambition to improve working culture with a focus on inclusivity and wellbeing support, and measures to recruit a more diverse range of entrants who reflect the communities served by the NHS. This frames WP in terms of workforce sustainability, rather than as a matter of fairness and equity. This instrumental or transactional framing risks reducing WP to a means of filling workforce gaps, while overlooking the lived experiences and outcomes of students once admitted. The *NHS 10-Year Plan* (UK Government, 2025) goes further, pledging to “make the NHS a force for social mobility and local prosperity.” While these ambitions are welcome, policy rhetoric still tends to treat WP as a lever for workforce and economic goals, with much less attention to how WP students themselves experience medical school and what supports or hinders their success once admitted. Commitments to in-course support, relating to finance, wellbeing, belonging, and attainment are absent from the discourse.

The Medical Schools Council (MSC) has shaped the WP agenda. *Selecting for Excellence* (Medical Schools Council, 2014) highlighted the underrepresentation of students from lower socioeconomic backgrounds. It established contextual admissions as a priority and made recommendations on improving outreach, increasing access to work experience, and developing a longitudinal evidence

base; establishing a selection alliance to implement these. *"Fostering Potential"* (Medical Schools Council, 2024) reported significant improvements in outreach and admissions, however particular gaps were identified; with persistent underrepresentation from young carers, those leaving care, and students from a "Black Caribbean background." The report recognised the need to move from increasing access, to increasing WP student support at medical school in agreement with recent calls (Lynn, 2023).

New medical schools, such as Aston, were founded with WP at the centre of their mission, and national data show that they admit proportionally more students from the lowest socioeconomic groups than more established institutions (Woolf *et al.*, 2025). By contrast, older universities, including elite institutions such as Oxford, have historically recruited more advantaged groups, however recent years have seen encouraging changes, with investment in outreach and a more holistic approach to admissions. Data presented by the Sutton Trust, allow a direct comparison of applicants and entrants from the lowest socioeconomic group between the two institutions (Woolf *et al.*, 2025). Aston appears in the upper tier of medical schools for representation from the lowest socioeconomic group between 2018-2021, reflective of its mission to admit 40% of its students from WP backgrounds, whereas Oxford sits among the lowest. Data presented indicates a 3-5-fold difference in the proportion of entrants from the lowest socioeconomic group, between the institutions, over these years. The variation here exemplifies the diversity of institutional models within UK medical education, and may be explained by differences in institutional missions, histories, and regional demographics. Admissions data from Oxford between 2022 and 2024 detail some shifts in widening access, although direct comparisons were not available as ACORN and POLAR data aggregated the quintiles, and comparative data with Aston were not available. Among UK students admitted to medicine at Oxford, 21% came from the most deprived neighbourhoods (ACORN categories 4 and 5), 19% from areas with historically low progression into higher education (POLAR quintiles 1–2), and 13% were eligible for free school meals (Oxford University, 2025). This indicates

significant progress towards a more socially diverse intake, but disparities remain. Although the proportion of state-educated entrants has increased, students from independent schools are still overrepresented, at 30% of students, with only 7% of the wider population and ~18% of 16–19-year-olds, having attended these schools (Green, 2024). Quantitative data has highlighted sector and institutional progress, with a "doubling of representation from the most deprived areas (IMD Quintile 1: up from 6 to 14%)" in the last decade, an "increase in entrants from non-selective state schools (up from 47% to 54%) and "greater ethnic diversity" (Asian applicants up from 27% to 29% and Black applicants up from 6% to 10%)(Medical Schools Council, 2024); however less attention paid as to how best support WP medical students in navigating the academic, financial and cultural challenges of medical school. Furthermore, while the Sutton Trust (2025) data highlight structural differences in the socioeconomic backgrounds of entrants between institutions such as Aston and Oxford, understanding how differing institutional demographics shape belonging and support, remains an important question to be addressed by qualitative approaches.

Commentators have outlined the significant costs involved in studying medicine, above fees and accommodation. These include paying for medical equipment, clinical clothes and travel to clinical placements, which place undue pressures on WP students, with inadequate financial cover (Lynn, 2023). Structural inequalities and deprivation do not cease on entry to medical school. Furthermore, to my knowledge, no studies have attempted to include WP medical students and faculty together, to co-develop of actionable consensus recommendations to enhance student experience. Previous work is often descriptive, cataloguing barriers, with change slow to follow. In my recent work published during this programme (Hassan-Smith, 2025), I argued that action research provides a more suitable methodology for WP, as it is participatory, iterative and emancipatory. It positions WP students and educators as co-researchers, emphasises lived experience, and embeds findings in cycles of action. This enables institutional practices to be examined and redesigned in partnership with those that they are designed to support. This participatory stance also reflects my own

positionality as both a clinical academic and a first-in-family graduate from a low-participation, comprehensive school background. This awareness of the barriers that WP students face has informed my view of the importance of co-producing knowledge with those directly involved. In this study, I integrate semi-structured interviews, workshops, and a Delphi process, reflecting this orientation. I have included qualitative inquiry with the aim of surfacing experiences and consensus-building to move these insights into feasible, and implementable actions.

Chapter 2: Literature Review

In this section, I start by discussing the definitions of WP. I set this study in the context of UK medical schools and healthcare workforce policy, and how this has changed the landscape of medical school admissions. I have focused on the UK, as this is where I live and work, where WP has been viewed through a socioeconomic perspective. I introduce the impact of new medical schools on WP admissions data. I highlight gaps in our qualitative understanding of WP medical student experience following admission and introduce how participatory approaches could lead to the co-creation of solutions to support WP students, which inform our methodology and design of this study.

2.1: Defining Widening Participation

Widening Participation (WP) is broadly understood as "the effort to ensure that the student body reflects the diversity of society" (Patterson and Price, 2017). The Medical Schools Council defines it as "a policy agenda of ensuring that the higher education population is representative of the general population," (Medical Schools Council, 2014) and acknowledges that this is multifaceted, and includes personal characteristics, socioeconomic status, and family background, where students live, and their type of school. While the British Medical Association (BMA) frames it as "the efforts and initiatives designed to ensure that individuals from underrepresented or disadvantaged groups are supported to pursue a career in medicine," (British Medical Association, 2025) including admissions policies, financial support, outreach, and mentoring. The Office for Students does not provide a single definition but identifies target groups including students from the lowest participation neighbourhoods (POLAR4 quintiles 1 and 2), those eligible for free school meals, first-generation university entrants, care-experienced and estranged students, disabled students, and some ethnic minority groups (Office for Students, 2025). While terminology and eligibility vary, the underlying

principle is that access to higher education and medicine should not be determined by socioeconomic background or other structural barriers.

How WP is operationalised differs considerably between institutions, with implications on who can benefit from outreach, contextual offers, bursaries, and other support. For example, Aston University (Aston University, 2025a) offers contextual offers to applicants from state schools who meet criteria such as free school meals, residence in low participation neighbourhoods, care experience, disability, refugee status, or participation in its 'Pathways Programme'(Aston University, 2025b). Oxford runs outreach programmes such as UNIQ (University of Oxford, 2025a), for state school students who have met a minimum GCSE attainment, with criteria including free school meals and care experience, with measures of socioeconomic status also considered. The same broad policy agenda can translate into diverse local practices, with significant consequences for which students are recognised as WP and how they are supported. The admissions website states that the university "is looking for students with the highest academic potential, from different backgrounds" and that they "use a range of contextual data to help us better understand your achievements in the context of your individual background."

The category of WP itself is complex, as it encompasses many different groups, including socioeconomic deprivation, disability, care experience, and ethnicity, which are subject to structural barriers resulting in disadvantage. In the UK, the policy agenda has focused on increasing access for those with socioeconomic disadvantage, and promoting social mobility, whilst debates in North America have tended to centre on attempts to widening access for those from underrepresented ethnic groups, while in Australia some authors state that they are framed in terms of collective responsibility and "nation-building"(Coyle *et al.*, 2021).

2.2: The National Policy Context of Widening Participation

In 2014, the MSC published *"Selecting for Excellence"* (Medical Schools Council, 2014), the first comprehensive national report to set out a WP agenda for medicine. It identified socioeconomic status as the greatest barrier to representation: "students from lower-income families" were markedly underrepresented compared to the general population. At that time, around 70% of applicants to medicine had parents with experience of higher education. There was a high representation of medical students from areas with the highest participation in higher education (POLAR quintile 5: 45% vs. quintile 1). Those who attended private schools were also overrepresented at 20%, despite only 7% of the population attending such schools (Green, 2024). The report recommended a series of reforms that can be grouped under three main areas. First, it recommended widening access to applications through the expansion of outreach to underserved geographic areas, providing advice on best practice, improving the availability of information, and reducing barriers such as compulsory medical work experience. Second, it advocated for structural reforms to selection, including greater use of contextual admissions, aptitude tests, and multiple-mini-interviews (MMIs), supported by a national selection alliance. Thirdly, it called for improved monitoring, including the collection of socioeconomic data to enable longitudinal evaluation of progress. While the report noted the importance of supporting students once admitted, most of its recommendations centred on admissions. While there has been progress in outreach and access, advances in course support have lagged, leaving questions about how WP students are enabled not only to enter medicine, but also to thrive once there.

A decade later *"Fostering Potential"* (Medical Schools Council, 2024) showed the extent of progress made in admissions and outreach. The report showed that more schools had taken part in WP outreach activities, with improvements in Scotland, Wales, and in some rural and coastal regions of England. However geographic 'cold spots' persisted, particularly in areas without a local medical school. Interventions such as MSC summer schools had success in reaching underrepresented

groups, with around half of participants eligible for free school meals, half attended schools with low attainment, and 16% either care-experienced, estranged, young carers, or refugees. The report also outlined progress made in improving accessibility of admissions information, including provision of guidance available through the MSC website and resources for teachers and careers advisors on the *"Studying Healthcare"* (Medical Schools Council, 2025) platform. Most medical schools were also reported to follow MSC guidance on work experience, an area previously identified as a barrier. The report highlighted improvements in admissions, with more students from the most deprived backgrounds entering medical school (IMD Quintile 1: improved from 6% to 14%) and from non-selective (comprehensive) schools increasing (47% to 54%), with a decrease in the proportion of students from independent schools (29% to 24%)(Medical Schools Council, 2024). Taken together, the report illustrates the results of a coordinated national effort to widen entry pathways to medicine.

While outreach and admissions have broadened, *"Fostering Potential"* (Medical Schools Council, 2024) also noted that the distribution of opportunities remains uneven. Areas with no nearby medical school are often unable to access WP programmes. Pressures in state secondary schools also mean that it can be challenging for them to participate in outreach support, and access to information on post-graduate career pathways is patchy, with the onus placed on NHS and training providers to improve visibility. It is easy for the start pattern of inequality to be lost, amongst the statistics. Significant gaps remain, with around a third of schools still sending no applicants to medicine, and half having no successful entrants, with the majority of these in the most deprived areas. While students from independent schools remained overrepresented amongst medical students.

The report also commented on patterns in medical school entry routes, advocating for "normalising" the practice of taking a gap year before medical school, as many applicants were unsuccessful on their first attempt (Medical Schools Council, 2024). The report suggested that extra time be used to

build confidence and prepare for application tests such as interviews and the UCAT. This approach can be problematic as there are risks of creating additional burdens for WP students. Delayed entry itself may be an additional burden for WP students and act as a marker of an unfair system. Admissions processes, such as high-stakes aptitude tests and interviews, may disproportionately exclude those from disadvantaged backgrounds if not designed with equity and student perspectives in mind. This risks a two-tier pathway where students from privileged backgrounds progress seamlessly, while those from lower socioeconomic groups lag behind. Data from the Sutton Trust (Woolf *et al.*, 2025) highlight this risk, with applicants from "deprived neighbourhoods" having less chance of receiving a medical school offer, compared to the most advantaged areas, but these have improved over time (Odds Ratios: 0.33 in 2012 compared to 0.55 in 2021). Other predictors of receiving offers, serve to highlight inequities including UCAT scores, independent school attendance, and being of white ethnicity. Students from the poorest backgrounds with high A-level grades, were relatively disadvantaged in performing as well in the UCAT, a test introduced partly because it was perceived as fairer for WP students, which may be explained by disproportionate access to coaching and preparation resources. This highlights the need to review and monitor interventions with an equity focus.

"Fostering Potential" (Medical Schools Council, 2024) presents a broadly inclusive vision for WP, but the wider discourse often frames WP students in deficit terms. This 'deficit model' positions WP students as lacking the attributes needed to succeed, rather than recognising how educational systems can create structural barriers to success. Or as a South African higher education researcher put it eloquently, disadvantaged individuals are seen "as lacking the academic, cultural and moral resources necessary to succeed in what it presumed to be a fair and open society" (Smit, 2012), calling for acknowledgement that universities are "underprepared to meet the needs" of all students. Faculty can fail to acknowledge that educational systems can be unfair, and that structural problems can compound disadvantage, and lead to further stigmatisation (Smit, 2012). WP requires

a shift from deficit thinking towards building environments that enable capable students to develop their abilities. An example of an innovative approach that has been piloted to challenge such misconceptions, is the introduction of a 'reverse-mentoring programme,' where WP medical students mentor medical faculty to build foster dialogue and understanding (Curtis *et al.*, 2021). Deficit thinking neglects the multitude of benefits of a diverse workforce, which includes evidence from the US regarding improvements in patient care (Grumbach and Mendoza, 2008). Furthermore, data has suggested that in medical school final exams, students from state schools outperform those from independent schools, who entered medical school with similar grades, highlighting the fallacy of framing WP students in deficit terms (Kumwenda *et al.*, 2017). Although the MSC's Selection Alliance consults with medical student WP groups, an approach that places students centrally in co-designing solutions is key to building equitable systems.

The report (Medical Schools Council, 2024) sets out recommendations for Medical Schools which included "considering gateway course options", "demonstrating that they value and support students when at medical school", continuing "to develop robust admissions procedures including measurement of non-cognitive skills and attributes", reviewing "contextual admissions information", "exploring collaborative models of outreach", evaluating "guidance" on "financial support" and "employment", reviewing "curricular structures" to allow flexibility for "paid work", exploring paid healthcare assistant work for students, reviewing entry criteria and "facilitating" the work of student-led WP groups. Even progressive WP policies risk framing disadvantage in deficit terms, to move beyond this, I advocate for an approach where WP students are positioned as partners in shaping the systems that affect them. Participatory and action research (Edler, 2009) provides a methodological framework for this shift, enabling co-discussion of solutions that directly address inequities in medical education. The recommendations considered in the Delphi, in this dissertation, took the proposals from *"Fostering Potential"* into account and with those from the supporting literature (Medical Schools Council, 2024).

2.3: National Health Service Workforce Plans

The *"NHS Long Term Workforce Plan"* (NHS England, 2023b), published under the Conservative administration, announced a "doubling of medical school places by 2031/32", from "7,500 to 15,000 annually." New places were to be prioritised in regions with the greatest workforce shortages, framing WP partly in terms of geography and workforce need. Previous data suggest that a higher proportion of doctors, who grew up in less affluent families, work in areas of increased socioeconomic deprivation (Dowell *et al.*, 2015). The plan also set out an ambition to recruit a more diverse range of entrants "reflecting the communities served by the NHS" and included a high-level commitment to "develop a compassionate and inclusive culture," with promises of flexible training and wellbeing support. While these aspirations are welcome, they risk framing inclusivity and diversity instrumentally as a workforce sustainability measure, rather than as matters of fairness. Furthermore, the document lacks detail on how WP student experience, and plans for support at medical school.

Labour's "*Fit for the Future: NHS 10-Year Plan"* (UK Government, 2025) set out an ambition to "transform the NHS into force for social mobility and local prosperity." This vision was underpinned by measures to expand accessible training routes, recruit from local communities, and require employers to publish workforce data on socioeconomic status, sex and ethnicity. It pledged £5 million of funding to support widening access initiatives across ten integrated care systems, alongside an ambition to "dramatically improve access to the medical profession for those from disadvantaged backgrounds." They committed to exploring options to improve financial support to enable students from the "lowest socioeconomic background to thrive at medical school." These commitments mark a rhetorical shift, positioning WP as a mechanism for equity as well as a workforce strategy. However, while the plan acknowledges financial pressures on students, it gives little attention to what happens after admission. Its emphasis remains on widening entry, with less consideration of how progression, belonging and success are determined by institutional practices.

2.4: Widening Participation in New and Established Medical Schools

The Sutton Trust report *Unequal Treatment* (Woolf *et al.*, 2025) offers an important comparison between the WP profiles of the six medical schools (Aston, Sunderland, Anglia Ruskin, Kent and Medway, Lincoln and Edge Hill) set up between 2018 and 2021, to provide additional medical student training capacity in 'under-doctored' regions, often with explicit WP agendas; with those of established schools. New medical schools admitted a markedly higher proportion of students from the most deprived neighbourhoods, with 26% from IMD1 (the most deprived quintile) compared with just 13% in established schools, where a third of entrants came from the wealthiest neighbourhoods. They also attracted fewer students from independent schools, with only 11% of applicants and entrants having been privately educated, compared to 28% on standard entry medicine courses overall. Parental education was another point of divergence, with a third of entrants to new schools with first-in-family status, compared to under a quarter in established schools. Students from the poorest neighbourhoods had higher chances of receiving an offer if they applied to a new medical school, which may reflect fairer admissions practices. Gateway courses, which allow an extra year of study, with lower grades for WP students, were effective in increasing access to medicine, with most students living in "deprived" areas. However, even in institutions with clear WP missions, students from the most deprived backgrounds remain underrepresented overall, and gateway courses account for only a small proportion of places. Furthermore, a longitudinal analysis of assessment data comparing medical students, showed that although the gap in attainment narrowed between the groups by the end of the course, it did not close (Curtis and Smith, 2020). The Sutton Trust concluded that the government should prioritise medical schools with successful records in WP, in access and success, in any expansion of medical school places.

Admissions practices vary between schools, publicly available information indicate that Oxford considers UCAT and GCSE performance when shortlisting and makes final selections using panel interviews and while each component is considered contextually, grade reductions are not offered.

Aston on the other hand uses UCAT, uses MMIs to make final selections, and makes contextual offers, with reduced grade requirements to WP students. In summary these differing approaches aim to provide equity of opportunity by contextual evaluation, and of outcome by making contextual offers. Regardless of the aims, there is a clear stratification in the UK education system, whereby access to research-intensive elite universities is less likely for those from lower socioeconomic backgrounds, and newer institutions may be within reach. However, there are few comparative reports of experiences of WP students at different medical schools following entry and whether institutional practices impact positively or negatively.

Interviews with deans and admissions leads from the new medical schools revealed that many were motivated by social justice and felt that they had a greater chance of 'making a difference' compared to in established schools (Cleland *et al.*, 2024). The authors highlighted how WP initiatives were implemented in differently depending on the context of the institution. They also highlighted the tensions in how their success may be assessed by the government on WP metrics, while other schools may consider academic performance of their students in national tests such as the Medical Licensing Assessment (MLA)(Cleland *et al.*, 2024). The new medical schools have taken a lead on WP, however, at present there is a two-tier system where the most disadvantaged students have reduced odds of accessing the most 'elite' institutions. Participatory approaches can be used in both established schools and new schools to promote mutual dialogue and build fairer and more supportive systems.

2.5: Research on WP Student Experience

Qualitative studies have explored how students from different backgrounds view medicine before applying. A seminal study (Greenhalgh, Seyan and Boynton, 2004) explored the perceptions and expectations of academically able pupils aged 14-16 in London. Socioeconomic status influenced perceptions of medicine, with pupils from low-income families tending to underestimate their

chances of success in applying and expressing concerns about the personal and financial sacrifices involved. In contrast, pupils from wealthier families saw medicine as one of several attractive career options, valued for their intrinsic rewards of fulfilment and achievement. The authors linked these perspectives to the role of socioeconomic status in shaping educational "choice." Pupils from wealthy backgrounds had a narrative of entitlement and possibility, whereas those from lower socioeconomic backgrounds viewed medicine as a high-risk pathway with disproportionate costs. This reflects Bourdieu's concept of habitus, the system of dispositions, made up of "attitudes, behaviours and mannerisms," shaped by social background that influences what people see as possible which, taken together with his related ideas of cultural and social capital help to explain these different worldviews (Bourdieu, 2018). A recent study examined habitus transformation of students from lower socioeconomic backgrounds at medical school (Krstić *et al.*, 2025). This was informed by previous work, which described transformations in habitus in students from 'working-class' backgrounds, to align with those of the dominant 'middle-class,' when studying in 'elite' university settings. A previous study explored narratives of 'working-class' students studying at Oxford on a range of courses, who described their perceptions of 'an ideal Oxford student' and their development of 'a split habitus' to enable them to navigate their university and home lives successfully (Attridge, 2021). Although widening access and social mobility are often framed positively, researchers have recognised the potential negatives of leaving behind 'working-class status' and how this can cause conflict and confusion for individuals (Lehmann, 2014). This included conflicts with family and friends from 'home,' when going through a 'transformation,' with guilt at moving on, and tensions around their perceived place in social hierarchy. Another study focused on students from working class backgrounds of different ethnicities across three UK universities, describing a more fluid picture, with 'working-class' students negotiating 'hybrid' identities, where they resisted full assimilation and sought recognition on their own terms (Crozier, Reay and Clayton,

2019), while some students have been described as being ‘chameleon-like’ through social groups (Hurst, 2010).

Through interviews with 15 students and 5 family members, Krstić and colleagues (2025) identified five different narratives that described dynamics in habitus transformation at medical school: 1) ‘Outsiders’ who experienced challenges with integrating socially in home or medical school environments, 2) those with ‘Enduring identities’ who maintained strong social ties at home 3) ‘Pre-socialised’ individuals who had exposure to forms of capital that were valued by those from the dominant ‘middle-class’ culture such as extracurricular activities, school setting, family and social ties, 4) ‘Encouraged upwardly mobile’ students whose parents were influential in their trajectory and decisions 5) ‘Personal Growth narrative’ students who experienced significant transformations in habitus, who value “medical school culture” and value social mobility and change.

“First-in-family” or higher education “first-generation” status is a useful lens as it often encompasses socioeconomic disadvantage and unfamiliarity with higher education. Researchers interviewed first-in-family UK medical students (Bassett *et al.*, 2018), building on earlier work focused on transitions in medicine, based in Australia (Southgate *et al.*, 2017). The study highlighted the uncertainties that many students face on arrival. Several reported limited knowledge of what to expect in pre-clinical learning, and many described feeling out of place when surrounded by peers from more “traditional” university backgrounds. Some only became aware of their “social position” once at medical school, and a few recounted episodes of being “othered” by fellow students. Most students reported making significant personal sacrifices because of their medical studies. Students described how the intensity of workload strained their relationships with family and friends, who sometimes found it difficult to relate to the new pressures they were facing. Informal peer support was reported to be helpful in allowing students to navigate academic and social challenges. Whether medical schools can build formal structures to facilitate equitable social support networks and what form these would take requires further study.

The lack of synthesis on WP medical student experience after admission was addressed by a qualitative systematic review of 27 UK-based studies (Krstić *et al.*, 2021). The authors found that much of the literature had focused on ethnicity, with less attention paid to socioeconomic disadvantage. Several themes emerged: Social relationships: WP students often formed bonds with peers from similar backgrounds, which was beneficial, yet some described feeling "ostracised" by students from "traditional" medical backgrounds. These dynamics carried risks of social isolation, limiting access to academic and pastoral support. Some students from minority ethnic groups, had experiences of structural barriers grounded in unconscious bias, discrimination and racism. Some WP students described an identity conflict, with a clash between their social and cultural identities and the prevalent medical school culture. For some this led to attempts at assimilation, whilst for others it reinforced feelings of exclusion. At the same time, many students described the importance of serving as role models for others from similar backgrounds and highlighted how their experiences were beneficial in relating to diverse groups in medicine. Taken together, this review illustrates the risks and opportunities of WP in medicine. While access has broadened, issues of belonging, identity and conflict with medical school culture persist. The gap in qualitative evidence focused on socioeconomic background is relevant to this study, which seeks to examine student and faculty perspectives, and for the wider UK policy priorities. Addressing this requires approaches that centre student voice and lived experience, alongside institutional perspectives.

2.6 Belonging and Student Experience

I will briefly introduce you to the concepts of belonging and related terms, that link to student experience and will form the basis of future discussions for WP students. A recent systematic review from a Netherlands based group, reported that there were several different overlapping definitions of belonging in the higher education literature covering concepts such as "acceptance,"

"connectedness," "support," "valuation," "respect," "inclusion," "mattering," "fitting in," and "being a part of" (Dias-Broens, Meeuwisse and Severiens, 2024). Belonging is one Maslow's "basic needs," and is an important requirement in times of transition, or when entering unfamiliar environments (Maslow, 1943). In university settings, belonging is associated with academic outcomes and well-being outcomes, with some authors advocating for large-scale interventions (van Kessel *et al.*, 2025). In UK higher education, belonging has been approached in terms of "engagement," "retention," and "success," with a view to improving these measures. There are well established methods of attempting to increase student engagement, including regular contact, "active learning" and "cooperation between students (Thomas, 2012)." Student Experience is currently measured quantitatively in the National Student Survey (NSS), in terms of satisfaction with teaching, learning opportunities, assessment, academic support, course organisation, learning resources, student voice, clinical placements and mental wellbeing services (Office For Students, 2025). In broader higher education settings, students from lower socioeconomic groups have lower progression and attainment outcomes leading to attempts to support successful outcomes for this group (Mountford-Zimdars *et al.*, 2017). Belonging is associated the interconnected concepts of habitus and cultural capital (Bourdieu, 2018). Habitus can be thought of as 'a way of being' or a "disposition to act in certain ways." Cultural capital includes "knowledge, skills, tastes, and education" that are "valued" in certain contexts and contribute to social mobility (Bourdieu, 2018). Social Capital is a separate term, which has been used in different contexts by researchers, with the individualistic view focusing on "the benefit in social interactions" and the collective or civic view of social capital being for the "good of the group (Coppe *et al.*, 2022)."

2.7: Summary: A Call for Action

Reform of WP practices in medical education have led to some progress, as evidenced by quantitative analyses of admissions data. Access to medicine has improved through improvements in outreach and admissions procedures. However, the challenge of how best to support WP students

when they study at medical school remains underexplored. National policy has framed WP in terms of meeting workforce needs, while overlooking the lived experiences of students or acknowledging their agency. Qualitative studies outline the issues of identity, social capital, and institutional culture that can shape the experiences of diverse WP student groups. However, the perspectives of the students themselves and insights from faculty are rarely focused on the design of solutions. Participatory approaches, including perspectives from action research, have been successfully applied in broader educational contexts to foster collaboration to work towards social justice (Hassan-Smith, 2025). Action Research has been used in some medical education studies, and its participatory, iterative and emancipatory focus could help to drive change in enhancing the experience of WP students in this field (Bradbury, 2017; Martin *et al.*, 2018; Foreshew and Al-Jawad, 2022). This study integrates semi-structured interviews, workshops and a Delphi process, enabling WP students to work with faculty to build solutions through consensus. The following methodology section outlines how these approaches were used to surface experiences and collaboratively work towards recommendations.

2.8: Research Aims

The overarching aim is to gain insights into WP medical student lived experience, at both established and new medical schools, with a particular focus on the challenges that they encounter and the forms of support that they have received. Alongside student accounts, the perspectives of faculty are examined to understand how institutions currently approach the support of WP students, and where gaps remain. Grounded in a participatory ethos, the research seeks to bring student and faculty voices together to co-produce recommendations that move beyond access into questions of belonging, wellbeing and equity during medical training. In this way, the study aims not only to generate insight but also to inform practice and policy on enhancing the WP student experience. The research questions underpinning the study include:

1. **What are the lived experiences of WP students during their time at medical school, and how do they perceive the barriers and supports that shape their wellbeing, belonging and progression?**
2. **How do medical educators articulate their understanding of the challenges faced by WP students, and of institutional responses?**
3. **Which interventions to enhance WP student experience, do students and faculty reach consensus on, for implementation by medical schools?**

Chapter 3: Methodology

3.1: Research Paradigm and Theoretical Framework

This study adopts an interpretivist philosophical stance, as I believe that the epistemology aligning with this, of knowledge being subjective, with many interpretations (Bunniss and Kelly, 2010), helps us to understand the social realities as experienced subjectively by diverse participants, including students and faculty (Tekin and Kotaman, 2013). WP students in medicine encounter both individual and collective experiences shaped by institutional policies, the hidden curriculum, and sociocultural identities.

A constructivist epistemology is employed, where meaning is co-constructed by both participants and researchers. The research largely focuses on understanding the lived experiences of WP students, while also incorporating educator perspectives, acknowledging that meaning is mediated through language, relationships, and social structures. This approach helps us to understand experiences in a complex social system, acknowledging the power imbalances at play. Interviews and workshop discussions cover lived experiences, perceptions of social and financial barriers, school context, perceived gaps in skills, knowledge and resources, as well as interactions with different higher education institutions.

My methodological approach acknowledges the close relationship is acknowledged between the research being conducted and the researcher themselves, and through this axiology I am drawn qualitative methods to achieve my initial research aims on understanding lived experiences of students and faculty perceptions of their support role. For analysis I have approached this from an inductive perspective (Bunniss and Kelly, 2010).

I am drawn to a participatory approach, which involves “co-construction of research” and moving those affected by an issue from subject to researcher (Jagosh *et al.*, 2012). Participatory research can

be helpful in ensuring that solutions are appropriate for the context, there is also an emphasis on "useful conflict" leading to solutions and "system-change" (Jagosh *et al.*, 2012). In this study, I aim to incorporate elements of action research. This has roots in Lewin's work on minority group dynamics (Lewin, 1946), was adopted into the social sciences, and grew in popularity in educational research in the late 20th Century (Bargal, 2006). It has been adopted in teacher 'practitioner' led research, and is iterative and collaborative in nature, with knowledge and social change arising from group discussions, leading to the adoption of new behaviours (Mills, 2014). Action research in view of its alignment with social justice, and its democratic, participatory and empowering characteristics. This strand of action research is informed by critical pedagogy, and the notion of education as a process of emancipation, with the discussion of WP student experience supporting transformation of that experience.

3.2 Reflexivity

Reflexivity is central to the practice of action research, and I acknowledge the influence of my role, social position, personal experiences, and biases on the research. These are complex, with an 'insider' persona, as a Medical Consultant and Clinical Academic, who is experienced in student and medical resident support, and elements of an 'outsider' persona (Webster-Deakin, 2021), with first-in-family status and attendance at a non-selective state comprehensive school in an area of low participation in higher education. This dual perspective enabled me to build rapport with WP students, potentially leading to deeper insights into their experiences. As a faculty member, I was able to relate to colleagues in a professional capacity. However, I acknowledge that my position as a faculty member, and the perceived power dynamic, will have influenced what students felt comfortable sharing. I considered my positionality in my research design and in my activities, which influenced my approach to participant recruitment, and facilitation of workshops and interviews.

3.3: Methodology for Change

Central to my research is the aim to move from gaining understanding of WP student experiences and institutional perspectives to "kick-start" meaningful change. I incorporated semi-structured interviews and workshops with faculty and WP students to address the former, and I conducted a Delphi study with the aim of gaining consensus on recommendations to be adopted by institutions, to address the latter. I recognise that there is a potential tension between the use of these different methods; however, taking a pragmatic approach here provides an opportunity for greater research impact. Through the interviews and workshops, I attempted to understand the realities that participants constructed in their discussions. Through the Delphi process, the aim was to achieve consensus, by asking participants to negotiate a shared understanding that can inform institutional action. For this component, I am leaning towards a pragmatic approach, as the aim is to guide policy and institutional change. The axiology of equity, inclusion, and social justice is consistent across both components, and the Delphi seeks to provide collective validation of recommendations. In summary, there is a pluralism in the methodological approach, which aligns with the overarching research aim, to both understand and enhance the experience of WP students by leading to concrete change.

3.4: Study Design and Overview

This study combined qualitative inquiry with consensus-building. The study was informed by action research values, seeking both to understand experience and drive institutional change.

The design included the following elements:

1. **Semi-structured interviews and workshops with faculty and WP students:** allowing exploration of lived experiences, institutional perspectives, and a collaborative approach.
2. **A Delphi consensus process:** used to negotiate shared perspectives among diverse stakeholders and prioritise proposed interventions.

Interviews were conducted to gather rich data on the WP student experience and faculty perspectives. Workshops enabled participants to discuss their experiences and iterate their understanding of potential solutions. The Delphi process enabled us to build consensus from faculty and WP students. This approach has been in use since the 1950s, and is used in diverse fields, including medicine, educational research including medical education (Humphrey-Murto *et al.*, 2017). There is discussion as to whether this is a quantitative or a qualitative method (Stewart, 2001), I would lean to the latter as we are checking the level of agreement of the group with statements on each intervention. Free-text reporting was also included to gain personal insights. It is important to note that the interventions accepted just measure agreement Participants were asked to prioritise interventions, by a ranking process in the final round, and provide insights into feasibility and institutional readiness. My initial plans at the study design stage were for proposed interventions co-designed by students and faculty in workshops to be taken forward into the Delphi. However, this was not feasible due to the time constraints of the MSc programme. Instead, a pragmatic approach was taken where a literature review of recommended interventions was carried out and the Delphi occurred in parallel with the interviews and workshops. On review, interventions that were recommended by the MSC in Fostering Potential (Medical Schools Council, 2024) overlapped with the literature review, so many of these that were relevant to student support measures that could be implemented by medical schools, were taken forward for review in the Delphi, which had the benefit of review by wide group of WP students and medical school faculty. The proposals considered in the Delphi study are listed here:

1. Medical schools should offer programmes with an additional preparatory year, to support students from WP backgrounds in transitioning to medical education.
2. Medical schools should establish structured programmes that provide paid, healthcare-related work experience for students taking a gap year before medical school.

3. Medical schools should implement mentorship programmes pairing WP students with faculty or senior students to provide academic support and guidance on professional development.
4. Medical Schools should provide comprehensive information and support regarding postgraduate medical training pathways, including application processes and specialty selection, tailored to the needs of WP students.
5. Medical schools should establish reverse mentoring programmes, where WP students mentor faculty members to foster mutual understanding
6. Equality, diversity and inclusion training should be mandated for all students, faculty and staff to cultivate an inclusive and supportive learning environment.
7. Periodic evaluations of medical curricula should be performed to ensure that they address the needs of a diverse student body and of patients of all backgrounds.
8. Medical Schools should provide resources and institutional backing for student-led programmes aimed at promoting medical education among underrepresented communities.
9. Medical Schools should work together to set up inter-institutional collaborations to share successful strategies and programmes that support WP medical students.
10. Medical Schools should review financial support for WP students annually. This should include assessing bursaries, scholarships and emergency funds to ensure that they meet student needs.
11. Medical schools should adjust academic timetables to allow students to engage in part-time work.
12. Students should be offered training to qualify as healthcare assistants or phlebotomists, to enable them to gain experience and income alongside their medical education.

The study was conducted between May and July 2025, with phase of data collection and analysis proceeding in parallel.

3.5: Participants, Sampling, and Recruitment

Inclusion criteria for student participants included those who were studying medicine at a UK medical school at the time of the study or in the previous 2 years, who self-identified as meeting WP criteria, with a focus on socioeconomic criteria used by UK medical schools. Study adverts were shared widely (See Appendices 1-3) and study details outlined in the participant information sheets for students and faculty (Appendices 4-5).

Criteria included:

- Meeting WP criteria at their medical school
- Participating in a medical school pathway to medicine scheme
- Coming from a lower socio-economic background
- Attending a non-academically selective state school
- Being the first-in-family to participate in higher education

These criteria were used because they allowed for easy self-identification of WP status, and aligned with the study aims. These criteria also allowed for the lack of a uniform definition of WP status in UK medical schools. Whilst narrower criteria on socioeconomic status could have been used to allow for a more tightly defined or 'homogenous' cohort, I anticipated difficulties in the students' recognition of these criteria. This broad and flexible approach reduced the risk of individuals being excluded due to variability in institutional WP definitions.

Inclusion criteria for faculty participants included those who:

- Had current involvement in medical education as an educator, with examples of medical school faculty or academic staff, clinical educators, WP, student support and admissions leads, in UK medical schools.
- Had experience in medical student teaching, support, and/or WP initiatives.
- Had a minimum of one year of experience in a relevant role.

These criteria were used to ensure inclusivity and representativeness of diverse perspectives in medical education. Faculty participants held senior roles in medical schools, from across the UK. Student participants from all UK medical schools were eligible for the Delphi study, whereas Workshops and Interviews focused on participants from Oxford University and Aston University Medical Schools. This allowed rich data to be gathered from participants at these different institutions, serving as exemplars of both established and new medical schools, and providing comparative insights, while ensuring that a diverse range of stakeholders contributed to the consensus.

Purposive and volunteer sampling strategies (Jupp, 2006) were used in combination, to recruit study participants. Purposive sampling ensured diverse perspectives, including geographic diversity, type of institution, and faculty role. This was important to ensure that a diverse range of expert faculty opinions were included in the workshops, interviews, and the Delphi process. This method ensured that medical school deans and professors of medical education were included alongside specialists in student support and WP. Delphi studies seek to gain consensus between groups of experts, purposive sampling was required to ensure that faculty experts were invited to take part. This study innovated by including WP students in a Delphi as experts, given their lived experience. Volunteer sampling was used, ensuring that individuals with relevant lived or professional experiences were included. Purposive and volunteer sampling can introduce self-selection bias, as individuals with a strong interest in WP issues may be more likely to participate. This could lead to skewed perceptions of institutional commitment or the feasibility of interventions.

Participants were recruited to the study using approved study advertisements and emails distributed through medical school networks, WP offices, professional organisations, social media (e.g. Twitter/X and LinkedIn), and personal contacts (See Appendices 1-3 for adverts). General announcements were sent via institutional mailing lists and social media to avoid direct pressure. Some faculty members known for their interest in WP were contacted directly via a neutral invitation, and no follow-up

pressure was applied. Measures were taken to avoid power imbalances. In view of my roles in higher education and the NHS, these included: not recruiting students under my direct supervision, handing recruitment through institutional mailing lists, student societies and WP programme coordinators, to ensure that students did not feel personally pressured. Faculty members were reassured that their participation would not affect professional relationships, and no participants were under my line management.

Individuals who responded to study adverts were provided with participant information sheets *See Appendices 4-6). For the Delphi study, participants consented using an online form prior to completing the study questionnaire (See Appendices 8-9). For the workshops and interviews, participants completed an informed consent form, which was reviewed and signed ahead of the study. Volunteers could withdraw their consent to participate in the study up until 1st August 2025, as this was the date by which the study report analysis would be completed.

Participants received a £20 voucher for participation in the workshops in recognition of their time and contribution. This was funded from an Aston University Educational Research Fund Grant. The incentive was modest and proportionate to the time commitment (1-hour workshop or interview participation), ensuring that participation remained voluntary rather than financially motivated, in line with commonly accepted practice in educational research. Some volunteers only participated in the Delphi component of the study, and no incentive was provided for this component as it consisted of completing some brief online questionnaires, with less burden for participants.

3.6: Data Collection

3.6.1: Interviews and Workshops

Interviews and workshops were conducted via Microsoft Teams. This was found to be convenient and acceptable to participants, who held busy student or professional roles, and were spread across a

wide geographical location. I had originally planned a series of workshops, one for Aston students, one for Oxford students, to explore perspectives across institutions; however, we included one-on-one interviews to allow further scheduling flexibility following feedback from potential participants. I could also speculate that participants may have felt more comfortable in sharing their lived experiences outside of a small group setting. These sessions lasted 1-hour recorded, with consent, for the purpose of creating a transcript. I facilitated all workshops and interviews, aiming to create a safe space where participants felt able to comfortably, and the sessions tended to use the full 1 hour allotted (Jordan, Clarke and Coates, 2021). All sessions were transcribed verbatim.

In summary, I held the following sessions, exceeding our recruitment targets:

- x9, **1-hour, one-on-one interviews with WP medical students** (from Oxford and Aston Universities)
- x2, **1-hour, one-on-one interviews with medical school faculty** or clinical educators (across UK medical schools)
- x2, **1-hour, faculty workshops** with 9 participants (across UK medical schools)

I followed workshop and interview guides (See Appendices 13-14). Sessions started with an introduction and recap of the purpose of the research, a reminder that participation is voluntary, confirmation of consent, setting ground rules for safe and respectful discussions, and a chance to address any participant queries. There was an icebreaker, and for workshops there was a round of introductions. Topic guides for student interviews explored:

- **Experiences of Background and Entry into Medical School** (including identification of challenges, barriers, and enablers).
- **Experiences during Medical School** (including identification of challenges, barriers, and enablers, and experiences of institutional WP support)

- **Considering priorities for potential future interventions** to enhance WP student experience at medical school.

Topic guides for faculty workshops and interviews included:

- **Exploring faculty and institutional awareness of WP student support** (including exploration of challenges/barriers encountered by WP students at medical school, and what support is currently available)
- **Identification of gaps in current WP student support policies**
- **Considering priorities for potential future interventions** to enhance WP student experience at medical school.

3.6.2: Delphi Study

The Delphi method was used because it is an accepted method of gaining consensus among experts, in this case, medical school faculty/ clinical educators and students with WP-lived experience. It is often used when evidence is incomplete or contested, is used widely in healthcare, and has been used to develop consensus in education in professional competencies and research priorities in health professions education; however, to my knowledge, it has not been used in the context of WP in medical education (Humphrey-Murto *et al.*, 2017). Participants were invited to complete some online questionnaires, run via Microsoft Forms (See Appendices 8-9 for Participant Information for Online Surveys). We aimed to recruit between 20 and 40 volunteers to participate in the Delphi study; this was to allow insights to be drawn from diverse faculty, and range is associated with 'response stability' from previous studies (Shang, 2023).

The Delphi Questionnaire (See Appendix 10) was completed by:

- 51 participants (40 faculty members and 11 WP students) in round 1
- 37 participants (31 faculty members and 6 WP students) in round 2

The Round 1 questionnaire took faculty a median time of 13 minutes (IQR 9-23) to complete, and students also took a median of 13 minutes (IQR 8-17). The Round 2 questionnaire was shorter, as interventions accepted from Round 1 were removed. It took faculty a median of 5 minutes (IQR 4-8) and students a median of 7 minutes (IQR 4-7).

The questionnaire (see appendix) began with participant information, including current role, institutional affiliation, and years of experience. The main section presented participants with a range of proposed interventions for improving medical school experience for WP students. These were informed by the recent *Fostering Potential* report (Medical Schools Council, 2024), with the main recommendations incorporated into the Delphi informed by the wider literature, to allow a collective WP student and Faculty view on priority, feasibility and readiness. I had initially aimed to generate proposals from interviews and workshops, but this was not possible on the timescale for this MSc. Nevertheless, there were opportunities for interview and workshop participants to discuss proposals, and these have been considered in this analysis. For each intervention, participants were asked to state whether they had experience with it and whether they would recommend this as an appropriate intervention to improve WP student experience in medical education. Items reaching 70% agreement or higher on the latter question were considered high priority and were accepted as meeting the consensus threshold. It was planned that any items that did not meet a 50% threshold would be rejected from the consensus, unless there was strong justification to suggest otherwise from qualitative 'free text' responses. Any remaining items were added to the Round 2 questionnaire for re-evaluation. Participants were also asked to rate each intervention on a Likert Scale from 1 to 4 (where 1 represents strong disagreement with the statement and 4 indicates strong agreement), in response to statements assessing its impact on student experience, overall priority, feasibility, sustainability, affordability, scalability, and institutional readiness. Data were aggregated using the MS Forms functions and analysed using Excel. Open-ended questions were also included to give participants the opportunity to suggest additional interventions for consideration and to share their

views on potential challenges and requirements for success. Up to 3 rounds of the questionnaire were planned, but the process was completed after 2 as consensus was reached within the definition of the process. In Round 2, participants were asked to if they would recommend any outstanding interventions. They were also asked to rank the accepted interventions by priority. Data were analysed using this design, and a report was created following the thematic analysis of interview and workshop data outlined below.

I used the Delphi model as a method of incorporating the viewpoints of faculty and WP students as stakeholders in consensus-building process. This was designed to be inclusive of both stakeholder groups and aligns with the co-design principles of action research, emphasising the value of WP students being research participants rather than subjects. The anonymity of participants is central to the method, as it allows them to reflect individually, outside of the influence of hierarchy, which is a particular strength when there are unequal power differentials between faculty and students.

Potential limitations of this approach include the risk of recruiting a self-selected, highly motivated group, which may bias the results. The balance of participants could also influence outcomes; for example, I recruited more faculty than students, as they volunteered more readily, which could bias outcomes. Nonetheless a large sample size was achieved allowing for a range of views. The iterative process can also lead to convergence without true agreement; however, I attempted to mitigate this by including the priority ranking exercise in the final round of the process. There was some attrition between rounds 1 and 2 of the process, although this was consistent with published experience.

3.7: Analysis

Thematic analysis of workshop and interviews

Interview and workshop data were analysed using the six-step thematic analysis approach (Braun *et al.*, 2019). This was an inductive process and developed as I worked through the interviews and workshops with the participants. The approach aligns with the ontology and epistemology outlined

earlier in the chapter. The steps have been outlined in depth elsewhere; by way of summary they include:

1. **Familiarisation with transcripts:** This involved me watching or listening to each video or audio recording and reviewing automatically generated transcripts. I then processed the transcripts, ensuring that they were anonymised and recorded accurately. This process was immersive, and I took notes as I worked through this.
2. **Generating initial codes**: I generated initial codes and recorded them in an Excel file. These identified important and recurrent concepts, language and meanings. I reviewed these codes as I completed the coding process, and some codes were refined.
3. **Searching for themes:** I grouped codes into broader conceptual clusters. At this stage, I had separated the codes into those from faculty and student discussions, however, as I progressed, it appeared that there was significant overlap between these areas.
4. **Reviewing and refining themes across datasets:** this was clearly not a linear process and involved multiple revisions.
5. **Defining and naming themes:** this drew on participant language and underlying concepts.
6. **Producing the report:** with representative quotes and an analytical commentary. It became apparent during the process that I had collected rich data from a diverse group of participants. This involved refining and cutting down the word count of the initial report iterations. It has been challenging to summarise and present this information here, and I have had to focus on my main research aims for the purposes of this project. I aim to complete further analyses of adjacent data in due course. In writing the report I have presented participants by their medical school and pre-clinical or clinical student status, this is to give context, however I have not provided further details of identifying characteristics such as sex or ethnicity, to as to maintain anonymity of participants.

3.8: Ethics

The study achieved a favourable ethical opinion from the University Education Research Ethics Committee ((Educ) DREC) at Oxford in May 2025 (see Appendix 11 for full ethics application and Appendix 12 for the Research Ethics Approval letter). A minor amendment was approved on 22 May 2025 to allow the inclusion of interviews in place of workshops, in response to volunteer feedback, to allow for scheduling difficulties with multiple participants during term-time. The ethics application and approval details were also shared with Aston University. The study adhered to institutional guidance on research governance and data security. Participants were made aware of the full study details using participant information sheets. Principles of informed consent were adhered to. I have taken care to generalise or omit information that could identify individuals. Interviews were conducted in a sensitive manner, and participants were advised that they should only answer questions and discuss subjects that they are comfortable with. The approach to this was outlined in the interview guide and ethics submission.

Chapter 4: Results and Discussion

This chapter integrates the presentation of results with discussion, reflecting the study's interpretivist and participatory orientation. Findings are organised along three main research questions, moving from student experiences (Research Question 1) to faculty perspectives (Research Question 2), and finally to areas of consensus on actionable interventions (Research Question 3). In combining results and discussion, the intention is not only to describe what participants said but also to interpret these accounts in light of existing evidence and consider their implications for policy and practice in WP in medical education.

I gained insights from a wide range of participants after completing interviews with 9 students, as well as faculty interviews and workshops with 11 participants, and the Delphi Study, which had 51 participants in Round 1 and 37 in Round 2. I have analysed the results in line with Braun and Clarke's reflexive thematic analytical approach (Braun *et al.*, 2019). Student interviews were drawn from Oxford and Aston, chosen as contrasting institutional contexts: one is long-established and 'elite', the other is newer, with WP at the centre of its mission. Faculty participants represented a range of schools and clinical settings. Together, these accounts highlight common challenges, as well as differences that reveal how institutional cultures influence WP student experience. Within each section, qualitative themes are illustrated with direct quotations from interviews and workshops and are considered in the context of relevant literature and institutional policy. The Delphi process is then used to extend the analysis by asking WP students and Faculty to work together on building consensus on interventions for adoption by medical schools to enhance WP student experience, and comment on their desirability, feasibility and overall priority. Three main themes emerged each aligning to a research question, taking us on a clear journey from student experience to faculty understanding and shared solutions. Research questions and themes are summarised below:

Research Question 1: What are the lived experiences of WP students during their time at medical school, and how do they make sense of the barriers and supports that shape their wellbeing, belonging and progression?

- ***Theme A:*** *Barriers before and during medical school*

Research Question 2: How do medical educators articulate their understanding of the challenges faced by WP students and of institutional responses?

- ***Theme B:*** *Educator perspectives on institutional responsibilities and support for WP students*

Research Question 3: Which interventions to enhance WP student experience, do students and faculty reach consensus on, for implementation by medical schools?

- ***Theme C:*** *Proposals and priorities for action*

4.1.1: Research Question 1: What are the lived experiences of WP students during their time at medical school, and how do they make sense of the barriers and supports that shape their wellbeing, belonging and progression?

- ***Theme A:*** *Barriers before and during medical school*

Sub-theme A1: Pre-admission barriers and their legacy

Although this study is primarily concerned with enhancing the experience of WP students during their time at medical school, participants consistently located their current challenges in the context of their earlier personal and educational journeys, which they discussed candidly (See Appendix 15, Supplementary Table S1 for a summary of codes under this sub-theme). What emerged strongly is that pre-admission barriers do not disappear once a student is admitted, they leave legacies that continue to shape confidence, belonging, and opportunities during medical school. Student

participants came from diverse backgrounds, some had immigrated to the UK, or had grown up in temporary housing, or held caring responsibilities, and most were the first in their families to attend university. However, common patterns emerged in how pre-admissions barriers continued to influence their experiences at medical school.

There were contrasts between the Oxford and Aston cohorts, that provide insights into how pre-application factors can shape student experience. Most Oxford student participants had attended WP outreach activities or summer schools organised by the university or its colleges. Many described comprehensive schools, that had formal "high achiever" tracks designed to support applications to Oxbridge, medicine, or other elite pathways, often with a track record of previous success. By contrast, Aston students were more likely to have attended large local further education colleges or sixth forms, where entry to medicine or elite universities was unusual. Some students described how they had to decline attendance at selective schools as they could not afford the cost of a longer commute. For them, the geographical location of their university was often the most important determinant of choice. Or as one student put it: *"I did not care about the Russell Group I was more worried about the distance"* ***[Pre-Clinical Student, Aston]***

Another reflected on the benefits of staying close to home: *"When you live close by you're better off financially and mentally. I live on campus but every Friday I go home and work on Saturday. I see my family and it's a big reset"* ***[Pre-Clinical Student, Aston]***

Being able to live at home, reduce accommodation costs, and maintain family responsibilities (including paid work and caring roles) outweighed institutional prestige, as recognised in earlier studies (Gibbons and Vignoles, 2012). Proximity to home strongly predicts participation for students from low-income and first-generation families (Garza and Fullerton, 2018). This difference in pathways into medical school may reflect broader structural inequalities, while many Oxford students, although also coming from WP backgrounds, had been able to access institutional

scaffolding, Aston students frequently relied on pragmatic decisions shaped by financial and social responsibilities. Although a range of narratives were presented by students at both institutions, those with 'encouraged upward mobility' as described by Krstić and colleagues (2025) in their recent qualitative study, were well represented in both settings, while 'enduring identity' narratives were described more commonly at Aston, perhaps explained by the greater proportion of students living at or close to home. While some of the Oxford students that I interviewed gave narratives that aligned with the 'pre-socialised' group, with students accessing comprehensive application support at school, mentoring and outreach opportunities, having family members who have experience of higher education, or access to forms of capital that may be valued by the dominant medical school culture such as high ability in specific sporting or other extracurricular activities.

An interest in science combined with an altruistic intention, was a commonly cited motivator to study medicine, as was having had prior exposure to medical environments as a patient, or experience with family members who had received medical treatment for significant health problems. A few participants advised of how medicine is viewed as a valued or prestigious occupation in their community. Despite this some students described how their first-in-family status and socioeconomic background had shaped their sense of what was possible, and how this could be compounded by factors such as young carer status. As one student put it:

"Medicine wasn't my initial thought. We were a low-income family. No one in my family had even gone to university. It didn't feel achievable." ***[Clinical Student, Aston]***

Role models were consistently identified as crucial in visualising medicine as a realistic career. Previous literature shows that access to relatable role models increases self-confidence and self-efficacy, which in turn supports progression into higher education (Ahmady *et al.*, 2022). Yet many WP students lack such connections. Several students explained how no one in their immediate social

circle worked in medicine or academia, and as a result they struggled to see themselves in the profession. Without access to real-life role models, some drew inspiration from popular culture:

"This is not something I would say in an interview, but I loved Grey's Anatomy... I absolutely loved the neurosurgeon and the paediatric doctor." ***[Clinical Student, Oxford]***

These accounts illustrate how students sometimes relied on media portrayals to envision a place for themselves in medicine, which highlights the lack of accessible, real-world guidance. Fictional portrayals of doctors have been reported previously as sources of inspiration for prospective applicants to medicine (Rimmer, 2020). Able pupils from disadvantaged backgrounds underestimated their chances of success in medical applications, partly due to a lack of role models or mentors (Greenhalgh, Seyan and Boynton, 2004). Structured mentorship, accessible career advice and visibility of diverse role models, may have a role in improving access to knowledge and support in this area, and were assessed by the consensus panel for prioritisation as shown in later sections.

Many students from both institutions had been unfamiliar with admissions processes and described entering these as though they were "blind" or as one student put it:

"I am the first person to go to university, and the only medic in my family, it was like going in with your eyes closed." ***[Pre-Clinical Student, Aston]***

They highlighted how they had little or no support with writing personal statements or preparing for aptitude tests and MMIs, in contrast to more privileged peers who told then that they had extensive coaching and advice. As one student reflected: "*My biggest challenge was the UCAT. I didn't do the question banks or paid tutoring. I wasn't sure if it was worth it."* ***[Pre-Clinical Student, Aston]***

Tests such as the UCAT and MMIs were originally introduced as they were thought to be fairer than traditional admissions methods, however if one group receives extensive coaching that is not available to another, on the basis of access to resources, this represents a structural disparity. Recent discourse has suggested using contextualisation of all applicants, in order to correct for disparities,

ensuring “equity for all (Chan *et al.*, 2024).” The application system is a complex field for students to navigate, despite improvements in sharing information from the MSC and individual medical schools, access to key information on contextual offers, access to- and clarity of- information was lacking (Eguiguren Wray, Pollard and Mountford-Zimdars, 2024).

Interview processes could act as a barrier for students from WP backgrounds, with many students describing how they had limited opportunities to practice, and some described feeling as though they did not fit in when they attended interviews at some established institutions, or as one student put it: *“The way the questions were asked, even the attitude of the examiners towards students was very different… before the interview I had the opportunity to talk to the other students… they were from a totally different planet to me.”* ***[Pre-Clinical Student, Aston)***

Some students thought that MMIs were fairer than in person long-form interviews, however most Oxford students reported that they had good interview experiences at their colleges, reporting that they felt that they mattered to the college and were treated as individuals. They described how WP outreach initiatives had been decisive in supporting their applications. The students reported that they had benefited from summer schools and initiatives, run by Oxford, or by external organisations such as the Sutton Trust were instrumental to their success. As one student commented:

“The UNIQ Summer School at Oxford, was phenomenal. Like the whole reason I got in… to be honest.” ***[Clinical Student, Oxford]***

A legacy of programmes such as UNIQ was that they enabled students to build ‘a community of practice’ around a shared endeavour of navigating medical school applications(University of Oxford, 2025b). Several students spoke about how they formed friendships with participants from similar backgrounds, which later became an important support network during their time at Oxford. This echoes findings showing that summer schools can build both the cultural and social capital, valued by institutions, that students from underrepresented backgrounds do not have (Hoare and Mann,

2011). However, outreach initiatives are not without risks. One student offered a cautionary reflection on how, despite good intentions, WP interventions can inadvertently reinforce difference: *"In hindsight, it has the potential to be helpful. But… I felt 'othered' by it. Like different to everyone else on my course, because there were only three or four of us in the school...One of my tutors when I started term said to me 'Oh you don't really get this experience at state school… I was like 'well we had a formal on [the WP initiative]' and he was like, 'Oh yeah, about that. They created space for you. You're out seventh medic' and I thought… I'm the worst medic in the college."* ***[Clinical Student, Oxford]***

This tension reflects wider debates in the WP literature about the risks of deficit framings and interventions with unintended consequences (Curtis *et al.*, 2021). Outreach can equip students with knowledge about admissions and help build their confidence, but it may also mark them out as different and reinforce hierarchies of belonging (Greenhalgh *et al.*, 2006). Taken together, these findings suggest that outreach initiatives are most effective when they combine academic preparation with genuine community-building but must be carefully designed to avoid reinforcing stigma.

For many students, financial barriers had constrained opportunities to prepare:

"I never had tuition in my life. I didn't want to burden my parents. Centres charge £20 an hour, and my parents don't earn that much." ***[Pre-Clinical Student, Aston]***

Such accounts are consistent with existing evidence that access to private tuition, mock interviews, and commercial preparation resources is stratified by socioeconomic status (Cleland *et al.*, 2012)(Mathers *et al.*, 2011). Indeed, some participants described how as a result they had been initially unsuccessful in their applications and had needed to reapply and take a gap year.

Economic pressures extended beyond admissions preparation. Several students described working long hours during sixth form to contribute to household finances, with one:

"I was working 24 hours at weekends as a hotel room attendant to contribute to the household. You're always worried and I think that's continued forward into my studies." ***[Clinical Student, Oxford]***

The necessity of paid work is a significant stressor during these formative years and can leave a sense of precarity upon admission. The present study provides an explanation for the insights of Greenhalgh et al who described how school pupils from disadvantaged backgrounds view studying medicine as a "high risk" endeavour that comes at high personal cost (Greenhalgh, Seyan and Boynton, 2004). Considering the experiences of WP students who have entered medical school from the present study, the perceptions of school pupils in Greenhalgh et al.'s study are rationale. Systemic barriers to inclusion, be they economic, or related to access to preparatory resources, role models and careers advice, shape student experience beyond admission. This challenges the notion that contextual offers or outreach schemes alone are sufficient to "level the playing field." Opening access is only the first step of WP; the legacy of structural barriers needs to be acknowledged, so that we can build institutions that are inclusive of all students and support them to reach their full potential.

4.1.2: Sub-theme A2: Economic and Structural Constraints on Student Experience

While admission to medical school marked a significant achievement, many WP students described how financial precarity and structural barriers continued to shape their daily experience of medical education (see Appendix 16, Supplementary Table 2, for a summary of codes under this sub-theme). For many the combination of limited student finance and the NHS bursary, during a 'cost of living crisis' left budgets so tight that taking additional jobs alongside study was a necessity:

"You probably get £4000 in a maintenance loan from SFE with the NHS Bursary as well. I was looking at this… and excluding bills, I have £60 to live on next year… I've taken more jobs next year because

I'm aware of how much lower my income is going to be. I am well into my overdraft this year."

[Graduate Entry Medical Student, Oxford]

Others highlighted the relentlessness of combining academic and paid work responsibilities:

"I always worked full-time during my 'vac', which was probably not the best idea, but it is what it is. So, I just felt like my foot was on the pedal for three years straight" ***[Clinical Student, Oxford]***

Several students also emphasised obligations to contribute financially to their families, with their income stretched between sustaining themselves and supporting dependents:

"I tutor and I pick up shifts when I can for extra money. The money I get from student finance doesn't cover the whole year. I have to pay for things for my brothers, my mum, and to actually just live."

[Pre-Clinical Student, Aston]

Beyond direct finances, structural features of medical education compounded inequality. The cost of living in Oxford led some to move further afield, adding commuting time and expense:

"I've moved out of Oxford because it's cheaper… when I was living there it was about £750 per month… in a house share of four people." ***[Clinical Student, Oxford]***

Clinical placements created further inequities when students were allocated to sites poorly served by public transport, with students describing commutes of up to 3 hours.

Digital poverty was a commonly cited barrier, with students describing how outdated technology undermined their ability to study effectively: *"My laptop was so old, it would take 3 hours to load up…I'd sit there to study, and it would take 20 minutes to load up…and it would crash!"* ***[Pre-Clinical Student, Aston]***

Even expectations around professional identity carried hidden costs. One student described how buying clothes for placements posed an unexpected burden: *"I was shocked when I found out we had*

to have clinical clothes… it seems like such a small thing, but I've never owned anything fancy in my life. It's usually hand-me-downs or second-hand stuff." ***[Clinical Student, Oxford]***

At Oxford, financial pressures were compounded by institutional traditions and hidden costs that many WP students had not anticipated. Several spoke of the expense of college meals, formal dinners, and social events, which impacted on their ability to participate fully. One student spoke of the requirement for sub fusc academic dress, which posed challenges before their first term when student finance had yet to be provided:

"Sub fusc… it's like an exam outfit that they want you to have. You wear a white shirt, black trousers or skirt, black smart shoes, a black ribbon, a gown and mortar board, and you need all of this in order to matriculate on the first day. Which is crazy because I'd had no student finance, and I didn't know where to get all this stuff." ***[Clinical Student, Oxford]***

The risk of this type of barrier is that it impacts negatively on feelings of belonging that are known to be closely related with engagement, well-being and positive outcomes (Thomas, 2012). Active efforts should be made to foster this feeling of well-being by removing barriers to access.

Others described disparities between colleges in the financial support available, and how they were not aware of this at the time of application:

"Mine is a wonderful college, it's definitely less posh in how it feels and how everyone behaves, so I love that. But it means you have fewer opportunities. I have a friend in [another Oxford College] and they are given a grand in their first year. So, there are big disparities between colleges." ***[Clinical Student, Oxford]***

Having said this many of the Oxford students acknowledged that hardship funds and bursaries available at the university and its colleges, were favourable compared to those available at many institutions elsewhere.

Taken together, these accounts highlight how the economic and structural conditions of medical training, including funding arrangements, placement organisation, and professional expectations, create barriers for WP students. A study of first-in-family students made similar observations (Bassett *et al.*, 2018), while the risks of social and academic isolation secondary to financial deprivation have been noted previously (Krstić *et al.*, 2021). The present study adds depth by documenting the multiplicity of structural barriers, extending beyond finances to include commuting, digital access, and cultural expectations around dress and professionalism. These findings suggest that widening access to medical school is insufficient without parallel efforts to widen support. Structural reforms are necessary to ensure that bursaries are in line with the cost of living, placements are allocated equitably, and institutions recognise hidden course costs, thereby building truly inclusive environments.

4.1.3 Sub-theme A3: Uneven Academic Preparation

Many students felt that differences in their school background continued to shape their experiences once they were in medical school (See Appendix 17, Supplementary Table S3 for a summary of codes under this sub-theme). Several described arriving less familiar with independent study, academic writing, critical analysis or the volume and pace of work expected compared to peers from selective or independent schools. One student recalled:

"I definitely noticed the impact in the first year. I think people from certain schools, like selective schools or the independent school sector, they were more put together. I feel like they knew where to start from. They knew how to handle things." ***[Pre-Clinical Student, Aston]***

This sense of uneven preparation not only reflected academic skills but also broader cultural capital, knowing "how university works" and the kinds of behaviours or study practices that are valued. Some students who attended non-selective state schools felt that their teachers had lower

expectations of them, with one student recounting a teacher saying: *"It's OK if you don't get the grades."* ***[Pre-Clinical Student, Aston]***

Another reflected on the absence of tailored guidance: *"There wasn't anything in place like – OK, you want to do medicine? Here's the things you need to do."* ***[Pre-Clinical Student, Aston]***

Previous literature describes how first-in-family students, and those from lower socioeconomic backgrounds, are expected to learn new ways of 'being' in higher education, which can contribute to a sense of outsider status and an identity conflict between home and university personas (Reay, Crozier and Clayton, 2009). It is essential to avoid deficit framings in this area and recognise that perceived gaps are products of structural inequalities.

Several students also expressed uncertainty about their preparedness for postgraduate training and future careers and felt that this put them at a disadvantage compared to their peers from more economically affluent backgrounds. As one put it: *"I personally have no idea what's gonna happen after we graduate because no one's ever spoken about it."* ***[Pre-Clinical Student, Aston]***

Students were enthusiastic about proposals for medical schools to provide increased careers advice and support. The majority had ambitions to pursue careers in competitive hospital-based specialities, including surgery and academic medicine. It was heartening to hear students describe these aspirations: *"I really want to go back and do a PhD, maybe in Oxford, and eventually clinical training. Yeah, a teaching, research, clinical, everything career!"* ***[Clinical Student, Oxford]***

"I think the people you meet make a big difference and make an impact on how you view things. All surgeons have been really nice. They've made me feel involved." ***[Clinical Student, Oxford]***

Provision of structured careers guidance, networking, and mentoring opportunities could help to equip students with the knowledge required for them to compete for entry to competitive career pathways, with peers who are able to draw on knowledge and connections from family and informal networks. This is a system that the stakeholders including the MSC have tried to reform (Greenhalgh,

2010; Medical Schools Council, 2014) Prior work has shown that without targeted support, WP students may struggle to access the 'hidden curriculum' of medical education (Southgate *et al.*, 2017).

Taken together, these accounts suggest that the UK's two-track school system feeds directly into medical education, shaping not only entry but also students' early experiences of study, belonging, and career planning. A focus on structural support rather than individual deficit is therefore essential to ensure WP students thrive once admitted.

4.1.4: Sub-theme 4: Belonging, Identity and Social Experience

In general, students spoke positively about their medical schools and described finding their place within them. However, students reported barriers to their sense of belonging, with financial, cultural and social factors influencing whether they felt included (See Appendix 18, Supplementary Table S4 for a full summary of codes under this sub-theme). Again, finances loomed large. In Oxford, students described avoiding social activities because they could not afford to participate, decisions that isolated them from their peers:

"So, there's Oxford families…we're going for a meal… you have to pay for a meal… I'm not going to that now. College formal dinners, I didn't go until I was part of the MCR committee, because you got to go for free. I never ate in college; I got food from Aldi." ***[Clinical Student, Oxford]***

Previous literature shows that the hidden costs of participation in university life can exacerbate social exclusion for students from disadvantaged backgrounds (Reay, Crozier and Clayton, 2009). In this study, consequences extended to academic opportunities, with students noting how financial precarity reduced their ability to attend conferences, undertake electives, or consider intercalated degrees.

Students also described feeling unfamiliar with cultural expectations at university, such as dining etiquette or academic dress codes. These signalled to WP students that they are outside the

institutional culture. Some students described feeling a pressure to modify their accents in the direction of a received pronunciation or described using humour to play up to working class stereotypes. This aligns with reports of identity conflicts in first-in-family students entering higher educations in the literature, where they feel out of place, while making attempts to assimilate with the dominant culture (Groves and O'Shea, 2019). Conversely, many students described having supportive tutors or mentors who helped foster inclusivity. One Oxford student reflected positively on the continuity of pastoral care within their college, stating that they felt chosen by that college. This illustrates the potential of sustained, personalised relationships with educators to counter feelings of exclusion, and of the importance of relational practices in building student belonging (Thomas, 2012).

Aston students, described how they felt it reassuring to study in a multicultural city within a diverse cohort:

"I do feel like I fit in, because it is very diverse… anyone from any background would probably find someone alike and wouldn't feel like the odd one out." ***[Clinical Student, Aston]***

The smaller cohort size and perceived approachability of faculty further supported this:

"It's a newer medical school. So, you have a smaller cohort, which is good for socialising because everyone knows everyone, and the teachers know you as well." ***[Clinical Student, Aston]***

Oxford students also described their cohort as being diverse, but some felt that recognition of cultural and religious events was inconsistent across colleges, and that more inclusive programming would be welcome. Some students felt that a wider variety of dietary options should be catered to at college events. Some called for events that were not based on drinking alcohol or were held at different times of day to increase inclusivity. Taken together, these findings demonstrate that belonging for WP students is shaped by the interplay of financial constraints, cultural norms, and institutional practices. Institutions should interrogate the cultural practices and hidden curricula that

shape who feels at home in medical education. This supports broader calls to view belonging as central to equity in higher education and to embed inclusive practices in both social and academic contexts (Thomas, 2012)(Mountford-Zimdars *et al.*, 2017).

4.2: Research Question 2: How do medical educators articulate their understanding of the challenges faced by WP students and of institutional responses?

- ***Theme B:*** *Educator perspectives on institutional responsibilities and support for WP students*

4.2.1. Sub-theme B1: Recognising Structural Constraints

Faculty members acknowledged that challenges faced by WP students were rooted in structural inequalities, rather than individual deficits. We had a broad range of faculty, but many had an interest in WP, so it is unclear if their views are reflective of colleagues more broadly. They recognised that students WP students continue to face multi-layered challenges in accessing "insider" opportunities, understanding postgraduate routes, and building a competitive portfolio whilst balancing financial, academic, and caring responsibilities, in line with some previous themes in First-generation students (Southgate *et al.*, 2017). In the present study, faculty described how WP students may underperform in the early stages of medical school, due to structural gaps, although some noted that students with contextual offers often outperform their peers in finals, as demonstrated in national analyses . Institutional practices varied, and personal tutoring systems were often the primary source of providing pastoral support for WP students.

Faculty consistently described a two-track system before admission that continues to shape students' experiences once they arrive. They framed this as a structural pattern:

"The problem is number one, they go to schools that don't provide them with that sort of educational support…There are still those cold spots where, you know, where the careers advice is no good. An

expectation…they don't need to consider going to higher education, let alone medicine which almost seems like going to the moon." ***[Educator at a new medical school]***

Faculty members noted that some WP students had academic skills gaps in the early stages of medical school. One clinical educator with lived experience as a WP student described starting out at a prestigious medical school:

"I remember having to work really, really hard to just keep up with everyone else. I know everyone works hard in medical school, but I think it a lot of my peers had been exposed to the softer stuff of medicine beforehand." ***[Clinical Faculty in Teaching Hospital]***

This participant had highlighted potential gaps in what they termed 'soft skills' in WP students; these were taken to include academic study skills, confidence in presentation and communication skills, as well as knowledge of the medical workplace and of career pathways and roles. Faculty members from new medical schools gave insights into the benefits of an inclusive approach to providing support with Sciences, Mathematics, and English for first-year medical students:

"We don't single them out; we don't do WP interventions. If we think they need a bit more English support, we give it to the whole group. We give them really targeted English and Maths." ***[Faculty member]***

A major theme that emerged was the reduced access to careers advice and opportunities within medicine that WP students experienced. Participants linked specialty selection to informal networks and shared interests that can be difficult to access without similar levels of social capital. Many participants felt that this was more acute in accessing competitive specialities, including surgery, and academic medicine:

"It's incredibly difficult to go and compete with a load of people who are playing golf together at the weekends."

Read through Bourdieu's lens of social and cultural capital, these accounts illustrate how progression is shaped by who you know and what you know about the hidden rules, as well as by formal assessments. From a capability approach, even where formal opportunities exist, WP students lack true freedom to pursue them due to structural barriers.

Financial pressures remain a significant challenge for WP students during their medical school years. Structures are nominally open, but they are practically costly. Many faculty members outlined how financial necessities can conflict with institutional expectations, with examples including the need to work, which causes difficulties in completing course and placement requirements.

"The majority of students that are referred to progress panel for absence are WP students…Sometimes they're coming in for an 8am teaching session, when they've been working till 2am…They won't ask for help until it's too late." ***[Clinical Faculty Member at a New Medical School]***

Faculty reported that WP students are less likely to access support when they are experiencing difficulties, which risks further compounding the problems. One faculty member highlighted embarrassment at their situation as a barrier to accessing support when they were a student:

"I remember doing an orthopaedic firm at a London teaching hospital. I was running my father's business… a takeaway. I'd be there from Friday evening until Sunday at midnight, then get on the train to do a placement on a Monday. It was really hard work, and I failed the firm, because I wasn't turning up on time and was too embarrassed to say why." ***[Clinical Educator at established medical school]***

Another faculty member, also from a WP background, believed that medical school and GMC fitness-to-practice procedures had a negative impact on WP students.

"In my day, the GMC weren't that interested in you until you had your degree certificate in your hand, whereas now students are like rabbits in the headlights from week one." ***[Clinical Faculty Member at a new medical school]***

The same participant went on to highlight the expectation that WP students assimilate into the dominant culture at medical school. *"This is a key problem for me that goes all the way through, as I think there's a sort of upper middle-class, cultural imperialism in medicine, there's an idea that it's really important that we have these people, but we must then take them and mould them into people who are like us."*

Some faculty members highlighted the lack of diversity within clinical academic medical school faculties and how this could contribute to non-inclusive or discriminatory practices. One faculty member at a new school highlighted potential bias around the introduction of gateway programmes or medical school courses for WP students that require an extra year of study, potentially resulting in a minority burden.

4.3. Research Question 3: Which interventions to enhance WP student experience, do students and faculty reach consensus on, for implementation by medical schools?

- ***Theme C:*** *Proposals and priorities for action*

Alongside the thematic analysis, a two-round Delphi study was carried out to establish consensus on interventions most likely to enhance the experience of WP students in medical education. The Delphi method, with its iterative rounds of structured rating and qualitative feedback, provided a systematic way to move from lived experience towards collective prioritisation across diverse stakeholders.

The panel comprised of 51 participants, 40 faculty (see Table 1 for a summary of demographics) or educators and 11 WP medical students. Faculty represented both established and newer medical schools. 83% were medically qualified, and nearly two-thirds had more than 10 years' experience in medical education or WP initiatives, and the majority holding senior academic and/or consultant level positions. Students were drawn from both new medical schools (64%) and Oxbridge (36%).

Table 1: Demographics of the expert panel (faculty and educators) (n=40)

Variable	n (%)
Type of institution	
New Medical School (established post-2010)	22 (55.0%)
Established Medical School (established pre-2010)	8 (20.0%)
NHS Institution	7 (17.5%)
Oxbridge	2 (5.0%)
Other (e.g. private institution)	1 (2.5%)
Area of Expertise in Medical Education	
Clinical Medicine	22 (55.0%)
Basic Sciences	3 (7.5%)
Equality Diversity and Inclusion	2 (5.0%)
Student Support	1 (2.5%)
Admissions	1 (2.5%)
Other	11 (27.5%)
Level of Clinical Seniority (if medically qualified)	
Consultant	25 (75.8%)
General Practitioner	6 (18.2%)
Resident or Non-Consultant Specialty Doctor	2 (6.0%)
Academic Rank	
Senior Lecturer (or equivalent)	16 (40.0%)
Professor	9 (22.5%)
Lecturer (or equivalent)	7 (17.5%)
Reader (or equivalent)	4 (10.0%)
Other	4 (10.0%)
Years of Experience in Medical Education or WP initiatives	

Over 10 years	25 (62.5%)
6 to 10 years	8 (20.0%)
3 to 5 years	5 (12.5%)
1 to 2 years	2 (5.0%)

4.3.1 Results from Delphi Round 1

Twelve proposals were considered by the panel in round 1, covering areas including early outreach, curriculum change, work-experience and career development, mentorship, financial support and EDI policies. Overall, all proposals exceeded the 50% consensus threshold for potential benefit, with no proposal rejected outright (See Summary in Table 1). The highest levels of agreement were for annual reviews of financial support packages (98%), periodic curriculum reviews to ensure inclusivity (96%), inter-institutional WP collaborations (96%) and mentorship programmes linking WP students with senior peers or faculty (94%). 9 proposals reached the 70% threshold for consensus in the first round. Three proposals attracted more cautious support including reverse mentoring, foundational or access years and adjusted timetables to accommodate part-time work. It was notable that there was divergence in views between faculty and staff in some areas. There was scepticism from students on reverse mentoring, with concerns over the “minority burden” of being expected to educate faculty. Students placed a higher value on postgraduate career guidance (100% vs. 80% among faculty), signalling a strong concern with progression and competitiveness after graduation, echoing the qualitative findings about uncertainty over careers. There was also student support for accessing paid healthcare roles during training (100% vs. 85% among faculty), and on the provision of healthcare related work experience during gap years (82% vs. 68%).

Table 2: Agreement on Proposed Interventions to improve educational experience for medical students from Widening Participation Background from Round 1 of Delphi Study. *NB bold text indicates proposals that reached the 70% consensus threshold in round 1. Non-bold text indicates interventions for reconsideration in round 2 of the process.*

Proposed Intervention	Number recommending proposal as an appropriate intervention to improve experience of medical education for WP students: n (%)		
	Faculty (n=40)	WP Students (n=11)	Faculty and WP Students (n=51)
Proposal 1: Medical schools should offer programmes with an additional preparatory year, to support students from WP backgrounds in transitioning to medical education.	26 (65%)	7 (64%)	33 (65%)
Proposal 2: Medical schools should establish structured programmes that provide paid, healthcare-related work experience for students taking a gap year before medical school.	**27 (68%)**	**9 (82%)**	**36 (71%)**
Proposal 3: Medical schools should implement mentorship programmes pairing WP students with faculty or senior students to provide academic support and guidance on professional development	**37 (93%)**	**11 (100%)**	**48 (94%)**
Proposal 4: Medical Schools should provide comprehensive information and support regarding postgraduate medical training pathways, including application processes and specialty selection, tailored to the needs of WP students	**32 (80%)**	**11 (100%)**	**43 (84%)**
Proposal 5: Medical schools should establish reverse mentoring programmes, where WP students mentor faculty members to foster mutual understanding	26 (65%)	4 (40%)	30 (59%)
Proposal 6: Equality, diversity and inclusion training should be mandated for all students, faculty and staff to cultivate an inclusive and supportive learning environment	**36 (90%)**	**10 (91%)**	**46 (90%)**
Proposal 7: Periodic evaluations of medical curricula should be performed to ensure that they address the needs of a diverse student body and of patients of all backgrounds.	**38 (95%)**	**11 (100%)**	**49 (96%)**
Proposal 8: Medical Schools should provide resources and institutional backing for student-led programmes aimed at promoting medical education among underrepresented communities	**35 (90%)**	**11 (100%)**	**46 (90%)**
Proposal 9: Medical Schools should work together to set up inter-institutional collaborations to share successful strategies and programmes that support WP medical students.	**38 (97%)**	**11 (100%)**	**49 (96%)**
Proposal 10: Medical Schools should review financial support for WP students annually. This should include assessing bursaries,			

scholarships and emergency funds to ensure that they meet student needs.	**39 (98%)**	**11 (100%)**	**50 (98%)**
Proposal 11: Medical schools should adjust academic timetables to allow students to engage in part-time work	18 (45%)	8 (73%)	26 (51%)
Proposal 12: Students should be offered training to qualify as healthcare assistants or phlebotomists, to enable them to gain experience and income alongside their medical education	**34 (85%)**	**11 (100%)**	**45 (88%)**

4.3.2. Round 2: Consolidation of Consensus

By the second round, consensus sharpened around financial and structural reforms (see Table 3 for a summary of Faculty and Student prioritisation of the proposals accepted from round 1). This was a shorter online MS Form questionnaire, where participants reviewed outcomes of the first round, and were asked to re-review the 3 proposed interventions that did not reach the threshold for consensus in round 1. Participants were also asked to rank the accepted interventions in order of priority. Annual review of bursaries, scholarships and emergency funds, post-graduate careers guidance tailored to WP students and implementation of mentorship programmes pairing WP students with senior peers or faculty were the highest priorities identified. Although there was overlap between the top priorities, there was some divergence between faculty and student priorities, with faculty placing a lower importance on establishing paid healthcare related work-experience, and on inter-institutional collaboration on WP initiatives than students.

Table 3: Proposed Interventions ranked in order of priority, by Faculty and WP Students in Round 2 Delphi Study. *NB each proposal is colour-coded to allow easier comparison between Faculty and WP student priorities.*

Priority	Faculty	WP Students
1	Proposal 10: Medical Schools should review financial support for WP students annually. This should include assessing bursaries, scholarships and emergency funds to ensure that they meet student needs.	Proposal 4: Medical Schools should provide comprehensive information and support regarding postgraduate medical training pathways, including application processes and specialty selection, tailored to the needs of WP students
2	Proposal 3: Medical schools should implement mentorship programmes pairing WP students with faculty or senior students to provide academic support and guidance on professional development	Proposal 3: Medical schools should implement mentorship programmes pairing WP students with faculty or senior students to provide academic support and guidance on professional development
3	Proposal 4: Medical Schools should provide comprehensive information and support regarding postgraduate medical training pathways, including application processes and specialty selection, tailored to the needs of WP students	Proposal 10: Medical Schools should review financial support for WP students annually. This should include assessing bursaries, scholarships and emergency funds to ensure that they meet student needs.
4	Proposal 12: Students should be offered training to qualify as healthcare assistants or phlebotomists, to enable them to gain experience and income alongside their medical education	Proposal 2: Medical schools should establish structured programmes that provide paid, healthcare-related work experience for students taking a gap year before medical school.
5	Proposal 7: Periodic evaluations of medical curricula should be performed to ensure that they address the needs of a diverse student body and of patients of all backgrounds.	Proposal 9: Medical Schools should work together to set up inter-institutional collaborations to share successful strategies and programmes that support WP medical students.
6	Proposal 8: Medical Schools should provide resources and institutional backing for student-led programmes aimed at promoting medical education among underrepresented communities.	Proposal 12: Students should be offered training to qualify as healthcare assistants or phlebotomists, to enable them to gain experience and income alongside their medical education
7	Proposal 6: Equality, diversity and inclusion training should be mandated for all students, faculty and staff to cultivate an inclusive and supportive learning environment	Proposal 8: Medical Schools should provide resources and institutional backing for student-led programmes aimed at promoting medical education among underrepresented communities.
8	Proposal 9: Medical Schools should work together to set up inter-institutional collaborations to share successful strategies and programmes that support WP medical students.	Proposal 6: Equality, diversity and inclusion training should be mandated for all students, faculty and staff to cultivate an inclusive and supportive learning environment

9	Proposal 2: Medical schools should establish structured programmes that provide paid, healthcare-related work experience for students taking a gap year before medical school.	Proposal 7: Periodic evaluations of medical curricula should be performed to ensure that they address the needs of a diverse student body and of patients of all backgrounds.

Ultimately, consensus supported all by one of the proposals, with only timetable adjustment to support part-time working excluded (See Table 4 for a summary of round 2 consensus on proposals that were reconsidered), with concerns voiced from faculty and students that this risked diluting academic rigour. The two other proposals, additional preparatory years and reverse mentoring programmes, reached consensus in the second round, although the latter did not reach the threshold for consensus amongst student participants, suggesting that it should be viewed cautiously.

Table 4: Agreement on Proposed Interventions to improve educational experience for medical students from Widening Participation Background from Round 2 Delphi Study. *NB bold text indicates proposals that had not been accepted in round 1, as they failed to reach the 70% consensus threshold, but were subsequently accepted in round 2 when they reached the 70% consensus threshold. Non-bold text indicates that the intervention was rejected.*

Proposed Intervention	**Number recommending proposal as an appropriate intervention to improve experience of medical education for WP students: n (%)**		
	Faculty (n=31)	**WP Students (n=6)**	**Faculty and WP Students (n=37)**
Proposal 1: Medical schools should offer programmes with an additional preparatory year, to support students from WP backgrounds in transitioning to medical education.	**25 (81%)**	**5 (83%)**	**30 (81%)**
Proposal 5: Medical schools should establish reverse mentoring programmes, where WP students mentor faculty members to foster mutual understanding	**23 (74%)**	**4 (67%)**	**27 (73%)**
Proposal 11: Medical schools should adjust academic timetables to allow students to engage in part-time work	19 (61%)	5 (83%)	24 (64%)

4.3.3. Additional Considerations

Structured questions regarding the feasibility, sustainability, affordability, scalability of proposed interventions and the readiness of institutions to adopt them were included in the Delphi questionnaires. A full presentation of this data is too broad for the scope of this dissertation, however participants flagged barriers to implementation under these areas, for adjusting academic timetables to accommodate part-time working, providing paid healthcare work experience and additional preparatory years, with net negative approvals on institutional readiness. Free-text responses enriched the findings with suggestions including summer schools, outreach community and faith centres, measures to address digital poverty and support for electives and conference attendance. Barriers to implementation included limited funding and human resources, ensuring that interventions were implemented in line with best practice in EDI, avoiding a minority burden on WP staff and students and institutional inertia or lack of national coordination. Factors seen as essential for success included securing consistent institutional support, financial investment, staff recognition and training, collecting evidence of impact and genuine co-design with WP students.

4.3.4. Summary of Delphi Findings

The Delphi process generated clear consensus, with the most impactful interventions being structural, financial and institutional rather than individual or remedial in nature. Annual financial reviews, mentorship to support WP students, ensuring inclusive curricula and providing careers support to help students prepare for post-graduate pathways were rated of the highest priority. The divergence between faculty and student priorities, particularly around the weight that students place on career guidance and paid roles, which were touched on earlier in the qualitative results section, highlights the importance of including the student voice, and on co-creating solutions to improve the experience of WP students.

4.3.5. Financial reviews as a priority

The high priority of financial reviews in the Delphi, was supported by qualitative interview findings, with many participants stating that student finance available, was not fit for purpose, did not consider hidden course costs, such as equipment or placement travel and caused a reliance on paid work. Furthermore, financial packages varied by institution. The single most cited barrier was finance. Faculty and students described bursaries and grants as transformative but also noted wide variability across institutions. A faculty participant from one new medical school outlined the comprehensive financial support available to WP students in their institution:

"So, for our students from the most deprived socio-economic groups, we offer about £1500 a year in the first two years and then £1000 after that. They get free accommodation in first year, and half-price accommodation in the second year. That's so important. Finances are the single biggest limiting factor." ***[Faculty member at a new medical school]***

Students also called for additional targeted support, including help with equipment, digital resources, and placement travel: *"Making equipment accessible, and that involves stethoscopes and scrubs… even bus passes, get students, bus passes so they can get to the hospital in the same city."* ***[Clinical Student, Aston]***

4.3.6. Mentorship as a priority

Both WP students and faculty ranked mentorship schemes for WP students with faculty or senior students as the second highest priority (See Table 3). Faculty and students identified role models and mentors as central to aspiration and progression, in line with previous studies, which have highlighted their importance in professional identity formation and career choice (Patel *et al.*, 2023). Faculty and Students advised that training for mentors was essential. Students suggested that mentorship from WP faculty members other senior faculty or from 'near-peers' would be impactful interventions and faculty supported this:

"Mentorship…with senior students and maybe doctors in their early stages of training. I think they are the people that I most resonate with. Foundation doctors and early registrars, just because their experiences align most to mine." ***[Clinical Medical Student, Oxford]***

These findings align with the outcome of a recent workshop-based study, which proposed the development of a WP peer support network, to 'promote a sense of belonging.' This would involve linking students with near-peer students or resident doctors and convening larger WP social events with groups of students, residents and senior doctors (Gibson Smith *et al.*, 2025). There is growing evidence of the effectiveness of near-peer initiatives in academic and pastoral support (Khapre *et al.*, 2021). This approach also has advantages in terms of feasibility where there are constraints on the availability of faculty.

However, some students cautioned against "reverse mentoring" that risked placing an additional burden on minorities: *"I think the reverse mentorship thing would have been really damaging."* ***[Clinical Student, Oxford]***

"Honestly, no. I mean, first of all, I wouldn't even know what to say. Even now. It just feels like an extra thing to do when I could be doing something more fun." ***[Pre-Clinical Student, Oxford]***

The 'minority tax' on students and faculty from underrepresented groups in medicine is well recognised, and this a is a risk of placing the onus of WP support activities onto students (Charles *et al.*, 2024). From the workshops, there was also a sense that such activities would require sensitive implementation, significant training for mentors and mentees, and efforts to build trust.

One student suggested that support could be offered by pre-clinical tutors at Oxford, whilst acknowledging a need for appropriate faculty skill development for effective implementation:

"I've had support from my pre-clinical tutors..I don't know whether they need to be like trained on political correctness or something." ***[Clinical Student, Oxford]***

In line with this, Gibson Smith and Colleague's recent study (2025) suggested that the personal tutor system could be adapted to improve support for medical students from WP backgrounds, by measures such as sharing best practice, making tutors aware of their WP status, encouraging students to seek support where needed, and increasing the frequency of meetings.

Summary of Study Limitations

In line with its research paradigm this study is not aiming for statistical generalisability but is designed to be interpreted in view of interviews from a diverse range of voices, providing rich qualitative accounts. As noted previously the Delphi study had an attrition rate from 51 individuals down to 37, which may have influenced perspectives in the consensus outcomes, as may the balance of students vs, faculty. However, this attrition rate is in line with expected rates, and the size of the panel is reasonable for an expert consensus exercise. The study drew on participants from Oxford and Aston, reflecting different medical school settings, but the findings may not be generalisable outside of these contexts. Students and Faculty participants represented a range of ethnicities, with men and women represented. As previously I used reflexive practices to mitigate against undue bias, but my role as a first-in-family graduate and clinical academic with an interest in WP has shaped my focus and interpretations.

Chapter 5: Conclusion

This study has provided insights into WP student experience, alongside insights from medical educators. It also aimed for WP students to work with faculty to achieve consensus on recommendations to enhance student experience. The project was guided by three questions:

1. What are the lived experiences of WP students during their time at medical school?
2. How do educators articulate their understanding of challenges WP students face and institutional response?
3. Which interventions achieve consensus among students and faculty as priorities for implementation?

Summary of findings:

Access to medicine has broadened in recent years, but structural barriers persist for WP students in medical school. Financial constraints, uneven academic preparation, and challenges of identity and belonging were ongoing issues for students. Faculty recognised many of these constraints, particularly structural inequalities in schools, careers advice, and access to networks. The Delphi consensus study demonstrated that both groups agreed on a set of practical interventions, notably annual reviews of financial support, mentoring schemes linking students to senior peers and faculty, and expanding guidance on postgraduate careers.

Significance and implications

This study describes the lived experience of WP students in medical education. It helps us to understand the structural barriers that they face that impact on their experience. By hearing the student voice, educators and institutions can consider how to meet their needs, enabling them to reach their full potential. This study demonstrates that structural inequalities persist throughout medical education, influencing progression, well-being, and belonging. This confirms and extends

prior work, demonstrating that multiple barriers compound across the course of training, in contexts of financial deprivation and academic engagement. This study also shows the value of participatory approaches. By involving students and faculty as co-researchers and consensus-builders, it moves beyond descriptive accounts of disadvantage to prioritise implementable solutions, in response to the national agenda. The consensus information, which takes into account the views of both the students affected by policy change and the faculty implementing it, has the potential to inform medical school policy around prioritisation of recommendations. Consideration of desirability, feasibility, and institutional readiness this approach contributes to the knowledge in this area. I advocate for the use of similar approaches to curriculum and student support redesign. Another distinct aspect of this study are the rich comparative insights from WP students at Oxford and Aston Medical Schools, as representatives of established, 'elite' schools and new schools respectively. Although there were common themes between these institutions, there were also institutional nuances, with Oxford students navigating social traditions and barriers during the course but benefiting from intensive pastoral systems within colleges. Many Aston students had a sense of belonging through studying within a diverse cohort in a multicultural city, but commuting and caring responsibilities impacted on the experience of some.

Novel contribution

This study makes a novel contribution by integrating student and educator perspectives into a single framework, by using a Delphi process to establish consensus on feasible, high-priority interventions. The recommendations extend the national WP agenda towards in-course support and progression, aligning with recent calls from the MSC and policy ambitions in the NHS workforce plan.

Future directions

Research priorities include local participatory research approaches, with a range of key stakeholders represented, including students, to assess and guide development and intervention of proposed

interventions in an iterative manner in line with action research principles. Quantitative data will also be useful to track the impact of interventions on assessment and progression outcomes, while also centring WP student voice through qualitative approaches.

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Appendix 1: Study Advertisement for Students

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PI names: Dr Kelsey Inouye: kelsey.inouye@education.ox.ac.uk and
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Oxford University telephone number: 01865 274024

Improving medical education for students from widening participation backgrounds: An action research approach
Ethics Approval Reference: Education (Educ) DREC - 1335140

VOLUNTEERS NEEDED FOR A RESEARCH STUDY ON WIDENING PARTICIPATION IN MEDICAL EDUCATION

We are conducting a research study as part of an MSc in Medical Education at the University of Oxford. This study aims to explore how to improve the medical school experience for students from widening participation (WP) backgrounds. By gathering insights from medical students from WP backgrounds along with educators, we hope to develop recommendations to improve experiences and support structures.

We are looking for volunteers, aged over 18, to participate in the study.

Inclusion criteria for Medical Student participants

- Self-identify as meeting WP criteria
- Studied medicine at a UK Medical School (currently or in past 2 years)

WP criteria vary, by may include:

- being identified as meeting WP criteria by a medical school,
- participation in a medical school pathway to medicine scheme,
- coming from a lower socio-economic background,
- attending a non-academically selective state school
- or being the first in family to participate in higher education.

You are invited to participate in an online study for one 60-minute session. The session will be in workshop format carried out on MS Teams, with 6-10 other student participants. 1-1 interviews will be offered where attendance at the workshop is not possible. You will be invited to discuss experiences of studying medicine, identify challenges and factors that contribute to success and make suggestions for improving medical school experience of those from WP backgrounds. You will also be invited to complete some online surveys to help prioritise recommendations.

If you are interested and would like more information please contact Dr Zaki Hassan-Smith at the Department of Education, Oxford University on zaki.hassan-smith@st-hildas.ox.ac.uk
There is no obligation to take part. Thank you!

Appendix 2: Study Advertisement for Faculty

Department of Education
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Improving medical education for students from widening participation backgrounds: An action research approach
Ethics Approval Reference: Education (Educ) DREC - 1335140

VOLUNTEERS NEEDED FOR A RESEARCH STUDY ON WIDENING PARTICIPATION IN MEDICAL EDUCATION

We are conducting a research study as part of an MSc in Medical Education at the University of Oxford. This study aims to explore how to improve the medical school experience for students from widening participation (WP) backgrounds. By gathering insights from medical students from WP backgrounds along with educators, we hope to develop recommendations to improve experiences and support structures.

We are looking for volunteers, aged over 18, to participate in the study who

- Are currently working as senior medical educators
- Have experience of medical student education, support or WP activities
- Have a minimum of 1 year experience in a relevant role

You are invited to participate in an online study for participation in a 60-minute workshop session. The session will be in workshop format carried out on MS Teams, with 6-10 other faculty participants. 1-1 interviews will be offered where attendance at the workshop is not possible. You will be invited to contribute to discussions as to how we can improve medical school experience for WP students. You will also be invited to complete some online surveys to help prioritise recommendations.

WP criteria vary, by may include:

- being identified as meeting WP criteria by a medical school,
- participation in a medical school pathway to medicine scheme,
- coming from a lower socio-economic background,
- attending a non-academically selective state school
- or being the first in family to participate in higher education.

If you are interested and would like more information please contact Dr Zaki Hassan-Smith at the Department of Education, Oxford University on zaki.hassan-smith@st-hildas.ox.ac.uk
There is no obligation to take part. Thank you!

Appendix 3: Study Advertisement for Delphi Study (Students and Faculty)

Department of Education
University of Oxford
15 Norham Gardens
Oxford, OX2 6PY

PI names: Dr Kelsey Inouye: kelsey.inouye@education.ox.ac.uk and
Dr Paulina Rodriguez-Anaiz paulina.rodriguezanaiz@education.ac.uk
Primary researcher: Dr Zaki Hassan-Smith
Oxford University email address: zaki.hassan-smith@st-hildas.ox.ac.uk
Oxford University telephone number: 01865 274024

Improving medical education for students from widening participation backgrounds: An action research approach
Ethics Approval Reference: Education (Educ) DREC - 1335140

VOLUNTEERS NEEDED FOR A RESEARCH STUDY ON WIDENING PARTICIPATION IN MEDICAL EDUCATION

We are conducting a research study as part of an MSc in Medical Education at the University of Oxford. This study aims to explore how to improve the medical school experience for students from widening participation (WP) backgrounds. By gathering insights from medical students from WP backgrounds along with educators, we hope to develop recommendations to improve experiences and support structures.

We are looking for volunteers, aged over 18, to participate in the study who

- Are currently working as senior medical educators OR
- Have studied medicine in the UK (either currently or in the past 2 years)

You will be invited to complete some online surveys via MS Forms to help gain your insights into proposed interventions aimed to improve experience of WP Medical Students and reach consensus and prioritise recommendations.

WP criteria vary, by may include:

- being identified as meeting WP criteria by a medical school,
- participation in a medical school pathway to medicine scheme,
- coming from a lower socio-economic background,
- attending a non-academically selective state school
- or being the first in family to participate in higher education.

If you are interested and would like more information please contact Dr Zaki Hassan-Smith at the Department of Education, Oxford University on zaki.hassan-smith@st-hildas.ox.ac.uk
There is no obligation to take part. Thank you!

Appendix 4: Participant Information Sheet for Students

Department of Education
University of Oxford
15 Norham Gardens
Oxford, OX2 6PY

PI names: Dr Kelsey Inouye: kelsey.inouye@education.ox.ac.uk and
Dr Paulina Rodriguez-Anaiz paulina.rodriguezanaiz@education.ac.uk
Primary researcher: Dr Zaki Hassan-Smith
Oxford University email address: zaki.hassan-smith@st-hildas.ox.ac.uk
Oxford University telephone number: 01865 274024

Improving medical education for students from widening participation backgrounds: An action research approach.

PARTICIPANT INFORMATION SHEET

Central University Research Ethics Committee Approval Reference: Education (Educ) DREC –1335140

1. **Introductory paragraph**

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part.

2. **Why is this research being conducted?**

This study aims to explore the experiences of medical students from widening participation (WP) backgrounds. We also seek to gain insights on the implementation of WP policies from medical school educators. By understanding challenges and opportunities, we hope to work with participants to develop recommendations to enhance experience in medical education.

3. **Why have I been invited to take part?**

You have been invited to take part as you study or have recently studied medicine in the UK. We have shared details of the study with potential participants from UK medical schools and hope to recruit those who meet the following inclusion criteria:

- Currently studying medicine at a UK medical school or has studied medicine at a UK medical school in the past 2 years.
- Self-identified as meeting WP Criteria
    - NB WP criteria vary but may include being identified as meeting WP criteria by their medical school, participation in a medical school pathway to medicine WP scheme, coming from a lower socio-economic background, attending a non-academically selective state school, being the first in family to participate in higher education.

We aim to recruit 6-10 students and 6-10 medical educators to participate in online workshops. If it is not possible to schedule a workshop with other attendees, we will hold interviews with individual participants in place of a workshop.

We aim to recruit between 20-40 participants (students and medical educators) to complete online surveys following the workshops.

4. Do I have to take part?

No. It is up to you to decide whether to take part. You can withdraw yourself from the research, without giving a reason, and without negative consequences, by advising us of this decision. The deadline by which you can withdraw any information you have contributed to the research is 1st August 2025. Data that has been collected will be deleted if you decide to withdraw from the study.

5. What will happen to me if I take part in the research?

- Written consent will be taken by completion of a form.
- If you consent to taking part you will be invited to an online workshop (lasting 60 minutes) as outlined below and to complete 2-3 short 'Delphi' questionnaires to reach consensus in our recommendations.
- You will be invited to attend an initial online workshop (via Microsoft teams) with 6-10 other participants, who are either current or recent medical students. If it is not possible to find a convenient time for you to attend a workshop with other participants, we will arrange a one-to-one interview instead. The workshop will be facilitated by the primary researcher (Dr Zaki Hassan-Smith, MSc in Medical Education student). In this workshop you will be invited to discuss your lived experience in studying medicine, identify challenges and enabling factors for success, and suggestions for improving student experience for those from widening participation backgrounds.
- With your consent, we would like to make a video and audio recording of the MS teams meeting so that we have an accurate record of the conversation. This will enable us to make a written transcript of the conversation, which the study researchers will analyse.
- An audio recording is required for us to make the transcript. However, if you do not wish for us to make a visual (video) recording, you can indicate this and leave your camera off during the recording.
- You can ask to pause or stop the research activities at any time.
- You will be invited to complete a questionnaire (as part of a Delphi Study) to refine recommendations. This involves answering 2-3 online questionnaires. The questionnaires each take around 10 minutes to complete and will be sent 1-2 weeks apart.

6. What are the possible disadvantages and risks in taking part?

You will be contributing some of your time to attend workshops and answer questions. You will be sharing information in a small online group. The meetings will be recorded for the purpose of making a transcript of the conversation. Participant identifiers will be removed from the transcript and the

data will be kept securely in line with Oxford University procedures. Participant identifiers will be removed from subsequent research reports and publications.

7. **Are there any benefits in taking part?**

There will be no direct or personal benefit to you from taking part in this research. However, you will be contributing to a research project which aims to understand experiences of students from widening participation backgrounds and it is hoped that we can develop best practice recommendations for medical schools.

8. **Will I receive any compensation for taking part in the study.**

You will receive a £20 voucher for participation in the 60-minute workshop or interview.

9. **What information will be collected and why is the collection of this information relevant for achieving the research objectives?**

Audiovisual recordings of the online (MS Teams) meeting workshop or interview will be made for the purpose of making an accurate transcription of the workshop, which will be made using the automatic transcription feature. The audiovisual recording will only be available to the lead researcher and their supervisors. Recordings are downloaded and saved to the University IT network (for example restricted access folder, password-protected format. The recording will be erased when the transcription has been completed.

We are interested in the experiences of medical students from widening participation backgrounds, the information that you provide, including the transcript of your contributions to the workshop discussions, will help us to understand the challenges that students face, positive experiences and enablers of success. Using this information, we aim to develop recommendations for improving the medical school experience of students from widening participation backgrounds.

You will also be invited to participate in 2-3 online questionnaires will be shared via Microsoft forms. Answers to these questions will be stored along with information on the medical school that you have attended.

The researcher and their supervisors will have access to the research data.

Identifiable data, including consent forms will be stored on the Oxford University's OneDrive for Business (part of Nexus365) in line with information security team advice. The data will be stored for 3 years after publication or public release of the work of the research.

Your name and contact details will be used to arrange the voucher payment on completion of the study.

10. **Will the research be published? Could I be identified from any publications or other research outputs?**

The findings from the research will be written up in the MSc Medical Education dissertation of the primary researcher. It may also be written up may be written up for inclusion in academic publications and conference publications. Names and identifiers of participants will not be included

in these research outputs. We would like your permission to use direct quotations without identifying you in any research outputs.

A copy of the dissertation will be deposited online in the Oxford University Research Archive where it will be publicly available to facilitate its use in future research.

11. Data Protection

The University of Oxford is the data controller with respect to your personal data, and as such will determine how your personal data is used in the research. The University will process your personal data for the purpose of the research outlined above. Research is a task that is performed in the public interest. Further information about your rights with respect to your personal data is available from the University's Information Compliance website at https://compliance.admin.ox.ac.uk/individual-rights.

12. Who is funding the research?

This study has received funding from the Teaching Fund of the College of Health and Life Sciences, Aston University.

13. Who has reviewed this research?

This research has received ethics approval from a subcommittee of the University of Oxford Central University Research Ethics Committee. (Ethics reference: Education (Educ) DREC – 1335140).

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14. Who do I contact if I have a concern about the research or I wish to complain?

If you have a concern about any aspect of this research, please contact Dr Zaki Hassan-Smith or 01865 274024, Dr Kelsey Inouye [kelsey.inouye@education.ox.ac.uk] or Dr Paulina Rodriguez-Anaiz [Paulina.rodriguezanaiz@education.ox.ac.uk], and we will do our best to answer your query. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the University of Oxford Research Governance, Ethics & Assurance (RGEA) team at rgea.complaints@admin.ox.ac.uk or on +44 (0)1865 616480.

15. Further Information and Contact Details

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

Dr Zaki Hassan-Smith
Department of Education
Oxford University

Appendix 5: Participant Information Sheet for Faculty

Department of Education
University of Oxford
15 Norham Gardens
Oxford, OX2 6PY

PI names: Dr Kelsey Inouye: kelsey.inouye@education.ox.ac.uk and
Dr Paulina Rodriguez-Anaiz paulina.rodriguezanaiz@education.ac.uk
Primary researcher: Dr Zaki Hassan-Smith
Oxford University email address: zaki.hassan-smith@st-hildas.ox.ac.uk
Oxford University telephone number: 01865 274024

Improving medical education for students from widening participation backgrounds: An action research approach.

PARTICIPANT INFORMATION SHEET

Central University Research Ethics Committee Approval Reference: Education (Educ) DREC - 1335140

1. **Introductory paragraph**

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part.

2. **Why is this research being conducted?**

This study aims to explore the experiences of medical school educators on their experiences of teaching and supporting students from widening participation (WP) backgrounds. We aim to gather faculty and institutional perspectives on the challenges faced by students from WP backgrounds and to identify existing institutional support strategies that support students from WP backgrounds. We aim to explore gaps in current approaches and consider opportunities for improvement. We also seek to gain insights from medical students themselves. By understanding challenges and opportunities, we hope to work with participants to develop recommendations to enhance experience in medical education.

3. **Why have I been invited to take part?**

You have been invited to take part as you work as an educator in a UK medical school. We have shared details of the study with potential participants from UK medical schools and hope to recruit those who meet the following inclusion criteria:

- Have current involvement in medical education as an educator (including medical school faculty/academic staff, widening participation leads, student support leads, admissions tutors/officers and personal tutors in UK medical schools, and senior clinical educators involved in teaching medical students on clinical placements.

- Have experience in medical student support and/or widening participation initiatives.
- Have a minimum of one year of experience in a relevant role.

Exclusion criteria:

- Medical students and residents cannot participate as faculty participants.
- Individuals who do not have an institutional affiliation to a UK medical school or undergraduate academy/clinical placement provider for UK medical students.

We aim to recruit 6-10 medical educators and 6-10 medical students to participate in online workshops. If it is not possible to schedule a workshop with other attendees, we will hold interviews with individual participants in place of a workshop.

We also aim to recruit up to 40 participants (students and medical educators) to complete 2-3 optional online surveys.

4. Do I have to take part?

No. It is up to you to decide whether to take part. You can withdraw yourself from the research, without giving a reason, and without negative consequences, by advising us of this decision. The deadline by which you can withdraw any information you have contributed to the research is 1st August 2025. Data that has been collected will be deleted if you decide to withdraw from the study.

5. What will happen to me if I take part in the research?

- Written consent will be taken by completion of a form.
- If you consent to taking part you will be invited to one online workshop (lasting 60 minutes) or a one-to-one interview (lasting up to 60 minutes) as outlined below and you will also be invited to complete 2-3 short 'Delphi' questionnaires following the workshops to reach consensus in our recommendations.
- You will be invited to attend an initial online workshop (via Microsoft teams) with 6-10 other participants, who are current faculty/medical educators. The workshop will be facilitated by the primary researcher (Dr Zaki Hassan-Smith, MSc in Medical Education student). In the workshop you will engage in a structured small group discussion. If it is not possible to find a convenient time for you to attend a workshop with other participants, we will arrange a one-to-one interview instead. We aim to explore how medical educators and institutional leaders can better support students from widening participation backgrounds in medical education. The workshop (or interview) will focus on three key themes:
    - Institutional awareness: How well do medical schools understand and address the needs of WP students? What barriers exist within medical education that might disadvantage these students?
    - Current strategies and best practices: What initiatives have been implemented to support students from WP backgrounds? What has worked well and what challenges have arisen?
    - Opportunities for improvement: What additional support structures or policy changes could be introduced? What role can faculty play in fostering an inclusive learning environment? What are the most impactful, feasible interventions?

- Policy and system level interventions: what institutional or policy changes would have the greatest impact on students from WP backgrounds?

- With your consent, we would like to make a video and audio recording of the MS teams meetings so that we have an accurate record of the conversation. This will enable us to make a written transcript of the conversation, which the study researchers will analyse. The recordings will be deleted once the transcript has been made.
- An audio recording is required to make the transcript. However, if you wish to take part but do not wish for a video recording to be made, you may indicate this an turn your camera off for the recording.
- You can ask to pause or stop the research activities at any time.
- You will be invited to a Delphi study to refine recommendations. This involves answering 2-3 online questionnaires. The questionnaires each take around 10 minutes to complete and will be sent 1-2 weeks apart.

6. What are the possible disadvantages and risks in taking part?

You will be contributing some of your time to attend the workshop or interview and answer questions. You will be sharing information with other participants in a small online group. The meetings will be recorded for the purpose of making a transcript of the conversation. Participant identifiers will be removed from the transcript and the data will be kept securely in line with Oxford University procedures. Participant identifiers will be removed from subsequent research reports and publications.

7. Are there any benefits in taking part?

There will be no direct or personal benefit to you from taking part in this research. However, you will be contributing to a research project which aims to understand experiences of students from widening participation backgrounds and it is hoped that we can develop best practice recommendations for medical schools.

8. Will I receive any compensation for taking part in the study.

You will receive a £20 voucher for participation in the 60-minute workshop or interview.

9. What information will be collected and why is the collection of this information relevant for achieving the research objectives?

An audiovisual recording of the online (MS Teams) meeting workshops will be made for the purpose of making an accurate transcription of the workshop, which will be made using the automatic transcription feature. The audiovisual or audio recording will only be available to the lead researcher and their supervisors. Recordings are downloaded and saved to the University IT network (for example restricted access folder, password-protected format. The recording will be erased when the transcription has been completed.

We are interested in the experiences of medical students from widening participation backgrounds, the information that you provide, including the transcript of your contributions to the workshop

discussions, will help us to understand the challenges that students face, positive experiences and enablers of success. Using this information, we aim to develop recommendations for improving the medical school experience of students from widening participation backgrounds.

2-3 online questionnaires will be shared after the workshop via Microsoft forms. Answers to these questions will be stored along with information on your medical school affiliation.

The researcher and their supervisors will have access to the research data. Identifiable data, including consent forms will be stored on the Oxford University's OneDrive for Business (part of Nexus365) in line with information security team advice. Research data will be stored for 3 years after publication or public release of the work of the research.

Your name and contact details will be used to arrange the voucher payment on completion of the study.

10. Will the research be published? Could I be identified from any publications or other research outputs?

The findings from the research will be written up in the MSc Medical Education dissertation of the primary researcher. It may also be written up may be written up for inclusion in academic publications and conference publications. Names and identifiers of participants will not be included in these research outputs. We would like your permission to use direct quotations without identifying you in any research outputs.

A copy of the dissertation will be deposited online in the Oxford University Research Archive where it will be publicly available to facilitate its use in future research.

11. Data Protection

The University of Oxford is the data controller with respect to your personal data, and as such will determine how your personal data is used in the research. The University will process your personal data for the purpose of the research outlined above. Research is a task that is performed in the public interest. Further information about your rights with respect to your personal data is available from the University's Information Compliance website at https://compliance.admin.ox.ac.uk/individual-rights.

12. Who is funding the research?

This study has received funding from the Teaching Fund of the College of Health and Life Sciences, Aston University.

13. Who has reviewed this research?

This research has received ethics approval from a subcommittee of the University of Oxford Central University Research Ethics Committee. (Ethics reference: Education (Educ) DREC – 1335140).

14. Who do I contact if I have a concern about the research or I wish to complain?

If you have a concern about any aspect of this research, please contact Dr Zaki Hassan-Smith [zaki.hassan-smith@st-hildas.ox.ac.uk or 01865 274024], Dr Kelsey Inouye

[kelsey.inouye@education.ox.ac.uk] or Dr Paulina Rodriguez-Anaiz [Paulina.rodriguezanaiz@education.ox.ac.uk], and we will do our best to answer your query. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the University of Oxford Research Governance, Ethics & Assurance (RGEA) team at rgea.complaints@admin.ox.ac.uk or on +44 (0)1865 616480.

15. Further Information and Contact Details

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

Dr Zaki Hassan-Smith
Department of Education
Oxford University

Appendix 6: Consent Form for Students

Department of Education
University of Oxford
15 Norham Gardens
Oxford, OX2 6PY

PI names: Dr Kelsey Inouye: kelsey.inouye@education.ox.ac.uk and
Dr Paulina Rodriguez-Anaiz paulina.rodriguezanaiz@education.ac.uk
Primary researcher: Dr Zaki Hassan-Smith
Oxford University email address: zaki.hassan-smith@st-hildas.ox.ac.uk
Oxford University telephone number: 01865 274024

Consent to take part in Improving medical education for students from widening participation backgrounds: An action research approach.

Central University Research Ethics Committee (CUREC) approval reference: Education (Educ) DREC - 1335140

Purpose of Study: This study aims to explore the experiences of medical students from widening participation (WP) backgrounds. We also seek to gain insights on the implementation of WP policies from medical school educators. By understanding challenges and opportunities, we hope to work with participants to develop recommendations to enhance experience in medical education.

	Please initial each box if you agree with the statement
I confirm that I have read and understand the information sheet for student participants version 2.3, May 2025, for the above research. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any point until **01/August/25**, without giving any reason.	
I understand who will have access to personal data provided, how the data will be stored and what will happen to the data at the end of the project.	
I understand that I will not be identifiable from any publications or dissertations or presentations arising from this research.	
I consent to being [audio/ video] recorded.	

I understand how audio recordings and videos will be used in research outputs.	☐
Use of quotations: Please indicate your preference (select *one* option): a) I do not wish to be quoted. **or** b) I agree to the use of quotations in research outputs if I am not identifiable.	☐ ☐
I understand how to raise a concern or make a complaint.	☐
I hereby assign to the researcher all copyright in my contribution for use in all work stemming from this project and future projects.	☐
I agree to take part	☐

_____	dd / mm / yyyy	_____
Name of participant	Date	Signature
_____	dd / mm / yyyy	_____
Name of person taking consent	Date	Signature

Appendix 7: Consent Form for Faculty

Department of Education
University of Oxford
15 Norham Gardens
Oxford, OX2 6PY

PI names: Dr Kelsey Inouye: kelsey.inouye@education.ox.ac.uk and
Dr Paulina Rodriguez-Anaiz paulina.rodriguezanaiz@education.ac.uk
Primary researcher: Dr Zaki Hassan-Smith
Oxford University email address: zaki.hassan-smith@st-hildas.ox.ac.uk
Oxford University telephone number: 01865 274024

Consent to take part in 'Improving medical education for students from widening participation backgrounds: An action research approach'.

Central University Research Ethics Committee (CUREC) approval reference: Education (Educ) DREC - 1335140

Purpose of Study: This study aims to explore the experiences of medical students from widening participation (WP) backgrounds. We also seek to gain insights on the implementation of WP policies from medical school educators. By understanding challenges and opportunities, we hope to work with participants to develop recommendations to enhance experience in medical education.

	Please initial each box if you agree with the statement
I confirm that I have read and understand the information sheet for faculty participants version 2.3, May 2025 for the above research. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any point until **01/August/25**, without giving any reason.	
I understand who will have access to personal data provided, how the data will be stored and what will happen to the data at the end of the project.	
I understand that I will not be identifiable from any publications or dissertations or presentations arising from this research.	

I consent to being [audio/ video] recorded.	☐
I understand how audio recordings and videos will be used in research outputs.	☐
Use of quotations: Please indicate your preference (select *one* option): a) I do not wish to be quoted. **or** b) I agree to the use of quotations in research outputs if I am not identifiable.	☐ ☐
I understand how to raise a concern or make a complaint.	☐
I hereby assign to the researcher all copyright in my contribution for use in all work stemming from this project and future projects.	☐
I agree to take part	☐

_____	dd / mm / yyyy	_____
Name of participant	Date	Signature
_____	dd / mm / yyyy	_____
Name of person taking consent	Date	Signature

Appendix 8: Participant Information for Online Survey (Students)

Department of Education
University of Oxford
15 Norham Gardens
Oxford, OX2 6PY

PI names: Dr Kelsey Inouye: kelsey.inouye@education.ox.ac.uk and
Dr Paulina Rodriguez-Anaiz paulina.rodriguezanaiz@education.ac.uk
Primary researcher: Dr Zaki Hassan-Smith
Oxford University email address: zaki.hassan-smith@st-hildas.ox.ac.uk
Oxford University telephone number: 01865 274024

Participant information for online survey

Improving medical education for students from widening participation backgrounds: An action research approach.

CUREC Approval Reference: Education (Educ) DREC - 1335140

General Information

The aim of this research is to gain insights from medical students from widening participation (WP) backgrounds to identify interventions that could be prioritised for implementation by medical schools to improve student experience. For this study, we are recruiting students who self-identify as meeting WP criteria. WP criteria vary but may include students who:

- are identified as meeting WP criteria by their medical school,
- participate in a medical school pathway to medicine WP scheme,
- come from a lower socio-economic background,
- attended a non-academically selective state school,
- or were the first in family to participate in higher education.

We also seek to gain insights on the implementation of WP policies from medical school educators. Through completion of the questionnaires, we hope to develop recommendations to enhance experience of students from WP in medical education.

We appreciate your interest in participating in this Delphi questionnaire. You have been invited to participate as you are studying or have recently studied medicine in the UK and identify as coming from a widening participation background. Please read through this information before agreeing to participate (if you wish to) by ticking the 'yes' box below.

You may ask any questions before deciding to take part by contacting the researcher (details below).

The Principal Researcher is Dr Zaki Hassan-Smith, who is attached to the Department of Education at the University of Oxford. This research is being completed under the supervision of Dr Kelsey Inouye and Dr Paulina Rodriguez-Anaiz.

You are invited to complete some online questionnaires which will be used to help us to prioritise potential interventions that have been proposed to improve experience of students from widening participation backgrounds studying medicine. The questionnaires are run via Microsoft Forms. The first questionnaire should take up to 20 minutes to complete. It will ask questions on the type of medical school that you attend or have attended. It covers questions as to whether you would recommend the proposed interventions, whether they should be prioritised along with insights into implementation. You will be invited to participate in a second shorter questionnaire 1-2 weeks after completing this, this should take 10 minutes. If consensus is not reached by that stage a further short questionnaire will be circulated 1-2 weeks later, this should take 10 minutes to complete. The data is needed to help to develop consensus recommendations on interventions that can be adopted by medical schools to improve the experience of students from widening participation backgrounds. The data will be kept on a secure database at Oxford University with the study researchers Dr Zaki Hassan-Smith, Dr Kelsey Inouye and Dr Paulina Rodriquez-Anaiz having access to the data. The lead researcher Dr Zaki Hassan-Smith will include findings from this study in their MSc Medical Education dissertation. The researchers also plan to publish the findings in research publications in peer-reviewed journals and present findings at academic conferences and meetings.

Do I have to take part?

No. Please note that participation is voluntary. If you do decide to take part, you may withdraw at any point for any reason before submitting your answers by pressing the 'Exit' button/ closing the browser.

All questions are optional.

How will my data be used?

The data we will collect that could identify you will be contact details, email address, and IP address.

Your IP address will not be stored. We will take all reasonable measures to ensure that data remain confidential. The responses you provide will be stored in a password-protected electronic file on University of Oxford secure servers and may be used in the MSc Medical Education dissertation of the lead researcher (Dr Zaki Hassan-Smith) along with academic publications, and conference presentations. Identifiable information will be deleted as soon as it is no longer required for the research. Research data will be stored for 3 years after publication or public release of the work of the research. By submitting your personal data, you agree to this transfer, storing or processing.

Who will have access to my data?

The University of Oxford is the data controller with respect to your personal data and, as such, will determine how your personal data is used in the research. The University will process your personal data for the purpose of the research outlined above. Research is a task that we perform in the public interest. Further information about your rights with respect to your personal data is available from https://compliance.admin.ox.ac.uk/individual-rights.

The results will be written up for an MSc Medical Education degree.

Who has reviewed this research?

This research has been reviewed by, and received ethics clearance through, a subcommittee of the

University of Oxford Central University Research Ethics Committee [Educ DREC 1335140].

Who do I contact if I have a concern or I wish to complain?

If you have a concern about any aspect of this research, please contact [Dr Zaki Hassan-Smith] or 01865 274024, Dr Kelsey Inouye [kelsey.inouye@education.ox.ac.uk] or Dr Paulina Rodriguez-Anaiz [Paulina.rodriguezanaiz@education.ox.ac.uk], and we will do our best to answer your query. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the University of Oxford Research Governance, Ethics & Assurance (RGEA) team at rgea.complaints@admin.ox.ac.uk or on +44 (0)1865 616480.

Please note that you may only participate in this survey if you are 18 years of age or over.

☐ I certify that I am 18 years of age or over

If you have read the information above and agree to participate with the understanding that the data (including any personal data) you submit will be processed accordingly, please tick the box below to start.

☐ Yes, I agree to take part

Appendix 9: Participant Information for Online Survey (Faculty)

Department of Education
University of Oxford
15 Norham Gardens
Oxford, OX2 6PY

PI names: Dr Kelsey Inouye: kelsey.inouye@education.ox.ac.uk and
Dr Paulina Rodriguez-Anaiz paulina.rodriguezanaiz@education.ac.uk
Primary researcher: Dr Zaki Hassan-Smith
Oxford University email address: zaki.hassan-smith@st-hildas.ox.ac.uk
Oxford University telephone number: 01865 274024

Participant information for online survey (Faculty)

Improving medical education for students from widening participation backgrounds: An action research approach.

CUREC Approval Reference: Education (Educ) DREC - 1335140

General Information

The aim of this research is to gain insights from medical school educators to identify interventions that could be prioritised for implementation by medical schools to improve the educational experience of students from widening participation (WP) backgrounds. We also seek to gain insights from medical students from WP backgrounds themselves. For the purposes of this study, we recognise that WP criteria vary but may include students who:

- are identified as meeting WP criteria by their medical school,
- participate in a medical school pathway to medicine WP scheme,
- come from a lower socio-economic background,
- attended a non-academically selective state school,
- or were the first in family to participate in higher education.

We aim to recruit 6-10 students and 6-10 medical educators to participate in online workshops.

Through completion of the questionnaires, we hope to develop recommendations to enhance experience of students from WP in medical education.

We appreciate your interest in participating in this Delphi questionnaire. You have been invited to participate as you have been identified as an educator in a UK medical school or clinical placement provider, with expertise in our area of interest. We are inviting medical school faculty/academic staff including widening participation leads, student support leads, admissions tutors/officers and personal tutors and senior clinical educators involved in teaching medical students on clinical placements. Participants should have a minimum of one year of experience in a relevant role.

Please read through this information before agreeing to participate (if you wish to) by ticking the

'yes' box below.

You may ask any questions before deciding to take part by contacting the researcher (details below).

The Principal Researcher is Dr Zaki Hassan-Smith, who is attached to the Department of Education at the University of Oxford. This research is being completed under the supervision of Dr Kelsey Inouye and Dr Paulina Rodriguez-Anaiz.

You are invited to complete some online questionnaires which will be used to help us to prioritise potential interventions that have been proposed to improve experience of students from widening participation backgrounds studying medicine. The questionnaires are run via Microsoft Forms. The first questionnaire should take up to 20 minutes to complete. It will ask questions on the type of medical school that you attend or have attended. It covers questions as to whether you would recommend the proposed interventions, whether they should be prioritised along with insights into implementation. You will be invited to participate in a second shorter questionnaire 1-2 weeks after completing this, this should take approximately 10 minutes to complete. If consensus is not reached by that stage a further short questionnaire will be circulated 1-2 weeks later, this should take approximately 10 minutes to complete. The data is needed to help to develop consensus recommendations on interventions that can be adopted by medical schools to improve the experience of students from widening participation backgrounds. The data will be kept on a secure database at Oxford University with the study researchers Dr Zaki Hassan-Smith, Dr Kelsey Inouye and Dr Paulina Rodriquez-Anaiz having access to the data. The lead researcher Dr Zaki Hassan-Smith will include findings from this study in their MSc Medical Education dissertation. The researchers also plan to publish the findings in research publications in peer-reviewed journals and present findings at academic conferences and meetings.

Do I have to take part?

No. Please note that participation is voluntary. If you do decide to take part, you may withdraw at any point for any reason before submitting your answers by pressing the 'Exit' button/ closing the browser.

All questions are optional.

How will my data be used?

The data we will collect that could identify you will be contact details, email address, and IP address. Your IP address will not be stored. We will take all reasonable measures to ensure that data remain confidential.

The responses you provide will be stored in a password-protected electronic file on University of Oxford secure servers and may be used in the MSc Medical Education dissertation of the lead researcher (Dr Zaki Hassan-Smith) along with academic publications, and conference presentations. Identifiable information will be deleted as soon as it is no longer required for the research. Research data will be stored for 3 years after publication or public release of the work of the research. By submitting your personal data, you agree to this transfer, storing or processing.

Who will have access to my data?

The University of Oxford is the data controller with respect to your personal data and, as such, will

determine how your personal data is used in the research. The University will process your personal data for the purpose of the research outlined above. Research is a task that we perform in the public interest. Further information about your rights with respect to your personal data is available from https://compliance.admin.ox.ac.uk/individual-rights. The results will be written up for an MSc Medical Education degree.

Who has reviewed this research?

This research has been reviewed by, and received ethics clearance through, a subcommittee of the University of Oxford Central University Research Ethics Committee [Educ DREC 1334140].

Who do I contact if I have a concern, or I wish to complain?

If you have a concern about any aspect of this research, please contact Dr Zaki Hassan-Smith [01865 274024], or Dr Kelsey Inouye [kelsey.inouye@education.ox.ac.uk] or Dr Paulina Rodriguez-Anaiz [Paulina.rodriguezanaiz@education.ox.ac.uk], and we will do our best to answer your query. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the University of Oxford Research Governance, Ethics & Assurance (RGEA) team at rgea.complaints@admin.ox.ac.uk or on +44 (0)1865 616480.

Please note that you may only participate in this survey if you are 18 years of age or over.

☐ I certify that I am 18 years of age or over

If you have read the information above and agree to participate with the understanding that the data (including any personal data) you submit will be processed accordingly, please tick the box below to start.

☐ Yes, I agree to take part

Appendix 10: Delphi Questionnaire

Department of Education
University of Oxford
15 Norham Gardens
Oxford, OX2 6PY

PI names: Dr Kelsey Inouye: kelsey.inouye@education.ox.ac.uk and
Dr Paulina Rodriguez-Anaiz paulina.rodriguezanaiz@education.ac.uk
Primary researcher: Dr Zaki Hassan-Smith
Oxford University email address: zaki.hassan-smith@st-hildas.ox.ac.uk
Oxford University telephone number: 01865 274024

Improving medical education for students from widening participation backgrounds: An action research approach. Ethics reference: Education (Educ) DREC – 1335140

Delphi Questionnaire to be delivered via MS Forms:

Round 1: Identifying and rating key interventions

Section 1: Participant Information

- What is your professional role?
  - Medical Student
  - Medical Educator
  - University or Clinical Placement Professional Staff
  - Other (please specify) _____

- Which of the following best describes the institution in which you work or study?
  - Established medical School (i.e. established pre-2010)
  - New Medical School (established post-2010)
  - Oxbridge (Oxford or Cambridge)
  - NHS institution (e.g. local education provider)
  - Other (please specify) _____

- (For Educators and University/ Clinical Placement Professional Staff): What is your area of expertise within medical education?
  - Widening Participation Officer
  - Student Support

- Admissions
- Equality, Diversity and Inclusion
- Basic Sciences
- Clinical Medicine
- Other

- Are you medically qualified?
- If you answered yes to the above question what is your level of seniority?
  - Resident
  - Specialty or Specialist doctor
  - Consultant
  - GP

- (For Medical Educators): What is your academic rank?
  - Lecturer (or equivalent)
  - Senior Lecturer (or equivalent)
  - Reader (or equivalent)
  - Professor
  - Other (please specify) _____

- (For Medical Educators): How many years of experience do you have in medical education or widening participation initiatives?
  - 1-2 years
  - 3-5 years
  - 6-10 years
  - >10 years

Section 2: Rating proposed interventions

- Participants will be presented with a series of proposed interventions for improving medical school experience for WP students. Participants are asked to answer the following questions for each proposed intervention.
  - Do you have experience of this intervention? (Yes/No)
  - Do you recommend this as an appropriate intervention for use in improving experience of medical education for students from widening participation (WP) backgrounds? (Yes/No) (NB items reaching >70% agreement on this question will be considered high priority; items with <50% agreement will be removed unless there is strong justification from qualitative responses. Any remaining items will be re-evaluated in subsequent rounds).

- A list of statements will be provided to participants for each proposed intervention for them to rate agreement with on a Likert Scale from 1-4 (where 1 represents strongly disagree, 2 disagree, 3 agree and 4 strongly agree).
  - This intervention would have a positive impact on WP student experience.

    - This intervention should be prioritised for implementation.
    - This intervention is feasible to implement in medical schools.
    - This intervention is sustainable.
    - This intervention is affordable.
    - This intervention is scalable to other medical schools.
    - Institutions are ready to adopt this intervention.

Section 3: Open ended questions

- Are there any additional interventions that should be considered?
- What challenges do you foresee in implementing these interventions?
- What factors would be key to successful implementation of these interventions?
- Any other comments or insights?

Round 2: Refining and Achieving Consensus

Section 1: Summary of Round 1 Results

- The top-ranked interventions from Round 1 will be presented with aggregated scores along with a list of any new interventions that have been proposed by participants in round 1 of the study.
- Participants will see how their ratings compared with group averages

Section 2: Re-rating interventions

For each intervention, please re-evaluate your rating now that you have seen the summary of the group response.

- Participants will have to answer the following questions for each proposed intervention:
    - Do you recommend this as an appropriate intervention for use in improving experience of medical education for students from widening participation (WP) backgrounds? (Yes/No) (NB as previously, items reaching >70% agreement on this question will be considered high priority; items with <50% agreement will be removed unless there is strong justification from qualitative responses. Any remaining items will be re-evaluated in subsequent rounds).

- A list of statements will be provided to participants for each proposed intervention for them to rate agreement with on a Likert Scale from 1-4 (where 1 represents strongly disagree, 2 disagree, 3 agree and 4 strongly agree)
    - This intervention would have a positive impact on WP student experience.
    - This intervention should be prioritised for implementation.
    - This intervention is feasible to implement in medical schools.
    - This intervention is sustainable.
    - This intervention is affordable.
    - This intervention is scalable to other medical schools.
    - Institutions are ready to adopt this intervention.

- Please rank the following interventions from highest priority (1) to lowest priority
    - Intervention A
    - Intervention B
    - Intervention C…

Section 2: Final Implementation Considerations

- What resources would be required to implement these interventions?
- What are the key barriers to implementation?
- What strategies could help ensure institutional buy-in for these interventions?
- Any final comments?

Round 3: Final Validation

Section 1: Prioritising the final interventions

If consensus has not been reached by round 2 a final third round questionnaire will be circulated.

- Participants will have to answer the following questions for any remaining interventions:

    - Do you recommend this as an appropriate intervention for use in improving experience of medical education for students from widening participation (WP) backgrounds? (Yes/No) (NB as previously, items reaching >70% agreement on this question will be considered high priority; items with <50% agreement will be removed unless there is strong justification from qualitative responses. Any remaining items will be re-evaluated in subsequent rounds).

Participants will be asked to rank the final list of interventions in order of priority.

- Please rank the following interventions from highest priority (1) to lowest priority
    - Intervention A
    - Intervention B
    - Intervention C…

Appendix 11: Central University Ethics Application

CENTRAL UNIVERSITY RESEARCH ETHICS COMMITTEE (CUREC)

Ethics Application

Application: Improving the Medical School Experience for Students from Widening Participation Backgrounds: Setting the scene for an Action Research Approach

ID: 1335140

Risk:	Medium
Submitted Date:	27 Mar 2025, 09:57
Applicant:	Zaki Hassan-Smith
Submitter:	
Principal Investigator:	Kelsey Inouye
Org Unit:	Education
Project Title:	Improving the Medical School Experience for Students from Widening Participation Backgrounds: Setting the scene for an Action Research Approach
Project Duration:	15 Feb 2025 - 11 Sep 2025
Funder:	
Project Description:	- This study aims to explore the lived experiences of medical students from widening participation (WP) backgrounds at established and new UK medical schools. - Through the use of workshops and online questionnaires, the study will identify barriers and enablers students from WP backgrounds face throughout their medical education journey. - The research will employ an action research approach, by engaging with stakeholders to co-create interventions to improve WP students' support structures.
Student Project:	Yes - Taught Masters
Supervisor:	Paulina Rodriguez Anaiz
Module Code:	TM_JJ9P1

SCOPE

Is this research:	Yes
Not research:	
Human Participant Involvement:	Yes
Research does not involve participants, tissue or personal data:	
Researcher division:	Social Sciences
Taught student module:	No
SSH Minimal Risk:	Yes
Any secondary data:	No
Secondary data only:	
Anonymised secondary Data:	
External ethics review required:	No
Identify NHS staff involvement:	No
Biological samples:	No
Biological samples yes:	
Drug or medicine:	No
Foodstuffs or supplements:	No
Medical device:	No
OxTREC Scope:	No
OxTREC minimal risk:	

RESEARCH TEAM

Principal Investigator:	Kelsey Inouye
PI Research Integrity Training:	b. Research Integrity Refresher Course (Experienced researchers)
1a. Research Integrity Core Course Date Completed:	
1b. Research Integrity Refresher Course Date Completed:	
1c. Other Date Completed:	
1c. Other Course Title:	
Is there a student:	Yes
Student Researchers:	Array
Researchers and Training:	Array
External collaborator:	No
External collaborator details:	
Medically qualified collaborator:	Yes
Medically qualified collaborator details:	Array
Conflict of Interest:	Yes
Conflict of Interest Details:	Zaki Hassan-Smith is an MSc Medical Education Student in the Department of Education, Oxford University. He holds external roles at University Hospitals Birmingham NHS Foundation Trust as a Consultant Endocrinologist, at Aston University Medical School as lead for Integrated Academic Training and at University of Birmingham as Honorary Clinical Associate Professor. In order to avoid any conflicts of interest with these positions and to avoid issues with power dynamics, participants will not be under direct supervision or line management of the researcher.

METHODOLOGY

Short title:	Improving medical education for students from widening participation backgrounds: An action research approach.
Research Summary:	
Location:	
Location Permission:	Yes
Location Permission Details:	We will be recruiting participants centrally, and we will also seek permissions for adverts to be shared by relevant professional bodies and medical schools. We will recruit faculty and student participants with affiliations to UK medical schools. We intend to use text from the study advert to put out a notice on social media platforms such as LinkedIn, twitter/X, directing potential participants to get in touch using Oxford contact details. We will seek permission from individual bodies (such as medical schools, medical schools council, student-led groups with interests in widening participation and other professional societies) for similar notices to be added to their mailing lists. We intend to seek permission from 2 medical schools (Oxford University and Aston University) to invite participants from their widening participation programmes via email, as potential research participants in the relevant workshops.
CUREC Approved Procedure(s):	No
CUREC Approved Procedure(s) yes:	
CUREC Best Practice Guidance:	
International Risky Travel?:	No
International Risky Travel Description:	
International Risky Travel Reduction:	
Hazardous Substances:	No
Hazardous Substances Description:	
Hazardous Substances Reduction:	
Researcher Distress Potential?:	No

Researcher Distress Potential Description:	
Researcher Distress Potential Reduction:	
Lone Working?:	No
Lone Working Description:	
Lone Working Reduction:	
Non-public Visit?:	No
Non-public Visit Description:	
Non-public Visit Reduction:	
Risk Reduction Training:	
GMO Involved?:	No
GMO Involved? More Info:	
Oversight:	Regular supervisory meetings will be held every 4–6 weeks with my academic supervisors at Oxford University (Dr. Kelsey Inouye and Dr. Paulina Rodríguez-Anaiz, Department of Education). These meetings will: Review research progress and emerging findings. Identify and address any ethical or methodological challenges. Ensure compliance with CUREC ethical guidelines. Additional check-in meetings may be scheduled as needed, particularly during data collection and analysis phases. Peer consultation with other researchers in medical education and widening participation (WP) will also be sought, as appropriate, to enhance reflexivity and research quality. No external dataset providers are involved in this study, so no additional governance procedures are required for third-party data use. However, recruitment will involve UK medical schools (Aston University, Oxford University, and Birmingham University), and I will: Seek institutional permissions where necessary for recruitment. Follow any relevant ethical guidance from participating institutions.

To ensure that research procedures are followed correctly, I will maintain detailed research logs documenting:
Participant recruitment and consent processes.
Workshop and Delphi study implementation.
Data management and security measures.
Regularly review compliance with Oxford's data protection and information governance policies.

Significant adverse events are unlikely. However, care will be taken to safeguard participant welfare. Participants will be reminded that they can withdraw at any time without consequence. If a participant experiences distress, they will be signposted to appropriate support services (e.g., university counselling services). Any concerns regarding participant well-being will be documented and discussed with supervisors. If any unexpected ethical issues or serious adverse events arise, they will be reported to my supervisors immediately.

Research-specific ethical considerations:

This study primarily explores educational experiences and does not involve medical, genetic, or legal investigations. Therefore, the likelihood of encountering incidental or unexpected findings requiring mandatory reporting is low. However, the following ethical considerations have been identified, and appropriate measures are in place to manage them.

- Handling of Distressing or Sensitive Disclosures
Participants may discuss experiences of discrimination, financial hardship, or emotional distress related to their widening participation (WP) background.
If a participant becomes distressed, the following steps will be taken: The researcher will pause the discussion and check if the participant wishes to continue.
The participant will be reminded of their right to withdraw or take a break at any time. We will signpost to appropriate university support services (e.g., counselling, student well-being services).

- Disclosure of Serious Concerns (e.g., Safeguarding, Abuse, or Illegal Activity)
While unlikely, if a participant discloses information that raises serious safeguarding concerns (e.g., abuse, harassment, illegal activity), the following steps will be taken:

If immediate harm is suspected:
The researcher will follow Oxford University's safeguarding policies, the case will be discussed with the research supervisors/ study PI.
If required, appropriate safeguarding lead will be contacted, but this will be done in line with institutional

protocols and where possible, with the participant's consent.

If the disclosure does not require immediate intervention:
The participant will be encouraged to seek appropriate support and provided with relevant resources.
No information will be shared without their consent unless there is a clear legal or safeguarding obligation.
Participants will be informed at the outset that confidentiality will be maintained unless there is a serious risk of harm to themselves or others, in which case necessary steps may be taken in line with ethical and legal obligations.

-Ensuring Data Confidentiality and Anonymity
All data will be anonymised before analysis, ensuring that personal identifiers are removed.
Any sensitive issues raised during workshops will not be directly attributed to individuals in reports or publications.
In the case of a participant wishing to withdraw, their data will be removed from the study upon request prior to the deadline.

HUMAN PARTICIPANTS

Participants Description:

Workshop 1: 6-10 student participants from Aston University.
Workshop 2: 6-10 student participants from Oxford University.
Workshop 3: 6-10 faculty participants from UK Medical Schools.

Delphi questionnaire study: 20-40 participants (mix of students and faculty/educators from UK Medical Schools).

Sample size justification:

The participant numbers have been discussed within the research team, at a size that will allow insights to be drawn from a range of viewpoints. Previous workshops of this size have provided rich qualitative data.

The participant numbers for the Delphi Study are in a range which is associated with 'response stability' (Shang, Medicine 2023 102:7).

The research team have also considered feasibility in recruitment and delivery of the workshops to fit in with the constraints of this MSc Medical Education project.

Participant Inclusion Criteria:

Inclusion criteria for student participants include those who:
-are currently studying medicine at a UK medical school or has studied medicine at a UK medical school in the past 2 years.
-self-identify as meeting widening participation (WP) Criteria (with a focus on socioeconomic criteria in use in UK medical schools.

NB WP criteria vary but may include being identified as meeting WP criteria by their medical school, participation in a medical school pathway to medicine WP scheme, coming from a lower socio-economic background, attending a non-academically selective state school, being the first in family to participate in higher education.

Inclusion criteria for faculty participants include those who:
-have current involvement in medical education as an educator (including medical school faculty/academic staff, widening participation leads, student support leads, admissions tutors/officers and personal tutors and senior clinical educators) in a UK medical school.
-have experience in medical student support, teaching and/or widening participation initiatives.
-Have a minimum of one year of experience in a relevant role.

This study is designed to be inclusive and representative of diverse perspectives within medical education. The study aims are aligned to values of inclusivity and social justice. Efforts have been made to ensure that participation is accessible to individuals across all protected characteristics, while still maintaining a clear focus on the study aims.

To mitigate inadvertent exclusion, the following measures have been incorporated:

- Broad and Flexible Widening Participation (WP) Criteria: The criteria allow for self-identification, reducing the risk of individuals being excluded due to variability in institutional WP classifications. The WP criteria explicitly acknowledge multiple dimensions of disadvantage and underrepresentation, ensuring that students from diverse socio-economic, ethnic, and ability backgrounds are eligible.

- Inclusive Faculty Recruitment: Faculty participants are drawn from a wide-range of roles across UK medical schools, including those involved in student support, teaching, admissions, and WP initiatives,

	ensuring diversity in professional backgrounds. - Open and Accessible Recruitment Strategy: The study will be advertised across multiple institutions and professional networks to reach diverse candidates, including those from smaller, newer, or less well-resourced medical schools. Recruitment materials will be written in accessible, non-technical language to ensure clarity and understanding for all potential participants. - Reasonable Adjustments and Accessibility: The study activities will take part online, ensuring accessibility for individuals with disabilities, caring responsibilities, or geographical constraints. Workshop formats will allow for alternative participation modes (e.g., allowing for written as well as verbal responses). - Reflexivity and iterative adjustments will be incorporated to ensure that any unforeseen barriers to participation are addressed. By implementing these measures, the study will ensure broad inclusivity, enabling meaningful contributions from individuals across different backgrounds while remaining focused on the research aims.
Participant Exclusion Criteria:	Exclusion criteria for faculty participants include: -Medical students and residents cannot participate as faculty participants. -Individuals who do not have an institutional affiliation to a UK medical school.
Participant Protected Characteristics:	No, although all participants will be adults over the age of 18 in view of the focus on medical students and faculty/educators who would hold these roles.
Participant Identification:	
Vulnerable Participants:	No
Vulnerable Participants Description:	
Vulnerable Participants More Information:	
Participant Approach:	
Investigator Influence or Authority:	Yes
Investigator Influence or Authority detail:	This study follows voluntary, informed consent principles, ensuring that no participant feels pressured to take part. The following steps will mitigate perceived pressure in recruitment:

1. Clear and Transparent Communication: Recruitment materials, including participant information sheets, emphasise that:
Participation is voluntary. Individuals may decline or withdraw at any time without any consequences. It will be clear that taking part will not impact academic progression, professional relationships, or institutional standing.

2. Institutional Email and Social Media Recruitment
Invitations sent via institutional mailing lists and social media will be general announcements, ensuring that no individual is directly pressured.
Social media posts will be open calls for participation, allowing individuals to express interest privately rather than feeling targeted.

3. Contacting Individual Faculty Members: When approaching faculty known for their interest in widening participation, only publicly available contact details will be used.
Initial contact will be a neutral invitation (e.g., "As someone involved in WP initiatives, you may be interested in this study") rather than implying any obligation. No follow-up pressure will be applied to those who do not respond to recruitment emails.

4. Recruiting Participants from University WP Programmes: Recruitment of students involved in WP initiatives at Aston and Oxford will be conducted through programme coordinators, who will share study details with students independently of the researcher. This ensures that students do not feel directly approached or expected to participate due to their involvement in WP schemes.

5. Reinforcing Voluntary Participation at All Stages: At the beginning of workshops and Delphi rounds, the researcher will reiterate that:
Participation is optional, and they can stop at any time. Their decision will not affect their studies, employment, or institutional relationships.

Participant Investigator Relationship:

The lead researcher, has professional affiliations with Aston University (part-time), Oxford University (as an MSc Student), and Birmingham University (where I hold an honorary role). Given these existing institutional ties, some participants may be students or faculty members within these institutions.

To mitigate any power imbalances, conflicts of interest, or perceived pressure, the following steps will be taken:

1. Managing Potential Teacher-Student Relationships:
To avoid conflicts of interest: Students currently under direct supervision or assessment by the research team will not be recruited.
Recruitment will be handled via institutional mailing lists, student societies, and WP programme coordinators, ensuring that students do not feel personally approached.
The Participant Information Sheet (PIS) and consent process will clearly state that participation is voluntary and will have no impact on academic progression, grades, or university experience.

2. Managing Potential Faculty/Colleague Relationships
Faculty participants may include colleagues from Aston, Oxford, and Birmingham. To ensure open participation without professional influence:
Invitations will be sent via general faculty mailing lists and professional networks rather than direct individual approaches where possible.
Responses will remain confidential, and data will be anonymized in reporting.
Faculty members will be reassured that their participation (or non-participation) will not affect professional relationships. Participants that are line managed by the research team will not be included in the study.

3. Ensuring Neutrality in Workshops and Delphi Study
Workshops will be structured and facilitated in a way that promotes open discussion without hierarchy: Student and faculty participants will not be asked to discuss personal academic performance or sensitive institutional matters.
In the Delphi study, responses will be collected anonymously via online surveys, preventing any participant from feeling pressured to conform to a particular view.

4. Transparency and Ethical Safeguards
These considerations will be explicitly outlined in the CUREC-approved ethical protocol, and:
Participants will go through an informed consent process where it is clear that participation is voluntary.

Participant Recruit Information:

Participants will be recruited through institutional mailing lists, social media announcements, professional networks, and direct invitations, where appropriate. The process ensures transparency, voluntary participation, and inclusivity while minimising perceived pressure.

1. Recruitment Methods
Participants will be recruited via the following methods:

	A. Institutional Mailing Lists & Internal Communications Medical Students: Recruitment notices will be distributed via emailing lists, widening participation (WP) programme coordinators, and student societies at Aston and Oxford, subject to institutional approvals. Faculty & Institutional Stakeholders: Faculty members will be invited through medical school faculty mailing lists, professional education networks, and WP committees. Recruitment emails will be sent by institutional contacts, where possible, to reduce perceived pressure from the researcher team. B. Social Media & Professional Networks Study invitations will be posted on LinkedIn, Twitter (X), and relevant medical education networks, targeting professionals with an interest in WP, subject to permissions by the individual bodies. C. Direct Invitations to Faculty with WP Interests Some individual faculty members known for WP involvement will be invited based on publicly available information (e.g., institutional webpages, conference speakers, researchers who have published in this area). These invitations will explicitly state that participation is voluntary, and the research is independent of their institutional roles. D. Recruitment from University WP Programmes At Aston and Oxford, programme coordinators will be asked to share the study invitation in a generic email, with students in WP outreach schemes. This ensures that students do not feel directly pressured by the researcher. 2. Information Provided to Participants Recruitment materials will include: A brief overview of the study, including its aims and why participants are being invited. Eligibility criteria for participation. A clear statement that participation is voluntary. Contact details for the researcher to ask questions before deciding to participate. A link to the Participant Information Sheet (PIS), outlining study details, consent, and withdrawal procedures.
	3. When & How Participants Will Receive This Information Initial recruitment (4-6 weeks before data collection): Institutional email lists, WP programme networks, and social media posts will be used to raise awareness. Follow-up (2-3 weeks before data collection): A second round of announcements will be sent via email and social media to ensure sufficient recruitment. Final reminders (1 week before workshops/Delphi study):
Participant Decision Duration:	For Delphi study participants: They will receive an invitation email including study details and a link to the online consent form before the first round begins. For workshop participants they will have at least 24 hours (and likely 1-2 weeks) to consider participation having read the information sheets before consent is obtained.
Participants Informed Consent:	Yes
Participants Informed Consent More Info:	Participants who have expressed an interest in participating in the study will receive an email containing the participant information sheet and consent form The participants will be given the opportunity to discuss any queries about the study with the lead researcher by arranging a call. Participants will be given a minimum of 24 hours to consider the information, and in many cases we envisage that they may need longer (1-2 weeks). If participants are happy to take part in the study, they will be asked to sign and return the consent form (for focus groups). Some participants will only take part in an online survey component of the study. This will require reading text embedded into the start of the online form and consenting to take part in the survey by acknowledging this on the form (see attached online task document).
Participants No consent:	
Any feedback:	No
Participant Feedback:	
Withdrawal Arrangements:	Participants will be informed that they are unable to withdraw their participation and data after the 1st August 2025. This is to allow write up and submission of the study report for assessment in the MSc Medical Education.

Withdrawal More Information:	The patient information sheet states that participants can withdraw from participation in the study without giving a reason. 'It is up to you to decide whether to take part. You can withdraw yourself from the research, without giving a reason, and without negative consequences, by advising us of this decision. The deadline by which you can withdraw any information you have contributed to the research is 1st August 2025. Data that has been collected will be deleted if you decide to withdraw from the study. ' The data will be erased in line with Best Practice Guidance 09_Version 4.7.
Participant Deception:	No
CUREC Approved Procedure 07:	
Participant Deception More Info:	
Social Media:	Yes
Social Media More Info:	We will use social media sites to share the study recruitment advertisements (see attached files). We will use social media platforms (including Twitter/X, BlueSky, LinkedIn or similar) to post the recruitment adverts and/or text from the recruitment adverts. We will also ask institutions such as Medical Schools of interest (e.g. at Aston University or Oxford University) and other professional organisations (such as the Medical Schools Council, British Medical Association, Association for the Study of Medical Education and organisations involved in Widening Participation initiatives) to share the study adverts on their social media streams, if possible. Potential participants will be advised to get in touch via standard means i.e. by contacting the study team on an Oxford University email address. NB we will not use social media sites to harvest data.
Sensitive Topics:	Yes
Sensitive Topics More Info:	Although we are not aiming to question about specifics of sensitive topics directly, participants may raise sensitive topics. This study explores the experiences of medical students from widening participation (WP) backgrounds, which may include discussions of barriers to medical education, socio-economic disadvantage, discrimination, and institutional challenges. These topics are necessary to understand the lived experiences of WP students, identify systemic issues, and co-design evidence-based interventions to improve medical education inclusivity. The study will use semi-structured discussions in workshops and a Delphi questionnaire.
	Potential sensitive areas include: - Financial hardship and socio-economic barriers (e.g., impact on access to resources, participation in clinical placements). - Experiences of discrimination or exclusion (e.g., based on race, disability, socio-economic status, gender, or other protected characteristics). - Mental well-being and imposter syndrome (e.g., feeling isolated or unsupported due to background). - Institutional barriers (e.g., difficulties accessing academic, financial, or social support). These topics are essential for identifying and addressing inequalities in medical education, in line with existing research and widening participation policy initiatives. Justification for Discussing These Topics - Addressing Educational Inequalities: There is strong evidence that WP students face unique challenges in medical education, but these are underexplored in qualitative research. - Co-Designing Solutions: Understanding barriers directly from students and faculty is crucial for developing practical interventions that institutions can implement. - Ensuring Institutional Change: This research aligns with UK medical school widening participation strategies, the Medical Schools Council (MSC) WP agenda, and GMC recommendations on inclusivity in medical education. The workshops have been designed to allow students with peers in the first and second workshops. Faculty will provide their perspectives in the third. Workshop 1 and 2 (Students Only): Experiences of WP students, barriers to success, and existing support systems. Workshop 3 (Faculty Only): Institutional perspectives on WP support, barriers, and best practices. The Delphi Study is fully online which allows anonymisation of response. The focus is on prioritization and consensus-building on key interventions. I have uploaded the participant information sheets, workshop protocols and Delphi questionnaires to the documents tab for full information.
Illegal Behaviour:	No
Illegal Behaviour More Info:	

Awareness Disclosure Harm:	No
Awareness Disclosure Harm More Info:	
Risk of Injury:	No
Risk of Injury More Information:	
Risk of Injury Mitigation:	
Invasive Procedures:	No
Invasive Procedures More Information:	
DBS Check:	No
Participant Compensation:	Yes
Compensation Details:	Participants will receive a £20 voucher for participation in the workshops. This is in recognition of the participants' time and contribution. Students and faculty dedicate an hour of their time to participate in the workshop. The voucher serves as a token of appreciation for their insights, acknowledging that their experiences are valuable and contribute to meaningful educational improvements. The incentive is modest and proportionate to the time commitment, ensuring that participation remains voluntary rather than financially motivated. Participants are clearly informed that they can withdraw at any time without penalty or loss of the voucher. Many studies in educational research, provide similar incentives to encourage participation while maintaining ethical integrity. Some participants will only participate in the Delphi questionnaire part of the study. No incentive is given for this as this consists of completion of some brief online questionnaires, with less burden for participants. This is clear from the patient information sheets.
Undue Incentives:	No
Undue Incentives More Info:	
Compensation After Withdrawal:	They will still receive the voucher.

SECURITY

Security More Information:

Security Risk Mitigation:

Prevent duty: No

Prevent duty Mitigation:

ENVIRONMENTAL IMPACT

Environmental Impact: This is unlikely to have any significant environmental impact.
The study involves x3 1 hour workshops carried out over MS teams and 2-3 rounds of a short online questionnaire as part of a Delphi process.

Environmental Impact Monitored: Our remote/online study design is sustainable in nature.

DATA MANAGEMENT

Data Type:

1. Screening, Consent, and Assent Records
Screening data (basic eligibility check based on participant role: WP student, faculty, or Delphi expert).
Signed or electronically recorded consent forms.
Participant contact details (email addresses) for study-related communication, stored separately from research data.

2. Personal Data
Demographic information (e.g., role in medical education, institution type, year of study for students).
Audio recordings (from workshops, where participants consent, used for transcription purposes).
Survey responses from the Delphi study via MS Forms.
IP addresses will not be collected.

3. Qualitative Research Data
Workshop discussion data (transcribed from audio recordings and field notes).
Survey responses from the Delphi study, including rankings and free-text comments.
Thematic analysis data, identifying key patterns and themes in participant responses.

	NB audio/video recordings from the MS teams meeting workshops will be deleted immediately after transcription. 4. No Collection of Special Category or Sensitive Personal Data: The study will not collect any information about participants' health, physiological data, financial details, or biometric data. While discussions may touch on socio-economic background or institutional experiences, these will be recorded anonymously and thematically, without identifying individuals. 5. Data Anonymisation & Processing All workshop transcripts will be anonymised, with names, institutions, and identifying details removed. Delphi survey responses will be aggregated and de-identified before analysis. Direct quotes may be used in publications, but only in a fully anonymised form.
Data Access Control?:	No
Data Access Control? More Info:	
Data Storage Location:	Data will be securely stored in a dedicated research study folder on Oxford University's Nexus 365 cloud. Documents are held in a fully electronic form. Any paper consent forms will be digitised and stored in a secure encrypted form as above, with the paper forms being shredded and disposed of in confidential waste.
Data Storage Period:	All data collected during this research will be securely stored and retained in compliance with Oxford University's data management policies and ethical guidelines. Data will only be retained for as long as it has value, with personal data deleted at the earliest appropriate stage and anonymisation applied. All data will be held on the PI's Nexus 365 OneDrive when the student researcher has completed their degree with the PI managing storage and deletion. Screening and consent forms will be securely stored as outlined previously with access to the research team and retained for three years after the completion of the research or public release of findings. After this period, they will be permanently deleted. Participant contact details, including names and email addresses, will be stored separately from research data in a secure, password-protected file. These details will be deleted within six months of the study's completion/ and by the completion of the lead researcher's MSc course, to minimise retention of personal data.

Audio-visual recordings of workshops will be stored securely but deleted, once they have been transcribed and anonymised. This will happen within six months of collection and by completion of the lead researcher's MSc course. This ensures that only anonymised textual data is retained for analysis.

Fully anonymised workshop transcripts will be stored securely as outlined previously and retained for three years after public release. These will be permanently deleted after this period.

Delphi study survey responses will initially be collected via a secure online survey. As these responses will be anonymised, they will be retained for three years after public release before being permanently deleted.

Thematic analysis files and research notes (which will be fully anonymised) will also be securely stored and retained for three years after public release, after which they will be deleted.

If required for publication or academic integrity purposes, a fully anonymised dataset may be archived in a secure Oxford research repository, for long-term research reproducibility.

Data Retention Reuse: No.

Data Destruction: Consent Forms:
Stored securely within the University's Nexus365 system, these forms will be permanently deleted three years after the research's completion or public release, adhering to the University's data retention guidelines.

Participant Contact Details:
Maintained separately from research data within Nexus365, all personal contact information will be permanently deleted within six months post-study completion and by the end of the lead researcher's MSc course at Oxford.

Audio Recordings of Workshops:
Stored securely within Nexus365, these recordings will be permanently deleted by the end of the lead researcher's MSc course at Oxford, following transcription and anonymisation, to uphold data minimisation principles.

Anonymised Workshop Transcripts, Thematic Analysis Files, and Delphi Study Responses:
These anonymised datasets will be securely stored within Nexus365 for three years following public

	release. Post this period, they will be permanently deleted. All data destruction processes will adhere to the University's data protection and research data management policies, ensuring compliance with ethical standards and legal requirements.
Data Access:	All research data will be securely stored and accessed in compliance with Oxford University's Information Security Policy, GDPR, and best practices in research data management. This includes additional safeguards for remote/online workshop facilitation via Microsoft Teams. 1. Secure Storage & Access Controls: All electronic data (workshop transcripts, survey responses, consent forms) will be stored on Oxford University's Nexus365 cloud storage, ensuring restricted access and encryption. No data will be stored on personal devices or non-University cloud services (e.g., Google Drive, Dropbox). 2. Technical Security Measures Password Protection: All research-related documents (e.g., consent forms, workshop notes) will be password-protected, with restricted access to the principal researcher and research supervisors. Encryption: Any audiovisual recordings will be stored in an encrypted format and deleted after transcription. Controlled Editing Rights: Shared research documents will have restricted editing rights, ensuring that only authorised individuals can modify data. 3. Security Measures for Online (Remote) Workshops Using Microsoft Teams (MS Teams) via Nexus365: All online workshops will be hosted via MS Teams for Business. Pre-session Security Measures: Meeting links will only be shared with registered participants. The researcher will enable waiting room/lobby settings to prevent unauthorised access. Recording & Data Handling: Recordings will be stored on Nexus365 OneDrive, not on local devices, and deleted within six months (by completion of the lead researcher's degree course) after transcription. Ensuring Confidentiality: Participants will be reminded not to share identifiable information during discussions. A confidentiality statement will be provided at the start of the session. 4. Physical Security Measures Secure Workspaces for Remote Research: If facilitating workshops remotely, the researcher will ensure they are conducted in a private, secure environment to prevent unauthorised access or eavesdropping. No confidential information will be displayed on shared screens during online workshops. 5. Secure Data Transfer & Sharing: Any data shared with research supervisors or co-investigators will be done via Oxford's secure internal file-sharing systems (OneDrive for Business via Nexus365). No data will be sent via unencrypted email or stored on personal devices.
Organisation Data:	No
Organisation Data More Info:	
Recording:	Yes
Recording More Info:	An audiovisual recording will be made of the workshops held on MS teams to ensure that an accurate (anonymised) transcript is recorded. This recording will be deleted when the transcript has been made. Using MS teams participants will be advised to ensure that they are in a private place and that other people are not on screen.
Participant Data Confidentiality:	Confidentiality will be strictly maintained throughout the research process and in the release of findings, in line with Oxford University's Information Security Policy, GDPR regulations, and best practices in qualitative research. 1. Confidentiality During the Research Process Restricted Access to Data: Research data will be stored securely on Oxford University's Nexus365 (OneDrive for Business) with password protection and access restrictions. Only the lead researcher and research supervisors will have access to identifiable data. Separation of Personal & Research Data: Personal identifiers (e.g., consent forms, participant contact details) will be stored separately from anonymised research data in a password-protected file on Oxford's Nexus 365 OneDrive. Consent forms will be stored securely and deleted three years after the completion of the research. Secure Handling of Workshop & Delphi Data: If workshops are recorded, audio files will be encrypted and

stored securely on Nexus365, then deleted within six months after transcription. Workshop transcripts will be fully anonymised, with names, institutions, and identifying details removed. Delphi study responses will be collected anonymously and stored in an aggregated format, preventing individual identification.

Online Workshop Confidentiality: Meetings will be secured with waiting rooms, restricted screen sharing, and private meeting links. Participants will be asked not to share identifiable details during discussions.

2. Confidentiality in the Release of Findings

Use of Anonymised Quotes: Direct quotes from participants will be fully anonymised, with no identifying details (e.g., name, institution, specific background information).
Instead of "A second-year Aston University student said…", the research will report "A medical student from a newer UK medical school noted…".

Aggregation of Delphi Responses: Delphi study results will be presented in an aggregated form, ensuring that no individual responses can be traced back to participants.
Generalisation of Findings:

Thematic analysis will ensure findings are reported in a broad, non-identifiable way while maintaining the richness of the data.

Secure Sharing of Data: If findings are shared with co-researchers or supervisors, this will be done via Nexus365 (OneDrive for Business) with restricted editing rights.
No data will be transferred via unencrypted email or stored on personal devices.

3. Ethical Safeguards for Confidentiality

Participants will be informed during consent about how their data will be kept confidential. Any unexpected confidentiality risks (e.g., accidental disclosure in workshops) will be addressed immediately, with anonymisation applied in transcription. All data handling follows Oxford's ethical and IT security guidelines.

Participant Data Anonymity: Yes

Participant Data Anonymity More Info: This study follows strict anonymity and confidentiality measures in both data collection and reporting, ensuring that participants cannot be identified in any outputs. The following procedures will be used to protect participant anonymity during the research and in the release of findings.

1. Anonymity During the Research Process
Use of Participant ID Codes: Each participant will be assigned a unique identifier instead of using names in transcripts and survey responses.

Separating Personal Data from Research Data: Contact details (emails) will be stored separately from research data in a password-protected file on Nexus365.

Anonymisation of Audiovisual recordings: only the researcher will have access to the original files. Recordings will be transcribed, removing all names, institutions, and identifiable details before analysis. The original recordings will be deleted as outlined above.

Confidentiality in Group Settings (Workshops):
Participants will be reminded not to share identifiable information during discussions and not to share details of the discussion outside the workshop.

2. Anonymity in the Release of Findings:

Aggregated Data for Delphi Study: Delphi survey responses will be collected anonymously, and results will be aggregated so that individual responses cannot be traced.

3. Strategy for Anonymisation of Data
Transcription & Removal of Identifiers: Any identifying details (names, locations, personal stories with unique details) will be removed or generalised during transcription.

Pseudonymisation Where Necessary: If individual perspectives need to be included for clarity, pseudonyms will be used instead of real names.

Secure Storage of Data: Anonymised data will be stored on Nexus365, separate from any identifiable information.

Controlled Access to Data: Only the principal researcher and research supervisors will have access to raw (pre-anonymised) data.

Appendix 12: Research Ethics Approval

Education (Educ) DREC
15 Norham Gardens, Oxford, OX2 6PY

Applicant: Zaki Hassan-Smith
Principal Investigator: Kelsey Inouye
Department: Education

Study title: Improving the Medical School Experience for Students from Widening Participation Backgrounds: Setting the scene for an Action Research Approach
(Version: 2.0)

Ethics reference: Education (Educ) DREC - 1335140

Dear Kelsey Inouye,

On behalf of the Committee, I confirm that the above research study described in the application and other supporting documentation submitted to the committee has been carefully considered by the Education (Educ) DREC in accordance with the University's regulations and policy for ethics approval of research involving human participants, human tissue and/or personal data. The opinion is as follows:

Opinion of Research Ethics Committee: Favourable Opinion

Subject to the following conditions:

Decision Date: 22 May 2025, 16:34

Opinion End Date: 7 Nov 2026

If favourable, insurance-provided indemnity arrangements will be in place between the decision date and opinion end date and you may now commence your study activities. Should you plan to continue the research beyond the end date above, it is your responsibility to ensure that you request, and receive, an extension (via amendment) from the committee for indemnity to remain in place. You may be required to provide a justification.

Please note the following:

Amendments: Should there be any subsequent changes to the reviewed study, applications for amendments can be made via the Oxford Ethics Application System (Worktribe Ethics).

Reports: Studies considered by OxTREC are expected to submit an *annual progress report* on

each anniversary of study approval, until the study is completed. An end of study report is also required.

Audit: This study may be selected for audit at the discretion of the Research Governance, Ethics and Assurance Team.

Data safety: It is the responsibility of the PI to ensure that all data collected during the course of the study is stored and transferred safely and securely in accordance with University requirements. Further guidance and advice are available from the Research Data Team. Additional information is available at https://researchsupport.web.ox.ac.uk/governance/ethics

Yours Sincerely

Education Ethics Officer

Appendix 13: Workshop and Interview Guide (Students)

Duration: 60 minutes

Participants: Medical students from WP backgrounds

1. **Welcome and Introduction**
   - Thank participant for attending
   - Introduce myself, role, and study
   - Consent and ethics reminder:
     - Check participants understanding of activities from the participant information sheet
     - Check if they have any questions on the study
     - Voluntary participation, can withdraw any time
     - Session recorded for the purposes of the transcript
   - Reminder of ground rules:
     - Respectful, safe environment
     - Only to talk about subjects that they are comfortable speaking about
     - For workshops: one person speaking at a time

2. **Icebreaker**
   - Please introduce yourself, and year of study, and one word to describe your experience at medical school so far.

3. **Main Discussion Areas**
   - **Background and Entry into Medical School**
     - **a.** Tell us about your journey into medical school
     - **b.** What challenges did you face when applying
     - **c.** What support did you receive with your application?

   - **Experiences During Medical School**
     - **a.** What aspects of medical school have you found most challenging; have you come across any barriers?
     - **b.** What support has been most helpful?
     - **c.** Are there gaps in support?

   - **Future Directions for Improving WP Student Experience**
     - **a.** What changes would you like to see to better support WP students?
     - **b.** Which areas should be prioritised for improvement, or implementation of interventions?

4. **Closing**
   - Thank student for participation and openness
   - Explain how insights will inform next stages. Contact if any queries.

NB: Internal guide only to be adapted for workshop or one-to-one interview format. Time will not allow for all questions to be asked. Groups and participants will develop the agenda with you as the facilitator.

Appendix 14: Workshop and Interview Guide (Faculty)

Duration: 60 minutes

Participants: Faculty and Clinical Educators with UK medical school affiliation

1. **Welcome and Introduction**
   - Thank participant for attending
   - Introduce myself, role, and study
   - Consent and ethics reminder:
     - Check participants understanding of activities from participant information sheet
     - Check if they have any questions on the study
     - Voluntary participation, can withdraw any time
     - Session recorded for the purposes of the transcript
   - Reminder of ground rules:
     - Respectful, safe environment
     - Only to talk about subjects that they are comfortable speaking about
     - For workshops: one person speaking at a time

2. **Icebreaker**
   - Please introduce yourself, and role, and one word that comes to mind when you think of widening participation in your context.

3. **Main Discussion Areas**

   - **Institutional Context and Current Approaches**
     - What challenges do WP students face at your medical school?
     - What approaches does your institution currently take to support WP students?
     - What works well (interventions, policies, resources), and where are the gaps?
     - What barriers prevent effective support?

   - **Effective Interventions**
     - What are the most impactful and feasible interventions that can be adopted by medical schools?

   - **Future Directions for Improving WP Student Experience**
     - What changes would you like to see to better support WP students?
     - Which areas should be prioritised for improvement or implementation of interventions?

5. **Closing**
   - Thank student for participation and openness
   - Explain how insights will inform next stages. Contact if any queries.

NB: Internal guide only to be adapted for workshop or one-to-one interview format. Time will not allow for all questions to be asked. Groups and participants will develop the agenda with you as the facilitator.

Appendix 15 Supplementary Table S1: Summary of Thematic Analysis from Student Interviews on Pre-admission Challenges and their Legacy (Sub-theme A1)

Codes	Sub-Theme
Lack of family or peer-group support or knowledge of medical school or higher education applications	Pre-admissions challenges and their legacy
Feeling that a career in medicine is not for people from their background	
Unfamiliarity with medical school admissions processes	
Access to Careers Advice and Work Experience	
Lack of support for WP students with caring responsibilities	
Balancing paid work alongside academic commitments in Sixth Form	
Making decisions based on finances as opposed to the best option academically or professionally	
Finances impacting on availability of resources to support preparation for medical school applications (e.g. unable to afford to pay for practice questions, interview resources, tuition or open-day attendance)	
Costs of preparation for applications as a barrier (UCAT and interviews)	
Unsuccessful initial medical school applications due to structural barriers relating to finances and social status	

Appendix 16 Supplementary Table S2: Summary of Thematic Analysis from Student Interviews on Economic and Structural Constraints on Student Experience (Sub-theme A2)

Codes	Sub-theme
Inadequate financial support	Economic and Structural Constraints
Reliance on student finance	
Contributing to the family finances as well as their own	
Financial constraints impacting on ability to take part in social events and adding to outsider status	
Financial constraints reducing access to career development opportunities (e.g. conference attendance, courses, medical electives or intercalated degrees)	
High cost of living	
Additional financial pressures faced by Graduate Medical Students	
Digital poverty	
Not having prior knowledge of differences in financial support available between Oxford Colleges	
Pressures from long commutes	
Educators and peers understanding their need to balance personal and academic commitments	
Lack of recognition of informal carer status	
Knowledge gaps stemming from access to resources, support and work experience	
Lack of understanding of or resources to meet the cultural expectations at medical school such as ‘professional dress’.	
Difficulties with visualising career pathways in medicine	

Appendix 17 Supplementary Table S3: Summary of Thematic Analysis from Student Interviews on Uneven Academic Preparation (Sub-theme A3)

Codes	Sub-theme
Knowledge or skills gaps in comparison with peers who attended selective schools (e.g. relating to academic subjects or medical careers)	Uneven Academic Preparation
Knowledge gaps stemming from access to resources, support and work experience	
Adapting to independent learning at medical school	
Learning to cope with failure at medical school	
Difficulties with visualising career pathways in medicine	

Appendix 18 Supplementary Table S4: Summary of Thematic Analysis from Student Interviews on Belonging, Identity and Social Experience (Sub-theme A4)

Codes	Sub-theme
Financial constraints impacting on participation in social activities	Belonging, Identity and Social Experience
Family or Carer responsibilities impacting on social life	
Identity conflict between home and university personas	
Unfamiliarity with social norms and cultural expectations at university	
EDI at university fostering a sense of belonging	
Continuity of academic and pastoral care (e.g. through college system or personal tutors as a support)	

Appendix 19 Supplementary Table S5: Summary of Thematic Analysis from Faculty Interviews on Recognising Structural Constraints prior to Medical School (Sub-theme B1)

Codes	Themes
Lack of family or peer-group support or knowledge	Pre-admissions challenges and social and economic status as structural barriers
Clinical educators from WP backgrounds reflect on the differences in resources and support that their own children have in comparison to their experience	
Gaps in 'generic skills' (such as communication, academic study skills etc)	
Access to Careers Advice and Work Experience	

Appendix 20 Supplementary Table S6: Summary of Thematic Analysis from Faculty Interviews on Recognising Structural Constraints during Medical School (Sub-theme B1)

Code	Sub-theme
WP students can be behind their peers in some academic skills initially	B1: Recognising Structural Constraints
WP students can have difficulties in visualising medical career pathways	
Financial pressures and need for paid work may impact on academic progress	
Finances impact on WP students' ability to compete with their colleagues in clinical academic pathways (e.g. decision to intercalate)	
WP and financial status may not be considered when organising clinical placements	
Medical school faculty feel it can be difficult for them to ease the financial burden of attending placements operationally	
Travel to clinical placements and related costs adds to financial, administrative and personal burden	
Family and caring responsibilities (even if informal) can impact on academic engagement	
Lack of family or peer-group support or knowledge of studying medicine	
Lack of social capital, including access to personal networks, as a barrier to career advancement	
Lack of knowledge or access to resources to meet traditional expectations for clinical placements (e.g. clinical dress)	
WP students may experience referrals to disciplinary or fitness to practice committees due to different societal expectations	
WP medical students reluctant to inform tutors about challenges that they face thus impacting on academic performance due to embarrassment	
Tensions in directing WP student support and exclusionary policies	
Medical school faculty find it difficult to access to information on student WP status	
Recognition of the lack of diversity in medical school faculty members; and evidence of unconscious bias	
WP students with contextual offers outperform their peers but faculty members feel they need extended training	
Cultural imperialism within medical education with expectation to assimilate with the dominant culture	