

# BMJ Open

BMJ Open is committed to open peer review. As part of this commitment we make the peer review history of every article we publish publicly available.

When an article is published we post the peer reviewers' comments and the authors' responses online. We also post the versions of the paper that were used during peer review. These are the versions that the peer review comments apply to.

The versions of the paper that follow are the versions that were submitted during the peer review process. They are not the versions of record or the final published versions. They should not be cited or distributed as the published version of this manuscript.

BMJ Open is an open access journal and the full, final, typeset and author-corrected version of record of the manuscript is available on our site with no access controls, subscription charges or pay-per-view fees (<http://bmjopen.bmj.com>).

If you have any questions on BMJ Open's open peer review process please email [info.bmjopen@bmj.com](mailto:info.bmjopen@bmj.com)

# BMJ Open

## Student perspectives on barriers to performance for Black & Minority Ethnic graduate-entry medical students: a qualitative study in a West Midlands Medical School

Journal:	<i>BMJ Open</i>
Manuscript ID	bmjopen-2019-032493
Article Type:	Original research
Date Submitted by the Author:	20-Jun-2019
Complete List of Authors:	Morrison, Nariell; University of Warwick Warwick Medical School, Machado, Michelle; University of Warwick Warwick Medical School Blackburn, Clare; University of Warwick Warwick Medical School
Keywords:	MEDICAL EDUCATION & TRAINING, QUALITATIVE RESEARCH, undergraduate, diversity, ethnicity, Minority Groups

SCHOLARONE™  
Manuscripts

1 Student perspectives on barriers to performance for Black &  
2 Minority Ethnic graduate-entry medical students: a qualitative study  
3 in a West Midlands Medical School  
4  
5

6 **Authors:** Nariell Morrison, MBChB student; Michelle Machado, Associate Professor; Clare M  
7 Blackburn, Associate Professor  
8  
9

10  
11  
12 **Corresponding Author:** Nariell Morrison ([n.morrison@warwick.ac.uk](mailto:n.morrison@warwick.ac.uk))  
13  
14

15 **Corresponding address:** Warwick Medical School, University of Warwick, Coventry, CV4 7AL  
16  
17

18 **Corresponding telephone number:** +44(0)24 7652 4132  
19  
20

21 **Subject area:** Research  
22

23 **Keywords:** undergraduate, medical education, qualitative research, diversity, ethnicity  
24  
25

26 **MeSH terms:**

27 Cultural diversity

28 Focus Groups

29 Education, Medical, Undergraduate

30 Humans

31 Minority Groups

32 Learning

33 Qualitative Research

34 Racism

35 Students, Medical

36 Schools, Medical

37 Stereotyping

38 United Kingdom  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

50 **Word count:** 5682  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## ABSTRACT

**Objective:** To explore graduate-entry medical students experiences of undergraduate training in the context of academic underperformance of medical students from ethnic minority backgrounds

**Design:** Qualitative study using semi-structured focus groups

**Setting:** A West Midlands Medical School

**Participants:** 24 graduate-entry MBChB students were recruited using volunteer and snowball sampling; all students self-identified as being from black and minority ethnic (BME) backgrounds

**Results:** BME students reported facing a range of difficulties, throughout their undergraduate medical training, that they felt impeded their learning and performance. Their relationships with staff and clinicians, though also identified as facilitators to learning, were also perceived to have hindered progress, as many students felt that a lack of BME representation and lack of understanding of cultural differences among staff impacted their experience. Students also reported a lack of trust in the institution's ability to support BME students, with many not seeking support. Students' narratives indicated that they had to mask their identity to fit in amongst their peers and to avoid negative stereotyping. Although rare, students faced overt racism from their peers and from patients. Many students reported feelings of isolation, reduced self-confidence and low self-esteem.

**Conclusion:** BME students in this study reported experiencing relationship issues with other students, academic and clinical staff, lack of trust in the institution and some racist events. Although it is not clear from this small study of one institution whether these findings would be replicated in other institutions, they nevertheless highlight important issues to be considered by the institution concerned and other institutions. These findings suggest that future interventions should consider improving peer relationships and student-staff relationships and implementing institutional changes to diversify student and staff populations. Guidance on tackling racism as well as adequate training in anti-racism, culture and diversity for both students and staff is likely to be key.

## ARTICLE SUMMARY

### Strengths and limitations of this study

- This is the first study to explore graduate-entry BME medical students' experiences of medical education. It provides valuable insights into the causes of black and minority ethnic UK

1 undergraduates' lower performance in medical assessments and provides a basis on which  
2 interventions to reduce the differential attainment can be developed and evaluated.  
3

- 4 • This study has a small sample but multiple cohorts participated in this study; broadening the  
5 scope of narrated experiences and the variety of views.
- 6
- 7 • The focus group methodology allowed candid responses and group discussion facilitated  
8 recollection of experiences but some participants may have felt inhibited to share personal  
9 experiences and therefore some sensitive topics may have been underdiscussed.  
10
- 11
- 12 • It must be taken into consideration that the emergent themes from the data were dependent on  
13 chosen sample. Other themes may, therefore, have arisen if different or more participants had  
14 taken part in the study.  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

For peer review only

## INTRODUCTION

In higher education, students from Black & Minority Ethnic (BME) backgrounds in the United Kingdom have been reported to underperform academically compared with their white counterparts.<sup>1</sup> Medicine is no different; a number of studies in the UK have reported underperformance at undergraduate and postgraduate level by BME medical students and trained doctors.<sup>2 3 4</sup> Similar findings have been reported in the United States<sup>5</sup> and the Netherlands.<sup>6</sup> This persistent difference in performance between ethnic groups is known as the differential attainment gap and poses a huge issue for medical education and the medical profession. Evidence suggests that this attainment gap exists throughout various undergraduate and postgraduate medical assessments including machine-marked written examinations and objective structured clinical examinations.<sup>4 7-9</sup> Although the differential attainment gap has been widely documented, the reasons for it remain unclear.<sup>2 10 11</sup>

Current literature findings suggest that ethnic stereotypes may contribute to BME medical students' underperformance, yet overt discrimination has not been evidenced.<sup>12</sup> Furthermore, a longitudinal study and analysis of UK medical students concluded that the ethnic differences in performance were not due to psychological or demographic factors.<sup>3</sup> A 2017 independent review panel at Cardiff University, also highlighted that BME medical students have a different student experience to their white counterparts.<sup>13</sup> The lack of BME staff within Medical Schools; difficulty in "fitting in" and racial stereotyping have all emerged as themes experienced by BME students.<sup>12 13</sup>

Previous studies<sup>3 4 7</sup> have focused on undergraduate medical students on five or six-year programmes. To the best of our knowledge, none have specifically explored graduate-entry undergraduate medical students' experiences nor the potential causes of the differential attainment gap in graduate-entry medicine (GEM). The UK introduction of 4-year GEM courses began in 2000, following the 1997 UK Medical Workforce Standing Advisory Committee recommendation to diversify the medical student population.<sup>14</sup> As GEM currently accounts for approximately 10% of all UK medical programmes<sup>14</sup>, it is important to report the differential attainment gap amongst GEM courses and examine the experiences of graduate-entry BME medical students as part of a portfolio of research into differential attainment among medical students.

This study therefore aims to build upon previous research, examining the potential reasons for underperformance by graduate-entry medical students; exploring their experiences of undergraduate medical training and their perceptions of barriers and facilitators to performance. It is hoped that this study will assist universities to address any possible inequalities found and inform the development of academic and student support strategies for BME students.

## METHODS

### Design

A qualitative approach was undertaken to gain understanding of medical students' experiences and their perspectives on barriers to performance. Data were gathered in focus groups throughout November 2018, using a semi-structured interview schedule. Two encrypted audio recorders were utilised for data capture. Focus group participants received a maximum of two emails including one email reminder.

### Sampling strategy and recruitment

The sampling frame was all students in each of the four cohorts of the MBChB course at a West Midlands Medical School; all chosen because of their varying experience of medical training as well as academic examinations. The sampling frame was used to recruit participants who self-identified as BME. This group encompassed, but was not limited to, those who identified as being from African, Asian, Arab or Caribbean descent. Participants were eligible to participate if they were either in the clinical phases of the MBChB (Years 2-4) or resitting the pre-clinical phase of training (Year 1). Other Year 1 students were excluded from participating as they had only been on the course for two months and therefore had limited experience of the MBChB course.

Participants were recruited in four main ways: administrative staff emailed invitations to all medical students asking for eligible volunteers to register their interest to participate; invitations to express interest in taking part were posted on the official University MBChB Facebook cohort group pages; participants in the early focus groups encouraged other eligible students to register their interest to participate; and participants were encouraged to bring any eligible students with them on the day. All students with an interest in the study were provided with a participation information leaflet and a consent form. Twenty-six students registered interest and accepted the invitation to participate. Four focus groups were then scheduled throughout November 2018, based on participant availability. Owing to last minute timetable changes, two participants were unable to attend any of the focus group sessions.

### Ethical approval

Ethical approval was obtained from the University's Biomedical and Scientific Research Ethics Subcommittee in August 2018.

The study involved collection & analysis of the special category of ethnicity. To ensure confidentiality, data security and compliance with the General Data Protection Regulations, all data were anonymised and held only by NM. All participants confirmed on their consent form that they agreed to keep confidential the identities of focus group participants and to maintain the confidentiality of the information discussed during the focus group.

## Data collection methods

NM moderated each focus group. At each group, participants were randomly assigned a number and were subsequently asked to self-report their ethnicity using the 2011 UK census categories.<sup>15</sup>

Many participants were acquainted with each other through enrolment on the MBChB course. At the outset of each focus group, participants were briefed on the purpose and the commonality of each group, thus creating a comfortable, permissive environment; encouraging participants to talk freely.<sup>16</sup>

Throughout the discussion, first-hand narratives were encouraged, and participants were prompted to clarify and expand their answers. Participants were encouraged to respond to others' contributions and discuss similar or contrasting accounts if appropriate. Focus groups ranged from sixty minutes to 3 hours (average 111 minutes).

No attempt was made to exclude friends, with the aim that some collective recollection of events may be captured and on the basis that participants would be more likely to raise sensitive topics if accompanied by friends.<sup>16</sup>

## Data processing and analysis

The data was audio-recorded, and transcribed verbatim using Microsoft Word and Olympus Sonority v.1.4.7.

Thematic analysis<sup>17</sup> was adopted using Braun and Clarke's six phase framework, shown in Table 1.<sup>18</sup> The research team read all transcripts individually to allow/increase familiarisation with the data. QSR NVivo v.12<sup>19</sup> software was used to assist with categorisation and management of the data. Following thorough review of all transcripts, a number of themes were identified from the data. The team discussed the findings and agreed an initial coding framework. NM coded the first three transcripts independently using the initial coding framework, which were then refined after further discussion. Following further review, a final coding framework was adopted, which was subsequently used to code the entire data set.

Step 1	Become familiar with the data
--------	-------------------------------



Step 2	Generate initial codes
Step 3	Search for themes
Step 4	Review themes
Step 5	Define themes
Step 6	Write-up

**Table 1:** Braun & Clarke's six-phase framework for doing a thematic analysis

## RESULTS

### Participants

Twenty-four medical students participated in the study. Participant demographics are shown in figure

1.

**Figure 1** Participant demographics by characteristic. **A:** Participants by age group; **B:** Participants by gender; **C:** Participants by ethnicity.

### Perceived barriers to performance

All narratives highlighted students' views on barriers and facilitators to performance during undergraduate medical training. The data was categorised into three main causal themes:

- **Importance of relationships** – exploring the relationships amongst students and their peers and amongst students and staff. This was particularly important as poor relationships affect the learning experience and lead to disengagement, lack of motivation and withdrawal.<sup>20</sup>
- **Institution and learning** – examining how the students interact with the institution and their learning opportunities, such as factors which may generate limitations and barriers to learning and attainment e.g. patient encounters and poor interactions with clinicians.
- **Psychosocial and identity** – psychological, societal and cultural factors that affect students' learning experience, engagement and attainment; particularly stereotyping and racism and cultural differences.

Within the three main themes, seven subthemes were identified that were perceived to cause barriers to performance (figure 2).

**Figure 2** The main themes (top level) and subthemes (bottom level) describing the difficulties faced by BME graduate-entry medical students at a West Midlands Medical School that were perceived as barriers to performance. The subtheme 'relationships with staff and clinicians' was linked with two main themes 'importance of relationships' and 'institution and learning' as illustrated above. The subtheme 'experiences of racism' was linked to two subthemes within the main theme 'importance of relationships' and one subtheme in 'institution and learning' as illustrated by the dotted lines.

## Relationship with peers: finding allies, isolation and social networks

Peers and staff were identified as both positive and negative influences on performance. Peers were allies who provided solidarity, as well as academic and emotional support. The majority of participants had a diverse range of friends, however, many noted that their closest friends at medical school were other students from a BME background:

*My friendship group mostly consists of people of colour. I don't know if it's something I generally gravitate towards. They are also people who look or dress similarly to me.*

Female, Asian Pakistani

*I find that because we're all minorities, you [...] stick together and the more you get to know each other it's like we're actually quite different but [...] there is no one else that you relate to really so you just kind of stick with them.*

Female, Black African

Participants explained they were drawn towards finding allies in other ethnic minority students, despite not necessarily having common interests or hobbies. Such alliances helped some students to overcome their feelings of isolation and a few students said they gained confidence by having these friendship groups:

*where I'm from back home [...] my school was like all ethnic minorities so I was only friends with people that did the same things that I did, like the same things I did, whereas here it's more like you want to stick with people are similar to you, even though you don't necessarily like the same things you do, it's just because you have that common ground; the basis of what you both are is similar so you relate to each other more and than with a [White] person, just because you are an ethnic minority.*

Female, Black African

*[...] in my first year, in my Friday [group] sessions, I've had no ethnic minorities, so I tend to be by myself just because I didn't feel I had someone, like an ally [...] but this year, it's like I have a few more people [...] and it kind of gives you a boost [...]*

Female, Black African

Many also remarked they felt more comfortable amongst other ethnic minorities as they shared a common understanding, specifically, in appreciating cultural differences and acknowledging bias or discrimination often encountered by minority groups:

*I'm not really sure how to explain it but [...] there are certain things I may have faced in my life, which other ethnic minorities would understand and those who aren't an ethnic minority wouldn't really get because it's*

1 *not something they've experienced. Maybe it's something they've heard about but not necessarily something*  
2 *they've felt themselves.*

3  
4 Female, Black Caribbean  
5  
6

7 Most BME students reported feeling isolated, explaining that each cohort consisted of predominately  
8 white students. Students felt that they were not represented within the student body. Many who  
9 came from multicultural cities such as London and Birmingham, found it difficult to adapt and  
10 struggled to fit in what they perceived to be a predominantly white student population. Many  
11 participants also reported that they did not feel "good enough" to be at medical school:  
12  
13  
14

15  
16  
17 *[...] I constantly feel like I don't deserve to be here [...] a lot of the time I feel so different [...] I have that*  
18 *constant feeling that I don't deserve to be here [...] because I don't fit in with what your typical medic does*  
19 *or what their background is [...]*

20  
21 Female, Black African  
22  
23

24 *[...]I did feel a little bit lesser than my non-ethnic minority counterparts. I felt like, oh maybe, I don't deserve*  
25 *to be here as much as they do [...] It was something that played on my mind a little bit.*

26  
27 Female, Black Caribbean  
28  
29

30 Several students felt a sense of invisibility amongst their white peers as they commented that many  
31 white peers confused them with other ethnic minority students. Additionally, participants explained  
32 that many white students often did not learn the correct pronunciation of their names, often trying  
33 to shorten or anglicize it without their permission. Many found this very frustrating and impeding to  
34 building new relationships with their peers:  
35  
36  
37  
38

39  
40  
41 *Yeah, I'm not sure when people are talking to me if they know who they're actually talking to*

42 Female, Asian Indian  
43  
44

45 *I just hate it so much because like my name is, it's not even hard. It's literally, you say it the way it's spelt but*  
46 *no one can get it. I feel like no one personally makes the effort to get it and it's like I refuse to let them shorten*  
47 *my name until I know you can get it because I feel like, it's just like a basic sign of respect to just get it. It's*  
48 *just so frustrating because it's like, it's not even hard.*

49  
50  
51 Female, Black African  
52  
53

54 Many participants described the importance of utilising social networks to increase academic  
55 performance highlighting that social networks provided access to clinical learning opportunities as  
56 well as a number of learning resources. Both were regarded as essential to learning and increasing  
57  
58  
59  
60

1 performance. Students remarked that they felt disadvantaged as they were less likely to acquire  
2 resources available to their white counterparts that facilitated learning and achievement:  
3

4  
5 *It does make a huge difference. It's sad but it does make a difference [...] having those links, those*  
6 *connections, being in the right Facebook groups [...] helped me a lot.*  
7

8  
9 Female, Black African

10  
11 *I've never been someone to really heavily depend on friends when it comes to like exams or whatever, but*  
12 *I've realised since starting med school if I didn't have friends with me, I probably would not be in this position.*  
13

14  
15 Female, Asian Indian

16  
17  
18  
19 *If you're not in the right friendship groups or Facebook groups, you've got less access to peer resources [...]*  
20 *Being BME and isolated, you're more likely to be disadvantaged.*  
21

22  
23 Female, Black African

## 24 Relationship with staff and clinicians

25  
26 Relationships with medical school staff and clinicians were perceived as important to learning and  
27 performance. At best, clinicians developed students' knowledge, clinical skills and confidence by  
28 providing extra learning opportunities and giving constructive feedback. Participants reported that  
29 overall, they received good teaching from clinical staff, though, all said that they noted a better  
30 experience with clinicians from BME backgrounds:  
31

32  
33  
34  
35  
36  
37 *I've had bedside teaching from a member of staff who is from a similar background to me. I think sometimes*  
38 *if they are from a similar background, they work you harder and they are more critical, which is good as it's*  
39 *more helpful. They have a higher expectation of you as they set the bar slightly higher which is interesting.*  
40

41  
42 Female, Asian Pakistani

43  
44  
45 *I find it quite the opposite because most of the senior Consultants at the hospital are Asian men and they are*  
46 *very paternal towards me which I'm very grateful for. Like if that's the only privilege I had, then I'm taking*  
47 *it. So, they've been very nice, they've been very nurturing, they've given me all the attention I need which is*  
48 *a lot. [...] they've been praising me [...] which has been motivating and you feel less other in the hospital*  
49 *setting.*  
50

51  
52 Female, Asian Bangladeshi

53  
54  
55  
56 In contrast, many participants felt that most staff based in the medical school did not appreciate the  
57 cultural differences amongst students, reporting that several lecturers made culturally insensitive or  
58 inappropriate comments. Some students said that more effort should be made to ensure staff  
59  
60

1 members were culturally trained, though, one participant felt cultural training would not suffice to  
2 fully understand the challenges they faced:  
3

4  
5 *[...] as much as you want to say cultural training will make a difference, unless you're from an ethnic minority*  
6 *background, [...] you're not gonna empathise with the situations.*  
7

8  
9 Female, Asian Bangladeshi  
10

11  
12 Also highlighted was the lack of BME representation amongst medical school staff. Representation  
13 was considered important as many felt isolated amongst their peers. One participant said they were  
14 less likely to report difficulties or seek support from medical school staff due to the lack of BME staff:  
15

16  
17  
18 *More representation is needed, not just Black [lecturers] but Asian and Arab as well. I think that would be*  
19 *quite good.*  
20

21  
22 Female, Black African  
23

24  
25 *At the Medical School [...] there's not enough people in the echelons of the faculty staff who [...] I can relate*  
26 *to, so I don't think there's anyone necessarily that I would go for support [...]*  
27

28  
29 Female, Asian Bangladeshi  
30

### 31 Lack of trust with the institution

32  
33 Many participants felt that the institution did not appreciate or understand the challenges they faced  
34 throughout their undergraduate career. Students were not clear on the procedures for reporting racial  
35 incidents or concerns and none were able to identify a specific member of staff who they felt confident  
36 in investigating such matters. This lack of structural guidance was often perceived as the medical  
37 school not caring about the difficulties faced by BME students and so students were less likely to  
38 report any incidents to the institution:  
39

40  
41  
42 *It's again - what's going to be done about it? And then it's kind of like it's a word of mouth type thing so ok,*  
43 *I've said that this person has said this, but ok you then talk to that person and the person says no I didn't say*  
44 *that, I said something else and then what?*  
45

46  
47  
48  
49  
50 Female, Black Caribbean  
51

52  
53 *[...] so conversations I've had with other people of ethnic minority backgrounds is that they feel like faculty*  
54 *staff here, don't have enough cultural training either so they won't really understand the impact of say the*  
55 *n-word or other statements which have been made towards ethnic minority students or about ethnic*  
56 *minority students. So, they are not [going to], or they won't be able to support us in that way basically.*  
57

58  
59 Female, Asian Bangladeshi  
60

## Patient experiences

Experiences with patients were perceived as facilitators to learning as students were able to apply their theoretical knowledge to clinical practice. Participants reported that most patients were open to BME students practising their clinical skills with them. In contrast, some patient experiences were perceived as impeding learning and performance as they dented students' confidence and exposed them to biases. Overt racism was occasionally reported by participants and many reported experiencing microaggressions as well as witnessing microaggressions against others:

*So, the first ever patient I spoke to at med school was an elderly lady and she wouldn't talk to me because I was "foreign". Erm, which was really embarrassing because I was asking her questions from a pro forma that we were given and she was telling me that I was being offensive to her [...] and she made such a big massive palaver about it and then when my white male colleague went and spoke to her, she was happy as Larry, answering all questions even though they were exactly word for word the same questions that I was asking [...] I [then] went home that day and cried because I thought that's what my experience of medicine is going to be throughout my career.*

Female, Asian Bangladeshi

*I was at a hospital on a ward where there were a lot of older white patients and I took about 3 histories and every one of those patients asked me where I was really from. I then had to explain to them that I was born here and they were like "wow, you were really born here" and then it got to the point where I joked with one of the patients and told them that I was born in my parents' home country and my mother gave birth to me in a hut. I was so angry and fed up of having to explain that I'm from here.*

Female, Black African

*Last year, a patient said "I passed for White" [...] They said it in a way where they thought they came across positive – like being White is positive. Erm, and it's only when they heard my name, they were like "Oh" [...] then they automatically linked me to a certain religion. [...] I was shocked.*

Male, Asian Pakistani

## Sense of self, identity masking and stereotypes

Most participants described having to change or hide their natural personalities in order to conform to the social groups at medical school. As participants felt that each cohort predominantly consisted of white students, there was sense of responsibility among BME students to represent their ethnic group in a positive light. They also commented on the perceived need to monitor and moderate their accents, their expression of emotions and the content of their speech:

*[...] you feel like they're going to base all of their opinions on you, so sometimes you have to sort of water down some of the opinions you have or [...] you have to kind of force yourself to make yourself more*

1 agreeable to people just because you're aware that [...] they are basing their opinion of Muslim people on  
2 me [...]

3  
4 Female, Asian Bangladeshi  
5

6 You just [...] don't know how people are going to take you [...] a lot of the time it is like [...] you're the voice  
7 of the people [...] so what they see with you is what they want assume for everyone and it might be that  
8 they've met someone else that is like you, maybe they didn't have a good experience. I don't want to create  
9 something they'll causes them to think oh this is how [...] Black people are.  
10  
11

12 Female, Black African  
13  
14  
15

16 Many students talked about the pressure of knowing that they may be subject to negative  
17 stereotyping, whereby over-generalised negative beliefs about their ethnic group may be applied to  
18 them. One student explained that she actively tried to avoid negative stereotyping. Some students  
19 said they were subject to stereotyping and remarked that incorrect assumptions were frequently  
20 made about them. Participants reported that wrong assumptions negatively affected their  
21 relationships with peers and staff, implying that stereotyping could impede good educational  
22 relationships with peers and medical school staff:  
23  
24  
25  
26  
27  
28

29 *Also, I found someone here described me as intimidating which [...] throughout my entire life, I've never been  
30 called intimidating, people would say that I'm soft [...] until I came here, I've never been called intimidating.*

31  
32 Female, Black Caribbean  
33  
34  
35

36 *That's actually one of my biggest fears because I know myself. I'm not intimidating but I know that people  
37 tend to [label you as intimidating] when you're passionate [...] so I always try to be extra nice just to avoid  
38 that because I think it's quite hurtful to call someone intimidating.*  
39

40 Female, Black African  
41  
42  
43

44 *I think especially as a woman from an ethnic background, if you're vocal, if you're passionate, [...], you can  
45 be sort of labelled as aggressive or intimidating.*

46 Female, Black Caribbean  
47  
48  
49

50 Even though BME students recognised that they may be subject to stereotyping, several remarked  
51 that there was little they could do to either influence or change the biases or discrimination which  
52 they may face.  
53  
54

55  
56 A few participants highlighted the common misperception of South Asian medical students,  
57 particularly those of Indian heritage, often held by clinicians and the public. Students stated that  
58 people assumed that their choice to study medicine was to conform to their parents' wishes rather  
59  
60

1 than internal motivation and they were not sure whether such perceptions had affected their  
2 performance but acknowledged that this was a stereotype that they frequently thought about and  
3 tried to dissociate with:  
4

5  
6  
7 *'Cause you're Asian, people [are] like you're doing Medicine because your parents forced you to.*

8  
9 Female, Asian Indian  
10

11  
12 *I don't know if I'd say it's affected my performance but it's something you feel like you have to*  
13 *defend. Like "Oh no, I actually want to do it" as opposed to my parents have sent me here. It's not*  
14 *how it works.*

15  
16  
17 Female, Asian Indian  
18

### 19 Cultural differences

20  
21 Cultural differences added to BME students' sense of alienation with several describing how important  
22 culture is to their sense of identity:  
23

24  
25  
26 *[...] just as much as I take pride in the fact that I was born here [...], educated here, worked here, [...] made*  
27 *friends here, studying here, will be successful here, at the same time I have connections to other parts of the*  
28 *world and that connection is a part of the reason why I have this identity [...]*

29  
30  
31 Male, Arab  
32

33  
34 Cultural differences may also hinder relationships with their peers as BME students often encountered  
35 different social experiences to their white counterparts. Many participants reported that medical  
36 school social events were not environments in which they felt comfortable in and therefore were less  
37 likely to socialise with their peers:  
38

39  
40  
41 *I often find that the social events are often held in settings that I don't feel comfortable in because I don't*  
42 *drink alcohol and the majority of the medical school culture is often associated with alcohol. I wish that more*  
43 *events were more inclusive.*

44  
45  
46  
47 Female, Black African  
48

49  
50  
51 *[...] you wanna make friends and like if everybody is going out, [or] doing something that you don't really*  
52 *feel hundred percent [about doing], you can't like get involved [...] to the max, it does kind of feel a little bit*  
53 *isolating [...]*

54  
55 Female, Black African  
56  
57  
58  
59  
60



## Experiences of racism

As evidenced throughout the narratives described previously, many BME students commonly experienced racism throughout their undergraduate training. Reports of overt racism were rare but nonetheless occurred. More common however, were daily experiences of microaggressions which impacted on their overall student experiences and lowered their self-confidence:

*[...] one particular member of that [CBL] group [...] always undermined what I said. I don't know why, maybe he felt I wasn't as well-spoken, but I did get the impression that he didn't believe me because I'm of a different background to him or a different colour to him. For example, if I answered a question, he would totally disregard what I would say but then someone who was of the same colour as him would repeat the exact same thing as I said 2 minutes later and then he'll be "yes, yes, I agree with you". Another example would be, he would constantly check things, go on the internet, to see if I'm correct and I found that quite disheartening because he would only do this to me or my other classmate who was of colour.*

Female, Black African

# DISCUSSION

## Statement of principal findings

In this small study of BME students' perspectives on barriers and facilitators to performance, most participants reported barriers that they felt impeded their learning and performance. Relationships with peers were considered important to learning, but participants found it difficult to fit in and felt isolated amongst their white peers. Difficulties in developing good relationships with peers were perceived to result partly from cultural differences, racism and bias. The perceived small number of BME students in each cohort also added to the difficulty of students forming relationships with their peers. Many participants' narratives indicated that they masked their identity in order to fit in and to avoid negative stereotyping. There was a general lack of trust in the institution's ability to support BME students, which led to some students' reluctance to access medical school support systems. Most students did not seek help from the institution, and many looked to their peers for support instead. Students highlighted the need to have clear, structural guidance on matters relating to BME students, such as how to report racial incidents. Relationships with staff and clinicians were also considered crucial to learning and performance. Participants narrated good teaching experiences in clinical environments, especially from clinicians from BME backgrounds. In contrast, several participants highlighted the lack of BME representation as well as the lack of cultural awareness amongst university staff. Patient experiences were widely considered as excellent learning opportunities, though at times exposed BME students to racism.

## Strengths and weaknesses of the study

There are several strengths of this qualitative study. It is the first to explore the experiences of BME graduate-entry medical students. It provides further insights into the causes of the differential attainment gap; building upon previous research.<sup>2-4 10-13 20-22</sup> The use of a qualitative design elicited in-depth and detailed narratives on participants' experiences. The use of focus groups encouraged candid responses and group discussion facilitated recollection and sharing of experiences. Multiple cohorts were also included within study, which elicited narrated experiences from students in each year of the GEM programme. In this group setting however, some participants may have felt inhibited to share personal experiences and therefore some sensitive topics may have been under-discussed. The themes which emerged from the data were dependent on the chosen sample, therefore, other themes may have arisen if different or more participants had taken part in the study. Furthermore, it is possible that participants may have had specific reasons for taking part, which could have influenced the thematic analysis. This was a small study of one institution thus it is not clear whether these findings would be replicated in other institutions.

### **Strengths and weaknesses in relation to other studies discussing important differences in results**

Some of the findings from this study are concordant with those from other studies. The importance of relationships with staff and clinicians noted in this study has been highlighted as a barrier to performance in previous medical education research.<sup>21</sup> Other studies have also identified that such relationships can be impeded by stereotyping as well as ethnic differences.<sup>12,22</sup> Although there is some evidence to suggest that stereotype threat impedes performance of ethnic minority students,<sup>12,21</sup> it has been relatively understudied in undergraduate medical education. Other studies have also identified that medical students tend to seek friendships and support from others in their own cultural group.<sup>22,23</sup> Social networks and social capital in medical education have also been linked to student attainment, and put forward as explanations for the attainment gap.<sup>21-23</sup> While social networks based on ethnicity were noted in this study, participants also sought support from others in the wider BME group. The finding that relationships with other BME students were forced, in that the need to find allies among other BME students led to relationships that would not necessarily have occurred in other settings has not been identified in previous studies. These differences could be due to the small numbers of specific ethnic groups within each cohort at this West Midlands Medical School but nevertheless raise issues about the availability of support for BME students in cohorts with relatively small numbers of BME students. The finding that learning resources were not always shared with BME students by their white counterparts has been found in a study of students on a five-year programme.<sup>22</sup> Students who were excluded from or exclude themselves from social networks with high levels of social capital missed out on resources important for success and attainment in medicine, particularly resources passed on from academics, clinicians and highly achieving students. Racism, including microaggressions, in international medical schools is well-known<sup>24-26</sup> but previous research has not, to the best of our knowledge, considered the effects on UK BME medical students and their performance. Other studies have shown that individuals who experience racial microaggressions are more likely to exhibit negative mental health symptoms<sup>27</sup>, suggesting associations between BME students' experiences of racism, their mental health and their successive performance. Identity masking, as reported in this study, is a well-known psychological phenomenon<sup>28-30</sup> but it has not been studied in relation to BME students in medical education.

### **Meaning and possible explanations and implications**

Medical students need an academic environment that will enable them to foster good working relationships with their peers, which can be difficult due to the fast-paced nature of the GEM course. The widespread belief that medical school staff had a lack of cultural awareness does not mean that staff were necessarily discriminatory or biased; however, our findings suggests that more may need to be done to increase awareness of culture, diversity and unconscious bias, as well as implementing anti-racist pedagogy within the medical curriculum.<sup>31</sup> Increasing BME representation among medical

1 staff is likely to help students feel more supported and may also improve cultural understanding and  
2 tolerance as well as increase self-confidence of BME students. This study also suggests that students  
3 felt isolated and looked to their BME peers for support. Homophily, that is, the tendency for people  
4 to form friendships with others similar to them, may be a possible explanation.<sup>22 23</sup> It may explain, at  
5 least in part, why BME students reported finding allies among other BME students and felt isolated  
6 among a large cohort of white medical students, who themselves may be forming friendships with  
7 people from similar ethnic groups. Woolf et al<sup>23</sup> has suggested that there may be 'hidden medical  
8 schools' when medical students form social networks based on ethnicity and that these can impact on  
9 student attainment. The widespread perception in this study that the cohorts were predominately  
10 white does not mean that this was indeed the case; however, more could be done to ensure that each  
11 cohort comprises of a wide range of students from different socio-economic, ethnic, cultural and  
12 educational backgrounds. Social isolation could affect BME students' wellbeing and subsequently  
13 performance. Such isolation could be due to a variety of reasons, but improving all students' cultural  
14 competence may be an important way to improve student relationships. Findings from this and other  
15 studies suggests that medical schools should review their diversity and anti-racism training for staff  
16 and students. Institutions are in a position to ensure that BME students are well integrated amongst  
17 their peers and need to consider how they can increase opportunities to create friendships among all  
18 ethnic groups. While the responsibility for this lies with the institution, the BME student population  
19 and networks could also be important to fostering a sense of community and increase the awareness  
20 of diversity and culture within the medical school. A lack of structural guidance on the procedures for  
21 reporting racial incidents or concerns was noted in this study and could dissuade students from  
22 seeking student support thus affecting their wellbeing. Guidance on reporting and tackling racism  
23 therefore needs to be developed. With narrations of experiences of racism throughout encounters  
24 with peers, staff and patients, all medical students could be given the skills and encouragement to  
25 challenge racism through bystander intervention training to minimise such occurrences.

### 44 **Unanswered questions and future research**

46 Further research is needed to determine the prevalence of the barriers identified in this research at  
47 this West Midlands Medical School as well as other UK GEM courses. The student experiences of UK  
48 BME graduate-entry medical students needs to be analysed and further researched as they are  
49 different in terms of the demographics and life experiences to those on five-year programmes.  
50 Research into medical schools' institutional processes for promoting diversity and cultural  
51 competence among all students needs to be carried out. The findings reported in this paper provide  
52 some suggestions for interventions, but these need to be developed, trialled and rigorously evaluated.

1 **Funding:** 'This research received no specific grant from any funding agency in the public, commercial  
2 or not-for-profit sectors'.  
3  
4

5 **No competing interests:** "All authors have completed the ICMJE uniform disclosure form at  
6 [www.icmje.org/coidisclosure.pdf](http://www.icmje.org/coidisclosure.pdf) and declare: no support from any organisation for the submitted  
7 work; no financial relationships with any organisations that might have an interest in the submitted  
8 work in the previous three years; no other relationships or activities that could appear to have  
9 influenced the submitted work."  
10  
11  
12  
13  
14

15 **Author contributions:** N Morrison conceived of the research project which was further developed  
16 with MM and CMB. N Morrison, C M Blackburn and M Machado designed the research project. N  
17 Morrison analysed the data under the supervision of M Machado and C M Blackburn. N Morrison  
18 wrote the first draft of the article and all authors revised it critically for important intellectual  
19 content. All authors approved of the final version to be published. N Morrison is the guarantor.  
20  
21  
22  
23  
24  
25

26 **Ethical approval:** The University of Warwick Biomedical and Scientific Research Ethics Committee  
27 (REGO-2018-2244)  
28  
29  
30

31 **Participants consent:** All participants gave informed consent.  
32  
33

34 **No Patient and Public Involvement:** This research was done without patient involvement. Patients  
35 were not invited to comment on the study design and were not consulted to interpret the results.  
36 Patients were not invited to contribute to the writing or editing of this document for readability or  
37 accuracy.  
38  
39

40 **Data sharing statement:** No additional data are available as data are held in safe haven.  
41  
42  
43

44 **Provenance and peer review:** Not commissioned; externally peer reviewed.  
45  
46

47 **Transparency statement:** N Morrison affirms that the manuscript is an honest, accurate, and  
48 transparent account of the study being reported; that no important aspects of the study have been  
49 omitted; and that any discrepancies from the study as originally planned (and, if relevant, registered)  
50 have been explained.  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

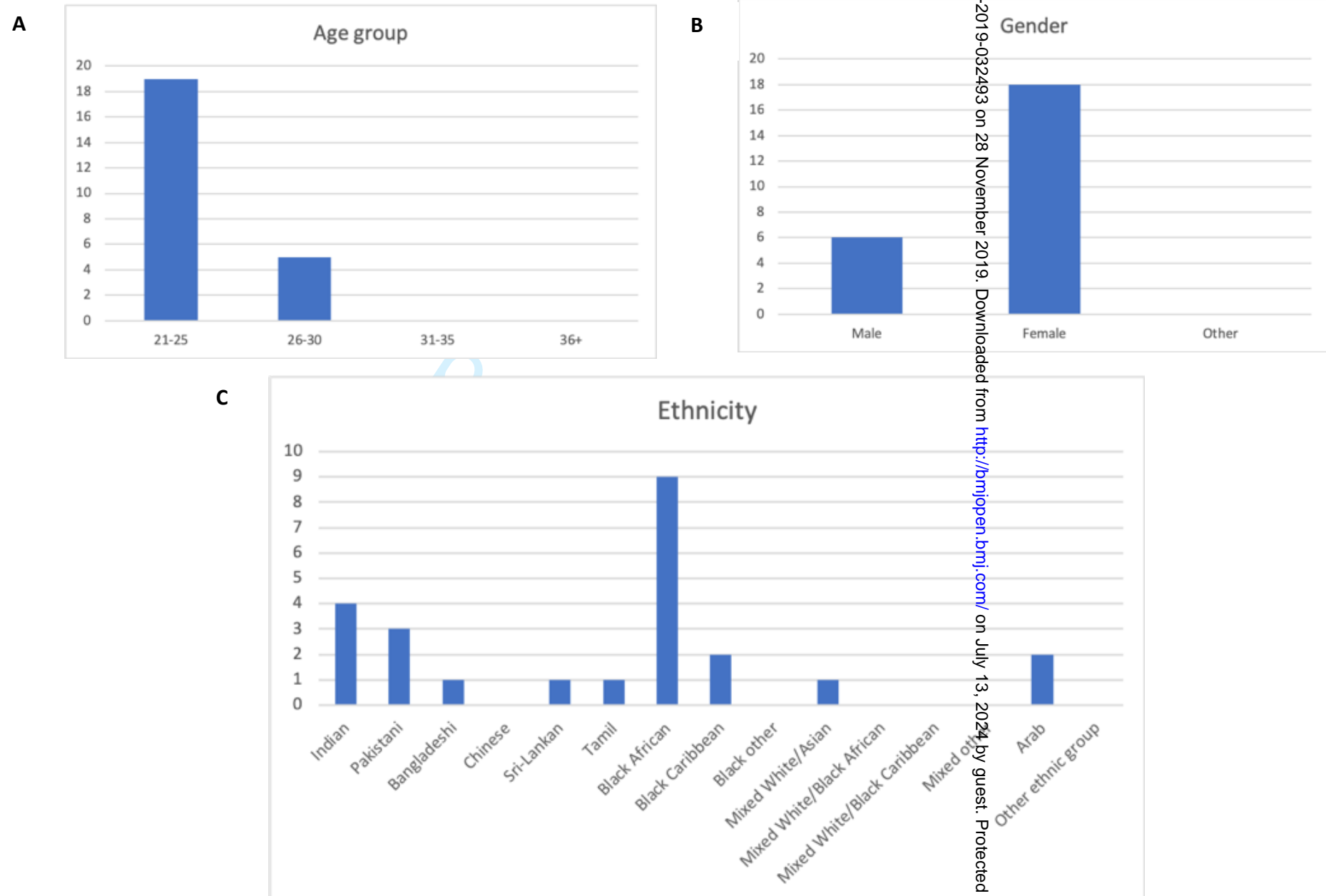
## References

1. Universities UK and the National Union of Students. *Black, Asian and Minority Ethnic student attainment at UK universities: #ClosingTheGap*, 2019. Universities UK. Available from: <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2019/bame-student-attainment-uk-universities-closing-the-gap.pdf> [Assessed 1<sup>st</sup> May 2019]
2. McManus IC, Richards P, Winder BC. and Sproston KA. Final examination performance of medical students from ethnic minorities. *Medical Education*, 1996; 30: 195-200. Available from: doi:10.1111/j.1365-2923.1996.tb00742.x
3. Woolf K, McManus IC, Potts HW. and Dacre J. The mediators of minority ethnic underperformance in final medical school examinations. *British Journal of Educational Psychology*, 2013; 83: 135-159. Available from: doi:10.1111/j.2044-8279.2011.02060.x
4. Woolf K, Potts HWW, McManus IC. Ethnicity and academic performance in UK trained doctors and medical students: systematic review and meta-analysis. *The BMJ*. 2011;342:d901. Available from: doi:10.1136/bmj.d90
5. Xu G, Veloski JJ, Hojat M, Gonnella JS, Bacharach B. Longitudinal comparison of the academic performances of Asian-American and white medical students. *Acad Med* 1993;68:82.
6. Stegers-Jager, K. M., Steyerberg, E. W., Cohen-Schotanus, J. and Themmen, A. P. Ethnic disparities in undergraduate pre-clinical and clinical performance. *Medical Education*. 2012;46: 575-585. Available from: doi:10.1111/j.1365-2923.2012.04265.x
7. McManus IC, Richards P, Winder BC. and Sproston KA. Final examination performance of medical students from ethnic minorities. *Medical Education*, 1996; 30: 195-200. Available from: doi:10.1111/j.1365-2923.1996.tb00742.x
8. Wass V, Roberts C, Hoogenboom R, Jones R, van der Vleuten C. Effect of ethnicity on performance in a final objective structured clinical examination: qualitative and quantitative study. *The BMJ* 2003;326:800–3.
9. Esmail A, Roberts C. Academic performance of ethnic minority candidates and discrimination in the MRCGP examinations between 2010 and 2012: analysis of data. *The BMJ* 2013;347:f5662
10. Haq I, Higham J, Morris R. and Dacre J. Effect of ethnicity and gender on performance in undergraduate medical examinations. *Medical Education*, 2005; 39: 1126-1128. Available from: doi:10.1111/j.1365-2929.2005.02319.x
11. Regan de Bere SN, Nasser M. Understanding differential attainment across medical training pathways: a rapid review of the literature. Final report prepared for The General Medical Council. Plymouth University, 2015. Available from: [http://www.gmc-uk.org/GMC\\_Understanding\\_Differential\\_Attainment.pdf\\_63533431.pdf](http://www.gmc-uk.org/GMC_Understanding_Differential_Attainment.pdf_63533431.pdf) [Accessed 2<sup>nd</sup> February 2018]

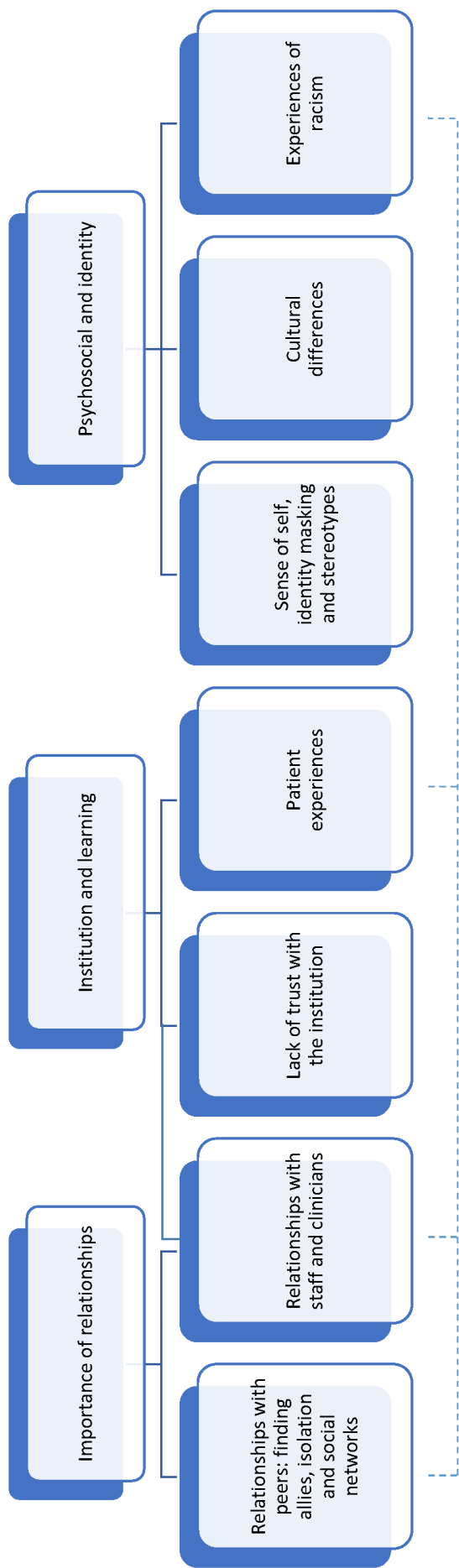
12. Woolf K, Cave J, Greenhalgh T, Dacre J. Ethnic stereotypes and the underachievement of UK medical students from ethnic minorities: qualitative study. *The BMJ*. 2008; 337:a1220. Available from: doi:10.1136/bmj.a1220.
13. Cardiff University. Independent review panel into issues of racial equality in the school of medicine, Cardiff University. 2017. Available from: [www.cardiff.ac.uk/\\_\\_data/assets/pdf\\_file/0011/551837/Prof-Dinesh-Bhugra-report-Final.pdf](http://www.cardiff.ac.uk/__data/assets/pdf_file/0011/551837/Prof-Dinesh-Bhugra-report-Final.pdf). [Accessed 31<sup>st</sup> May 2018]
14. Kumwenda B, Cleland J, Greatrix R, MacKenzie RK, Prescott G. Are efforts to attract graduate applicants to UK medical schools effective in increasing the participation of under-represented socioeconomic groups? A national cohort study, *BMJ Open* 2018;**8**:e018946. Available from: doi:10.1136/bmjopen-2017-018946
15. Office of National Statistics. Ethnicity and National Identity in England and Wales: 2011. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/articles/ethnicityandnationalidentityinenglandandwales/2012-12-11#ethnicity-in-england-and-wales> [Accessed 26<sup>th</sup> December 2018]
16. Krueger RA, Casey MA. *Focus Groups: A Practical Guide for Applied Research*; 5<sup>th</sup> ed. SAGE Publications; 2015
17. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006; 3:77–101.
18. Maguire M, Delahunt B. Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. *AISHE-J: The All Ireland Journal of Teaching & Learning in Higher Education*. 2017; 9(3):3351-33514
19. QSR International Pty Ltd. NVivo Version 12: QSR International Pty Ltd, 2018.
20. Mountford-Zimdars A, Sabri D, Moore J, et al. Causes of differences in student outcomes. *Higher Education Funding Council for England*, 2015.
21. Woolf K, Rich A, Viney R, Needleman S, Griffin A. Perceived causes of differential attainment in UK postgraduate medical training: a national qualitative study, *BMJ Open* 2016; **6**:e013429. Available from: doi: 10.1136/bmjopen-2016-013429
22. Vaughan S, Sanders T, Crossley N, O'Neill P and Wass V. Bridging the gap: the roles of social capital and ethnicity in medical student achievement, *Medical Education*, 2015; 49:114–123 Available from: doi:10.1111/medu.12597
23. Woolf K, Potts HWW, Patel S & McManus IC. The hidden medical school: A longitudinal study of how social networks form, and how they relate to academic performance, *Medical Teacher*, 2012; 34(7):577-586. Available from: doi: 10.3109/0142159X.2012.669082

- 1 24. Beagan BL. 'Is this worth getting into a big fuss over?' Everyday racism in medical school. *Medical*  
2 *Education*, 2003; 37(10):852-60.
- 3
- 4 25. Robb, N. Racism can rear its ugly head at medical school, study finds, *CMAJ: Canadian Medical*  
5 *Association Journal*, 1998; 159(1): 66-67
- 6
- 7 26. Sue DW, Capodilupo CM, Torino GC, Bucceri JM, Holder AMB, Nadal KL, et al. Racial  
8 Microaggressions in Everyday Life: Implications for clinical practice, *American Psychologist*, 2007;  
9 62(4):271-286. Available from: doi:10.1037/0003-066X.62.4.271
- 10
- 11
- 12 27. Nadal KL, Griffin KE, Wong Y, Hamit S, and Rasmus M. The Impact of Racial Microaggressions on  
13 Mental Health: Counseling Implications for Clients of Color, *Journal of Counseling &*  
14 *Development*, 2014; 92(1):57-66. Available from: doi:10.1002/j.1556-6676.2014.00130.x
- 15
- 16
- 17 28. Davis TL, Gender differences in masking negative emotions: ability or motivation? *Developmental*  
18 *Psychology*, 1995; 31(4):660-667
- 19
- 20
- 21 29. Matsumoto D, Yoo SH, Nakagawa S, Anguas-Wong AM, Arriola M, Bauer LM, et al. Culture,  
22 emotion regulation, and adjustment. *Journal of Personality and Social Psychology*,  
23 2008; 94(6):925-37
- 24
- 25
- 26 30. Matsunaga M, Shaping, masking, and unmasking of a stigmatized identity: the case of Japan-  
27 residing Koreans, *Howard Journal of Communications*, 2007; 18(3): 221-238
- 28
- 29
- 30 31. Ahmad NJ, Shi M. The Need for Anti-Racism Training in Medical School Curricula. *Academic*  
31 *Medicine: Journal of the Association of American Medical Colleges*, 2017;92(8): 1073
- 32
- 33
- 34
- 35
- 36
- 37
- 38
- 39
- 40
- 41
- 42
- 43
- 44
- 45
- 46
- 47
- 48
- 49
- 50
- 51
- 52
- 53
- 54
- 55
- 56
- 57
- 58
- 59
- 60





**Figure 1** Participant demographics by characteristic. **A:** Participants by age group; **B:** Participants by gender; **C:** Participants by ethnicity.



**Figure 2** The main themes (top level) and subthemes (bottom level) describing the difficulties faced by BME graduate-entry medical students at a West Midlands Medical School that were perceived as barriers to performance. The subtheme 'relationships with staff and clinicians' was linked with two main themes 'importance of relationships' and 'institution and learning', as illustrated above. The subtheme 'experiences of racism' was linked with two subthemes within the main theme 'identity', in 'importance of relationships' and 'institution and learning', as illustrated by the dotted lines.

# Reporting checklist for qualitative study.

Based on the SRQR guidelines.

## Instructions to authors

Complete this checklist by entering the page numbers from your manuscript where readers will find each of the items listed below.

Your article may not currently address all the items on the checklist. Please modify your text to include the missing information. If you are certain that an item does not apply, please write "n/a" and provide a short explanation.

Upload your completed checklist as an extra file when you submit to a journal.

In your methods section, say that you used the SRQR reporting guidelines, and cite them as:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med.* 2014;89(9):1245-1251.

	Reporting Item	Page Number
<b>Title</b>		
	<a href="#">#1</a> Concise description of the nature and topic of the study identifying the study as qualitative or indicating the approach (e.g. ethnography, grounded theory) or data collection methods (e.g. interview, focus group) is recommended	1
<b>Abstract</b>		
	<a href="#">#2</a> Summary of the key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results and conclusions	2
<b>Introduction</b>		
Problem formulation	<a href="#">#3</a> Description and significance of the problem / phenomenon studied: review of relevant theory and empirical work; problem statement	4
Purpose or research question	<a href="#">#4</a> Purpose of the study and specific objectives or questions	4

## 1 Methods

2			
3	Qualitative approach and	<a href="#">#5</a>	Qualitative approach (e.g. ethnography, grounded theory, case
4	research paradigm		study, phenomenology, narrative research) and guiding theory if
5			appropriate; identifying the research paradigm (e.g.
6			postpositivist, constructivist / interpretivist) is also
7			recommended; rationale. The rationale should briefly discuss
8			the justification for choosing that theory, approach, method or
9			technique rather than other options available; the assumptions
10			and limitations implicit in those choices and how those choices
11			influence study conclusions and transferability. As appropriate
12			the rationale for several items might be discussed together.
13			
14			
15	Researcher characteristics	<a href="#">#6</a>	Researchers' characteristics that may influence the research,
16	and reflexivity		including personal attributes, qualifications / experience,
17			relationship with participants, assumptions and / or
18			presuppositions; potential or actual interaction between
19			researchers' characteristics and the research questions, approach,
20			methods, results and / or transferability
21			
22			
23	Context	<a href="#">#7</a>	Setting / site and salient contextual factors; rationale
24			
25	Sampling strategy	<a href="#">#8</a>	How and why research participants, documents, or events were
26			selected; criteria for deciding when no further sampling was
27			necessary (e.g. sampling saturation); rationale
28			
29	Ethical issues pertaining to	<a href="#">#9</a>	Documentation of approval by an appropriate ethics review
30	human subjects		board and participant consent, or explanation for lack thereof;
31			other confidentiality and data security issues
32			
33	Data collection methods	<a href="#">#10</a>	Types of data collected; details of data collection procedures
34			including (as appropriate) start and stop dates of data collection
35			and analysis, iterative process, triangulation of sources /
36			methods, and modification of procedures in response to
37			evolving study findings; rationale
38			
39	Data collection instruments	<a href="#">#11</a>	Description of instruments (e.g. interview guides,
40	and technologies		questionnaires) and devices (e.g. audio recorders) used for data
41			collection; if / how the instruments(s) changed over the course
42			of the study
43			
44	Units of study	<a href="#">#12</a>	Number and relevant characteristics of participants, documents,
45			or events included in the study; level of participation (could be
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			

		reported in results)	
1			
2			
3	Data processing	<a href="#">#13</a> Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data integrity, data coding, and anonymisation / deidentification of excerpts	6
4			
5			
6			
7			
8			
9	Data analysis	<a href="#">#14</a> Process by which inferences, themes, etc. were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale	6
10			
11			
12			
13			
14			
15	Techniques to enhance trustworthiness	<a href="#">#15</a> Techniques to enhance trustworthiness and credibility of data analysis (e.g. member checking, audit trail, triangulation); rationale	6
16			
17			
18			
19			
20	<b>Results/findings</b>		
21			
22	Syntheses and interpretation	<a href="#">#16</a> Main findings (e.g. interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	7-14
23			
24			
25			
26			
27	Links to empirical data	<a href="#">#17</a> Evidence (e.g. quotes, field notes, text excerpts, photographs) to substantiate analytic findings	7-14
28			
29			
30			
31	<b>Discussion</b>		
32			
33			
34	Intergration with prior work, implications, transferability and contribution(s) to the field	<a href="#">#18</a> Short summary of main findings; explanation of how findings and conclusions connect to, support, elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application / generalizability; identification of unique contributions(s) to scholarship in a discipline or field	15-17
35			
36			
37			
38			
39			
40			
41			
42	Limitations	<a href="#">#19</a> Trustworthiness and limitations of findings	15-16
43			
44	<b>Other</b>		
45			
46			
47	Conflicts of interest	<a href="#">#20</a> Potential sources of influence of perceived influence on study conduct and conclusions; how these were managed	18
48			
49			
50	Funding	<a href="#">#21</a> Sources of funding and other support; role of funders in data collection, interpretation and reporting	18
51			
52			
53			

The SRQR checklist is distributed with permission of Wolters Kluwer © 2014 by the Association of American Medical Colleges. This checklist was completed on 20. June 2019 using <https://www.goodreports.org/>, a tool made by the [EQUATOR Network](#) in collaboration with [Penelope.ai](#)

# BMJ Open

## Student perspectives on barriers to performance for Black and Minority Ethnic graduate-entry medical students: a qualitative study in a West Midlands medical school

Journal:	<i>BMJ Open</i>
Manuscript ID	bmjopen-2019-032493.R1
Article Type:	Original research
Date Submitted by the Author:	03-Oct-2019
Complete List of Authors:	Morrison, Nariell; University of Warwick, Warwick Medical School Machado, Michelle; University of Warwick, Warwick Medical School Blackburn, Clare; University of Warwick, Warwick Medical School
<b>Primary Subject Heading</b>:	Medical education and training
Secondary Subject Heading:	Qualitative research
Keywords:	MEDICAL EDUCATION & TRAINING, QUALITATIVE RESEARCH, undergraduate, diversity, ethnicity, Minority Groups

SCHOLARONE™  
Manuscripts

1 Student perspectives on barriers to performance for Black and  
2 Minority Ethnic graduate-entry medical students: a qualitative study  
3 in a West Midlands medical school  
4  
5  
6

7 **Authors:**

8 **Nariell Morrison**

9 MBChB student

10 Warwick Medical School

11 University of Warwick

12 Coventry, UK  
13  
14

15  
16 **Michelle Machado**

17 Associate Professor

18 Warwick Medical School

19 University of Warwick

20 Coventry, UK  
21  
22

23  
24 **Clare M Blackburn**

25 Associate Professor

26 Warwick Medical School

27 University of Warwick

28 Coventry, UK  
29  
30

31 **Corresponding Author:** Nariell Morrison ([n.morrison@warwick.ac.uk](mailto:n.morrison@warwick.ac.uk))

32 **Corresponding telephone number:** +44(0)24 7652 4132  
33  
34

35 **Subject area:** Research

36 **Keywords:** undergraduate, medical education, qualitative research, diversity, ethnicity  
37  
38

39 **MeSH terms:**

40 Cultural diversity

41 Focus Groups

42 Education, Medical, Undergraduate

43 Humans

44 Minority Groups

45 Learning

46 Qualitative Research

47 Racism

48 Students, Medical

49 Schools, Medical

50 Stereotyping

51 United Kingdom  
52  
53  
54  
55  
56

57 **Word count:** 6056  
58  
59  
60

## ABSTRACT

**Objective:** To explore graduate-entry medical students experiences of undergraduate training in the context of academic underperformance of medical students from ethnic minority backgrounds.

**Design:** Qualitative study using semi-structured focus groups

**Setting:** A West Midlands medical school

**Participants:** 24 graduate-entry MBChB students were recruited using volunteer and snowball sampling; all students self-identified as being from Black and Minority ethnic (BME) backgrounds.

**Results:** BME students reported facing a range of difficulties, throughout their undergraduate medical training, that they felt impeded their learning and performance. Their relationships with staff and clinicians, though also identified as facilitators to learning, were also perceived to have hindered progress, as many students felt that a lack of BME representation and lack of understanding of cultural differences among staff impacted their experience. Students also reported a lack of trust in the institution's ability to support BME students, with many not seeking support. Students' narratives indicated that they had to mask their identity to fit in amongst their peers and to avoid negative stereotyping. Although rare, students faced overt racism from their peers and from patients. Many students reported feelings of isolation, reduced self-confidence and low self-esteem.

**Conclusion:** BME students in this study reported experiencing relationship issues with other students, academic and clinical staff, lack of trust in the institution and some racist events. Although it is not clear from this small study of one institution whether these findings would be replicated in other institutions, they nevertheless highlight important issues to be considered by the institution concerned and other institutions. These findings suggest that all stakeholders of graduate-entry undergraduate medical education should reflect on the current institutional practices intended to improve student-peer and student-staff relationships. Reviewing current proposals intended to diversify student and staff populations as well as evaluating guidance on tackling racism is likely to be beneficial.

## ARTICLE SUMMARY

### Strengths and limitations of this study

- This is the first study to explore graduate-entry BME medical students' experiences of medical education. It provides valuable insights into the causes of Black and Minority Ethnic UK



1 undergraduates' lower performance in medical assessments and provides a basis on which  
2 interventions to reduce the differential attainment can be developed and evaluated.  
3

- 4 • This study has a small sample but multiple cohorts participated in this study; broadening the  
5 scope of narrated experiences and the variety of views.
- 6
- 7 • The focus group methodology allowed candid responses and group discussion facilitated  
8 recollection of experiences but some participants may have felt inhibited to share personal  
9 experiences and therefore some sensitive topics may have been underdiscussed.  
10
- 11
- 12 • It must be taken into consideration that the emergent themes from the data were dependent on  
13 the chosen sample; other themes may have arisen if different or more participants had taken  
14 part in the study.  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

For peer review only

## INTRODUCTION

In higher education, students from Black and Minority Ethnic (BME) backgrounds in the United Kingdom (UK) have been reported to underperform academically compared with their White counterparts.<sup>1</sup> Medicine is no different; a number of studies in the UK have reported underperformance at undergraduate and postgraduate level by BME medical students and trained doctors.<sup>2 3 4</sup> Similar findings have been reported in the United States<sup>5</sup> and the Netherlands.<sup>6</sup> This persistent difference in performance between ethnic groups is known as the differential attainment gap and poses a huge issue for medical education and the medical profession. Evidence suggests that this attainment gap exists throughout various undergraduate and postgraduate medical assessments including machine-marked written examinations and objective structured clinical examinations.<sup>4 7-9</sup> Although the differential attainment gap has been widely documented, the reasons for it remain unclear.<sup>2 10 11</sup>

Current literature findings suggest that ethnic stereotypes may contribute to BME medical students' underperformance, yet overt discrimination has not been evidenced.<sup>12</sup> Furthermore, a longitudinal study and analysis of UK medical students concluded that the ethnic differences in performance were not due to psychological or demographic factors.<sup>3</sup> A 2017 independent review panel at Cardiff University, also highlighted that BME medical students have a different student experience to their White counterparts.<sup>13</sup> The lack of BME staff within medical schools; difficulty in "fitting in" and racial stereotyping have all emerged as themes experienced by BME students.<sup>12 13</sup>

Previous studies<sup>3 4 7</sup> have focused on undergraduate medical students on five or six-year programmes. To the best of our knowledge, no published studies have specifically explored the potential causes of the differential attainment gap in graduate-entry medicine (GEM). The UK introduction of 4-year GEM courses began in 2000, following the 1997 UK Medical Workforce Standing Advisory Committee recommendation to diversify the medical student population.<sup>14</sup> As GEM currently accounts for approximately 10% of all UK medical programmes<sup>14</sup>, it is important to report the differential attainment gap amongst GEM courses and examine the experiences of BME graduate-entry medical students as part of a portfolio of research into differential attainment among medical students.

This paper reports data on a study of graduate-entry medical students in a West Midlands Medical School. Preliminary unpublished data<sup>15</sup> suggests that for students in this medical school, over the last four years across all assessment formats, all cohorts at some point show statistically significant differences in attainment between BME and White students, with BME students having lower average percentage point scores than White students. This study therefore aims to build upon previous

1 research, examining the potential reasons for underperformance by BME graduate-entry medical  
2 students; exploring their experiences of undergraduate medical training and their perceptions of  
3 barriers and facilitators to performance.  
4  
5  
6  
7

## 8 METHODS

### 10 Design

11 A social constructivist<sup>16</sup> approach using qualitative methods was adopted to gain understanding of  
12 medical students' experiences and their perspectives on barriers to performance. Data were gathered  
13 in focus groups throughout November 2018, using a semi-structured interview schedule. Two  
14 encrypted audio recorders were utilised for data capture. Focus group participants received a  
15 maximum of two emails including one email reminder.  
16  
17  
18  
19  
20  
21  
22

### 23 Sampling strategy and recruitment

24 The sampling frame was all students in each of the four cohorts of the MBChB course at a West  
25 Midlands Medical School; all chosen because of their varying experience of medical training as well as  
26 academic examinations. The sampling frame was used to recruit participants who self-identified as  
27 BME. This group encompassed, but was not limited to, those who identified as being from African,  
28 Asian, Arab or Caribbean descent. Participants were eligible to participate if they were either in the  
29 clinical phases of the MBChB (Years 2-4) or resitting the pre-clinical phase of training (Year 1). Other  
30 Year 1 students were excluded from participating as they had only been on the course for two months  
31 and therefore had limited experience of the MBChB course.  
32  
33  
34  
35  
36  
37  
38  
39

40 Participants were recruited in four main ways: administrative staff emailed invitations to all medical  
41 students asking for eligible volunteers to register their interest to participate; invitations to express  
42 interest in taking part were posted on the official University MBChB Facebook cohort group pages;  
43 participants in the early focus groups encouraged other eligible students to register their interest to  
44 participate; and participants were encouraged to bring any eligible students with them on the day. All  
45 students with an interest in the study were provided with a participation information leaflet and a  
46 consent form. Twenty-six students registered interest and accepted the invitation to participate. Four  
47 focus groups, each of 4-7 multi-cohort students, were then scheduled throughout November 2018,  
48 based on participant availability. Focus groups took place in a private room at the University. Owing  
49 to last minute timetable changes, two volunteers were unable to attend any of the focus group  
50 sessions.  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## Ethical approval

Ethical approval was obtained from The University of Warwick Biomedical and Scientific Research Ethics Sub-Committee in August 2018.

The study involved collection and analysis of the special category of ethnicity. To ensure confidentiality, data security and compliance with the General Data Protection Regulations, all data were anonymised and held only by NM. All participants confirmed on their consent form that they agreed to keep confidential the identities of focus group participants and to maintain the confidentiality of the information discussed during the focus group.

## Data collection methods

NM (Black British, female, graduate-entry undergraduate medical student with quantitative and qualitative research methods training) moderated each focus group. At each group, participants were randomly assigned a number to ease anonymisation during transcription. Participants were subsequently asked to self-report their ethnicity using the 2011 UK census categories.<sup>17</sup>

Many participants were acquainted with each other through enrolment on the MBChB course. At the outset of each focus group, participants were briefed on the purpose of each group, thus creating a comfortable, permissive environment; encouraging participants to talk freely.<sup>18</sup>

Throughout the discussion, first-hand narratives were encouraged, and participants were prompted to clarify and expand their answers. Participants were encouraged to respond to others' contributions and discuss similar or contrasting accounts if appropriate. Focus groups ranged from sixty minutes to three hours (average 111 minutes).

No attempt was made to exclude friends, with the aim that some collective recollection of events may be captured and on the basis that participants would be more likely to raise sensitive topics if accompanied by friends.<sup>18</sup>

## Data processing and analysis

Data was audio-recorded, and transcribed verbatim using Microsoft Word and Olympus Sonority v.1.4.7.

Thematic analysis<sup>19</sup> was adopted using Braun and Clarke's six phase framework, shown in Table 1.<sup>20</sup> NM, MM (Associate Professor in Health Sciences) and CMB (Associate Professor in Health Sciences) read all transcripts individually to allow/increase familiarisation with the data. QSR NVivo v.12<sup>21</sup>

software was used to assist with categorisation and management of the data. Following thorough review of all transcripts, inductive codes were generated and agreed by the team. A number of themes were identified from the coded data. The team discussed the findings and collectively agreed an initial coding framework. NM coded the first three transcripts independently using the initial coding framework, which was then refined after further discussion. Following further review, a final coding framework was adopted, which was subsequently used to code the entire data set. The Standards for Reporting Qualitative Research (SRQR) guidelines were adopted.<sup>22</sup>

Step 1	Become familiar with the data
Step 2	Generate initial codes
Step 3	Search for themes
Step 4	Review themes
Step 5	Define themes
Step 6	Write-up

**Table 1:** Braun & Clarke's six-phase framework for doing a thematic analysis

## RESULTS

### Participants

Twenty-four medical students participated in the study. Participant demographics are shown in figure 1. Participants held a minimum of an upper second-class honours undergraduate degree (or overseas equivalent). Any participant with a lower second-class undergraduate degree held either a Master's or a Doctoral qualification. Twenty-three out of the twenty-four participants were UK home students schooled in the UK.

**Figure 1** Participant demographics by characteristic. **A:** Participants by age group; **B:** Participants by gender; **C:** Participants by ethnicity.

### Perceived barriers to performance

All narratives highlighted students' views on barriers and facilitators to performance during undergraduate medical training. The data was categorised into three main causal themes:

- **Importance of relationships** – exploring the relationships amongst students and their peers and amongst students and staff. This was particularly important as poor relationships affect the learning experience and lead to disengagement, lack of motivation and withdrawal.<sup>23</sup>
- **Institution and learning** – examining how the students interact with the institution and their learning opportunities, such as factors which may generate limitations and barriers to learning and attainment e.g. patient encounters and poor interactions with clinicians.

- **Psychosocial and identity** – psychological, societal and cultural factors that affect students' learning experience, engagement and attainment; particularly stereotyping and racism and cultural differences.

Within the three main themes, seven subthemes were identified that were perceived to cause barriers to performance (figure 2).

**Figure 2** The main themes (top level) and subthemes (bottom level) describing the difficulties faced by BME graduate-entry medical students at a West Midlands medical school that were perceived as barriers to performance. The subtheme 'relationships with staff and clinicians' was linked with two main themes 'importance of relationships' and 'institution and learning' as illustrated above. The subtheme 'experiences of racism' was linked to two subthemes within the main theme 'importance of relationships' and one subtheme in 'institution and learning' as illustrated by the dotted lines.

### Relationship with peers: finding allies, isolation and social networks

Peers and staff were identified as both positive and negative influences on performance. Peers were allies who provided solidarity, as well as academic and emotional support. The majority of participants had a diverse range of friends, however, many noted that their closest friends at medical school were other students from a BME background:

*My friendship group mostly consists of people of colour. I don't know if it's something I generally gravitate towards. They are also people who look or dress similarly to me.*

Female, Asian Pakistani

*I find that because we're all minorities, you [...] stick together and the more you get to know each other it's like we're actually quite different but [...] there is no one else that you relate to really so you just kind of stick with them.*

Female, Black African

Participants explained they were drawn towards finding allies in other ethnic minority students, despite not necessarily having common interests or hobbies. Such alliances helped some students to overcome their feelings of isolation and a few students said they gained confidence by having these friendship groups:

*where I'm from back home [...] my school was like all ethnic minorities so I was only friends with people that did the same things that I did, like the same things I did, whereas here it's more like you want to stick with people are similar to you, even though you don't necessarily like the same things you do, it's just because you have that common ground; the basis of what you both are is similar so you relate to each other more and than with a [White] person, just because you are an ethnic minority.*

Female, Black African

1 [...] in my first year, in my Friday [group] sessions, I've had no ethnic minorities, so I tend to be by myself just  
2 because I didn't feel I had someone, like an ally [...] but this year, it's like I have a few more people [...] and  
3  
4 it kind of gives you a boost [...]

5 Female, Black African  
6  
7

8 Many also remarked they felt more comfortable amongst other ethnic minorities as they shared a  
9 common understanding, specifically, in appreciating cultural differences and acknowledging bias or  
10 discrimination often encountered by minority groups:  
11  
12

13  
14  
15 *I'm not really sure how to explain it but [...] there are certain things I may have faced in my life, which other  
16 ethnic minorities would understand and those who aren't an ethnic minority wouldn't really get because it's  
17 not something they've experienced. Maybe it's something they've heard about but not necessarily something  
18 they've felt themselves.*  
19  
20

21 Female, Black Caribbean  
22  
23

24 Most BME students reported feeling isolated, explaining that each cohort consisted of predominantly  
25 White students. Students felt that they were not represented within the student body. Many who  
26 came from multicultural cities such as London and Birmingham, found it difficult to adapt and  
27 struggled to fit in what they perceived to be a predominantly White student population. Many  
28 participants also reported that they did not feel "good enough" to be at medical school:  
29  
30  
31

32  
33  
34 [...] I constantly feel like I don't deserve to be here [...] a lot of the time I feel so different [...] I have that  
35 constant feeling that I don't deserve to be here [...] because I don't fit in with what your typical medic does  
36 or what their background is [...]

37  
38  
39 Female, Black African  
40  
41

42 [...] I did feel a little bit lesser than my non-ethnic minority counterparts. I felt like, oh maybe, I don't deserve  
43 to be here as much as they do [...] It was something that played on my mind a little bit.

44  
45 Female, Black Caribbean  
46  
47

48 Several students felt a sense of invisibility amongst their White peers as they commented that many  
49 White peers confused them with other ethnic minority students. Additionally, participants explained  
50 that many White students often did not learn the correct pronunciation of their names, often trying  
51 to shorten or anglicize it without their permission. Many found this very frustrating and impeding to  
52 building new relationships with their peers:  
53  
54  
55

56  
57  
58 *Yeah, I'm not sure when people are talking to me if they know who they're actually talking to*

59 Female, Asian Indian  
60

1  
2 *I just hate it so much because like my name is, it's not even hard. It's literally, you say it the way it's spelt but*  
3 *no one can get it. I feel like no one personally makes the effort to get it and it's like I refuse to let them shorten*  
4 *my name until I know you can get it because I feel like, it's just like a basic sign of respect to just get it. It's*  
5 *just so frustrating because it's like, it's not even hard.*

6  
7  
8 Female, Black African  
9

10  
11 Many participants described the importance of utilising social networks to increase academic  
12 performance highlighting that social networks provided access to clinical learning opportunities as  
13 well as a number of learning resources. Both were regarded as essential to learning and increasing  
14 performance. Students remarked that they felt disadvantaged as they were less likely to acquire  
15 resources available to their White counterparts that facilitated learning and achievement:  
16  
17

18  
19  
20  
21 *It does make a huge difference. It's sad but it does make a difference [...] having those links, those*  
22 *connections, being in the right Facebook groups [...] helped me a lot.*

23  
24  
25 Female, Black African  
26

27  
28 *I've never been someone to really heavily depend on friends when it comes to like exams or whatever, but*  
29 *I've realised since starting med school if I didn't have friends with me, I probably would not be in this position.*

30  
31 Female, Asian Indian  
32

33  
34  
35 *If you're not in the right friendship groups or Facebook groups, you've got less access to peer resources [...]*  
36 *Being BME and isolated, you're more likely to be disadvantaged.*

37  
38 Female, Black African  
39

## 40 41 Relationship with staff and clinicians

42  
43 Relationships with medical school staff and clinicians were perceived as important to learning and  
44 performance. At best, clinicians developed students' knowledge, clinical skills and confidence by  
45 providing extra learning opportunities and giving constructive feedback. Participants reported that  
46 overall, they received good teaching from clinical staff, though, all said that they noted a better  
47 experience with clinicians from BME backgrounds:  
48  
49

50  
51  
52  
53 *I've had bedside teaching from a member of staff who is from a similar background to me. I think sometimes*  
54 *if they are from a similar background, they work you harder and they are more critical, which is good as it's*  
55 *more helpful. They have a higher expectation of you as they set the bar slightly higher which is interesting.*

56  
57  
58 Female, Asian Pakistani  
59  
60



1 I find it quite the opposite because most of the senior Consultants at the hospital are Asian men and they are  
2 very paternal towards me which I'm very grateful for. Like if that's the only privilege I had, then I'm taking  
3 it. So, they've been very nice, they've been very nurturing, they've given me all the attention I need which is  
4 a lot. [...] they've been praising me [...] which has been motivating and you feel less other in the hospital  
5 setting.  
6  
7

8 Female, Asian Bangladeshi  
9

10  
11 In contrast, many participants felt that most staff based in the medical school did not appreciate the  
12 cultural differences amongst students, reporting that several lecturers made culturally insensitive or  
13 inappropriate comments. Some students said that more effort should be made to ensure staff  
14 members were culturally trained, though, one participant felt cultural training would not suffice to  
15 fully understand the challenges they faced:  
16  
17  
18

19  
20  
21 [...] as much as you want to say cultural training will make a difference, unless you're from an ethnic minority  
22 background, [...] you're not gonna empathise with the situations.  
23

24 Female, Asian Bangladeshi  
25

26  
27 Also highlighted was the lack of BME representation amongst medical school staff. Representation  
28 was considered important as many felt isolated amongst their peers. One participant said they were  
29 less likely to report difficulties or seek support from medical school staff due to the lack of BME staff:  
30  
31  
32

33  
34 More representation is needed, not just Black [lecturers] but Asian and Arab as well. I think that would be  
35 quite good.  
36

37 Female, Black African  
38

39  
40 At the medical school [...] there's not enough people in the echelons of the faculty staff who [...] I can relate  
41 to, so I don't think there's anyone necessarily that I would go for support [...]  
42  
43

44 Female, Asian Bangladeshi  
45

## 46 Lack of trust with the institution

47  
48 Many participants felt that the institution did not appreciate or understand the challenges they faced  
49 throughout their undergraduate career. Students were not clear on the procedures for reporting racial  
50 incidents or concerns and none were able to identify a specific member of staff who they felt confident  
51 in investigating such matters. This lack of structural guidance was often perceived as the medical  
52 school not caring about the difficulties faced by BME students and so students were less likely to  
53 report any incidents to the institution:  
54  
55  
56  
57  
58  
59  
60

1 *It's again - what's going to be done about it? And then it's kind of like it's a word of mouth type thing so ok,*  
2 *I've said that this person has said this, but ok you then talk to that person and the person says no I didn't say*  
3 *that, I said something else and then what?*

4  
5 Female, Black Caribbean  
6  
7

8 *[...] so conversations I've had with other people of ethnic minority backgrounds is that they feel like faculty*  
9 *staff here, don't have enough cultural training either so they won't really understand the impact of say the*  
10 *n-word or other statements which have been made towards ethnic minority students or about ethnic*  
11 *minority students. So, they are not [going to], or they won't be able to support us in that way basically.*

12  
13  
14 Female, Asian Bangladeshi  
15  
16

## 17 Patient experiences

18  
19 Experiences with patients were perceived as facilitators to learning as students were able to apply  
20 their theoretical knowledge to clinical practice. Participants reported that most patients were open to  
21 BME students practising their clinical skills with them. In contrast, some patient experiences were  
22 perceived as impeding learning and performance as they dented students' confidence and exposed  
23 them to biases. Overt racism was occasionally reported by participants and many reported  
24 experiencing microaggressions as well as witnessing microaggressions against others:  
25  
26  
27  
28  
29

30  
31 *So, the first ever patient I spoke to at med school was an elderly lady and she wouldn't talk to me because I*  
32 *was "foreign". Erm, which was really embarrassing because I was asking her questions from a pro forma*  
33 *that we were given and she was telling me that I was being offensive to her [...] and she made such a big*  
34 *massive palaver about it and then when my White male colleague went and spoke to her, she was happy as*  
35 *Larry, answering all questions even though they were exactly word for word the same questions that I was*  
36 *asking [...] I [then] went home that day and cried because I thought that's what my experience of medicine*  
37 *is going to be throughout my career.*

38  
39  
40  
41  
42 Female, Asian Bangladeshi  
43  
44

45 *I was at a hospital on a ward where there were a lot of older White patients and I took about 3 histories and*  
46 *every one of those patients asked me where I was really from. I then had to explain to them that I was born*  
47 *here and they were like "wow, you were really born here" and then it got to the point where I joked with one*  
48 *of the patients and told them that I was born in my parents' home country and my mother gave birth to me*  
49 *in a hut. I was so angry and fed up of having to explain that I'm from here.*

50  
51  
52  
53 Female, Black African  
54

55 *Last year, a patient said "I passed for White" [...] They said it in a way where they thought they came across*  
56 *positive – like being White is positive. Erm, and it's only when they heard my name, they were like "Oh" [...]*  
57 *then they automatically linked me to a certain religion. [...] I was shocked.*

58  
59  
60 Male, Asian Pakistani

## Sense of self, identity masking and stereotypes

Most participants described having to change or hide their natural personalities in order to conform to the social groups at medical school. As participants felt that each cohort predominantly consisted of White students, there was sense of responsibility among BME students to represent their ethnic group in a positive light. They also commented on the perceived need to monitor and moderate their accents, their expression of emotions and the content of their speech:

*[...] you feel like they're going to base all of their opinions on you, so sometimes you have to sort of water down some of the opinions you have or [...] you have to kind of force yourself to make yourself more agreeable to people just because you're aware that [...] they are basing their opinion of Muslim people on me [...]*

Female, Asian Bangladeshi

*You just [...] don't know how people are going to take you [...] a lot of the time it is like [...] you're the voice of the people [...] so what they see with you is what they want assume for everyone and it might be that they've met someone else that is like you, [and] maybe they didn't have a good experience. I don't want to create something they'll causes them to think oh this is how [...] Black people are.*

Female, Black African

Many students talked about the pressure of knowing that they may be subject to negative stereotyping, whereby over-generalised negative beliefs about their ethnic group may be applied to them. One student explained that she actively tried to avoid negative stereotyping. Some students said they were subject to stereotyping and remarked that incorrect assumptions were frequently made about them. Participants reported that wrong assumptions negatively affected their relationships with peers and staff, implying that stereotyping could impede good educational relationships with peers and medical school staff:

*Also, I found someone here described me as intimidating which [...] throughout my entire life, I've never been called intimidating, people would say that I'm soft [...] until I came here, I've never been called intimidating.*

Female, Black Caribbean

*That's actually one of my biggest fears because I know myself. I'm not intimidating but I know that people tend to [label you as intimidating] when you're passionate [...] so I always try to be extra nice just to avoid that because I think it's quite hurtful to call someone intimidating.*

Female, Black African

1 *I think especially as a woman from an ethnic background, if you're vocal, if you're passionate, [...], you can*  
2 *be sort of labelled as aggressive or intimidating.*

3  
4 Female, Black Caribbean  
5  
6

7 Even though BME students recognised that they may be subject to stereotyping, several remarked  
8 that there was little they could do to either influence or change the biases or discrimination which  
9 they may face.  
10  
11

12  
13 A few participants highlighted the common misperception of South Asian medical students,  
14 particularly those of Indian heritage, often held by clinicians and the public. Students stated that  
15 people assumed that their choice to study medicine was to conform to their parents' wishes rather  
16 than internal motivation and they were not sure whether such perceptions had affected their  
17 performance but acknowledged that this was a stereotype that they frequently thought about and  
18 tried to dissociate with:  
19  
20  
21  
22

23  
24  
25 *'Cause you're Asian, people [are] like you're doing Medicine because your parents forced you to.*

26  
27 Female, Asian Indian  
28  
29

30 *I don't know if I'd say it's affected my performance but it's something you feel like you have to*  
31 *defend. Like "Oh no, I actually want to do it" as opposed to my parents have sent me here. It's not*  
32 *how it works.*  
33  
34

35 Female, Asian Indian  
36  
37

### 38 Cultural differences

39 Cultural differences added to BME students' sense of alienation with several describing how important  
40 culture is to their sense of identity:  
41  
42

43  
44 *[...] just as much as I take pride in the fact that I was born here [...], educated here, worked here, [...] made*  
45 *friends here, studying here, will be successful here, at the same time I have connections to other parts of the*  
46 *world and that connection is a part of the reason why I have this identity [...]*  
47  
48

49 Male, Arab  
50  
51

52 Cultural differences may also hinder relationships with their peers as BME students often encountered  
53 different social experiences to their White counterparts. Many participants reported that medical  
54 school social events were not environments in which they felt comfortable in and therefore were less  
55 likely to socialise with their peers:  
56  
57  
58  
59  
60

1 I often find that the social events are often held in settings that I don't feel comfortable in because I don't  
2 drink alcohol and the majority of the medical school culture is often associated with alcohol. I wish that more  
3 events were more inclusive.  
4

5 Female, Black African  
6  
7

8 [...] you wanna make friends and like if everybody is going out, [or] doing something that you don't really  
9 feel hundred percent [about doing], you can't like get involved [...] to the max, it does kind of feel a little bit  
10 isolating [...]  
11

12 Female, Black African  
13  
14  
15

## 16 Experiences of racism

17  
18 As evidenced throughout the narratives described previously, many BME students commonly  
19 experienced racism throughout their undergraduate training. Reports of overt racism were rare but  
20 nonetheless occurred. More common however, were daily experiences of microaggressions which  
21 impacted on their overall student experiences and lowered their self-confidence:  
22  
23

24  
25  
26  
27 [...] one particular member of that [CBL] group [...] always undermined what I said. I don't know why, maybe  
28 he felt I wasn't as well-spoken, but I did get the impression that he didn't believe me because I'm of a different  
29 background to him or a different colour to him. For example, if I answered a question, he would totally  
30 disregard what I would say but then someone who was of the same colour as him would repeat the exact  
31 same thing as I said 2 minutes later and then he'll be "yes, yes, I agree with you". Another example would  
32 be, he would constantly check things, go on the internet, to see if I'm correct and I found that quite  
33 disheartening because he would only do this to me or my other classmate who was of colour.  
34  
35  
36

37 Female, Black African  
38  
39  
40

## 41 DISCUSSION

### 42 Statement of principal findings

43  
44 In this small study of BME students' perspectives on barriers and facilitators to performance, most  
45 participants reported barriers that they felt impeded their learning and performance. Relationships  
46 with peers were considered important to learning, but participants found it difficult to fit in and felt  
47 isolated amongst their White peers. Difficulties in developing good relationships with peers were  
48 perceived to result partly from cultural differences, racism and bias. The perceived small number of  
49 BME students in each cohort also added to the difficulty of students forming relationships with their  
50 peers. Many participants' narratives indicated that they masked their identity in order to fit in and to  
51 avoid negative stereotyping. There was a general lack of trust in the institution's ability to support  
52 BME students, which led to some students' reluctance to access medical school support systems. Most  
53 students did not seek help from the institution, and many looked to their peers for support instead.  
54  
55  
56  
57  
58  
59  
60

1 Students highlighted the need to have clear, structural guidance on matters relating to BME students,  
2 such as how to report racial incidents. Relationships with staff and clinicians were also considered  
3 crucial to learning and performance. Participants narrated good teaching experiences in clinical  
4 environments, especially from clinicians from BME backgrounds. Several participants highlighted the  
5 lack of BME representation amongst medical school staff as well as the lack of cultural awareness.  
6 Patient experiences were widely considered as excellent learning opportunities, though at times  
7 exposed BME students to racism.  
8  
9  
10  
11  
12

### 13 **Strengths and weaknesses of the study**

14 There are several strengths of this qualitative study. It is the first to explore the experiences of BME  
15 graduate-entry medical students. It provides further insights into the causes of the differential  
16 attainment gap; building upon previous research.<sup>2-4 10-13 23-25</sup> The use of a qualitative design elicited in-  
17 depth and detailed narratives on participants' experiences. The use of focus groups encouraged  
18 candid responses and group discussion facilitated recollection and sharing of experiences. Multiple  
19 cohorts were also included within this study, which elicited narrated experiences from students in  
20 each year of the GEM programme. In this group setting, some participants may have felt inhibited to  
21 share personal experiences, while others may have amplified their experiences, and therefore some  
22 sensitive topics may have been under-discussed. The themes which emerged from the data were  
23 dependent on the chosen sample, therefore, other themes may have arisen if different or more  
24 participants had taken part in the study. Furthermore, it is possible that participants may have had  
25 specific reasons for taking part, which could have influenced the themes that arose in the focus  
26 groups. The ethnicity and gender of the researcher as well as the researcher's position as a fellow  
27 medical student may have affected participants' discussion of certain topics. Participants' perception  
28 of the researcher may have aided participants to feel more comfortable in discussing the taboo of  
29 ethnicity<sup>26</sup>, enabling discussion of personal and sensitive topics. On the other hand, some participants  
30 may have found it difficult to discuss some topics in greater depth with a fellow student. Whilst the  
31 impact is not quantifiable, and no participant stated that they did not wish to speak further on a  
32 subject due to NM's characteristics, it is nevertheless a possibility. It is also possible that the  
33 researcher's own experiences of medical education may have influenced the interpretation of the  
34 data. For most qualitative studies, generalisability is an inherent difficulty.<sup>12 27</sup> As this was a small study  
35 of one institution, it is not clear whether these findings would be replicated in other institutions. The  
36 aim of this study was not to provide generalisations, but to provide a preliminary exploration of the  
37 topic, with a view to promote reflection by academic staff, clinicians, students and other stakeholders,  
38 and inform future research. It is important to acknowledge that BME students in this study were not  
39 an homogenous group: as individuals, they had unique identities as well as different ethnic, cultural,  
40 socio-economic and educational backgrounds. This study was not able to examine how these intersect  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1 to shape individual students' experiences of medical education. Nevertheless, the intersectionality  
2 between ethnicity, gender, education and disability has been shown to shape attainment in  
3 medicine.<sup>28 29</sup>  
4  
5  
6

### 7 **Strengths and weaknesses in relation to other studies discussing important differences in results**

9 Some of the findings from this study are concordant with those from other studies. The importance  
10 of relationships with staff and clinicians noted in this study has been highlighted as a barrier to  
11 performance in previous medical education research.<sup>24</sup> Other studies have also identified that such  
12 relationships can be impeded by stereotyping as well as ethnic differences.<sup>12 25</sup> Although there is some  
13 evidence to suggest that stereotype threat impedes performance of ethnic minority students,<sup>12 25</sup> it  
14 has been relatively understudied in undergraduate medical education. Other studies have also  
15 identified that medical students tend to seek friendships and support from others in their own cultural  
16 group.<sup>25 30</sup> Social networks and social capital in medical education have also been linked to student  
17 attainment, and put forward as possible reasons for the attainment gap.<sup>24 25 30</sup> While social networks  
18 based on ethnicity were noted in this study, participants also sought support from others in the wider  
19 BME group. The finding that most BME students described the need to find allies among other BME  
20 students which led to relationships that would not necessarily have occurred in other settings has not  
21 been identified in previous studies. These differences could be due to the small numbers of specific  
22 ethnic groups within each cohort at this West Midlands medical school but nevertheless raise issues  
23 about the availability of support for BME students in cohorts with relatively small numbers of BME  
24 students. The finding that learning resources were not always shared with BME students by their  
25 White counterparts has been found in a study of students on a five-year programme.<sup>25</sup> Students who  
26 were excluded from or exclude themselves from social networks with high levels of social capital  
27 missed out on resources important for success and attainment in medicine, particularly resources  
28 passed on from academics, clinicians and highly achieving students. Racism, including  
29 microaggressions, in international medical schools is well-known<sup>31-33</sup> but previous research has not, to  
30 the best of our knowledge, considered the effects on UK BME medical students and their performance.  
31 Other studies have shown that individuals who experience racial microaggressions are more likely to  
32 exhibit negative mental health symptoms<sup>34</sup>, suggesting associations between BME students'  
33 experiences of racism, their mental health and their successive performance. Identity masking, as  
34 reported in this study, is a well-known psychological phenomenon<sup>35-37</sup> but it has not been studied in  
35 relation to BME students in medical education.  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55

### 56 **Meaning and possible explanations and implications**

57 Medical students need an academic environment that will enable them to foster good working  
58 relationships with their peers, which can be difficult due to the fast-paced nature of the GEM course.  
59  
60

1 The widespread belief that medical school staff had a lack of cultural awareness does not mean that  
2 staff were necessarily discriminatory or biased; however, our findings suggest that more may need to  
3 be done to increase awareness of culture, diversity and unconscious bias, as well as implementing  
4 anti-racist pedagogy within the medical curriculum.<sup>38</sup> Increasing BME representation among medical  
5 school staff is likely to help students feel more supported and may also improve cultural  
6 understanding and tolerance as well as increase self-confidence of BME students. This study also  
7 suggests that students felt isolated and looked to their BME peers for support. Homophily, that is, the  
8 tendency for people to form friendships with others similar to them, may be a possible explanation.  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
25 30 It may explain, at least in part, why BME students reported finding allies among other BME  
students and felt isolated among a large cohort of White medical students, who themselves may be  
forming friendships with people from similar ethnic groups. Woolf et al<sup>30</sup> has suggested that there  
may be 'hidden medical schools' when medical students form social networks based on ethnicity and  
that these can impact on student attainment. The widespread perception in this study that the cohorts  
were predominately White does not mean that this was indeed the case; however, more could be  
done to ensure that each cohort comprises of a wide range of students from different socio-economic,  
ethnic, cultural and educational backgrounds. The importance of high-quality student support  
programmes that provide 'safe havens' for students experiencing culturally and socially alienating  
environments, and that foster social inclusiveness have been identified as key to academic success.<sup>39</sup>  
Institutions are in a position to ensure that BME students are well-integrated amongst their peers and  
need to consider how they can increase opportunities to create friendships among all ethnic groups.  
While the responsibility for this lies with the institution, the BME student population and networks  
could also be important to fostering a sense of community; increasing the awareness of diversity and  
culture within the medical school. A lack of structural guidance on the procedures for reporting racial  
incidents or concerns was noted in this study and could dissuade students from seeking student  
support thus affecting their wellbeing. Guidance on reporting and tackling racism therefore needs to  
be developed. Furthermore, this and other studies suggests that medical schools should also review  
their diversity and anti-racism training for staff and students. Kumagai et al<sup>40</sup> suggests that this should  
go beyond knowledge competency training to the fostering of a critical awareness of the self and  
others in relation to racism and other forms of discrimination within healthcare.

### 51 **Unanswered questions and future research**

52 Further research is needed to determine the prevalence of the barriers identified in this research at  
53 this West Midlands medical school as well as other UK GEM courses. The student experiences of UK  
54 BME graduate-entry medical students needs to be analysed and further researched as they are  
55 different in terms of the demographics and life experiences to those on five-year programmes.  
56  
57  
58  
59  
60



1 Research into medical schools' institutional processes for promoting diversity and critical  
2 consciousness among all students needs to be carried out.  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

For peer review only

1 **Funding:** 'This research received no specific grant from any funding agency in the public, commercial  
2 or not-for-profit sectors'.  
3

4  
5 **No competing interests:** "All authors have completed the ICMJE uniform disclosure form at  
6 [www.icmje.org/coi\\_disclosure.pdf](http://www.icmje.org/coi_disclosure.pdf) and declare: no support from any organisation for the submitted  
7 work; no financial relationships with any organisations that might have an interest in the submitted  
8 work in the previous three years; no other relationships or activities that could appear to have  
9 influenced the submitted work."  
10  
11  
12  
13

14  
15 **Author contributions:** NM conceived of the research project which was further developed with MM  
16 and CMB. NM, CMB and MM designed the research project. NM analysed the data under the  
17 supervision of MM and CMB. NM, with MM and CMB interpreted the data. NM wrote the first draft  
18 of the article and all authors revised it critically for important intellectual content. NM and CMB  
19 revised the draft paper. All authors approved of the final version to be published. NM is the  
20 guarantor.  
21  
22  
23  
24  
25

26  
27 **Ethical approval:** Ethical approval was granted by The University of Warwick Biomedical and  
28 Scientific Research Ethics Committee (REGO-2018-2244)  
29  
30  
31

32 **Participants consent:** All participants gave informed consent.  
33  
34  
35

36 **No Patient and Public Involvement:** This research was done without patient involvement. Patients  
37 were not invited to comment on the study design and were not consulted to interpret the results.  
38 Patients were not invited to contribute to the writing or editing of this document for readability or  
39 accuracy.  
40  
41  
42  
43

44 **Data sharing statement:** No additional data are available as data are held in safe haven.  
45  
46  
47

48 **Provenance and peer review:** Not commissioned; externally peer reviewed.  
49  
50

51 **Transparency statement:** NM affirms that the manuscript is an honest, accurate, and transparent  
52 account of the study being reported; that no important aspects of the study have been omitted; and  
53 that any discrepancies from the study as originally planned (and, if relevant, registered) have been  
54 explained.  
55  
56  
57  
58  
59  
60

## References

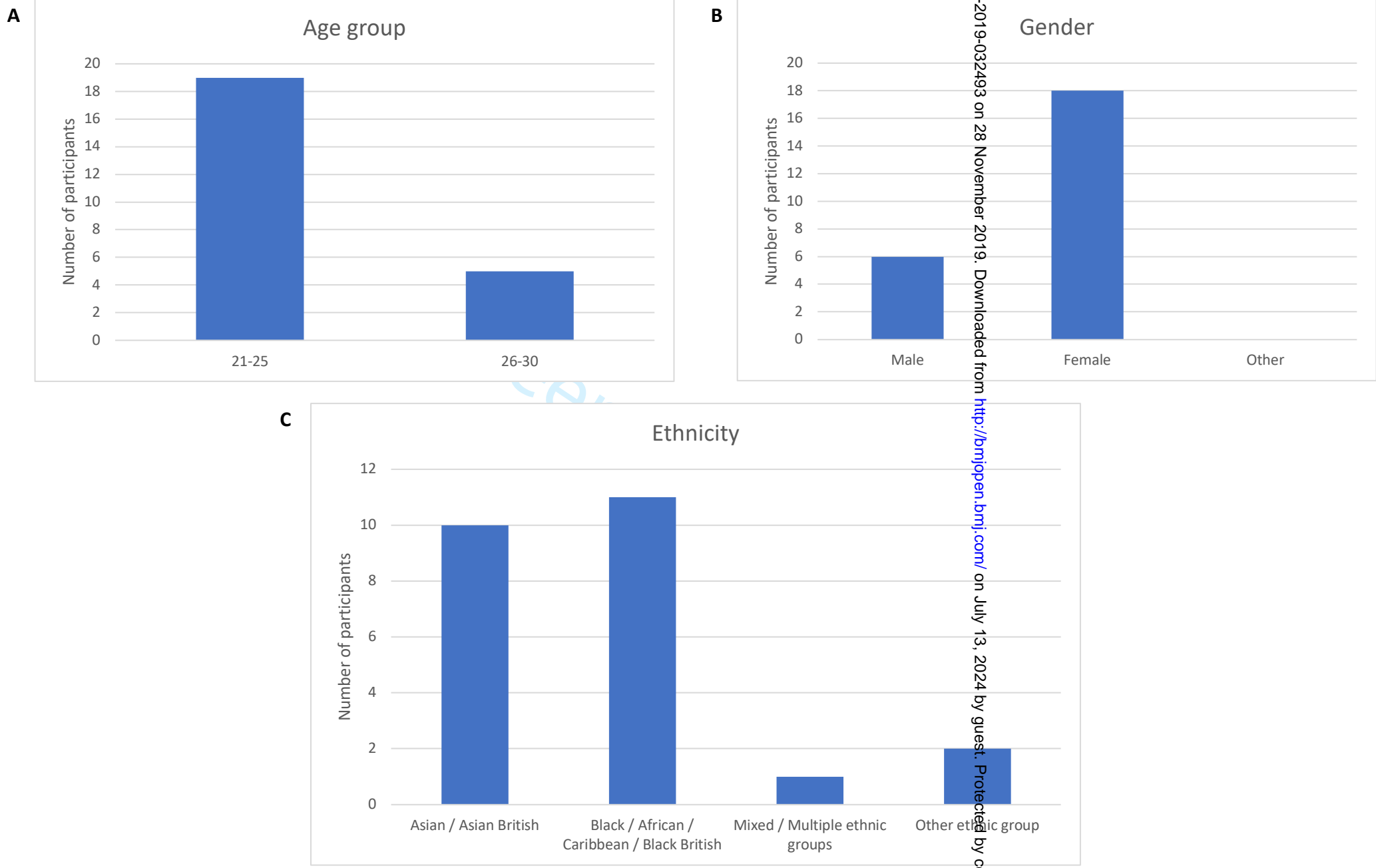
1. Universities UK and the National Union of Students. *Black, Asian and Minority Ethnic student attainment at UK universities: #ClosingTheGap*, 2019. Universities UK. Available from: <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2019/bame-student-attainment-uk-universities-closing-the-gap.pdf> [Assessed 1<sup>st</sup> May 2019]
2. McManus IC, Richards P, Winder BC. and Sproston KA. Final examination performance of medical students from ethnic minorities. *Medical Education*, 1996; 30: 195-200. Available from: doi:10.1111/j.1365-2923.1996.tb00742.x
3. Woolf K, McManus IC, Potts HW. and Dacre J. The mediators of minority ethnic underperformance in final medical school examinations. *British Journal of Educational Psychology*, 2013; 83: 135-159. Available from: doi:10.1111/j.2044-8279.2011.02060.x
4. Woolf K, Potts HWW, McManus IC. Ethnicity and academic performance in UK trained doctors and medical students: systematic review and meta-analysis. *The BMJ*. 2011;342:d901. Available from: doi:10.1136/bmj.d90
5. Xu G, Veloski JJ, Hojat M, Gonnella JS, Bacharach B. Longitudinal comparison of the academic performances of Asian-American and white medical students. *Acad Med* 1993;68:82.
6. Stegers-Jager, K. M., Steyerberg, E. W., Cohen-Schotanus, J. and Themmen, A. P. Ethnic disparities in undergraduate pre-clinical and clinical performance. *Medical Education*. 2012;46: 575-585. Available from: doi:10.1111/j.1365-2923.2012.04265.x
7. McManus IC, Richards P, Winder BC. and Sproston KA. Final examination performance of medical students from ethnic minorities. *Medical Education*, 1996; 30: 195-200. Available from: doi:10.1111/j.1365-2923.1996.tb00742.x
8. Wass V, Roberts C, Hoogenboom R, Jones R, van der Vleuten C. Effect of ethnicity on performance in a final objective structured clinical examination: qualitative and quantitative study. *The BMJ* 2003;326:800–3.
9. Esmail A, Roberts C. Academic performance of ethnic minority candidates and discrimination in the MRCGP examinations between 2010 and 2012: analysis of data. *The BMJ* 2013;347:f5662
10. Haq I, Higham J, Morris R. and Dacre J. Effect of ethnicity and gender on performance in undergraduate medical examinations. *Medical Education*, 2005; 39: 1126-1128. Available from: doi:10.1111/j.1365-2929.2005.02319.x
11. Regan de Bere SN, Nasser M. Understanding differential attainment across medical training pathways: a rapid review of the literature. Final report prepared for The General Medical Council. Plymouth University, 2015. Available from: [http://www.gmc-uk.org/GMC\\_Understanding\\_Differential\\_Attainment.pdf\\_63533431.pdf](http://www.gmc-uk.org/GMC_Understanding_Differential_Attainment.pdf_63533431.pdf) [Accessed 2<sup>nd</sup> February 2018]

12. Woolf K, Cave J, Greenhalgh T, Dacre J. Ethnic stereotypes and the underachievement of UK medical students from ethnic minorities: qualitative study. *The BMJ*. 2008; 337:a1220. Available from: doi:10.1136/bmj.a1220.
13. Cardiff University. Independent review panel into issues of racial equality in the school of medicine, Cardiff University. 2017. Available from: [www.cardiff.ac.uk/\\_\\_data/assets/pdf\\_file/0011/551837/Prof-Dinesh-Bhugra-report-Final.pdf](http://www.cardiff.ac.uk/__data/assets/pdf_file/0011/551837/Prof-Dinesh-Bhugra-report-Final.pdf). [Accessed 31<sup>st</sup> May 2018]
14. Kumwenda B, Cleland J, Greatrix R, MacKenzie RK, Prescott G. Are efforts to attract graduate applicants to UK medical schools effective in increasing the participation of under-represented socioeconomic groups? A national cohort study, *BMJ Open* 2018;**8**:e018946. Available from: doi:10.1136/bmjopen-2017-018946
15. Machado M. Internal MB ChB assessment reports, unpublished; 2019
16. Green J, Thorogood N. *Qualitative Methods for Health Research*; 4<sup>th</sup> ed. SAGE Publications; 2018
17. Office of National Statistics. Ethnicity and National Identity in England and Wales: 2011. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/articles/ethnicityandnationalidentityinenglandandwales/2012-12-11#ethnicity-in-england-and-wales> [Accessed 26<sup>th</sup> December 2018]
18. Krueger RA, Casey MA. *Focus Groups: A Practical Guide for Applied Research*; 5<sup>th</sup> ed. SAGE Publications; 2015
19. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006; 3:77–101.
20. Maguire M, Delahunt B. Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. *AISHE-J: The All Ireland Journal of Teaching & Learning in Higher Education*. 2017; 9(3):3351-33514
21. QSR International Pty Ltd. NVivo Version 12: QSR International Pty Ltd, 2018.
22. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Medicine*. 2014;89(9):1245-1251
23. Mountford-Zimdars A, Sabri D, Moore J, et al. Causes of differences in student outcomes. *Higher Education Funding Council for England*, 2015.
24. Woolf K, Rich A, Viney R, Needleman S, Griffin A. Perceived causes of differential attainment in UK postgraduate medical training: a national qualitative study, *BMJ Open* 2016; **6**:e013429. Available from: doi: 10.1136/bmjopen-2016-013429
25. Vaughan S, Sanders T, Crossley N, O'Neill P and Wass V. Bridging the gap: the roles of social capital and ethnicity in medical student achievement, *Medical Education*. 2015; 49:114–123 Available from: doi:10.1111/medu.12597

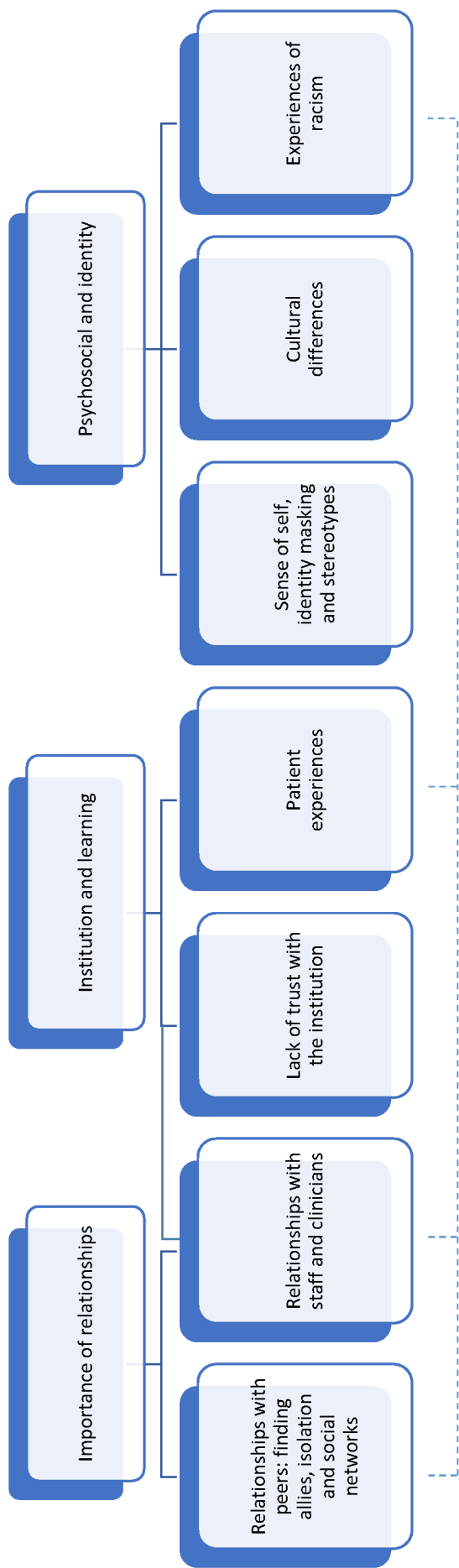
- 1 26. Roberts JH, Sanders T, Wass V. Students' perceptions of race, ethnicity and culture at two UK  
2 medical schools: a qualitative study. *Med Education*. 2008;42:45-52
- 3
- 4 27. Holloway I and Galvin K. *Qualitative Research in Nursing and Healthcare*; 4<sup>th</sup> ed. Wiley-Blackwell;  
5 2016
- 6
- 7 28. Asghar ZB, Siriwardena AN, Elfes C, et al. Performance of candidates disclosing dyslexia with  
8 other candidates in a UK medical licensing examination: cross-sectional study. *Postgrad Med J*  
9 2018; 94: 198-203 Available from: doi: 10.1136/postgradmedj-2017-135326
- 10
- 11
- 12 29. Kumwenda B, Cleland JA, Walker K, et al. The relationship between school type and academic  
13 performance at medical school: a national, multi-cohort study. *BMJ Open*. 2017;7:e016291.  
14 Available from: doi:10.1136/bmjopen-2017-016291
- 15
- 16
- 17 30. Woolf K, Potts HWW, Patel S & McManus IC. The hidden medical school: A longitudinal study of  
18 how social networks form, and how they relate to academic performance, *Medical Teacher*,  
19 2012; 34(7):577-586. Available from: doi: 10.3109/0142159X.2012.669082
- 20
- 21
- 22 31. Beagan BL. 'Is this worth getting into a big fuss over?' Everyday racism in medical school. *Medical*  
23 *Education*, 2003; 37(10):852-60.
- 24
- 25
- 26 32. Robb, N. Racism can rear its ugly head at medical school, study finds, *CMAJ: Canadian Medical*  
27 *Association Journal*, 1998; 159(1): 66-67
- 28
- 29 33. Sue DW, Capodilupo CM, Torino GC, Bucceri JM, Holder AMB, Nadal KL, et al. Racial  
30 Microaggressions in Everyday Life: Implications for clinical practice, *American Psychologist*, 2007;  
31 62(4):271-286. Available from: doi:10.1037/0003-066X.62.4.271
- 32
- 33
- 34 34. Nadal KL, Griffin KE, Wong Y, Hamit S, and Rasmus M. The Impact of Racial Microaggressions on  
35 Mental Health: Counseling Implications for Clients of Color, *Journal of Counseling &*  
36 *Development*, 2014; 92(1):57-66. Available from: doi:10.1002/j.1556-6676.2014.00130.x
- 37
- 38
- 39 35. Davis TL, Gender differences in masking negative emotions: ability or motivation? *Developmental*  
40 *Psychology*, 1995; 31(4):660-667
- 41
- 42
- 43 36. Matsumoto D, Yoo SH, Nakagawa S, Anguas-Wong AM, Arriola M, Bauer LM, et al. Culture,  
44 emotion regulation, and adjustment. *Journal of Personality and Social Psychology*,  
45 2008; 94(6):925-37
- 46
- 47
- 48 37. Matsunaga M, Shaping, masking, and unmasking of a stigmatized identity: the case of Japan-  
49 residing Koreans, *Howard Journal of Communications*, 2007; 18(3): 221-238
- 50
- 51 38. Ahmad NJ, Shi M. The Need for Anti-Racism Training in Medical School Curricula. *Academic*  
52 *Medicine: Journal of the Association of American Medical Colleges*. 2017;92(8): 1073
- 53
- 54 39. Curtis E, Wikaire E, Kool B, Honey M, Kelly F, Poole P, et al. What helps and hinders indigenous  
55 student success in higher education health programmes: A qualitative study using the Critical  
56 Incident Technique. *Higher Education Research & Development*, 2014; 34(3), 486–500. Available  
57 from: doi: 10.1080/07294360.2014.973378
- 58
- 59
- 60

- 1 40. Kumagai AK, Lypson ML. Beyond cultural competence: critical consciousness, social justice, and  
2 multicultural education. *Academic Medicine*, 2009; 84(6): 782–787. Available from: doi:  
3  
4 10.1097/ACM.0b013e3181a42398  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

For peer review only



**Figure 1** Participant demographics by characteristic. **A:** Participants by age group; **B:** Participants by gender; **C:** Participants by ethnicity.



**Figure 2** The main themes (top level) and subthemes (bottom level) describing the difficulties faced by BME graduate-entry medical students at a West Midlands Medical School that were perceived as barriers to performance. The subtheme 'relationships with staff and clinicians' was linked with two main themes 'importance of relationships' and 'institution and learning' as illustrated above. The subtheme 'experiences of racism' was linked with two subthemes within the main theme 'psychosocial and identity' as illustrated by the dotted lines.



# Reporting checklist for qualitative study.

Based on the SRQR guidelines.

## Instructions to authors

Complete this checklist by entering the page numbers from your manuscript where readers will find each of the items listed below.

Your article may not currently address all the items on the checklist. Please modify your text to include the missing information. If you are certain that an item does not apply, please write "n/a" and provide a short explanation.

Upload your completed checklist as an extra file when you submit to a journal.

In your methods section, say that you used the SRQR reporting guidelines, and cite them as:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med.* 2014;89(9):1245-1251.

	Reporting Item	Page Number
<b>Title</b>		
	<a href="#">#1</a> Concise description of the nature and topic of the study identifying the study as qualitative or indicating the approach (e.g. ethnography, grounded theory) or data collection methods (e.g. interview, focus group) is recommended	1
<b>Abstract</b>		
	<a href="#">#2</a> Summary of the key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results and conclusions	2
<b>Introduction</b>		
Problem formulation	<a href="#">#3</a> Description and significance of the problem / phenomenon studied: review of relevant theory and empirical work; problem statement	4-5
Purpose or research question	<a href="#">#4</a> Purpose of the study and specific objectives or questions	4-5

## 1 Methods

2			
3	Qualitative approach and	<a href="#">#5</a>	Qualitative approach (e.g. ethnography, grounded theory, case
4	research paradigm		study, phenomenology, narrative research) and guiding theory if
5			appropriate; identifying the research paradigm (e.g.
6			postpositivist, constructivist / interpretivist) is also
7			recommended; rationale. The rationale should briefly discuss
8			the justification for choosing that theory, approach, method or
9			technique rather than other options available; the assumptions
10			and limitations implicit in those choices and how those choices
11			influence study conclusions and transferability. As appropriate
12			the rationale for several items might be discussed together.
13			
14			
15	Researcher characteristics	<a href="#">#6</a>	Researchers' characteristics that may influence the research,
16	and reflexivity		including personal attributes, qualifications / experience,
17			relationship with participants, assumptions and / or
18			presuppositions; potential or actual interaction between
19			researchers' characteristics and the research questions, approach,
20			methods, results and / or transferability
21			
22			
23			
24			
25			
26			
27			
28			
29	Context	<a href="#">#7</a>	Setting / site and salient contextual factors; rationale
30			
31	Sampling strategy	<a href="#">#8</a>	How and why research participants, documents, or events were
32			selected; criteria for deciding when no further sampling was
33			necessary (e.g. sampling saturation); rationale
34			
35			
36	Ethical issues pertaining to	<a href="#">#9</a>	Documentation of approval by an appropriate ethics review
37	human subjects		board and participant consent, or explanation for lack thereof;
38			other confidentiality and data security issues
39			
40			
41			
42	Data collection methods	<a href="#">#10</a>	Types of data collected; details of data collection procedures
43			including (as appropriate) start and stop dates of data collection
44			and analysis, iterative process, triangulation of sources /
45			methods, and modification of procedures in response to
46			evolving study findings; rationale
47			
48			
49			
50	Data collection instruments	<a href="#">#11</a>	Description of instruments (e.g. interview guides,
51	and technologies		questionnaires) and devices (e.g. audio recorders) used for data
52			collection; if / how the instruments(s) changed over the course
53			of the study
54			
55			
56			
57	Units of study	<a href="#">#12</a>	Number and relevant characteristics of participants, documents,
58			or events included in the study; level of participation (could be
59			
60			

reported in results)

1			
2			
3	Data processing	<a href="#">#13</a>	6-7
4		Methods for processing data prior to and during analysis,	
5		including transcription, data entry, data management and	
6		security, verification of data integrity, data coding, and	
7		anonymisation / deidentification of excerpts	
8			
9	Data analysis	<a href="#">#14</a>	6-7
10		Process by which inferences, themes, etc. were identified and	
11		developed, including the researchers involved in data analysis;	
12		usually references a specific paradigm or approach; rationale	
13			
14	Techniques to enhance	<a href="#">#15</a>	6-7
15	trustworthiness	Techniques to enhance trustworthiness and credibility of data	
16		analysis (e.g. member checking, audit trail, triangulation);	
17		rationale	
18			
19			
20	<b>Results/findings</b>		
21			
22	Syntheses and	<a href="#">#16</a>	7-15
23	interpretation	Main findings (e.g. interpretations, inferences, and themes);	
24		might include development of a theory or model, or integration	
25		with prior research or theory	
26			
27	Links to empirical data	<a href="#">#17</a>	7-15
28		Evidence (e.g. quotes, field notes, text excerpts, photographs) to	
29		substantiate analytic findings	
30			
31	<b>Discussion</b>		
32			
33			
34	Intergration with prior	<a href="#">#18</a>	15-18
35	work, implications,	Short summary of main findings; explanation of how findings	
36	transferability and	and conclusions connect to, support, elaborate on, or challenge	
37	contribution(s) to the field	conclusions of earlier scholarship; discussion of scope of	
38		application / generalizability; identification of unique	
39		contributions(s) to scholarship in a discipline or field	
40			
41			
42	Limitations	<a href="#">#19</a>	16-17
43		Trustworthiness and limitations of findings	
44			
45	<b>Other</b>		
46			
47	Conflicts of interest	<a href="#">#20</a>	19
48		Potential sources of influence of perceived influence on study	
49		conduct and conclusions; how these were managed	
50			
51	Funding	<a href="#">#21</a>	19
52		Sources of funding and other support; role of funders in data	
53		collection, interpretation and reporting	

The SRQR checklist is distributed with permission of Wolters Kluwer © 2014 by the Association of American Medical Colleges. This checklist was completed on 20. June 2019 using <https://www.goodreports.org/>, a tool made by the [EQUATOR Network](#) in collaboration with [Penelope.ai](#)

# BMJ Open

## Student perspectives on barriers to performance for Black and Minority Ethnic graduate-entry medical students: a qualitative study in a West Midlands medical school

Journal:	<i>BMJ Open</i>
Manuscript ID	bmjopen-2019-032493.R2
Article Type:	Original research
Date Submitted by the Author:	25-Oct-2019
Complete List of Authors:	Morrison, Nariell; University of Warwick, Warwick Medical School Machado, Michelle; University of Warwick, Warwick Medical School Blackburn, Clare; University of Warwick, Warwick Medical School
<b>Primary Subject Heading</b>:	Medical education and training
Secondary Subject Heading:	Qualitative research
Keywords:	MEDICAL EDUCATION & TRAINING, QUALITATIVE RESEARCH, undergraduate, diversity, ethnicity, Minority Groups

SCHOLARONE™  
Manuscripts

1 Student perspectives on barriers to performance for Black and  
2 Minority Ethnic graduate-entry medical students: a qualitative study  
3 in a West Midlands medical school  
4  
5  
6

7 **Authors:**

8 **Nariell Morrison**

9 MBChB student

10 Warwick Medical School

11 University of Warwick

12 Coventry, UK  
13  
14

15  
16 **Michelle Machado**

17 Associate Professor

18 Warwick Medical School

19 University of Warwick

20 Coventry, UK  
21  
22

23  
24 **Clare M Blackburn**

25 Associate Professor

26 Warwick Medical School

27 University of Warwick

28 Coventry, UK  
29  
30

31 **Corresponding Author:** Nariell Morrison ([n.morrison@warwick.ac.uk](mailto:n.morrison@warwick.ac.uk))

32 **Corresponding telephone number:** +44(0)24 7652 4132  
33  
34

35 **Subject area:** Research

36 **Keywords:** undergraduate, medical education, qualitative research, diversity, ethnicity  
37  
38

39 **MeSH terms:**

40 Cultural diversity

41 Focus Groups

42 Education, Medical, Undergraduate

43 Humans

44 Minority Groups

45 Learning

46 Qualitative Research

47 Racism

48 Students, Medical

49 Schools, Medical

50 Stereotyping

51 United Kingdom  
52  
53  
54  
55

56  
57 **Word count:** 6186  
58  
59  
60

## ABSTRACT

**Objective:** To explore graduate-entry medical students experiences of undergraduate training in the context of academic underperformance of medical students from ethnic minority backgrounds.

**Design:** Qualitative study using semi-structured focus groups

**Setting:** A West Midlands medical school

**Participants:** 24 graduate-entry MBChB students were recruited using volunteer and snowball sampling; all students self-identified as being from Black and Minority Ethnic (BME) backgrounds.

**Results:** BME students reported facing a range of difficulties, throughout their undergraduate medical training, that they felt impeded their learning and performance. Their relationships with staff and clinicians, though also identified as facilitators to learning, were also perceived to have hindered progress, as many students felt that a lack of BME representation and lack of understanding of cultural differences among staff impacted their experience. Students also reported a lack of trust in the institution's ability to support BME students, with many not seeking support. Students' narratives indicated that they had to mask their identity to fit in amongst their peers and to avoid negative stereotyping. Although rare, students faced overt racism from their peers and from patients. Many students reported feelings of isolation, reduced self-confidence and low self-esteem.

**Conclusion:** BME students in this study reported experiencing relationship issues with other students, academic and clinical staff, lack of trust in the institution and some racist events. Although it is not clear from this small study of one institution whether these findings would be replicated in other institutions, they nevertheless highlight important issues to be considered by the institution concerned and other institutions. These findings suggest that all stakeholders of graduate-entry undergraduate medical education should reflect on the current institutional practices intended to improve student-peer and student-staff relationships. Reviewing current proposals intended to diversify student and staff populations as well as evaluating guidance on tackling racism is likely to be beneficial.

## ARTICLE SUMMARY

### Strengths and limitations of this study

- This is the first study to explore graduate-entry BME medical students' experiences of medical education. It provides valuable insights into the causes of Black and Minority Ethnic UK

1 undergraduates' lower performance in medical assessments and provides a basis on which  
2 interventions to reduce the differential attainment can be developed and evaluated.  
3

- 4 • This study has a small sample but multiple cohorts participated in this study; broadening the  
5 scope of narrated experiences and the variety of views.
- 6
- 7 • The focus group methodology allowed candid responses and group discussion facilitated  
8 recollection of experiences but some participants may have felt inhibited to share personal  
9 experiences and therefore some sensitive topics may have been underdiscussed.  
10
- 11
- 12 • It must be taken into consideration that the emergent themes from the data were dependent on  
13 the chosen sample; other themes may have arisen if different or more participants had taken  
14 part in the study.  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

For peer review only

## INTRODUCTION

In higher education, students from Black and Minority Ethnic (BME) backgrounds in the United Kingdom (UK) have been reported to underperform academically compared with their White counterparts.<sup>1</sup> Medicine is no different; a number of studies in the UK have reported underperformance at undergraduate and postgraduate level by BME medical students and trained doctors.<sup>2 3 4</sup> Similar findings have been reported in the United States<sup>5</sup> and the Netherlands.<sup>6</sup> This persistent difference in performance between ethnic groups is known as the differential attainment gap and poses a huge issue for medical education and the medical profession. Evidence suggests that this attainment gap exists throughout various undergraduate and postgraduate medical assessments including machine-marked written examinations and objective structured clinical examinations.<sup>4 7-9</sup> Although the differential attainment gap has been widely documented, the reasons for it remain unclear.<sup>2 10 11</sup>

Current literature findings suggest that ethnic stereotypes may contribute to BME medical students' underperformance, yet overt discrimination has not been evidenced.<sup>12</sup> Furthermore, a longitudinal study and analysis of UK medical students concluded that the ethnic differences in performance were not due to psychological or demographic factors.<sup>3</sup> A 2017 independent review panel at Cardiff University, also highlighted that BME medical students have a different student experience to their White counterparts.<sup>13</sup> The lack of BME staff within medical schools; difficulty in "fitting in" and racial stereotyping have all emerged as themes experienced by BME students.<sup>12 13</sup>

Previous studies<sup>3 4 7</sup> have focused on undergraduate medical students on five or six-year programmes. To the best of our knowledge, no published studies have specifically explored the potential causes of the differential attainment gap in graduate-entry medicine (GEM). The UK introduction of 4-year GEM courses began in 2000, following the 1997 UK Medical Workforce Standing Advisory Committee recommendation to diversify the medical student population.<sup>14</sup> As GEM currently accounts for approximately 10% of all UK medical programmes<sup>14</sup>, it is important to report the differential attainment gap amongst GEM courses and examine the experiences of BME graduate-entry medical students as part of a portfolio of research into differential attainment among medical students.

This paper reports data on a study of graduate-entry medical students in a West Midlands Medical School. Internal MBChB assessment data<sup>15</sup> suggests that for students in this medical school, over the last four years across all assessment formats, all cohorts at some point show statistically significant differences in attainment between BME and White students, with BME students having lower average percentage point scores than White students. This study therefore aims to build upon previous



1 research, examining the potential reasons for underperformance by BME graduate-entry medical  
2 students; exploring their experiences of undergraduate medical training and their perceptions of  
3 barriers and facilitators to performance.  
4  
5  
6  
7

## 8 METHODS

### 10 Design

11 A social constructivist<sup>16</sup> approach using qualitative methods was adopted to gain understanding of  
12 medical students' experiences and their perspectives on barriers to performance. Data were gathered  
13 in focus groups throughout November 2018, using a semi-structured interview schedule. Two  
14 encrypted audio recorders were utilised for data capture. Focus group participants received a  
15 maximum of two emails including one email reminder.  
16  
17  
18  
19  
20  
21  
22

### 23 Sampling strategy and recruitment

24 The sampling frame was all students in each of the four cohorts of the MBChB course at a West  
25 Midlands Medical School; all chosen because of their varying experience of medical training as well as  
26 academic examinations. The sampling frame was used to recruit participants who self-identified as  
27 BME. This group encompassed, but was not limited to, those who identified as being from African,  
28 Asian, Arab or Caribbean descent. Participants were eligible to participate if they were either in the  
29 clinical phases of the MBChB (Years 2-4) or resitting the pre-clinical phase of training (Year 1). Other  
30 Year 1 students were excluded from participating as they had only been on the course for two months  
31 and therefore had limited experience of the MBChB course.  
32  
33  
34  
35  
36  
37  
38  
39

40 Participants were recruited in four main ways: administrative staff emailed invitations to all medical  
41 students asking for eligible volunteers to register their interest to participate; invitations to express  
42 interest in taking part were posted on the official University MBChB Facebook cohort group pages;  
43 participants in the early focus groups encouraged other eligible students to register their interest to  
44 participate; and participants were encouraged to bring any eligible students with them on the day. All  
45 students with an interest in the study were provided with a participation information leaflet and a  
46 consent form. Twenty-six students registered interest and accepted the invitation to participate. Four  
47 focus groups, each of 4-7 multi-cohort students, were then scheduled throughout November 2018,  
48 based on participant availability. Focus groups took place in a private room at the University. Owing  
49 to last minute timetable changes, two volunteers were unable to attend any of the focus group  
50 sessions.  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## Ethical approval

Ethical approval was obtained from The University of Warwick Biomedical and Scientific Research Ethics Sub-Committee in August 2018.

The study involved collection and analysis of the special category of ethnicity. To ensure confidentiality, data security and compliance with the General Data Protection Regulations, all data were anonymised and held only by NM. All participants confirmed on their consent form that they agreed to keep confidential the identities of focus group participants and to maintain the confidentiality of the information discussed during the focus group.

## Data collection methods

NM (Black British, female, graduate-entry undergraduate medical student with quantitative and qualitative research methods training) moderated each focus group. At each group, participants were randomly assigned a number to ease anonymisation during transcription. Participants were subsequently asked to self-report their ethnicity using the 2011 UK census categories.<sup>17</sup>

Many participants were acquainted with each other through enrolment on the MBChB course. At the outset of each focus group, participants were briefed on the purpose of each group, thus creating a comfortable, permissive environment; encouraging participants to talk freely.<sup>18</sup>

Throughout the discussion, first-hand narratives were encouraged, and participants were prompted to clarify and expand their answers. Participants were encouraged to respond to others' contributions and discuss similar or contrasting accounts if appropriate. Focus groups ranged from sixty minutes to three hours (average 111 minutes).

No attempt was made to exclude friends, with the aim that some collective recollection of events may be captured and on the basis that participants would be more likely to raise sensitive topics if accompanied by friends.<sup>18</sup>

## Data processing and analysis

Data was audio-recorded, and transcribed verbatim using Microsoft Word and Olympus Sonority v.1.4.7.

Thematic analysis<sup>19</sup> was adopted using Braun and Clarke's six phase framework, shown in Table 1.<sup>20</sup> NM, MM (Associate Professor in Health Sciences) and CMB (Associate Professor in Health Sciences) read all transcripts individually to allow/increase familiarisation with the data. QSR NVivo v.12<sup>21</sup>

software was used to assist with categorisation and management of the data. Following thorough review of all transcripts, inductive codes were generated and agreed by the team. A number of themes were identified from the coded data. The team discussed the findings and collectively agreed an initial coding framework. NM coded the first three transcripts independently using the initial coding framework, which was then refined after further discussion. Following further review, a final coding framework was adopted, which was subsequently used to code the entire data set. The Standards for Reporting Qualitative Research (SRQR) guidelines were adopted.<sup>22</sup>

Step 1	Become familiar with the data
Step 2	Generate initial codes
Step 3	Search for themes
Step 4	Review themes
Step 5	Define themes
Step 6	Write-up

**Table 1:** Braun & Clarke's six-phase framework for doing a thematic analysis

## Patient and Public Involvement

This research was done without patient involvement. Patients were not invited to comment on the study design and were not consulted to interpret the results. Patients were not invited to contribute to the writing or editing of this document for readability or accuracy.

## RESULTS

### Participants

Twenty-four medical students participated in the study. Participant demographics are shown in figure 1. Participants held a minimum of an upper second-class honours undergraduate degree (or overseas equivalent). Any participant with a lower second-class undergraduate degree held either a Master's or a Doctoral qualification. Twenty-three out of the twenty-four participants were UK home students schooled in the UK.

**Figure 1** Participant demographics by characteristic. **A:** Participants by age group; **B:** Participants by gender; **C:** Participants by ethnicity.

### Perceived barriers to performance

All narratives highlighted students' views on barriers and facilitators to performance during undergraduate medical training. The data was categorised into three main causal themes:

- **Importance of relationships** – exploring the relationships amongst students and their peers and amongst students and staff. This was particularly important as poor relationships affect the learning experience and lead to disengagement, lack of motivation and withdrawal.<sup>23</sup>

- **Institution and learning** – examining how the students interact with the institution and their learning opportunities, such as factors which may generate limitations and barriers to learning and attainment e.g. patient encounters and poor interactions with clinicians.
- **Psychosocial and identity** – psychological, societal and cultural factors that affect students' learning experience, engagement and attainment; particularly stereotyping and racism and cultural differences.

Within the three main themes, seven subthemes were identified that were perceived to cause barriers to performance (figure 2).

**Figure 2** The main themes (top level) and subthemes (bottom level) describing the difficulties faced by BME graduate-entry medical students at a West Midlands medical school that were perceived as barriers to performance. The subtheme 'relationships with staff and clinicians' was linked with two main themes 'importance of relationships' and 'institution and learning' as illustrated above. The subtheme 'experiences of racism' was linked to two subthemes within the main theme 'importance of relationships' and one subtheme in 'institution and learning' as illustrated by the dotted lines.

### Relationship with peers: finding allies, isolation and social networks

Peers and staff were identified as both positive and negative influences on performance. Peers were allies who provided solidarity, as well as academic and emotional support. The majority of participants had a diverse range of friends, however, many noted that their closest friends at medical school were other students from a BME background:

*My friendship group mostly consists of people of colour. I don't know if it's something I generally gravitate towards. They are also people who look or dress similarly to me.*

Female, Asian Pakistani

*I find that because we're all minorities, you [...] stick together and the more you get to know each other it's like we're actually quite different but [...] there is no one else that you relate to really so you just kind of stick with them.*

Female, Black African

Participants explained they were drawn towards finding allies in other ethnic minority students, despite not necessarily having common interests or hobbies. Such alliances helped some students to overcome their feelings of isolation and a few students said they gained confidence by having these friendship groups:

1 where I'm from back home [...] my school was like all ethnic minorities so I was only friends with people that  
2 did the same things that I did, like the same things I did, whereas here it's more like you want to stick with  
3 people are similar to you, even though you don't necessarily like the same things you do, it's just because  
4 you have that common ground; the basis of what you both are is similar so you relate to each other more  
5 and than with a [White] person, just because you are an ethnic minority.  
6  
7

8 Female, Black African  
9

10  
11 [...] in my first year, in my Friday [group] sessions, I've had no ethnic minorities, so I tend to be by myself just  
12 because I didn't feel I had someone, like an ally [...] but this year, it's like I have a few more people [...] and  
13 it kind of gives you a boost [...]  
14  
15

16 Female, Black African  
17  
18

19 Many also remarked they felt more comfortable amongst other ethnic minorities as they shared a  
20 common understanding, specifically, in appreciating cultural differences and acknowledging bias or  
21 discrimination often encountered by minority groups:  
22  
23

24  
25  
26 I'm not really sure how to explain it but [...] there are certain things I may have faced in my life, which other  
27 ethnic minorities would understand and those who aren't an ethnic minority wouldn't really get because it's  
28 not something they've experienced. Maybe it's something they've heard about but not necessarily something  
29 they've felt themselves.  
30  
31

32 Female, Black Caribbean  
33  
34

35 Most BME students reported feeling isolated, explaining that each cohort consisted of predominantly  
36 White students. Students felt that they were not represented within the student body. Many who  
37 came from multicultural cities such as London and Birmingham, found it difficult to adapt and  
38 struggled to fit in what they perceived to be a predominantly White student population. Many  
39 participants also reported that they did not feel "good enough" to be at medical school:  
40  
41  
42

43  
44  
45 [...] I constantly feel like I don't deserve to be here [...] a lot of the time I feel so different [...] I have that  
46 constant feeling that I don't deserve to be here [...] because I don't fit in with what your typical medic does  
47 or what their background is [...]  
48  
49

50 Female, Black African  
51  
52

53 [...] I did feel a little bit lesser than my non-ethnic minority counterparts. I felt like, oh maybe, I don't deserve  
54 to be here as much as they do [...] It was something that played on my mind a little bit.  
55  
56

57 Female, Black Caribbean  
58  
59

60 Several students felt a sense of invisibility amongst their White peers as they commented that many  
White peers confused them with other ethnic minority students. Additionally, participants explained

1 that many White students often did not learn the correct pronunciation of their names, often trying  
2 to shorten or anglicize it without their permission. Many found this very frustrating and impeding to  
3 building new relationships with their peers:  
4

5  
6  
7 *Yeah, I'm not sure when people are talking to me if they know who they're actually talking to*

8  
9 Female, Asian Indian  
10

11  
12 *I just hate it so much because like my name is, it's not even hard. It's literally, you say it the way it's spelt but*  
13 *no one can get it. I feel like no one personally makes the effort to get it and it's like I refuse to let them shorten*  
14 *my name until I know you can get it because I feel like, it's just like a basic sign of respect to just get it. It's*  
15 *just so frustrating because it's like, it's not even hard.*

16  
17  
18 Female, Black African  
19

20  
21 Many participants described the importance of utilising social networks to increase academic  
22 performance highlighting that social networks provided access to clinical learning opportunities as  
23 well as a number of learning resources. Both were regarded as essential to learning and increasing  
24 performance. Students remarked that they felt disadvantaged as they were less likely to acquire  
25 resources available to their White counterparts that facilitated learning and achievement:  
26  
27  
28  
29

30  
31 *It does make a huge difference. It's sad but it does make a difference [...] having those links, those*  
32 *connections, being in the right Facebook groups [...] helped me a lot.*

33  
34 Female, Black African  
35

36  
37 *I've never been someone to really heavily depend on friends when it comes to like exams or whatever, but*  
38 *I've realised since starting med school if I didn't have friends with me, I probably would not be in this position.*

39  
40 Female, Asian Indian  
41

42  
43  
44 *If you're not in the right friendship groups or Facebook groups, you've got less access to peer resources [...]*  
45 *Being BME and isolated, you're more likely to be disadvantaged.*

46  
47 Female, Black African  
48

## 49 50 Relationship with staff and clinicians

51  
52 Relationships with medical school staff and clinicians were perceived as important to learning and  
53 performance. At best, clinicians developed students' knowledge, clinical skills and confidence by  
54 providing extra learning opportunities and giving constructive feedback. Participants reported that  
55 overall, they received good teaching from clinical staff, though, all said that they noted a better  
56 experience with clinicians from BME backgrounds:  
57  
58  
59  
60

1  
2 *I've had bedside teaching from a member of staff who is from a similar background to me. I think sometimes*  
3 *if they are from a similar background, they work you harder and they are more critical, which is good as it's*  
4 *more helpful. They have a higher expectation of you as they set the bar slightly higher which is interesting.*

5  
6  
7 Female, Asian Pakistani  
8  
9

10 *I find it quite the opposite because most of the senior Consultants at the hospital are Asian men and they are*  
11 *very paternal towards me which I'm very grateful for. Like if that's the only privilege I had, then I'm taking*  
12 *it. So, they've been very nice, they've been very nurturing, they've given me all the attention I need which is*  
13 *a lot. [...] they've been praising me [...] which has been motivating and you feel less other in the hospital*  
14 *setting.*

15  
16  
17 Female, Asian Bangladeshi  
18  
19

20  
21 In contrast, many participants felt that most staff based in the medical school did not appreciate the  
22 cultural differences amongst students, reporting that several lecturers made culturally insensitive or  
23 inappropriate comments. Some students said that more effort should be made to ensure staff  
24 members were culturally trained, though, one participant felt cultural training would not suffice to  
25 fully understand the challenges they faced:  
26  
27  
28

29  
30  
31 *[...] as much as you want to say cultural training will make a difference, unless you're from an ethnic minority*  
32 *background, [...] you're not gonna empathise with the situations.*

33  
34 Female, Asian Bangladeshi  
35  
36

37 Also highlighted was the lack of BME representation amongst medical school staff. Representation  
38 was considered important as many felt isolated amongst their peers. One participant said they were  
39 less likely to report difficulties or seek support from medical school staff due to the lack of BME staff:  
40  
41  
42

43 *More representation is needed, not just Black [lecturers] but Asian and Arab as well. I think that would be*  
44 *quite good.*

45  
46  
47 Female, Black African  
48  
49

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

52  
53 Female, Asian Bangladeshi  
54  
55

## 56 Lack of trust with the institution

57  
58 Many participants felt that the institution did not appreciate or understand the challenges they faced  
59 throughout their undergraduate career. Students were not clear on the procedures for reporting racial  
60

1 incidents or concerns and none were able to identify a specific member of staff who they felt confident  
2 in investigating such matters. This lack of structural guidance was often perceived as the medical  
3 school not caring about the difficulties faced by BME students and so students were less likely to  
4 report any incidents to the institution:  
5  
6

7  
8  
9 *It's again - what's going to be done about it? And then it's kind of like it's a word of mouth type thing so ok,*  
10 *I've said that this person has said this, but ok you then talk to that person and the person says no I didn't say*  
11 *that, I said something else and then what?*

12  
13  
14 Female, Black Caribbean

15  
16 *[...] so conversations I've had with other people of ethnic minority backgrounds is that they feel like faculty*  
17 *staff here, don't have enough cultural training either so they won't really understand the impact of say the*  
18 *n-word or other statements which have been made towards ethnic minority students or about ethnic*  
19 *minority students. So, they are not [going to], or they won't be able to support us in that way basically.*

20  
21  
22 Female, Asian Bangladeshi

## 23 Patient experiences

24  
25  
26 Experiences with patients were perceived as facilitators to learning as students were able to apply  
27 their theoretical knowledge to clinical practice. Participants reported that most patients were open to  
28 BME students practising their clinical skills with them. In contrast, some patient experiences were  
29 perceived as impeding learning and performance as they dented students' confidence and exposed  
30 them to biases. Overt racism was occasionally reported by participants and many reported  
31 experiencing microaggressions as well as witnessing microaggressions against others:  
32  
33

34  
35  
36 *So, the first ever patient I spoke to at med school was an elderly lady and she wouldn't talk to me because I*  
37 *was "foreign". Erm, which was really embarrassing because I was asking her questions from a pro forma*  
38 *that we were given and she was telling me that I was being offensive to her [...] and she made such a big*  
39 *massive palaver about it and then when my White male colleague went and spoke to her, she was happy as*  
40 *Larry, answering all questions even though they were exactly word for word the same questions that I was*  
41 *asking [...] I [then] went home that day and cried because I thought that's what my experience of medicine*  
42 *is going to be throughout my career.*

43  
44  
45 Female, Asian Bangladeshi

46  
47  
48 *I was at a hospital on a ward where there were a lot of older White patients and I took about 3 histories and*  
49 *every one of those patients asked me where I was really from. I then had to explain to them that I was born*  
50 *here and they were like "wow, you were really born here" and then it got to the point where I joked with one*  
51 *of the patients and told them that I was born in my parents' home country and my mother gave birth to me*  
52 *in a hut. I was so angry and fed up of having to explain that I'm from here.*



Female, Black African

1  
2  
3 *Last year, a patient said “I passed for White” [...] They said it in a way where they thought they came across*  
4 *positive – like being White is positive. Erm, and it’s only when they heard my name, they were like “Oh” [...]*  
5 *then they automatically linked me to a certain religion. [...] I was shocked.*  
6  
7

Male, Asian Pakistani

## 11 Sense of self, identity masking and stereotypes

12  
13 Most participants described having to change or hide their natural personalities in order to conform  
14 to the social groups at medical school. As participants felt that each cohort predominantly consisted  
15 of White students, there was sense of responsibility among BME students to represent their ethnic  
16 group in a positive light. They also commented on the perceived need to monitor and moderate their  
17 accents, their expression of emotions and the content of their speech:  
18  
19  
20  
21

22  
23 *[...] you feel like they’re going to base all of their opinions on you, so sometimes you have to sort of water*  
24 *down some of the opinions you have or [...] you have to kind of force yourself to make yourself more*  
25 *agreeable to people just because you’re aware that [...] they are basing their opinion of Muslim people on*  
26 *me [...]*  
27  
28

Female, Asian Bangladeshi

29  
30  
31  
32 *You just [...] don’t know how people are going to take you [...] a lot of the time it is like [...] you’re the voice*  
33 *of the people [...] so what they see with you is what they want assume for everyone and it might be that*  
34 *they’ve met someone else that is like you, [and] maybe they didn’t have a good experience. I don’t want to*  
35 *create something they’ll causes them to think oh this is how [...] Black people are.*  
36  
37  
38

Female, Black African

39  
40  
41  
42 Many students talked about the pressure of knowing that they may be subject to negative  
43 stereotyping, whereby over-generalised negative beliefs about their ethnic group may be applied to  
44 them. One student explained that she actively tried to avoid negative stereotyping. Some students  
45 said they were subject to stereotyping and remarked that incorrect assumptions were frequently  
46 made about them. Participants reported that wrong assumptions negatively affected their  
47 relationships with peers and staff, implying that stereotyping could impede good educational  
48 relationships with peers and medical school staff:  
49  
50  
51  
52

53  
54  
55 *Also, I found someone here described me as intimidating which [...] throughout my entire life, I’ve never been*  
56 *called intimidating, people would say that I’m soft [...] until I came here, I’ve never been called intimidating.*  
57  
58

Female, Black Caribbean

1 *That's actually one of my biggest fears because I know myself. I'm not intimidating but I know that people*  
2 *tend to [label you as intimidating] when you're passionate [...] so I always try to be extra nice just to avoid*  
3 *that because I think it's quite hurtful to call someone intimidating.*  
4

5 Female, Black African  
6  
7

8 *I think especially as a woman from an ethnic background, if you're vocal, if you're passionate, [...], you can*  
9 *be sort of labelled as aggressive or intimidating.*  
10

11 Female, Black Caribbean  
12  
13

14 Even though BME students recognised that they may be subject to stereotyping, several remarked  
15 that there was little they could do to either influence or change the biases or discrimination which  
16 they may face.  
17  
18

19  
20  
21 A few participants highlighted the common misperception of South Asian medical students,  
22 particularly those of Indian heritage, often held by clinicians and the public. Students stated that  
23 people assumed that their choice to study medicine was to conform to their parents' wishes rather  
24 than internal motivation and they were not sure whether such perceptions had affected their  
25 performance but acknowledged that this was a stereotype that they frequently thought about and  
26 tried to dissociate with:  
27  
28  
29  
30

31  
32  
33 *'Cause you're Asian, people [are] like you're doing Medicine because your parents forced you to.*  
34

35 Female, Asian Indian  
36  
37

38 *I don't know if I'd say it's affected my performance but it's something you feel like you have to*  
39 *defend. Like "Oh no, I actually want to do it" as opposed to my parents have sent me here. It's not*  
40 *how it works.*  
41  
42

43 Female, Asian Indian  
44

## 45 Cultural differences

46

47 Cultural differences added to BME students' sense of alienation with several describing how important  
48 culture is to their sense of identity:  
49  
50

51  
52 *[...] just as much as I take pride in the fact that I was born here [...], educated here, worked here, [...] made*  
53 *friends here, studying here, will be successful here, at the same time I have connections to other parts of the*  
54 *world and that connection is a part of the reason why I have this identity [...]*  
55  
56

57 Male, Arab  
58  
59  
60

1 Cultural differences may also hinder relationships with their peers as BME students often encountered  
2 different social experiences to their White counterparts. Many participants reported that medical  
3 school social events were not environments in which they felt comfortable in and therefore were less  
4 likely to socialise with their peers:  
5  
6

7  
8  
9 *I often find that the social events are often held in settings that I don't feel comfortable in because I don't*  
10 *drink alcohol and the majority of the medical school culture is often associated with alcohol. I wish that more*  
11 *events were more inclusive.*  
12

13 Female, Black African  
14

15  
16 *[...] you wanna make friends and like if everybody is going out, [or] doing something that you don't really*  
17 *feel hundred percent [about doing], you can't like get involved [...] to the max, it does kind of feel a little bit*  
18 *isolating [...]*  
19

20  
21 Female, Black African  
22

## 23 Experiences of racism

24  
25 As evidenced throughout the narratives described previously, many BME students commonly  
26 experienced racism throughout their undergraduate training. Reports of overt racism were rare but  
27 nonetheless occurred. More common however, were daily experiences of microaggressions which  
28 impacted on their overall student experiences and lowered their self-confidence:  
29  
30

31  
32 *[...] one particular member of that [CBL] group [...] always undermined what I said. I don't know why, maybe*  
33 *he felt I wasn't as well-spoken, but I did get the impression that he didn't believe me because I'm of a different*  
34 *background to him or a different colour to him. For example, if I answered a question, he would totally*  
35 *disregard what I would say but then someone who was of the same colour as him would repeat the exact*  
36 *same thing as I said 2 minutes later and then he'll be "yes, yes, I agree with you". Another example would*  
37 *be, he would constantly check things, go on the internet, to see if I'm correct and I found that quite*  
38 *disheartening because he would only do this to me or my other classmate who was of colour.*  
39

40  
41  
42  
43  
44  
45  
46 Female, Black African  
47

## 48 DISCUSSION

### 49 Statement of principal findings

50  
51 In this small study of BME students' perspectives on barriers and facilitators to performance, most  
52 participants reported barriers that they felt impeded their learning and performance. Relationships  
53 with peers were considered important to learning, but participants found it difficult to fit in and felt  
54 isolated amongst their White peers. Difficulties in developing good relationships with peers were  
55 perceived to result partly from cultural differences, racism and bias. The perceived small number of  
56  
57  
58  
59  
60

1 BME students in each cohort also added to the difficulty of students forming relationships with their  
2 peers. Many participants' narratives indicated that they masked their identity in order to fit in and to  
3 avoid negative stereotyping. There was a general lack of trust in the institution's ability to support  
4 BME students, which led to some students' reluctance to access medical school support systems. Most  
5 students did not seek help from the institution, and many looked to their peers for support instead.  
6 Students highlighted the need to have clear, structural guidance on matters relating to BME students,  
7 such as how to report racial incidents. Relationships with staff and clinicians were also considered  
8 crucial to learning and performance. Participants narrated good teaching experiences in clinical  
9 environments, especially from clinicians from BME backgrounds. Several participants highlighted the  
10 lack of BME representation amongst medical school staff as well as the lack of cultural awareness.  
11 Patient experiences were widely considered as excellent learning opportunities, though at times  
12 exposed BME students to racism.  
13  
14  
15  
16  
17  
18  
19  
20  
21

### 22 **Strengths and weaknesses of the study**

23 There are several strengths of this qualitative study. It is the first to explore the experiences of BME  
24 graduate-entry medical students. It provides further insights into the causes of the differential  
25 attainment gap; building upon previous research.<sup>2-4 10-13 23-25</sup> The use of a qualitative design elicited in-  
26 depth and detailed narratives on participants' experiences. The use of focus groups encouraged  
27 candid responses and group discussion facilitated recollection and sharing of experiences. Multiple  
28 cohorts were also included within this study, which elicited narrated experiences from students in  
29 each year of the GEM programme. In this group setting, some participants may have felt inhibited to  
30 share personal experiences, while others may have amplified their experiences, and therefore some  
31 sensitive topics may have been under-discussed. The themes which emerged from the data were  
32 dependent on the chosen sample, therefore, other themes may have arisen if different or more  
33 participants had taken part in the study. Furthermore, it is possible that participants may have had  
34 specific reasons for taking part, which could have influenced the themes that arose in the focus  
35 groups. The ethnicity and gender of the researcher as well as the researcher's position as a fellow  
36 medical student may have affected participants' discussion of certain topics. Participants' perception  
37 of the researcher may have aided participants to feel more comfortable in discussing the taboo of  
38 ethnicity<sup>26</sup>, enabling discussion of personal and sensitive topics. On the other hand, some participants  
39 may have found it difficult to discuss some topics in greater depth with a fellow student. Whilst the  
40 impact is not quantifiable, and no participant stated that they did not wish to speak further on a  
41 subject due to NM's characteristics, it is nevertheless a possibility. It is also possible that the  
42 researcher's own experiences of medical education may have influenced the interpretation of the  
43 data. For most qualitative studies, generalisability is an inherent difficulty.<sup>12 27</sup> As this was a small study  
44 of one institution, it is not clear whether these findings would be replicated in other institutions. The  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1 aim of this study was not to provide generalisations, but to provide a preliminary exploration of the  
2 topic, with a view to promote reflection by academic staff, clinicians, students and other stakeholders,  
3 and inform future research. It is important to acknowledge that BME students in this study were not  
4 an homogenous group: as individuals, they had unique identities as well as different ethnic, cultural,  
5 socio-economic and educational backgrounds. This study was not able to examine how these intersect  
6 to shape individual students' experiences of medical education. Nevertheless, the intersectionality  
7 between ethnicity, gender, education and disability has been shown to shape attainment in  
8 medicine.<sup>28 29</sup>

### 15 **Strengths and weaknesses in relation to other studies discussing important differences in results**

16 Some of the findings from this study are concordant with those from other studies. The importance  
17 of relationships with staff and clinicians noted in this study has been highlighted as a barrier to  
18 performance in previous medical education research.<sup>24</sup> Other studies have also identified that such  
19 relationships can be impeded by stereotyping as well as ethnic differences.<sup>12 25</sup> Although there is some  
20 evidence to suggest that stereotype threat impedes performance of ethnic minority students,<sup>12 25</sup> it  
21 has been relatively understudied in undergraduate medical education. Other studies have also  
22 identified that medical students tend to seek friendships and support from others in their own cultural  
23 group.<sup>25 30</sup> Social networks and social capital in medical education have also been linked to student  
24 attainment, and put forward as possible reasons for the attainment gap.<sup>24 25 30</sup> While social networks  
25 based on ethnicity were noted in this study, participants also sought support from others in the wider  
26 BME group. The finding that most BME students described the need to find allies among other BME  
27 students which led to relationships that would not necessarily have occurred in other settings has not  
28 been identified in previous studies. These differences could be due to the small numbers of specific  
29 ethnic groups within each cohort at this West Midlands medical school but nevertheless raise issues  
30 about the availability of support for BME students in cohorts with relatively small numbers of BME  
31 students. The finding that learning resources were not always shared with BME students by their  
32 White counterparts has been found in a study of students on a five-year programme.<sup>25</sup> Students who  
33 were excluded from or exclude themselves from social networks with high levels of social capital  
34 missed out on resources important for success and attainment in medicine, particularly resources  
35 passed on from academics, clinicians and highly achieving students. Racism, including  
36 microaggressions, in international medical schools is well-known<sup>31-33</sup> but previous research has not, to  
37 the best of our knowledge, considered the effects on UK BME medical students and their performance.  
38 Other studies have shown that individuals who experience racial microaggressions are more likely to  
39 exhibit negative mental health symptoms<sup>34</sup>, suggesting associations between BME students'  
40 experiences of racism, their mental health and their successive performance. Identity masking, as  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1 reported in this study, is a well-known psychological phenomenon<sup>35-37</sup> but it has not been studied in  
2 relation to BME students in medical education.  
3  
4

### 5 **Meaning and possible explanations and implications**

6 Medical students need an academic environment that will enable them to foster good working  
7 relationships with their peers, which can be difficult due to the fast-paced nature of the GEM course.  
8  
9 The widespread belief that medical school staff had a lack of cultural awareness does not mean that  
10 staff were necessarily discriminatory or biased; however, our findings suggest that more may need to  
11 be done to increase awareness of culture, diversity and unconscious bias, as well as implementing  
12 anti-racist pedagogy within the medical curriculum.<sup>38</sup> Increasing BME representation among medical  
13 school staff is likely to help students feel more supported and may also improve cultural  
14 understanding and tolerance as well as increase self-confidence of BME students. This study also  
15 suggests that students felt isolated and looked to their BME peers for support. Homophily, that is, the  
16 tendency for people to form friendships with others similar to them, may be a possible explanation.  
17  
18 <sup>25 30</sup> It may explain, at least in part, why BME students reported finding allies among other BME  
19 students and felt isolated among a large cohort of White medical students, who themselves may be  
20 forming friendships with people from similar ethnic groups. Woolf et al<sup>30</sup> has suggested that there  
21 may be 'hidden medical schools' when medical students form social networks based on ethnicity and  
22 that these can impact on student attainment. The widespread perception in this study that the cohorts  
23 were predominately White does not mean that this was indeed the case; however, more could be  
24 done to ensure that each cohort comprises of a wide range of students from different socio-economic,  
25 ethnic, cultural and educational backgrounds. The importance of high-quality student support  
26 programmes that provide 'safe havens' for students experiencing culturally and socially alienating  
27 environments, and that foster social inclusiveness have been identified as key to academic success.<sup>39</sup>  
28  
29 Institutions are in a position to ensure that BME students are well-integrated amongst their peers and  
30 need to consider how they can increase opportunities to create friendships among all ethnic groups.  
31 While the responsibility for this lies with the institution, the BME student population and networks  
32 could also be important to fostering a sense of community; increasing the awareness of diversity and  
33 culture within the medical school. A lack of structural guidance on the procedures for reporting racial  
34 incidents or concerns was noted in this study and could dissuade students from seeking student  
35 support thus affecting their wellbeing. Guidance on reporting and tackling racism therefore needs to  
36 be developed. Furthermore, this and other studies suggests that medical schools should also review  
37 their diversity and anti-racism training for staff and students. Kumagai et al<sup>40</sup> suggests that this should  
38 go beyond knowledge competency training to the fostering of a critical awareness of the self and  
39 others in relation to racism and other forms of discrimination within healthcare.  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

### Unanswered questions and future research

Further research is needed to determine the prevalence of the barriers identified in this research at this West Midlands medical school as well as other UK GEM courses. The student experiences of UK BME graduate-entry medical students needs to be analysed and further researched as they are different in terms of the demographics and life experiences to those on five-year programmes. Research into medical schools' institutional processes for promoting diversity and critical consciousness among all students needs to be carried out.

## CONCLUSION

This is the first study exploring BME students' perspectives on barriers and facilitators to performance on a GEM course in the UK. BME students in this study reported experiencing relationship issues with their peers, academic and clinical staff, lack of trust in the institution and some racist events. Although it is not clear from this study whether these findings would be replicated in other institutions, they nevertheless highlight important issues to be considered by all stakeholders of graduate-entry undergraduate medical education.

1 **Funding:** 'This research received no specific grant from any funding agency in the public, commercial  
2 or not-for-profit sectors'.  
3

4  
5 **No competing interests:** *"All authors have completed the ICMJE uniform disclosure form at  
6 www.icmje.org/coi\_disclosure.pdf and declare: no support from any organisation for the submitted  
7 work; no financial relationships with any organisations that might have an interest in the submitted  
8 work in the previous three years; no other relationships or activities that could appear to have  
9 influenced the submitted work."*  
10  
11  
12  
13

14  
15 **Author contributions:** NM conceived of the research project which was further developed with MM  
16 and CMB. NM, CMB and MM designed the research project. NM analysed the data under the  
17 supervision of MM and CMB. NM, with MM and CMB interpreted the data. NM wrote the first draft  
18 of the article and all authors revised it critically for important intellectual content. NM and CMB  
19 revised the draft paper. All authors approved of the final version to be published. NM is the  
20 guarantor.  
21  
22  
23  
24  
25

26  
27 **Ethical approval:** Ethical approval was granted by The University of Warwick Biomedical and  
28 Scientific Research Ethics Committee (REGO-2018-2244)  
29  
30

31  
32 **Participants consent:** All participants gave informed consent.  
33  
34

35  
36 **Data sharing statement:** No additional data are available as data are held in safe haven.  
37  
38

39 **Provenance and peer review:** Not commissioned; externally peer reviewed.  
40  
41

42 **Transparency statement:** NM affirms that the manuscript is an honest, accurate, and transparent  
43 account of the study being reported; that no important aspects of the study have been omitted; and  
44 that any discrepancies from the study as originally planned (and, if relevant, registered) have been  
45 explained.  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60



## References

1. Universities UK and the National Union of Students. *Black, Asian and Minority Ethnic student attainment at UK universities: #ClosingTheGap*, 2019. Universities UK. Available from: <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2019/bame-student-attainment-uk-universities-closing-the-gap.pdf> [Assessed 1<sup>st</sup> May 2019]
2. McManus IC, Richards P, Winder BC. and Sproston KA. Final examination performance of medical students from ethnic minorities. *Medical Education*, 1996; 30: 195-200. Available from: doi:10.1111/j.1365-2923.1996.tb00742.x
3. Woolf K, McManus IC, Potts HW. and Dacre J. The mediators of minority ethnic underperformance in final medical school examinations. *British Journal of Educational Psychology*, 2013; 83: 135-159. Available from: doi:10.1111/j.2044-8279.2011.02060.x
4. Woolf K, Potts HWW, McManus IC. Ethnicity and academic performance in UK trained doctors and medical students: systematic review and meta-analysis. *The BMJ*. 2011;342:d901. Available from: doi:10.1136/bmj.d90
5. Xu G, Veloski JJ, Hojat M, Gonnella JS, Bacharach B. Longitudinal comparison of the academic performances of Asian-American and white medical students. *Acad Med* 1993;68:82.
6. Stegers-Jager, K. M., Steyerberg, E. W., Cohen-Schotanus, J. and Themmen, A. P. Ethnic disparities in undergraduate pre-clinical and clinical performance. *Medical Education*. 2012;46: 575-585. Available from: doi:10.1111/j.1365-2923.2012.04265.x
7. McManus IC, Richards P, Winder BC. and Sproston KA. Final examination performance of medical students from ethnic minorities. *Medical Education*, 1996; 30: 195-200. Available from: doi:10.1111/j.1365-2923.1996.tb00742.x
8. Wass V, Roberts C, Hoogenboom R, Jones R, van der Vleuten C. Effect of ethnicity on performance in a final objective structured clinical examination: qualitative and quantitative study. *The BMJ* 2003;326:800–3.
9. Esmail A, Roberts C. Academic performance of ethnic minority candidates and discrimination in the MRCGP examinations between 2010 and 2012: analysis of data. *The BMJ* 2013;347:f5662
10. Haq I, Higham J, Morris R. and Dacre J. Effect of ethnicity and gender on performance in undergraduate medical examinations. *Medical Education*, 2005; 39: 1126-1128. Available from: doi:10.1111/j.1365-2929.2005.02319.x
11. Regan de Bere SN, Nasser M. Understanding differential attainment across medical training pathways: a rapid review of the literature. Final report prepared for The General Medical Council. Plymouth University, 2015. Available from: [http://www.gmc-uk.org/GMC\\_Understanding\\_Differential\\_Attainment.pdf\\_63533431.pdf](http://www.gmc-uk.org/GMC_Understanding_Differential_Attainment.pdf_63533431.pdf) [Accessed 2<sup>nd</sup> February 2018]

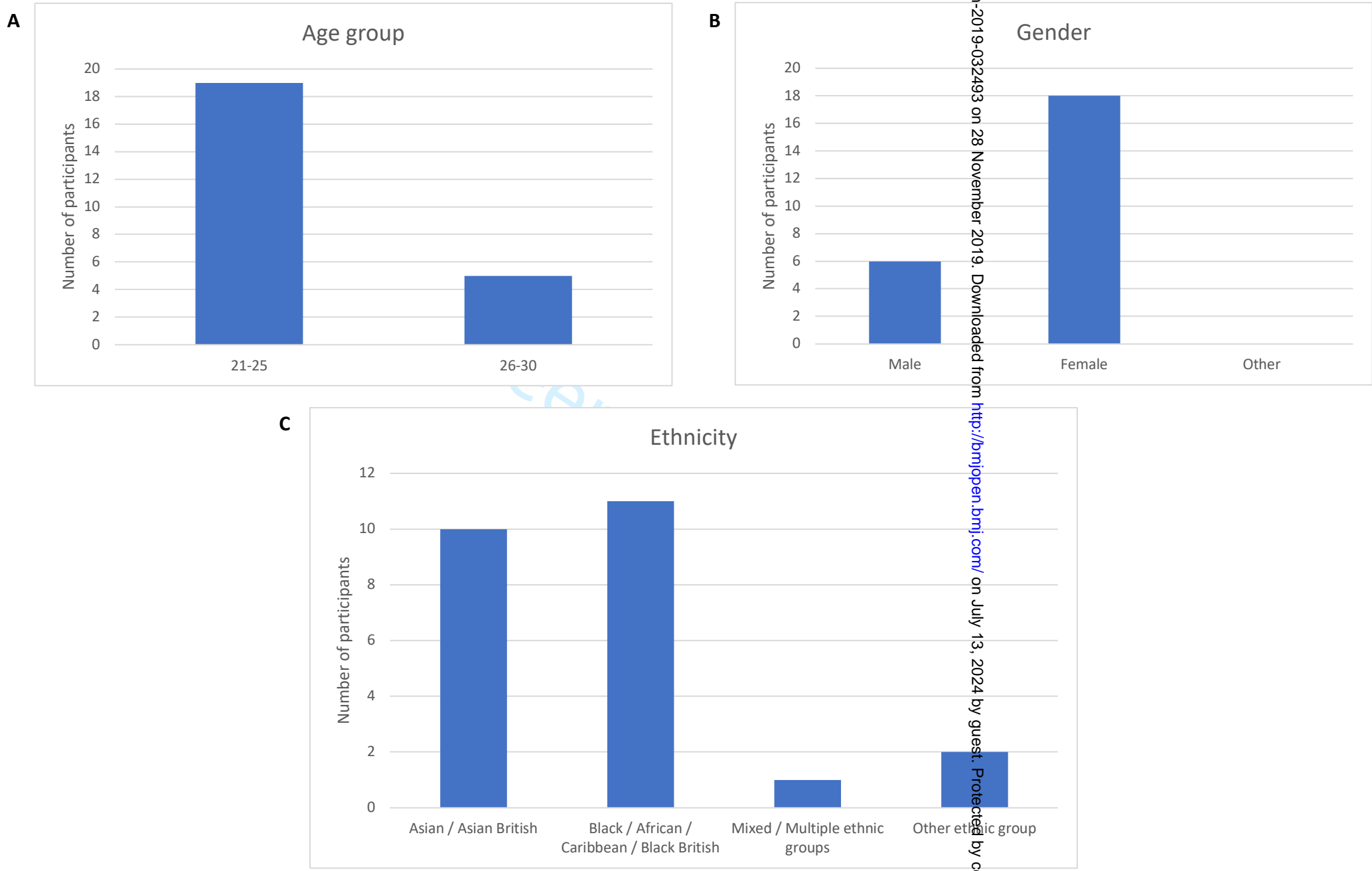
12. Woolf K, Cave J, Greenhalgh T, Dacre J. Ethnic stereotypes and the underachievement of UK medical students from ethnic minorities: qualitative study. *The BMJ*. 2008; 337:a1220. Available from: doi:10.1136/bmj.a1220.
13. Cardiff University. Independent review panel into issues of racial equality in the school of medicine, Cardiff University. 2017. Available from: [www.cardiff.ac.uk/\\_\\_data/assets/pdf\\_file/0011/551837/Prof-Dinesh-Bhugra-report-Final.pdf](http://www.cardiff.ac.uk/__data/assets/pdf_file/0011/551837/Prof-Dinesh-Bhugra-report-Final.pdf). [Accessed 31<sup>st</sup> May 2018]
14. Kumwenda B, Cleland J, Greatrix R, MacKenzie RK, Prescott G. Are efforts to attract graduate applicants to UK medical schools effective in increasing the participation of under-represented socioeconomic groups? A national cohort study, *BMJ Open* 2018;**8**:e018946. Available from: doi:10.1136/bmjopen-2017-018946
15. Machado M. Internal MB ChB assessment reports, Warwick Medical School; 2019
16. Green J, Thorogood N. *Qualitative Methods for Health Research*; 4<sup>th</sup> ed. SAGE Publications; 2018
17. Office of National Statistics. Ethnicity and National Identity in England and Wales: 2011. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/articles/ethnicityandnationalidentityinenglandandwales/2012-12-11#ethnicity-in-england-and-wales> [Accessed 26<sup>th</sup> December 2018]
18. Krueger RA, Casey MA. *Focus Groups: A Practical Guide for Applied Research*; 5<sup>th</sup> ed. SAGE Publications; 2015
19. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006; 3:77–101.
20. Maguire M, Delahunt B. Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. *AISHE-J: The All Ireland Journal of Teaching & Learning in Higher Education*. 2017; 9(3):3351-33514
21. QSR International Pty Ltd. NVivo Version 12: QSR International Pty Ltd, 2018.
22. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Medicine*. 2014;89(9):1245-1251
23. Mountford-Zimdars A, Sabri D, Moore J, et al. Causes of differences in student outcomes. *Higher Education Funding Council for England*, 2015.
24. Woolf K, Rich A, Viney R, Needleman S, Griffin A. Perceived causes of differential attainment in UK postgraduate medical training: a national qualitative study, *BMJ Open* 2016; **6**:e013429. Available from: doi: 10.1136/bmjopen-2016-013429
25. Vaughan S, Sanders T, Crossley N, O'Neill P and Wass V. Bridging the gap: the roles of social capital and ethnicity in medical student achievement, *Medical Education*. 2015; 49:114–123 Available from: doi:10.1111/medu.12597

- 1 26. Roberts JH, Sanders T, Wass V. Students' perceptions of race, ethnicity and culture at two UK  
2 medical schools: a qualitative study. *Med Education*. 2008;42:45-52
- 3
- 4 27. Holloway I and Galvin K. *Qualitative Research in Nursing and Healthcare*; 4<sup>th</sup> ed. Wiley-Blackwell;  
5 2016
- 6
- 7 28. Asghar ZB, Siriwardena AN, Elfes C, et al. Performance of candidates disclosing dyslexia with  
8 other candidates in a UK medical licensing examination: cross-sectional study. *Postgrad Med J*  
9 2018; 94: 198-203 Available from: doi: 10.1136/postgradmedj-2017-135326
- 10
- 11
- 12 29. Kumwenda B, Cleland JA, Walker K, et al. The relationship between school type and academic  
13 performance at medical school: a national, multi-cohort study. *BMJ Open*. 2017;7:e016291.  
14 Available from: doi:10.1136/bmjopen-2017-016291
- 15
- 16
- 17 30. Woolf K, Potts HWW, Patel S & McManus IC. The hidden medical school: A longitudinal study of  
18 how social networks form, and how they relate to academic performance, *Medical Teacher*,  
19 2012; 34(7):577-586. Available from: doi: 10.3109/0142159X.2012.669082
- 20
- 21
- 22 31. Beagan BL. 'Is this worth getting into a big fuss over?' Everyday racism in medical school. *Medical*  
23 *Education*, 2003; 37(10):852-60.
- 24
- 25
- 26 32. Robb, N. Racism can rear its ugly head at medical school, study finds, *CMAJ: Canadian Medical*  
27 *Association Journal*, 1998; 159(1): 66-67
- 28
- 29 33. Sue DW, Capodilupo CM, Torino GC, Bucceri JM, Holder AMB, Nadal KL, et al. Racial  
30 Microaggressions in Everyday Life: Implications for clinical practice, *American Psychologist*, 2007;  
31 62(4):271-286. Available from: doi:10.1037/0003-066X.62.4.271
- 32
- 33
- 34 34. Nadal KL, Griffin KE, Wong Y, Hamit S, and Rasmus M. The Impact of Racial Microaggressions on  
35 Mental Health: Counseling Implications for Clients of Color, *Journal of Counseling &*  
36 *Development*, 2014; 92(1):57-66. Available from: doi:10.1002/j.1556-6676.2014.00130.x
- 37
- 38
- 39 35. Davis TL, Gender differences in masking negative emotions: ability or motivation? *Developmental*  
40 *Psychology*, 1995; 31(4):660-667
- 41
- 42
- 43 36. Matsumoto D, Yoo SH, Nakagawa S, Anguas-Wong AM, Arriola M, Bauer LM, et al. Culture,  
44 emotion regulation, and adjustment. *Journal of Personality and Social Psychology*,  
45 2008; 94(6):925-37
- 46
- 47
- 48 37. Matsunaga M, Shaping, masking, and unmasking of a stigmatized identity: the case of Japan-  
49 residing Koreans, *Howard Journal of Communications*, 2007; 18(3): 221-238
- 50
- 51 38. Ahmad NJ, Shi M. The Need for Anti-Racism Training in Medical School Curricula. *Academic*  
52 *Medicine: Journal of the Association of American Medical Colleges*. 2017;92(8): 1073
- 53
- 54 39. Curtis E, Wikaire E, Kool B, Honey M, Kelly F, Poole P, et al. What helps and hinders indigenous  
55 student success in higher education health programmes: A qualitative study using the Critical  
56 Incident Technique. *Higher Education Research & Development*, 2014; 34(3), 486–500. Available  
57 from: doi: 10.1080/07294360.2014.973378
- 58
- 59
- 60

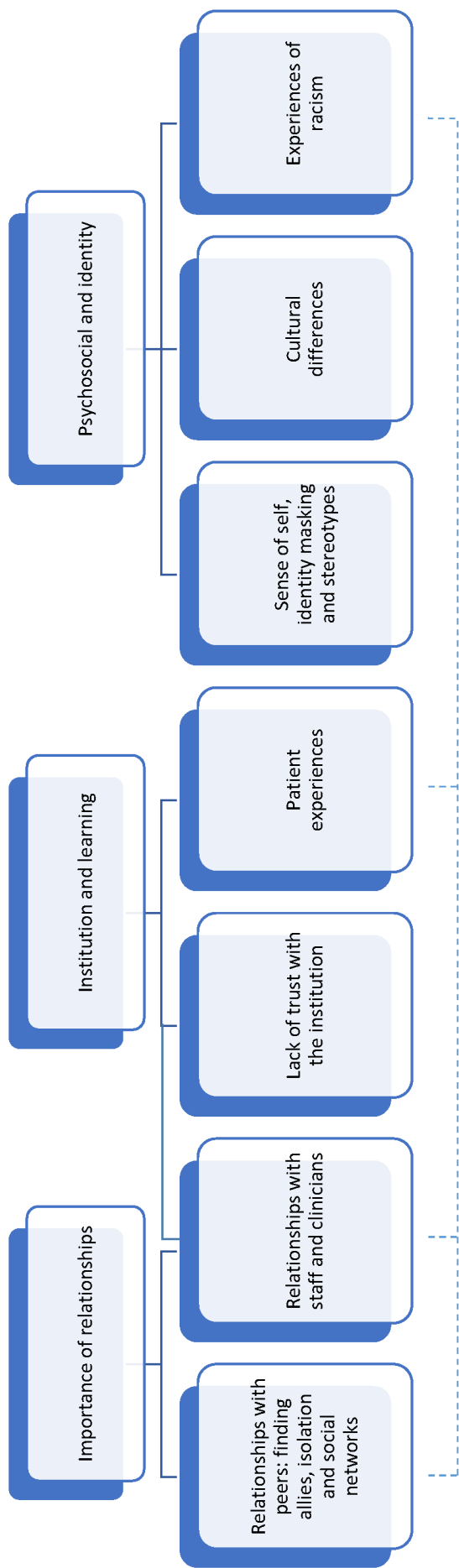
- 1 40. Kumagai AK, Lypson ML. Beyond cultural competence: critical consciousness, social justice, and  
2 multicultural education. *Academic Medicine*, 2009; 84(6): 782–787. Available from: doi:  
3  
4 10.1097/ACM.0b013e3181a42398  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

For peer review only

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46



**Figure 1** Participant demographics by characteristic. **A:** Participants by age group; **B:** Participants by gender; **C:** Participants by ethnicity.



**Figure 2** The main themes (top level) and subthemes (bottom level) describing the difficulties faced by BME graduate-entry medical students at a West Midlands Medical School that were perceived as barriers to performance. The subtheme 'relationships with staff and clinicians' was linked with two main themes 'importance of relationships' and 'institution and learning' as illustrated above. The subtheme 'experiences of racism' was linked with two subthemes within the main theme 'psychosocial and identity' as illustrated by the dotted lines.

# Reporting checklist for qualitative study.

Based on the SRQR guidelines.

## Instructions to authors

Complete this checklist by entering the page numbers from your manuscript where readers will find each of the items listed below.

Your article may not currently address all the items on the checklist. Please modify your text to include the missing information. If you are certain that an item does not apply, please write "n/a" and provide a short explanation.

Upload your completed checklist as an extra file when you submit to a journal.

In your methods section, say that you used the SRQR reporting guidelines, and cite them as:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med.* 2014;89(9):1245-1251.

	Reporting Item	Page Number
<b>Title</b>		
	<a href="#">#1</a> Concise description of the nature and topic of the study identifying the study as qualitative or indicating the approach (e.g. ethnography, grounded theory) or data collection methods (e.g. interview, focus group) is recommended	1
<b>Abstract</b>		
	<a href="#">#2</a> Summary of the key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results and conclusions	2
<b>Introduction</b>		
Problem formulation	<a href="#">#3</a> Description and significance of the problem / phenomenon studied: review of relevant theory and empirical work; problem statement	4-5
Purpose or research question	<a href="#">#4</a> Purpose of the study and specific objectives or questions	4-5

## 1 Methods

2			
3	Qualitative approach and	<a href="#">#5</a>	Qualitative approach (e.g. ethnography, grounded theory, case
4	research paradigm		study, phenomenology, narrative research) and guiding theory if
5			appropriate; identifying the research paradigm (e.g.
6			postpositivist, constructivist / interpretivist) is also
7			recommended; rationale. The rationale should briefly discuss
8			the justification for choosing that theory, approach, method or
9			technique rather than other options available; the assumptions
10			and limitations implicit in those choices and how those choices
11			influence study conclusions and transferability. As appropriate
12			the rationale for several items might be discussed together.
13			
14			
15	Researcher characteristics	<a href="#">#6</a>	Researchers' characteristics that may influence the research,
16	and reflexivity		including personal attributes, qualifications / experience,
17			relationship with participants, assumptions and / or
18			presuppositions; potential or actual interaction between
19			researchers' characteristics and the research questions, approach,
20			methods, results and / or transferability
21			
22			
23			
24			
25			
26			
27			
28			
29	Context	<a href="#">#7</a>	Setting / site and salient contextual factors; rationale
30			
31	Sampling strategy	<a href="#">#8</a>	How and why research participants, documents, or events were
32			selected; criteria for deciding when no further sampling was
33			necessary (e.g. sampling saturation); rationale
34			
35			
36	Ethical issues pertaining to	<a href="#">#9</a>	Documentation of approval by an appropriate ethics review
37	human subjects		board and participant consent, or explanation for lack thereof;
38			other confidentiality and data security issues
39			
40			
41			
42	Data collection methods	<a href="#">#10</a>	Types of data collected; details of data collection procedures
43			including (as appropriate) start and stop dates of data collection
44			and analysis, iterative process, triangulation of sources /
45			methods, and modification of procedures in response to
46			evolving study findings; rationale
47			
48			
49			
50	Data collection instruments	<a href="#">#11</a>	Description of instruments (e.g. interview guides,
51	and technologies		questionnaires) and devices (e.g. audio recorders) used for data
52			collection; if / how the instruments(s) changed over the course
53			of the study
54			
55			
56			
57	Units of study	<a href="#">#12</a>	Number and relevant characteristics of participants, documents,
58			or events included in the study; level of participation (could be
59			
60			



reported in results)

1			
2			
3	Data processing	<a href="#">#13</a>	6-7
4		Methods for processing data prior to and during analysis,	
5		including transcription, data entry, data management and	
6		security, verification of data integrity, data coding, and	
7		anonymisation / deidentification of excerpts	
8			
9	Data analysis	<a href="#">#14</a>	6-7
10		Process by which inferences, themes, etc. were identified and	
11		developed, including the researchers involved in data analysis;	
12		usually references a specific paradigm or approach; rationale	
13			
14	Techniques to enhance	<a href="#">#15</a>	6-7
15	trustworthiness	Techniques to enhance trustworthiness and credibility of data	
16		analysis (e.g. member checking, audit trail, triangulation);	
17		rationale	
18			
19			
20	<b>Results/findings</b>		
21			
22	Syntheses and	<a href="#">#16</a>	7-15
23	interpretation	Main findings (e.g. interpretations, inferences, and themes);	
24		might include development of a theory or model, or integration	
25		with prior research or theory	
26			
27	Links to empirical data	<a href="#">#17</a>	7-15
28		Evidence (e.g. quotes, field notes, text excerpts, photographs) to	
29		substantiate analytic findings	
30			
31	<b>Discussion</b>		
32			
33			
34	Intergration with prior	<a href="#">#18</a>	15-18
35	work, implications,	Short summary of main findings; explanation of how findings	
36	transferability and	and conclusions connect to, support, elaborate on, or challenge	
37	contribution(s) to the field	conclusions of earlier scholarship; discussion of scope of	
38		application / generalizability; identification of unique	
39		contributions(s) to scholarship in a discipline or field	
40			
41			
42	Limitations	<a href="#">#19</a>	16-17
43		Trustworthiness and limitations of findings	
44			
45	<b>Other</b>		
46			
47	Conflicts of interest	<a href="#">#20</a>	19
48		Potential sources of influence of perceived influence on study	
49		conduct and conclusions; how these were managed	
50			
51	Funding	<a href="#">#21</a>	19
52		Sources of funding and other support; role of funders in data	
53		collection, interpretation and reporting	

The SRQR checklist is distributed with permission of Wolters Kluwer © 2014 by the Association of American Medical Colleges. This checklist was completed on 20. June 2019 using <https://www.goodreports.org/>, a tool made by the [EQUATOR Network](#) in collaboration with [Penelope.ai](#)