

# **The experience of Widening Participation students in undergraduate medical education in the UK: A Qualitative Systematic Review**

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## **Abstract**

Most Widening Participation (WP) research is focused on medical school recruitment; there is a paucity of research examining whether the experience of medical school itself is an equal experience for both 'traditional' and WP students. This qualitative systematic review used the Joanna Briggs Institute meta-aggregative approach to characterise the experience of undergraduate medical education in the UK from the perspective of WP students. Seven databases were searched, 27 studies were critically appraised, and 208 findings were grouped into 12 categories and 4 synthesised findings. The majority of the research found relates to ethnic minority groups, with reports of other WP groups being less frequent.

Whilst WP programmes attempt to alleviate disadvantages prior to entering university, our findings suggest that difficulties follow WP students into medical school. Unfamiliarity with higher education and lack of representation of WP staff in faculty can deter help-seeking behaviour and result in lack of trust. Furthermore, students from different backgrounds can find their identity conflicted upon entering medical school.

Despite difficulties in establishing social networks with 'traditional' medical student peers, WP students form strong relationships with students from similar backgrounds. Ultimately, these students find that the uniqueness of their experience is a useful tool for communicating with diverse patients which they come across and are able to overcome adversity with the help of a supportive institution.

## **Keywords**

Widening Participation; Qualitative Systematic Review; Meta-Aggregation

## **Introduction**

Widening Participation (WP) is a term used in the UK to describe the political aim of ensuring that the higher education population is representative of the demography of the general population (Connell-Smith and Hubble, 2018). However, fair access to Higher Education is a global agenda, with most countries collecting data on gender and socioeconomic disparities in higher education (Atherton, Dumangane and Whitty, 2016). WP in healthcare is particularly important because understanding the psychological and sociological aspects of health is a necessary value of being a doctor (GMC, 2018). Even with the enforcement of WP recruitment and targets in the UK over the last 20 years by both Labour and Conservative governments,

progress in increasing the number of WP students studying medicine is slow (Department for Education, 2019).

The perceptions of under-represented students considering a career in Medicine gives insight into the reasons for the lack of applicants from these groups. Young people from lower socioeconomic groups describe Medical School as elitist, underestimate their chances of gaining a place (Greenhalgh, Seyan and Boynton, 2004; Mathers and Parry, 2009) and see financial demands as a greater barrier (Greenhalgh, Seyan and Boynton, 2004; Brown and Garlick, 2007; Martin *et al.*, 2018). WP outreach activities may focus on providing information and 'myth busting' – but these perceptions may not be unfounded. Is the traditional, elitist medical culture still as pervasive now as it was decades ago (BMA Equal Opportunities Committee, 2009)?

Medical training focuses heavily on the development of professionalism, where aspects of one's own identity are changed with new norms, values and ways of thinking. (Hafferty, 2008). This may be a relatively smooth process for those whose personal identity is in harmony with these norms and values, but cause identity dissonance where students are forced to adopt a different worldview (Monrouxe, 2010). WP students enrolling in medical school become aware for the first time of their own social status and background (Bassett *et al.*, 2018), and some struggle with the traditional hierarchical structure of medicine (Seabrook, 2004). Furthermore, tangible differences in learning experience may result from lack of capital, defined by sociologist Pierre Bourdieu as the accumulation of labour in a material or embodied form - either financial, cultural or social (Bourdieu, 2018). Use of these concepts has been adopted by a number of researchers studying WP within medical education (Mathers and Parry, 2009; Bassett *et al.*, 2019). However, whilst various theoretical approaches have been utilised to explain this phenomenon, there has yet to be a unifying piece of research to triangulate these data together.

The aim of this review is to explore the experience of WP students within medicine during their studies in the UK. A preliminary search of PubMed, Cochrane and PROSPERO demonstrated that despite a number of primary qualitative research studies detailing these experiences, there has yet to be a systematic review performed on the topic. Previous similar work has been undertaken in the US exploring the experiences of US ethnic minority groups; (Orom, Semalulu and Underwood, 2013) it is this difference in *who* is under-represented which is the reason why this review will focus only on the UK. There are certain demographic differences in the undergraduate medicine population in the UK compared to the US - for example, ethnic minorities in medicine in the UK are over-represented (Medical Schools Council, 2018). However, it is worth noting that the admission ratio in the UK for ethnic minorities is still considerably lower - being from an ethnic minority group does decrease the chance of gaining a place at medical school (Medical Schools Council, 2013). The close relationship and delivery of undergraduate teaching from health professionals employed by the NHS and not directly by Universities only serves to make the UK experience more unique.

This review is the first of its kind to be performed in the UK. The findings from this review will be used to consolidate the existing evidence base of qualitative research and may inform institutions in the UK as to what changes are needed for their currently enrolled students to facilitate and strengthen their WP agendas.

## **Method**

Whilst quantitative approaches afford us a vast amount of information on medical school populations, their performance and other data important in a WP context, they do not provide us the insight into 'how' and 'why' this is the case. Qualitative approaches lend themselves to these types of questions – understanding lived experience, social phenomena and context-specific accounts – and are increasingly popular within the medical education field.

Many approaches for synthesising qualitative evidence have been developed, and there is no universally 'correct' technique (Centre for Reviews and Dissemination, 2009). For this review, the Joanna Briggs Institute (JBI) Meta-Aggregative approach was selected as it is the process of synthesising qualitative findings without re-interpreting them (Aromataris and Munn, 2020), removing the risk of losing the original sentiment of the primary research in the synthesised findings. The ultimate aim of this approach is to aggregate findings into recommendations for action by policy makers, rather than the aim of theory generation shared by many other approaches, such as meta-ethnography. The Joanna Briggs Institute has produced a clear set of quality criteria by which to undertake the Meta-Aggregative process, and the lead reviewer C.K. is a JBI-accredited systematic reviewer. The protocol for this review has been published in JBI Evidence Synthesis (O'Beirne *et al.*, 2020). There were no deviations from the protocol.

In brief, the JBI approach involves the extraction of findings from each identified study, which are usually the authors' identified themes or sub-themes, and an illustration for each finding. Illustrations can be either a direct quotation of a study participant, field notes or other form of supporting data. The reviewers then assign the finding a level of credibility based upon whether the finding is justified beyond reasonable doubt. Findings from all papers are then aggregated by the reviewers into a set of categories which sufficiently describe those grouped findings. Finally, at least 2 categories can be formed into a synthesised finding.

Studies exploring any aspect of the lived experience of either traditional-entry undergraduate medicine, graduate-entry medicine, or foundation year course programmes according to WP students were included. Studies were included for any WP group as defined by the Medical Schools Council measures (Medical Schools Council, 2013) (low Index of Multiple Deprivation areas, low household income, free school meals recipients, first in family attending University, low-performing schools, state schools, any other measure of socioeconomic status, disability, ethnic minorities, mature students, LGBTQ+, Participation of Local Areas [POLAR], care leavers) who are studying/have studied undergraduate Medicine in the UK. Note that the metrics used to allocate 'WP' status across institutions vary widely and in practice, these

measures are often used in combination (indeed, The Medical Schools Council definition of WP is a triangulation of four different domains – identity, educational context, neighbourhood and family background – which echoes the sentiment that defining WP is complex and multi-faceted).

The review considered studies that focus on qualitative data using any research design. Mixed methods studies were also considered if the qualitative data were reported separately, along with intervention-based studies provided they involved qualitative data collection prior to the intervention. Studies were only included if they were published in English and from the 01/01/2000 to 27/01/2020. The start date was chosen to explore only the contemporary experience of WP groups and reflecting the increased emphasis of WP over the last two decades.

The search strategy (see table 1) was adapted for each database: MEDLINE, PubMed, WebOfScience, CINAHL, EMBASE, PsycInfo and ERIC. Sources of unpublished studies and grey literature were Google Scholar and Open Access Theses and Dissertations. The reference lists of all studies selected for critical appraisal were then screened for additional studies.

All identified citations were uploaded into Mendeley Version 1.19.4/2019 (London, UK) and duplicates removed. Titles and abstracts were screened by two independent reviewers C.K. and L.K. (both Medical Education Fellows) for assessment against the inclusion criteria. Potentially relevant studies were retrieved and assessed in full. Any disagreements that arose between the reviewers at each stage of the study selection process were resolved with a third reviewer, A.T (medical student).

Eligible studies were critically appraised by C.K. and L.K. independently for methodological quality using the standard Joanna Briggs Institute Critical Appraisal Checklist for Qualitative Research (Joanna Briggs Institute, 2017). All studies, regardless of the scores of their methodological quality, underwent data extraction and synthesis.

Findings, and their illustrations, were then extracted and assigned a level of credibility by the two researchers together. Qualitative research findings were pooled using the JBI meta-aggregation approach (Aromataris and Munn, 2020). Findings that were determined to be 'Unsupported' were not included in the synthesis. The final synthesized findings were graded according to the ConQual approach for establishing confidence in the output of qualitative research synthesis (Munn *et al.*, 2014).

## **Results**

A total of 4650 records were retrieved following removal of duplicates (see figure 1). A further 4 articles were found through hand-searching, as well as one unpublished thesis. Based on title and abstracts, 4519 records were excluded as being clearly irrelevant in content. A total of 27 relevant studies were included in the review. Reasons for exclusion of full text studies included no qualitative data (n = 26), phenomena of interest not related to experience of medical school (n = 12), no medical student participants (n = 1), not primary research (n = 1), not based in the UK (n = 28) and data for WP students not reported separately (n = 41).

### ***Methodological quality***

Only 8 of the 27 included studies clearly stated the philosophical perspective, however in all studies there was clear congruity between the research methodology and the research objectives, data collection and interpretation of the results. Less than half of the papers located the researcher culturally or theoretically (44%), with fewer providing a statement on the effect of the researcher on the research (37%). This is important to acknowledge, since it is impossible to separate the researcher entirely from qualitative research (Ng *et al.*, 2019).

Good methodological quality ensures that the voices of the participants in the research are well represented (Joanna Briggs Institute, 2017), in order to ensure that the conclusions drawn are representative of the study population. Most researchers provided quotations to corroborate their findings making extraction easier. All but one study (Hill and Roger, 2016) clearly documented compliance with the ethical approval process.

All included studies scored at least 5 out of 10 on the appraisal checklist, giving them a moderate to high level of confidence. There is no clear guidance from the JBI manual on cut off criteria for methodological quality. As the results were being pooled, the authors made the decision that no papers were to be excluded on the basis of methodological quality, rather, this was taken into account when considering the credibility of the findings of those papers. Five papers scored 10 out of 10 on the appraisal checklist (Vaughan, 2013; Shaw, Anderson and Grant, 2016; Nicholson and Cleland, 2017; Shaw and Anderson, 2018; Bassett *et al.*, 2019).

### ***Characteristics of included studies***

All studies were published between 2004-2019 (see Appendix 1). All studies had a qualitative component, with 8 studies taking a mixed methods approach (Hayes *et al.*, 2004; Shacklady *et al.*, 2009; Cook *et al.*, 2012; Rees, Monrouxe and McDonald, 2013; Vaughan, 2013; Chandauka *et al.*, 2015; Hill and Roger, 2016; Broad *et al.*, 2018). An aggregative sample of over 422 ethnic minorities students, 74 mature students, 67 students with disabilities, 41 students from low socioeconomic backgrounds and 20 first in family students were included in all papers. Two studies involved interviews with current doctors about their experiences during undergraduate study (Woolf *et al.*, 2016; Shaw and Anderson, 2018).

A total of 20 papers used interviews as a method of data collection (Roberts, Butler and Boursicot, 2004; Seabrook, 2004; Riddell, Tinklin and Wilson, 2005; Lempp and Seale, 2006; Woolf *et al.*, 2008, 2016; Drinkwater, Tully and Dornan, 2008; Mathers and Parry, 2009; Todres *et al.*, 2012; Cook *et al.*, 2012; Vaughan, 2013; Patel *et al.*, 2015; Shaw, Anderson and Grant, 2016; Hill and Roger, 2016; Nicholson and Cleland, 2017; Bassett *et al.*, 2018, 2019; Shaw and Anderson, 2018; Tso, 2018; Claridge, Stone and Ussher, 2018), 8 papers used focus groups (Seabrook, 2004; Roberts, Sanders and Wass, 2008; Woolf *et al.*, 2008, 2016; Nicholson and Cleland, 2017; Broad *et al.*, 2018; Claridge, Stone and Ussher, 2018; Morrison,

Machado and Blackburn, 2019) and 6 papers used web-based questionnaires with free-text components (Hayes *et al.*, 2004; Shacklady *et al.*, 2009; Rees, Monrouxe and McDonald, 2013; Chandauka *et al.*, 2015; Hill and Roger, 2016; Broad *et al.*, 2018). Participant observation was also used (Seabrook, 2004), and a biographical written account (Shaw, Anderson and Grant, 2016). Two papers were reporting data from the same set of interviews (Bassett *et al.*, 2018, 2019), and one paper was an amalgamation of three qualitative studies (Nicholson and Cleland, 2017). Experience in relation to underperformance in exams was a common theme (Woolf *et al.*, 2008; Todres *et al.*, 2012; Vaughan, 2013; Chandauka *et al.*, 2015; Patel *et al.*, 2015; Claridge, Stone and Ussher, 2018; Morrison, Machado and Blackburn, 2019). Some studies discussed issues of identity (Riddell, Tinklin and Wilson, 2005; Bassett *et al.*, 2019), educational climate (Seabrook, 2004; Lempp and Seale, 2006) and transition from pre-clinical to clinical environments (Hayes *et al.*, 2004; Shacklady *et al.*, 2009).

### ***Review findings***

Each paper was re-read by C.K. and L.K. together and a total of 208 findings and illustrations (level 1 findings) were extracted. Of these, 172 (82.7%) were Unequivocal (U), 10 (4.8%) were Credible (C) and 26 (12.5%) were Unsupported (US). Findings were often unsupported when qualitative evidence, e.g. quotes from participants, were not provided to corroborate the claims made.

The findings were then grouped into categories (level 2 findings) based upon similarity in meaning and refined until there was agreement. The 12 categories were then further examined to determine that they could be grouped into 4 distinct synthesised findings, see figure 2. A full table of findings and categories can be found in Appendix 2 & 3.

Description and grading of the synthesised findings according to the ConQual approach (Munn *et al.*, 2014) is presented in Appendix 4. Dependability of the included papers was a score based on the responses to questions 2, 3, 4, 5, 6 and 7 of the JBI Qualitative Critical Appraisal Checklist (Joanna Briggs Institute, 2017).

The synthesised findings are described further below, each with an illustrative quote from one of the reviewed papers.

### ***Social Groups***

“Ever since medical school I've pretty much hung around with the ethnic minority people, I don't know why actually. And then you see other groups that are all white.”

*Quote from Woolf et. al (2016)*

The social grouping of WP students together was commonly reported from a number of different groups, including ethnic minority students, first in family students and students with dyslexia. These studies found that students reported naturally making friends with those who

had similar backgrounds to themselves based on common experiences and shared adversity (Woolf *et al.*, 2016; Morrison, Machado and Blackburn, 2019).

Students discussed the benefits of forming bonds with peers from similar backgrounds, including improved confidence, sharing of resources and stronger relationships (Vaughan, 2013; Bassett *et al.*, 2019; Morrison, Machado and Blackburn, 2019). This extended to relationships with staff, where having representation of ethnic minorities within the faculty was beneficial to ethnic minority students (Woolf *et al.*, 2016).

Unfortunately, despite the formation of large social networks of other WP students, feeling like an outsider was not uncommon. Whilst forming ties with peers from similar backgrounds is desirable, it may be the only option for many WP students who find themselves ostracised by peers from more 'traditional' backgrounds (Bassett *et al.*, 2018). For some students, medical school was the first time that they became aware of their own socioeconomic status and place in society, and this even led to some students doubting that they deserved their place in medical school (Roberts, Sanders and Wass, 2008; Bassett *et al.*, 2018; Morrison, Machado and Blackburn, 2019).

The consequence of being on the outside of the group, in addition to feelings of loneliness and isolation, is the inequality of access to resources and information valuable to succeeding at medical school (Patel *et al.*, 2015; Nicholson and Cleland, 2017; Morrison, Machado and Blackburn, 2019). Many reported that, as a result of isolation, they were missing out on additional learning opportunities or emotional support.

Demonstrating this need for integration into the medical school population, are the accounts of students who have successfully accessed these resources. Several students felt enriched by new experiences as a result of their expanded social networks (Vaughan, 2013; Chandauka *et al.*, 2015; Bassett *et al.*, 2019). However, whilst their studies are a common ground on which vastly different people are able to found friendships, cultural issues may still be difficult to overcome (Vaughan, 2013).

### ***Identity Conflict***

“...the kind of things that you spend your time doing; your motivations; all of that, just completely changes [at medical school]... it has been difficult to maintain some old friendships”

*Quote from Bassett et al. (2019)*

Multiple narratives showed conflict between personal and medical school culture, primarily affecting ethnic minority students and first in family students. One of the most apparent clashes in culture concerned the consumption of alcohol and the abundance of social events in medical school which revolve around drinking (Vaughan, 2013; Chandauka *et al.*, 2015). This further exacerbated issues of poor integration and social isolation of ethnic minority

groups (Roberts, Sanders and Wass, 2008; Chandauka *et al.*, 2015; Claridge, Stone and Ussher, 2018; Morrison, Machado and Blackburn, 2019).

Some students found that this led to distancing themselves from the medical school and their peers (Vaughan, 2013; Morrison, Machado and Blackburn, 2019), whereas others approached this challenge by conforming to what they felt was expected of them (Lempp and Seale, 2006; Vaughan, 2013; Bassett *et al.*, 2019; Morrison, Machado and Blackburn, 2019). Ethnic minority students described having to 'act white' to fit in (Claridge, Stone and Ussher, 2018), and first in family students describe similar adjustments in their mannerisms and behaviours (Bassett *et al.*, 2019), with tensions arising when they find that this change in identity makes it more difficult to fit in back home.

Not only is this important in the context of friendships and socialisation, but it has a real impact on students' learning experience. Some ethnic minority students report cultural issues being a barrier to participation in clinical skills; for example a student who stopped wearing their hijab, as they found it reduced their chance of being picked to participate (Vaughan, 2013).

In some circumstances, a lack of intrinsic motivation and outcome-driven learning could cause issues for a small section of ethnic minority students. A narrative of doing the minimum to get through was apparent (Woolf *et al.*, 2008; Todres *et al.*, 2012) whereas for some, the pressure to gain a place at medical school from parents resulted in a weak motivation to study (Todres *et al.*, 2012). On the other end of the spectrum, embodiment of a professional identity is demonstrated by first in family students who describe how they benefit from an elevation in social status and pave the way for other WP students (Bassett *et al.*, 2018, 2019).

### ***Relationship with Institution***

"At the medical school [...] there's not enough people in the echelons of the faculty staff who [...] I can relate to, so I don't think there's anyone necessarily that I would go for support"

*Quote from Morrison et al. (2019)*

There was a significant amount of variation in student attitudes and opinions of faculty within and between institutions. Disabled medical students, who tend to require an above average level of support in areas such as adjustments for exams, access to clinical placements and resources for learning, described how having an open dialogue with their institution and clear way for accessing support when needed was valued (Cook *et al.*, 2012), with help-seeking behaviour being strongly affected by past experience (Shaw, Anderson and Grant, 2016; Tso, 2018).

However, structural discrimination and distrust of the institution was not uncommon within these groups either. There remain significant barriers for WP students embedded within the design of some curricula and also their physical environments. For example, there may be a lack of specific hospital facilities (Broad *et al.*, 2018) or disadvantage due to the style of



assessment (Riddell, Tinklin and Wilson, 2005; Shaw, Anderson and Grant, 2016; Shaw and Anderson, 2018).

These issues can lead to a sense of dissatisfaction, and at worst can damage the trust between faculty and students (Patel *et al.*, 2015; Morrison, Machado and Blackburn, 2019), resulting in an avoidance of help-seeking. The issue of confidentiality in disclosure of disability arose frequently in accounts from disabled students who did not want to either be disadvantaged or have their fitness to practice questioned (Cook *et al.*, 2012; Hill and Roger, 2016; Tso, 2018).

This sense of their differences not being acceptable within the medical profession promotes an 'us and them' divide; an assertion that is strengthened by the lack of representation of WP groups within medical school staff (Morrison, Machado and Blackburn, 2019). Furthermore, staff at medical schools sometimes struggle with cultural issues where there is a lack of training or institutional framework, causing inadvertent offense (Roberts, Sanders and Wass, 2008).

### ***Unique Characteristics***

“There was that sort of expectation that, at least for us that because we were ethnic minorities we had to work harder”

*Quote from Vaughan (2013)*

WP students recognise that they study within a system at which they are at a disadvantage, feeling that they have to work harder to compensate. Examples given include unconscious bias against ethnic minorities (Seabrook, 2004; Lempp and Seale, 2006; Vaughan, 2013; Claridge, Stone and Ussher, 2018), first in family students needing to live at home due to financial pressures (Bassett *et al.*, 2019) and mature students feeling unprepared for academic demands (Shacklady *et al.*, 2009; Tso, 2018).

There is a lot of negative emotion linked with this disadvantage, such as feeling self-conscious or inadequate (Shaw, Anderson and Grant, 2016; Bassett *et al.*, 2018; Shaw and Anderson, 2018; Morrison, Machado and Blackburn, 2019). Clearly these additional pressures related to being a WP student have the ability to be damaging to students' wellbeing and mental health. Lack of financial capital appeared to be one of the biggest pressures on first in family, mature students and international students (Vaughan, 2013; Patel *et al.*, 2015; Bassett *et al.*, 2019).

Students can find themselves over-stretched, foregoing their psychological wellbeing in order to 'muddle through' (Cook *et al.*, 2012; Bassett *et al.*, 2018, 2019). For some ethnic minority students, there was strong pressure from their families to study medicine (Woolf *et al.*, 2008; Claridge, Stone and Ussher, 2018), and some students felt that, because there is not much representation of students with similar backgrounds, that they have to be an 'ambassador' for their ethnic group (Vaughan, 2013; Morrison, Machado and Blackburn, 2019).

Sadly, cultural insensitivity and racism were described by ethnic minorities from peers (Seabrook, 2004; Vaughan, 2013), patients (Morrison, Machado and Blackburn, 2019), and faculty, including being singled out, questioned about background and being confused with other ethnic minority students (Drinkwater, Tully and Dornan, 2008; Rees, Monrouxe and

McDonald, 2013; Broad *et al.*, 2018; Claridge, Stone and Ussher, 2018; Morrison, Machado and Blackburn, 2019). Faculty were also described using derogatory language around protected characteristics, such as referring to people as “spastic” (Broad *et al.*, 2018), and homophobic comments towards LGBTQ+ students (Drinkwater, Tully and Dornan, 2008). Such interactions can negatively affect the way that these students perceive future experiences (Vaughan, 2013).

Difference between WP students and the ‘traditional’ medical student is not always described in negative terms, with some reporting strengths associated with being different. Mature students describe the benefits of having extra experience within a work or previous undergraduate environment, including boosted confidence, helping the transition into clinical environments (Hayes *et al.*, 2004; Shacklady *et al.*, 2009). This confidence can lead to them being more able to seek out additional learning opportunities (Vaughan, 2013).

Students with disabilities report that despite their difficulties with traditional learning methods, their experiences lead them to be better communicators and able to relate more to patients (Shaw, Anderson and Grant, 2016; Tso, 2018). Similarly, first in family students are able to use their background in order to help school leavers who wish to follow the same path (Bassett *et al.*, 2019). Whilst living at home for some students was reported as a disadvantage, living at home and having family as a support network can be invaluable (Vaughan, 2013).

## **Discussion**

This review demonstrates how the differences in social, cultural and financial capital between students can impact on their experience. Widening Participation programmes in the UK attempt to alleviate some of the discrepancies in lack of contacts and resources prior to entering higher education, but our findings suggest that this disadvantage is carried with WP students into medical school.

Concerning social groups, difficulties fitting in, having the right social networks, adequate financial resources and having cultural knowledge of particular hobbies and interests were all found within this review and in work done throughout the world elsewhere with first in family students (Beagan, 2005; Brosnan *et al.*, 2016). Students must be self-directing to seek out extra learning opportunities from hospital staff not directly employed by the university, and by not understanding the importance of or knowing how to network with seniors in the profession, they may be at a disadvantage.

Widening the lens to medical schools elsewhere in the world, difficulty establishing social networks with peers is experienced by under-represented ethnic minorities in the USA (Orom, Semalulu and Underwood, 2013), and othering from ‘traditional’ students was well-described in this review by both ethnic minorities and other WP students. Corroborating this finding, a survey performed with Canadian medical students showed that only 29% of students from working-class or impoverished backgrounds felt they fitted in very well at medical school, compared to 43% of upper-class or upper-middle class students (Beagan, 2005). However, our review found that despite difficulties integrating with the larger cohort of students, WP students found strong social networks within groups from similar backgrounds. Where students were successfully integrated with peers, they reported the benefits of an expanded

social network. It is therefore recommended that institutions make efforts to facilitate integration of peers from different backgrounds, such as using teaching and group allocations as an opportunity for mixing and ensuring that informal events cater to various cultural practices.

A strong theme is the notion of conflict between one's previous identity and that which is encouraged of them through the hidden curriculum (Hafferty, 2016). This can lead to identity dissonance, with WP students finding their identity fractured, or finding that they are required to abandon certain aspects of themselves for medicine. Studies elsewhere have described the existence of a 'dual-identity' in these students (Brosnan *et al.*, 2016), and can lead to a growing schism between themselves and their former friends and families (Beagan, 2005; Conway-Hicks and de Groot, 2019). The incorporation of white middle-class characteristics into one's identity in order to succeed in medicine is also echoed in an Australian study (Southgate *et al.*, 2017).

Medicine is unique in the higher education field in that there is heavy focus on skills assessments, to which students can face barriers in accessing reasonable adjustments and which can damage students' relationships with the institution. Additionally, content which was considered culturally insensitive or discriminatory was described as still present in course content and consequently should be reviewed. Historically, case examples frequently used stereotypical patients of particular ethnicities and derogatory language around sexual orientation (Turbes *et al.*, 2002). Lack of representation of ethnic minorities in faculty discredits the assertion that an institution values inclusivity and diversity (Hung *et al.*, 2007), and making efforts to ensure that there is adequate inclusion of minority groups will ensure that students can find diverse role models who are similar to themselves. It has been shown that WP students can see themselves as ambassadors for others who wish to follow in their footsteps from similar backgrounds, here and elsewhere (Conway-Hicks and de Groot, 2019) - if the medical school environment is not a welcoming one to those who do gain a place, then we may risk discouraging other WP groups to apply.

Reassuringly, there are success stories associated with WP students' unique characteristics – some students describe overcoming adversity with the support of the faculty, finding hidden strengths and becoming better physicians as a result. The uniqueness of the WP experience is a useful tool for communicating with the diverse demographic of patients which they come across, a phenomenon that has also been described by medical students with financial struggles in the USA (Conway-Hicks and de Groot, 2019).

Considering the weaknesses of this review, whilst the objective was to explore the experience of medical school specific to WP students, there were a significant number of included papers in which this was not the primary aim but through separate reporting of WP students findings could be drawn (Seabrook, 2004; Drinkwater, Tully and Dornan, 2008; Todres *et al.*, 2012; Rees, Monrouxe and McDonald, 2013; Patel *et al.*, 2015). Some studies included WP students from other subjects (Riddell, Tinklin and Wilson, 2005; Hill and Roger, 2016), members of faculty (Roberts, Butler and Boursicot, 2004; Woolf *et al.*, 2008; Claridge, Stone and Ussher, 2018) and even members of the public (Roberts, Butler and Boursicot, 2004), which sometimes reduced what could be extracted from papers. Additionally, the phenomena of interest being broad in scope may have restricted the depth to which findings could be

studied. More recent papers tended to be of better methodological quality, and studies from a large sample of different medical schools throughout the UK were found.

The majority of the participants included were from ethnic minority backgrounds, which limits the transferability to other WP groups. However, the intersectionality of WP characteristics can make differences between groups difficult to unpick, with it possible for an individual to possess multiple attributes e.g. ethnic minority, low household income and a mature student. There was limited representation of students from low socioeconomic backgrounds and LGBTQ+ students, and no studies involving care leavers. The large focus on ethnic minorities is most likely due to evidence of an academic performance gap between non-white and white students (Woolf, Potts and McManus, 2011; McManus, Dewberry, *et al.*, 2013; McManus, Woolf, *et al.*, 2013). But despite the lack of an attainment gap in other WP groups, it remains from the aggregated evidence that the experience at medical school still is not an equal one.

## **Conclusion**

Any changes demanded by these findings ultimately depend on whether institutions take a meritocratic or democratic approach to Widening Participation. A meritocracy, or the 'diamond-in-the-rough' approach (Sheeran, Brown and Baker, 2007), states that anyone who has the required level of ability is able to study in higher education, and that those who remain in the underclasses are those without the ability or desire to progress. This implies a deficit in students from non-traditional backgrounds, that can be filled through taster experiences and extra support, and that they can be indoctrinated with the values and attributes that we consider desirable. A qualitative study of the views of UK medical admissions deans through the analysis of language demonstrates a tendency towards a meritocratic outlook (Cleland and Fahey Palma, 2018), with WP students frequently being described in a way that was inadequate when compared to 'traditional' students. There was an absence of discussion of the benefits that non-traditional students may bring to medical school and the profession of medicine as a result of their difference, a discourse also reflected in the webpages of many UK medical schools (Alexander *et al.*, 2017).

A democratic and transformative philosophy, however, would state that differences in educational performance are not due to differences in ability but due to social inequality, and that disadvantage in our current higher education system is the fault of a rigid and broken system that marginalises different cultures and values (Sheeran, Brown and Baker, 2007). This certainly appears to be the view of the WP students affected by this marginalisation as shown by these findings, where the desire for a more inclusive environment in which differences are embraced is desired.

Stakeholders need to be aware that their obligations to Widening Participation do not cease upon entry to medical school; there is a demonstrable difference in the experience of WP students and that of the 'traditional medical' student and it remains yet to be known whether students carry the long-term impact of this difference with them through their careers. Longitudinal influence of the hidden curriculum on WP students' identity during medical school may give insight into whether the benefits of their diverse backgrounds are kept past graduation and into their career as doctors, or if they are quashed by the medical school production line. Further qualitative exploration of the experience of students from low

socioeconomic status, LGBTQ+ students and care leavers would be useful to further explore and validate these findings from this review.

### Practice Points

- Widening participation medical students experience social isolation from their peers, and tend to seek connections with those who have similar backgrounds to themselves.
- Entry to medical school can cause inner conflict when the culture of medical school is mismatched with a student's background and worldview. Some students find themselves adopting this new culture at the detriment to their previous identity.
- Widening Participation students continue to face embedded barriers as a result of curriculum design, with an atmosphere of distrust between 'us and them'.
- Widening participation students have a unique set of characteristics that can present as both disadvantages and advantages. Some students find strength in adversity and are able to offer particular skills which are an asset to the medical profession.

### Contribution of authors

C.K. is the lead researcher and writer of this paper. She is an assistant professor of medical education and this research contributes towards her PhD.

L.K. is a medical education fellow and was the second reviewer for this paper. He was directly involved in the identification of papers, assessment of methodological quality, extraction of findings and formation of themes.

A.T. is a medical student and was the third reviewer for this paper. He was directly involved in the assessment of methodological quality, extraction of findings and formation of themes.

S.A. is an assistant professor of medical education and is a supervisor of C.K.'s PhD. He was involved in supporting the research, providing advice and reviewing the written work.

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G.D. is the dean of medical education in the faculty of medicine and health sciences and is the principal supervisor of C.K.'s PhD. She was involved in supporting the research, providing advice and reviewing the written work.

### Illustrations and tables

	Searches	Records retrieved
1	Social Class/ or Socioeconomic Factors/	181215

<b>2</b>	(socioeconomic* or "socio-economic*").mp	230495
<b>3</b>	(Status or background or class or group or depriv* or factor*).mp	9266316
<b>4</b>	2 and 3	218920
<b>5</b>	("Ethnic minorit*" or "Index of multiple deprivation" or "POLAR3" or "POLAR4" or "care leaver*" or "low participation" or "disabilit*" or disabled or traveller* or refugee* or "multiple equity measure" or "state school" or deprivation or "first in family" or "free school meals" or "young carer" or BME or "social class" or underrepresented or "ethnic origin" or "first-in-family" or sociodemograph* or "state education" or "widening access" or "under-represented" or "under-resourced" or "widening participation").mp	508077
<b>6</b>	Ethnic Groups/	59814
<b>7</b>	("medical school" or "medical student*" or "medical education" or "student doctor*").mp	89343
<b>8</b>	Education, Medical/	55681
<b>9</b>	Students, Medical/	32152
<b>10</b>	Qualitative Research/	51242
<b>11</b>	(qualitative* or experience* or interview* or "focus group*").mp	1509942
<b>12</b>	1 or 4 or 5 or 6	728987
<b>13</b>	7 or 8 or 9	136521
<b>14</b>	10 or 11	1509942
<b>15</b>	12 and 13 and 14	1025
<b>16</b>	Limit 15 to yr="2000-Current"	857

*Table 1: Search strategy for Ovid MEDLINE*

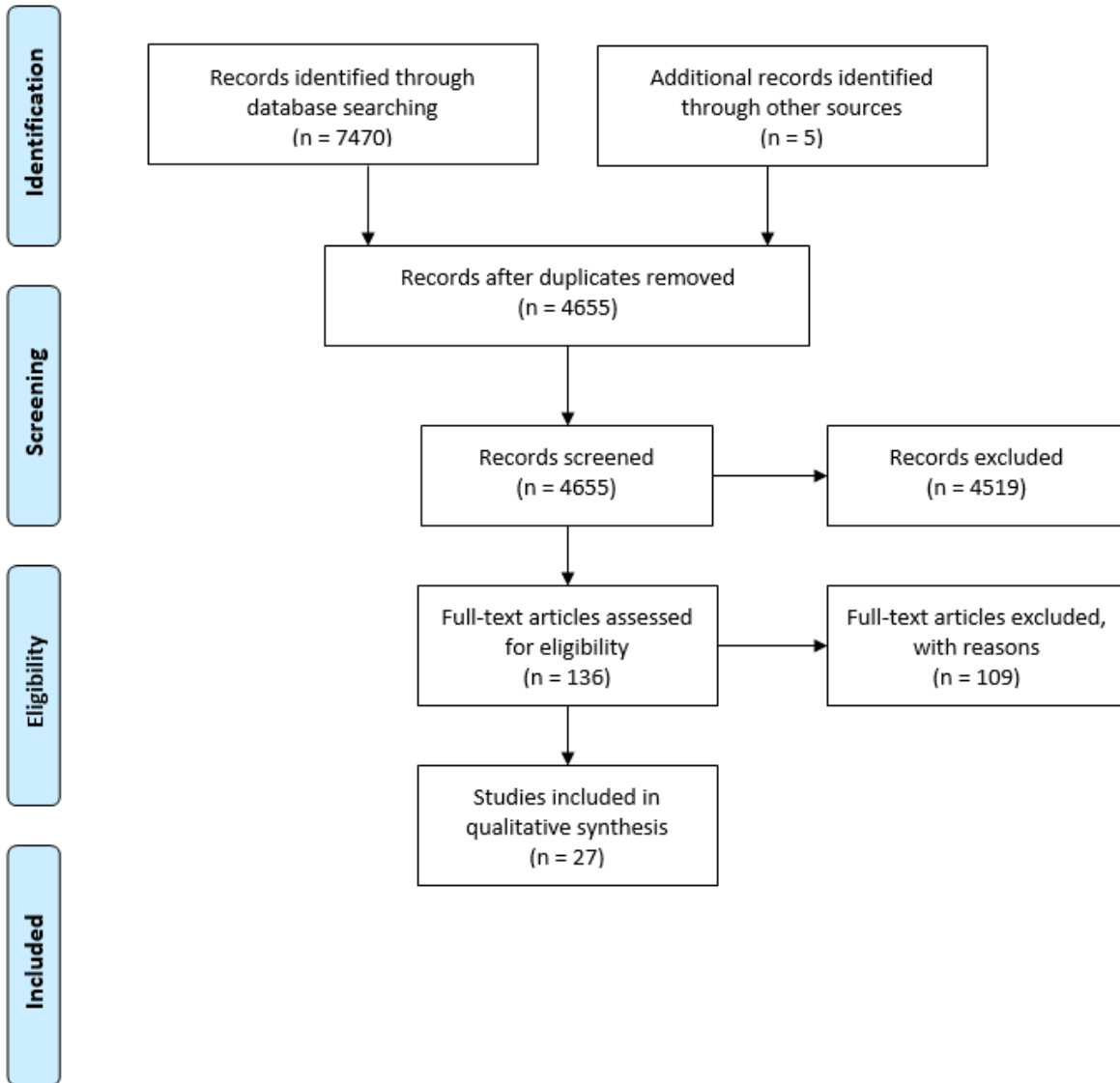


Figure 1: PRISMA diagram of study selection process

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med* 6(7): e1000097. doi:10.1371/journal.pmed1000097

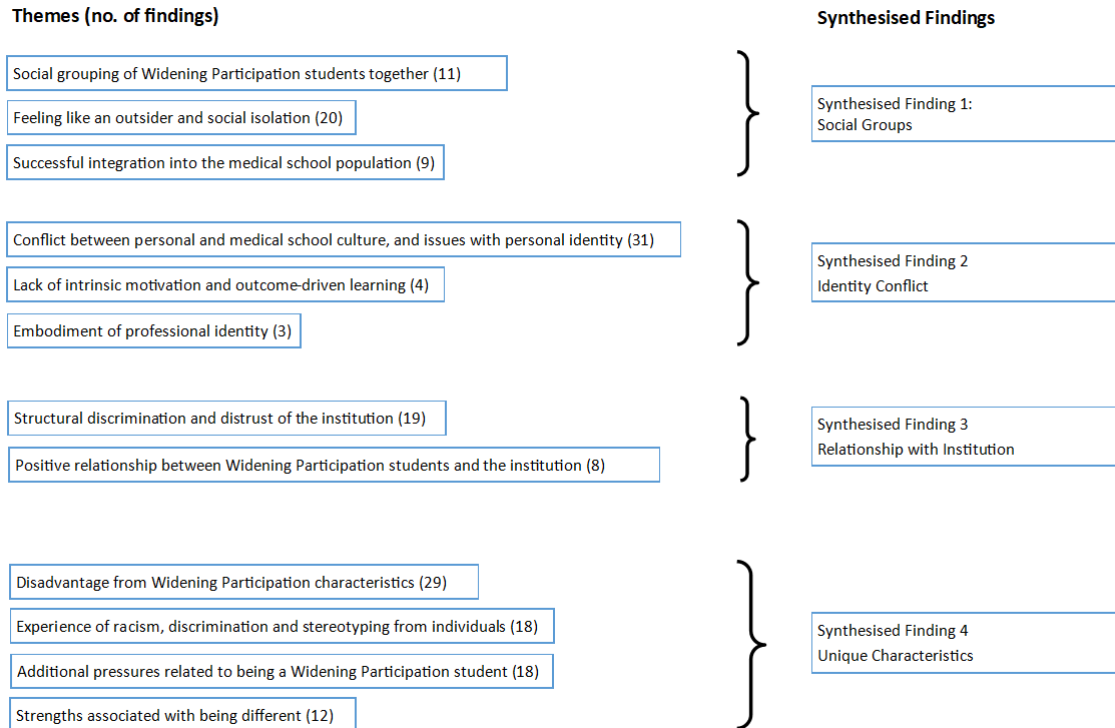


Figure 2: Aggregation of categories into synthesised findings

## Declaration of interest

The authors report no declarations of interest.

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