Reforming a United Kingdom school of pharmacy to promote racial inclusion via a student-staff partnership project

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Introduction

There is great importance in ensuring that racial inclusion is implemented across healthcare courses. Great Britain has become more ethnically and culturally diverse (Office for National Statistics, 2018) and the full breadth of its multi-ethnic composition must therefore be reflected in all sectors of the society, including education. A 2019 inquiry, by the Equality and Human Rights Commission, into racial harassment in United Kingdom (UK) universities revealed the need for a more inclusive study environment, for it found that nearly a quarter of students from ethnic minority backgrounds had experienced racial harassment since starting their course and over half of the members of staff had experienced racial exclusion (Equality and Human Rights Commission, 2019). The lack of racial inclusion within our School of Pharmacy at the University of Nottingham led to the birth of a project – presented here – that aimed to promote racial inclusion within the school. Though several instances served as triggers, two stood out to the student project leader:

1. An academic delivering a lecture on the complications of asthma, but not being able to describe indicators of cyanosis on darker skin tones.
2. An actor – playing the part of a patient during a practical exam – making derogatory and stereotypical comments about African countries during that exam.

Within healthcare education, embedding inclusion and diversity in both the learning material and the learning environment prepares students for a wide variety of situations that they may encounter after graduating and qualifying: they will be equipped with an understanding of the needs of minority groups and will therefore be able, confidently and competently, to provide care for all as part of their practice. The resulting health workforce will be cognisant of the health and illness of every part of Britain's diverse population (Gishen and Lokugamage, 2018). However, those responsible for the design of many healthcare courses are finding it difficult to implement what adequate preparation for diversity requires. Medical students interviewed acknowledged the need for appropriately inclusive curricular content but were not aware that diversity was a theme in their curriculum, as they were unable to recognise where it had been taught (Nazar *et al.*, 2015). This confirms that there must be *explicit* presentation to healthcare students of racially inclusive content.

Recently, within pharmacy, there has been a growing interest in the attainment gap in the General Pharmaceutical Council (GPhC) Registration Assessment, the final assessment enabling qualification as a pharmacist in Great Britain. In the June 2019 assessment, the gap in the pass rate between black and white pre-registration pharmacists was 30%: 61% and 91%, respectively, passed (Kam, 2019). This disheartening statistic cannot be ignored; it is imperative to understand the reason for this result at a grass-roots level. It is futile to attempt to solve the problem at the top without first rectifying the underlying issues. A range of factors comes into play when determining students' success in the education system.

Promoting inclusion and representation when educating a multi-ethnic group of students creates a sense of belonging within them, which in itself aids in combating assessment disparities (Stevenson, 2012). Acquiring a sense of belonging can be a struggle for many students when placed in a higher education (HE) setting, as they often find themselves in more diverse surroundings. However, there is evidence that once students do gain this sense of belonging, it positively influences both their success and their retention. It allows them to go on to achieve the academic success they desire, for, owing to such factors as having friends and feeling part of the institution, they are at ease in their surroundings (Thomas, 2012). With a fundamental sense of belonging, all students are better placed for future success, though this may not always be true for black, Asian and minority ethnic (BAME) students.

The fact that current systems leave many black students feeling under-represented was the main motivation for developing this project. According to Robinson (2018), possible reasons for the low pass rates are bias and prejudice (Robinson, 2018). Beyond exam success, statistics show, for example, that black women are five times more likely to die in childbirth (MBRRACE, 2019) and black men are more likely to be diagnosed with mental health disorders and sectioned under the Mental Health Act than are white people (UK Government, 2019). Our project showed that statistics such as these, among other key pieces of information, were omitted from our learning material, rather than being presented and discussed.

The main goal of this project is a School of Pharmacy which demonstrates equality amongst ethnic groups throughout both the curriculum and the learning environment. This will in turn promote further development of the pharmacy sector as a consequence of increased knowledge about and properly informed perceptions of minority ethnic groups.

There were several potent reasons behind the forming of the student team, which subsequently worked in partnership with staff to determine where improvements might be made. The course material within the pharmacy degree was felt to have most of its patient-focused information tailored to white individuals and, since Great Britain has continued to become ever more diverse, there was consensus that such information must reflect this diversity and fairly represent members of the BAME groups, too. Students in our school typically, during their course, come across relatively few black professionals, lecturers or pharmacists. There is, in fact, a comparatively low percentage of black pharmacists in the profession, with only six per cent of GPhC registered pharmacists being black (Cameron, Thurman and Pickles, 2019). Students are likely to choose role models regardless of their minority ethnic background, but it has been found that having role models of a background similar to their own could be seen as one means of tackling the attainment gap, for it promotes student empowerment (Claridge, Stone and Ussher, 2018). Additionally, the lack of statistics about physical and mental health in BAME communities could be misconstrued as a form of misrepresentation. Finally, regardless of race, we all make up the general population and share equal rights; inaccuracies or biased representations of a minority ethnic group may therefore be deemed unethical.

Pedagogy

The practice of student-staff partnership within HE is becoming more common, particularly in relation to curriculum redesign (Bovill *et al.*, 2015). Whilst the term ‘partnership’ might imply

the integration of two equal parties, student-staff partnerships are founded on the different experiences and ideas of the two groups. Indeed, Cook-Sather, Bovill and Felten (2014) define student-faculty partnership as *"a collaborative, reciprocal process through which all participants have the opportunity to contribute equally, although not necessarily in the same ways"*. The intersection of student experience and staff knowledge is where valuable, long-lasting changes to HE can be made.

Following a systematic review of literature regarding students as partners, Mercer-Mapstone *et al*. (2017) reported positive outcomes for both students and staff, including improved quality of teaching and enhanced understanding of others' experiences. Other articles have discussed how student-staff partnerships often lead to an increased sense of belonging for the student. For example, students who might otherwise feel ostracised, those who commute or those who have carer responsibilities alongside their studies are given an opportunity to share their views and make significant changes to the way content is delivered (Thomas, 2020). This results in students' feeling listened to and valued. Interestingly, Thomas found being 'white British' greatly increased a student's sense of belonging. Thomas' report suggests that meaningful interaction between staff and students can help to build a sense of belonging, further underlining the importance of pedagogical partnership between academic staff and students.

Whilst pedagogical partnerships are typically welcomed, issues have arisen in the past. Mercer-Mapstone *et al*. (*op.cit.*) found that, for the students involved, there are some negative outcomes, including lack of improvement in the desired area(s), reinforcement of the power inequality and decreased student engagement. The staff involved also reported feeling vulnerable and more stressed and anxious. Ahmad *et al.* (2017) emphasised the need for inclusivity in partnerships and highlighted the difficulties that can arise from staff reluctance to relinquish power to the students in any partnership and thus the need to appreciate that the roles in a partnership will change over time as the relationship develops. Furthermore, research investigating the effect of pedagogical partnership on the confidence levels of BAME students suggests that the readiness of institutions to make changes based on the issues raised may well affect the outcome of a project (Jones-Devitt *et al*., 2017). All these studies highlight the importance of following the partnership through to completion. In reflection on past partnerships, Cook-Sather (2018) also mentions as an issue staff resistance to students, particularly among staff who have not experienced disadvantages in education or who do not understand why partnership is needed.

Implementation

A number of methods were planned for reforming the School of Pharmacy with regard to promoting racial inclusion. Significant among these was the 'decolonisation' of the curriculum. The team, perceiving this as the dismantling of a colonial system by identifying and challenging areas with cultural exclusion, has deconstructed culturally deficient models and reconstructed them to reflect a more diverse framework (Smith, 1999). The decolonisation of the curriculum was carried out by the students involved, each taking charge of modules taught through years one to three of the MPharm course. The modules highlighted by the student team were Dyspepsia, Asthma, Allergy Immune Diseases, Cardiovascular Diseases, Gastrointestinal and Liver Disorders, Renal and Endocrine Diseases, Sexual Health and Pregnancy, Viral and Parasitic Infections and the Central

Nervous System. ‘Gaps’ found in relation to racial inclusion belonged largely to the following themes:

- Lack of representation of conditions as seen on black skin
- Less representation of black health care professionals
- Minimal expansion of statistics about conditions predominantly affecting black people
- The need to be more specific in identifying race as a risk factor in some diseases

The review identified many lectures that presented signs and symptoms solely on white skin. They included conditions such as eczema, nodules associated with rheumatoid arthritis, adverse drug reactions to penicillin, the appearance of the chancre in association to syphilis, syphilitic rash, anogenital warts, genital herpes, herpes simplex virus (HSV) infection, measles, mumps and rubella, varicella zoster, ringworm, bull’s eye rash, scabies, impetigo and deep vein thrombosis. For example, there were descriptions, as disease indicators, of the skin turning red or blue, which were accurate on white skin but failed to describe the ways in which the signs and symptoms of the same diseases present on black and other skin tones. It is imperative that this is addressed, to reduce the risk of patients’ being treated on the basis of a lack of diagnosis or of incorrect diagnosis. Work has been initiated on this nationally in the form of the handbook *MIND THE GAP: A HANDBOOK OF CLINICAL SIGNS IN BLACK AND BROWN SKIN*, which states that the medical care a patient receives should not be compromised on account of her/his skin colour (Mukwende, Tamony and Turner, 2020).

The students suggested how these findings could be addressed, for example by provision of relevant information and/or images that could be deployed within teaching. However, the overall changes to be implemented were to be carried out by the staff. In order to diversify the curriculum further, year-long case studies were begun; these showcased being black in healthcare and included diseases not currently part of the curriculum (e.g., sickle cell disease).

In order further to engage black students with events carried out by the School of Pharmacy, a conference was planned, at which black healthcare workers could speak about their experience of being black in pharmacy and suggest how to increase the engagement of black students, as well as argue the need for greater representation of black people in this particular specialism (as just one way of combating racist medical practices). In addition, interactions with members of the School of Pharmacy Placement Team notified them about the need for more partnerships with black-owned or black-run pharmacies for better representation. Now, an outreach programme to inner-city schools in Nottingham is being arranged, to be run by the student team for its members to present their achievements, including the case study and other personal experiences, with the aim of inspiring students to pursue their education at HE level and perhaps to apply to study science, technology, engineering and mathematics (STEM) courses.

To evaluate the impact of the review and the changes suggested by the students for the diversification of the modules, a survey was developed; it explored: staff views of the review; whether they had in consequence made any changes to their teaching materials; their understanding of the issues.

Following ethical clearance by the School of Pharmacy Research Ethics committee (ref. 011-2020), a link to the survey in Microsoft (MS) Forms was emailed, with one subsequent reminder, to academic staff who contributed to the MPharm degree. Data were then downloaded from MS Forms and checked and summarised, using frequency counts with percentages. Open questions were analysed using a thematic analysis approach (Braun and Clarke, 2006).

Evaluation and lessons learnt

Twenty-six academic staff responded to the questionnaire, a response rate of 31%. Almost half of the respondents (n=12, 46%) were male, 81% were aged from forty-one to sixty years old and almost all belonged to the white ethnic group (n=23, 88%). All twenty-six staff remembered being emailed about the review document and twenty-five (96%) had read the review written by the students.

Staff members (n = 25, 96%) were generally positive about the student suggestions, with many reporting they had until now not been aware that the curriculum was predominantly based on a white western perspective and commended the students for their contribution.

> *"I was sorry to see how many modules focused on White people, images of White skin conditions etc. It was very helpful of the students to go through this content and identify this bias (which must have been a lot of work), and particularly useful where alternative images were suggested".* (Q8)

However, one member of staff was not positive, describing it as 'reactionary'.

Most of the academic staff (n=21, 84%) reported having considered the issues relating to diversity in the curriculum prior to the circulation of the document and eight (31%) reported having already made changes to their teaching materials as a result of reading the document, with almost all reporting they were planning to. Only a small number teaching the more basic science areas of the course felt it would not affect their teaching.

> *"It has highlighted the importance of considering all the population when designing teaching materials and lectures, and not just 'what I am used to or familiar with'. For example, I imagine that when someone thinks about symptoms of skin disorders, they think about it on their own skin (for myself, White) and not necessarily other skin types/colours in the first instance. I would said it is a conscious reminder that we need to be representative. Teaching a student population that includes people from all over the world, of all religions and all races requires a representative curriculum."* (Q9)

> *"It motivated me to do more research into the origin of differences in the eGFR equations for Black and non-Black patients. I am now better informed (although it did also serve to highlight how difficult it is to translate population stats to individual patients)."* (Q11)

All but one member of staff (n=25, 96%) were aware of the attainment gap between ethnic minority and white students, particularly in relation to degree outcomes and the issue described above of the GPhC registration assessment results.

Almost two-thirds (n=16, 62%) of respondents recalled being taught about how conditions affect different ethnic groups; for some, this had been in school and, for others, at university. However, for some, the explanations for differences had not been clear in that teaching and one member of staff also highlighted the importance of learning about cultural differences too:

> *"I was taught about how certain conditions impacted on certain ethnic groups but not the reason why".* (R19)

> *"I was not made aware of cultural differences in relation to health during my degree, which had a negative impact on my communication with ethnic minority groups".* (R11)

Almost all staff reported difficulty in locating suitable images to present images of skin conditions on skins other than white. Only two staff (8%) reported being questioned by students about a lack of diversity in their teaching. However, three-quarters of staff (n=19, 73%) reported being highly likely to encourage colleagues to incorporate diversity into their teaching.

The results suggest the positive impact of the student-led partnership in highlighting equality and diversity within the pharmacy curriculum. However, only around one-third of the teaching staff responded to the survey and they were likely to be those more interested in adapting the curriculum to include the range of diversity and equality issues (Bowling, 2014).

Conclusions

Overall, as the student partners, we feel pleased with the impact of the project so far, as it is very important to us as black students. Furthermore, we feel that this is a vital step in creating more awareness for future health care professionals, so they are able to appreciate the issues for the diverse communities they serve and therefore provide improved care.

This is only the first of a number of activities planned to promote racial inclusion in our School of Pharmacy. These include: a conference which would promote the work of black pharmacists to provide role models and increase the career aspirations of black students; a collaboration with the placement team within the school, with the aim of providing student placements with a greater representation of BAME professionals; an outreach programme to inner-city schools to encourage pupils from BAME backgrounds to pursue HE in STEM courses and the development of year-long case studies showcasing diseases that are more prevalent in black people, such as sickle cell disease, which do not currently form part of the current curriculum.

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Appendix

Pharmacy curriculum racial inclusion survey to University of Nottingham MPharm lecturers

*Required

1. I voluntarily agree to participate in the research study. I understand the purpose and nature of the study. I understand I can withdraw from the study at any time, without my legal rights being affected*

   Yes
   No

2. I give permission for the anonymised data generated from this questionnaire to be used in publications on this topic.*

   Yes
   No

3. Which gender do you identify with?

   Female

   Male

   Other

   Prefer not to say

4. What age are you?

21 to 30
31 to 40
41 to 50
51 to 60
61 or over

Prefer not to say

5. Choose the option that best describes your ethnic group or background.

White
Mixed/Multiple ethnic groups
Asian/Asian British
Black/African/Caribbean/Black British
Other ethnic group

On 16 September an email titled ‘Inclusion and diversity in our curriculum - message from students’ was sent to you with a link to a document in which a group of students had identified bias in the MPharm curriculum.

6. Do you remember receiving this email?
Yes
No

7. Did you read the linked document?
Yes
No

8. What were initial thoughts on the document?

9. What do you think the intention of the document was?

10. Had you thought about the issues expressed in the document prior to receiving the email?
Yes
No

11. Please explain whether, and how, the document has impacted your teaching.

12. In the document, we outlined the recurring attainment gap between ethnic minorities and their White counterparts, is this something you were aware of before receiving the document?
Yes
No

13. Please tell us more about your understanding of the attainment gap before you received the document.

14. Were you taught about disorders/illnesses that affect people from ethnic minorities (e.g. sickle cell anaemia)?

Yes
No

15. On a scale of 1 to 5, where 1 is very unlikely, and 5 is highly likely, how likely are you to encourage other teachers (colleagues) to incorporate diversity in their teaching content?