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Opinion Paper

Title:

**Addressing Racial Inequalities in Dental Education: Decolonising the Dental Curricula**

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**Abstract:**

The aim of this paper is to highlight the impact of racial disparities on the educational experiences of Black and minority ethnic students in healthcare education. Attainment gaps and barriers to career progression for ethnic minority home students in the United Kingdom (UK) have been recognised for decades but little progress has been made to address these issues. Students and staff in higher education have been campaigning for “Decolonisation of the curriculum” to improve inclusivity and representation. These trends are being mirrored in medical education and there is growing recognition to decolonise the medical curricula. This would improve the educational experience and attainment of ethnic minority students and doctors and also to address disparities in healthcare provision for the ethnic minority patients. The context for decolonisation of the dental curricula is provided followed by a discussion on the benefits, challenges, and strategies for such decolonisation.

## **Practice Points**

1. Explains “Decolonisation of the curriculum” in higher education with an emphasis on undergraduate Dental Curricula
2. Highlights the challenges faced by ethnic minority students in healthcare education
3. Provides a rationale and recommendations for decolonisation of Dental Curricula in UK Dental Schools

## Introduction

### *What is Decolonisation of an Educational Curriculum?*

“Decolonisation” may be defined as the process in which a country that was previously a colony (controlled by another country) becomes politically independent.<sup>1</sup> Dismantlement of the colonial powers was started following the culmination of World War-II but withdrawal of colonial powers from a geographic space does not fully encompass the manifestations of colonialism. It warrants a change of a mind-set which legitimises dominance of racial supremacy and portraying the colonised as “inferior”.<sup>2</sup> Although colonialism of countries is considered to be a relic of the past, the higher education curricula continue to be colonised by White and western intellectual traditions and lack appropriate representation of Black and ethnic minorities.

While there is no universally accepted single definition of “Decolonisation” of the curriculum, the term is used to describe *“Creation of spaces and resources for a dialogue among all members of the university on how to imagine and envision all cultures and knowledge systems in the curriculum, and with respect to what is being taught and how it frames the world”*.<sup>3</sup> Such discourse requires deconstruction, rethinking and reconstruction in order to make curricula inclusive and representative of different communities, voices, and perspectives. A contextual approach to curriculum design and delivery may allow the universities to evaluate how curriculum – and therefore education influences social relations, practises, and culture.<sup>4</sup>

Decolonisation of higher education curricula started as a movement at the University of Cape Town to remove influences of colonialism and provide representation to the knowledge and perspectives of indigenous people. It was a student-led initiative that advocated for the removal of the statue of Cecil John Rhodes from the University’s

campus and later became known as the “Rhodes Must Fall” movement <sup>5</sup> The campaign challenged the Eurocentric hierarchies of race, social class, and gender in South Africa. Since then, this movement spread further afield and was replicated in the UK as Rhodes Must Fall Oxford campaign. Student bodies and staff in UK universities are actively campaigning for decolonising curricula in higher education institutions. Students unions at leading universities including Oxford, Cambridge, London, Kent, Leeds, and many more are already part of this movement.<sup>6</sup>

Although implicit, colonial influences still persist in Universities and shape our assumptions about how society needs to work, what needs to be taught and how it needs to be taught. The power relations and hierarchical structures in educational institutions may give disproportionate importance to the opinions, experiences, and achievements of White men. However, it is time to investigate, and challenge these assumptions so that we can build an education culture where every human being has an equal right to contribute and influence creation of knowledge.

A critical part of decolonisation of the curriculum is to revisit the reading lists by considering how the location of authors shape their narratives and perspectives.<sup>3</sup> The aim is to diversify the learning resources for students, bring in new perspectives and make the reading lists more representative rather than being restricted to view all information through the lens of by Eurocentric authors. Students and researchers should be encouraged to read literature from diverse sources. Similarly, publishers need to engage with writers and scholars from non-white backgrounds to develop a new generation of authors representative of their readers. Librarians and information specialists can also play an important role in supporting their institutions to review the reading list as they are responsible for organising, coding and retrieval of knowledge and can provide useful insights into how it may impact on minority ethnic groups.<sup>6</sup>

Whilst this conversation can be a difficult one, students understandably expect this matter to be addressed as a priority. Socio-political discourse on racial inequalities also needs to be viewed in the context of attainment gaps amongst ethnic minority students in higher education.<sup>7-9</sup> The debate has intensified in the backdrop of recent events related to the death of George Floyd in the USA and the subsequent spiralling of Black Lives Matter movement. Given the growing population of ethnic minority students in UK universities, debate on racism is likely to get stronger in the future.

### *Implications of Racial Inequalities in Healthcare Education*

Racial inequalities in healthcare education and practise are multifaceted and despite substantial evidence of disparities in health outcomes for minority ethnicities and differential attainment among students and staff, minimal progress has been made to address these issues.<sup>10</sup> Racial inequalities in healthcare are also linked to poorer experiences of patients from ethnic minority backgrounds and even an increased risk of certain diseases.<sup>11-13</sup> These disparities have been further highlighted in the recent Covid-19 crisis with Public Health England due to the disproportionate effects of Covid-19 on ethnic minority patients and healthcare professionals.<sup>14</sup>

The educational experiences, attainment, and working lives of ethnic minority students and staff in the UK healthcare professions are also a source of concern. Data from programmes in medicine show that ethnic minority undergraduate medical students and doctors in the UK are more likely to fail assessments than their White counterparts.<sup>15, 16</sup> UK medical graduates from ethnic minority backgrounds are also less likely to be shortlisted and selected for specialty training programmes.<sup>17</sup> In

addition, less favourable outcomes for ethnic minority doctors are reported regarding successful applications for consultant posts in the NHS and subsequent pay gaps compared to their White peers. Similar findings have been reported for ethnic minority nurses in the UK with their attainment levels lower than White British students and with a higher likelihood to facing discrimination.<sup>18, 19</sup>

Data on performance and attainment of ethnic minority students in Dentistry does not appear to be available widely in the public domain but disparities have been highlighted in admissions to dental undergraduate programmes.<sup>20</sup> Although reliable inferences regarding ethnic minority students in Dentistry cannot be made in the absence of such data, it is unlikely that the trends in dentistry would be markedly different from those in medicine.

Attainment gaps amongst students and healthcare professionals from ethnic minority backgrounds are largely related to social factors and stereotyping.<sup>21</sup> However, the influences of medical curricula on health inequalities and attainment gaps among ethnic minority students have not been researched adequately.<sup>22</sup> It is also important the ethnic minority students in healthcare education see themselves represented in the curriculum and do not feel obliged to study a “White” curriculum which does not represent the healthcare needs of an increasingly diverse society.

## **Decolonisation of the Dental Curricula**

Like other healthcare professions, Dentistry has a historical legacy of being conceptualised as a “White” profession.<sup>23</sup> Despite a growing population of students in higher education including medicine and dentistry, there are stark ethnic disparities in UK academic employment and approximately 76% of academic faculty and staff members identified as White, 9% as Asian and 2% as Black.<sup>24</sup> This is also reflected in the low proportion of ethnic minority dental academics in senior posts in UK dental schools.<sup>25</sup>

Ethnic disparities in turn may influence the power relations and academic hierarchies in Dental Schools and pose an impediment to proportional representation of ethnic minority staff and students in institutional strategy and decision-making processes. Data from medical schools also highlights that students tend to accept that career progression may be dependent on their capacity to tolerate intimidation and may not feel confident to question the underlying power relations and rules of engagement.<sup>26</sup> Studies also show that ethnic minority medical students are more likely to experience bullying and harassment.<sup>27</sup> There is insufficient research on experiences of ethnic minority dental students in the UK which only adds to these concerns.<sup>28</sup>

Decolonisation of dental curricula needs to be considered in a psychosocial context. Racial inequalities in dental education have a negative impact on the educational experiences of students from minority ethnic groups and may contribute to poor educational experiences, attainment gaps, and pose barriers to career progression. Lack of representation of minority ethnic groups in dental curricula can also translate into disparities in patient care for minority ethnic groups with far reaching implications for their health and wellbeing. If Dental Schools are to make a meaningful progress on

decolonisation of curricula, it would require a systematic review of the existing governance structure; appropriate representation and empowerment of ethnic minority staff and students in existing committee memberships; and treating decolonisation as a strategic priority.<sup>29</sup>

Decolonisation of the dental curricula is also fundamental to improve the cultural competence of dental graduates and warrants a review of curriculum content and delivery; provision of dental care in community settings; and promotion of reflective practices.<sup>30</sup> The focus of these measures should be to improve the skills of students to provide dental care to diverse population groups and improve patient experiences. Prevalence of dental disease is higher while access to dental treatment and patient satisfaction rates are lower amongst ethnic minority populations in the UK.<sup>31</sup> A recent randomised clinical trial showed that dental clinicians were more likely to recommend root canal treatment for White patients (86.21%) compared to the Black patients (60.71%) for the management of a carious molar. Dentists were far more likely to recommend extraction in the Black patient group.<sup>33</sup> Two separate systematic reviews in medicine also concluded that many physicians, regardless of specialty, demonstrate an implicit preference for White people.<sup>33,34</sup> The GDC Standards for Dental the Dental Team mandate all professionals to treat all patients equally and without discrimination.<sup>35</sup> Dental institutions across the country now provide staff training on equality, diversity and managing unconscious bias. These are welcome steps but there is also a need for regular clinical audits to investigate the impact of implicit racial bias in clinical decision making by students and staff for self-reflection and to monitor compliance.

In regard to curriculum content of biomedical sciences, dental educators also need to address the interplay between race and disease. Racial background and skin colour of patients can have a remarkable impact on the prevalence and clinical presentation of disease, and can in turn impact on the diagnosis, and subsequent management by healthcare professionals.

The classical signs and symptoms of recognised medical conditions may be difficult to detect in ethnic minority individuals if the teaching predominantly relates to White patients and impact adversely on timely management of individuals who do not seem to conform to the perceived norm. For example, cyanosis detection on Black skin requires 3 to 6% more arterial oxygen desaturation.<sup>36</sup> Similarly skin and mucosal pallor; rashes, erythema, ecchymosis, petechial haemorrhages, and purpura may appear quite different and often less remarkable in Black patients. Without appropriate training, clinicians may struggle to identify these signs efficiently in patients with dark skin especially during medical emergencies. Conditions associated with increased melanin pigmentation may be masked in patients with dark skinned.<sup>37</sup> The normal range of laboratory tests, such as renal function tests, may be also different for Black individuals and these differences need to be accounted for when interpreting the results.

Additionally, individuals with dark skin may show several variations including racial melanin pigmentation of the oral mucosa.<sup>38</sup> Another example is Leukoedema which is prevalent in Black individuals. It is characterised by diffuse greyish-white discolouration of the buccal mucosae bilaterally and may be misinterpreted as leukoplakia.<sup>39</sup>

Moreover, dental curricula do not place sufficient emphasis on skin cancer in Black patients. While basal cell carcinoma is the most common skin cancer in Whites and affects sun exposed areas of skin, squamous cell carcinoma is more common in the Black population.<sup>30</sup> Similarly, melanoma in Blacks and Asians most commonly occurs on non-exposed areas of skin and shows several variations compared to Whites which may lead to delayed diagnosis and poor survival rates.<sup>40- 42</sup>

Ethnic background of subjects may also influence perceptions regarding ideal facial profile and aesthetics which may have implications in orthodontics, orthognathic and plastic surgery.<sup>43</sup> Anecdotally many clinicians believe that tooth extractions are more difficult in Black patients and indeed this is also sometimes discussed in exodontia teaching in dental schools. While such claims may be true in certain cases, they warrant further research based on good quality evidence to identify manage perceived risks of tooth extractions in Black patients. Perhaps many more examples may be quoted but the fundamental point is that recognition of disease in non-white individuals presents unique challenges for clinicians despite a growing ethnic minority population in the UK. Dental students may not have sufficient knowledge, learning resources, and clinical exposure to recognise these differences.

## Discussion

Recently Malone Mukwende, a second-year Black medical student at St George's University of London received extensive media coverage for highlighting challenges of interpreting signs of disease on people with Black skin.<sup>44</sup> As a Black student, Mr. Mukwende felt alienated with the way clinical skills are taught due to the lack of discussion around clinical signs on darker skin. It is quite remarkable that it took a student to highlight this important issue which seems to have been largely ignored in medical institutions for as long as one could go. Working with academic staff, Mr. Mukwende has developed a handbook entitled "Mind the Gap" which aims to educate students and clinicians about the differences in the presentation of diseases in people with dark skin. This story may be an eye-opener for healthcare educators as it provides a clear example of how racial background of patients has not been fully addressed in teaching and learning. It also provides a strong argument for decolonising the curricula in healthcare education.<sup>45</sup> Calls for decolonising the medical curricula have been growing in the last few years. This trend is evidenced by the special issue of British Medical Journal on racism in medicine which was published in February 2020.<sup>46</sup>

It is noteworthy that the voice of dental profession is not prominent in the debate on racism. There is a paucity of published data on dental students' attainment which warrants a more open and transparent approach to data sharing including the differential performance based on protected characteristics of students. Data on admissions to undergraduate programmes in Dentistry (1996-2011) show that the odds of applicants gaining admission were lowest for males, those of Black ethnicity, and those from a lower socioeconomic classification while Asian students, and females were more likely to get admission.<sup>20</sup> The findings mirror data from the wider higher education

sector which shows attainment gap amongst ethnic minority students is greater in Black than in Asian students.<sup>9</sup> These observations highlight additional challenges for Black students which may also need to be considered.

Although decolonising of dental curricula requires a long-term strategy and sustained commitment, it warrants to be made a priority in dental schools through meaningful engagement with all stakeholders especially students and subject experts from diverse backgrounds . Following resumption of teaching after the lockdown, students at our dental school are already contacting teaching staff to inquire what is being done to decolonise the curriculum. Therefore, there is little room for complacency and dental institutions need to take immediate steps to identify and rectify racial disparities in dental curricula. A multi-pronged strategy to transform the educational culture with pooling of resources and expertise can help dental schools to start this journey and some key recommendations are summarised below:

- Dental institutions should make effective use of platforms such as Health Education England (HEE) which commissions dental education the UK, and the Dental Schools Council (DSC) to share data on student attainment and collaborate to address any gaps. In this regard, HEE and DSC could serve as central hubs to share ideas and strategies to decolonise the dental curriculum.
- The Race Equality Charter by Advance HE provides an excellent framework for addressing for the higher education institutions to identify and self-reflect on institutional & cultural barriers faced by minority ethnic staff and students.<sup>47</sup> Although sign up and submissions for REC are done at the University-level, Dental

Schools must engage with the process proactively and use this as an opportunity to detect and address barriers to attainment and progressions for ethnic minority students. The GDC standards for Education require dental institutions to ensure that students are protected from all forms of discrimination and assessments are fair and free from bias.<sup>48</sup>

- Universities in the UK have a committee structure in place to address issues of equality, diversity, and inclusion and these committees can serve as effective platforms to engage with minority ethnic students and staff. Similarly, lay members on dental committees should include ethnic minority representation. Together with student voice, public representation should be used to inform curriculum development, teaching, assessments.
- The curriculum content needs to be reviewed to ensure students are trained adequately to recognise varying signs and symptoms of disease in patients from minority ethnic backgrounds to enhance their cultural competence. Dental schools may need to develop bespoke learning resources and assessments to meet these goals.
- Review reading lists by engaging with ethnic minority students and staff and ensure that they are inclusive, and minorities are represented appropriately.<sup>49</sup>

## **Conclusions**

Decolonising the curricula in healthcare education is an essential step to address racial inequalities in healthcare education and make education more inclusive to provide participation and representation to minority ethnicities. Dental schools in the UK need to actively pursue decolonisation of dental curricula by engaging with all stakeholders and adopt a shared strategy. Whilst the conversation can at times be a challenging, it is one that should be addressed by all in the profession to optimise educational outcomes and patient care.

## **Disclosure**

None of the authors have any conflict of interest.

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