



The Case for Decolonising the Dental Curricula in the UK

[Special issue of Community Dental Health, to be disseminated at the ‘Power in Dentistry’ International Association for Dental Research symposium, July 2022, China]

R. Lala

Unit of Oral Health, Dentistry and Society, School of Clinical Dentistry, University of Sheffield, UK

Students across disciplines in UK universities are demanding decolonisation of their education. These demands aim to resist the white European colonial endeavour that create racist inequalities. To address racial inequalities, the dental discipline has predominantly focused on diversity rather than decolonisation. By using two inter-related referents of decolonisation to dental caries and cosmetic dentistry, this article demonstrates the epistemic violence exerted through the objective hierarchised knowledge practices in dentistry. First, by starting from the position of racisms, empire and slavery, the enduring colonial patterns of power and hierarchies come into view. We see how knowledge production in dentistry has neglected the interconnected histories of colonialism, racial capitalism and patriarchy that continue to shape oral health inequalities and work towards promoting white supremacist beauty ideals. Moreover, the interconnected character of inequalities — race, class and gender — begin to emerge. Second, by proceeding from the place of colonialism, the limits of dental knowledge and the violence embedded in knowledge practices emerge. This highlights the need for new ways of knowing. To decolonise is to confront and weaken the dental discipline’s entanglement with the enduring colonial patterns of power and hierarchies that are complicit in maintaining inequalities. Diversity without decolonisation will simply subsume marginalised voices into the existing hierarchised knowledge paradigm and continue to reproduce a hierarchised, unequal world. I argue that if dental schools want to address racial and intersectional inequalities, they need new transformative ways of learning and knowing to equip students to work towards social justice in the outside world.

Keywords: *Race, Racism, Colonialism, Empire, Decolonisation, Racial Capitalism, Power, Diversity, Racial inequalities, Intersectional inequalities, Oral health inequalities, Sugar, Cosmetic Dentistry, Dental caries*

Introduction

Students in the UK are demanding the decolonisation of the university and education more broadly. Since 2015, the UK National Union of Students (NUS) has led ‘Why is My Curriculum White?’ and #liberatemydegree campaigns (NUS, 2016, 2015). These campaigns aim to resist the racist Eurocentric colonial endeavours in the curricula of UK universities (Bhambra *et al.*, 2018).

At the heart of the campaigns to decolonise is the demand for equality and social justice. Dental schools whose objectives include educating students to care for people’s health and advocating the reduction of oral health inequalities should be at the forefront of the movement. Nonetheless, it is not until 2020, with the Covid-19 pandemic and the wider public attention to the Black Lives Matter movement that discussions around diversity and racial inequalities gained traction in dentistry. Since then, there have been numerous academic articles and professional statements reprobating racial discriminations and championing diversity (BDA, 2020; DDAG, 2021; Lala *et al.*, 2021a; Moyes, 2020). But diversity initiatives in isolation fall short in confronting the colonial relations of power that have worked to create racist inequalities (Adebisi, 2021; Bhambra *et al.*, 2018). It is only a decolonial approach that will enable the dental discipline to unravel its relationships with power. In doing so, we can reflect on our complicity in the unjust enduring colonial legacies.

What is Decolonisation?

Decolonisation, the undoing of colonialism, as theory and practical application has a diverse global history. Therefore, it is a highly contested notion. In this article, I apply two interrelated referents of decolonisation given by Bhambra *et al.* (2018) to dentistry.

The first is to take colonialism, empire and racisms as key influences shaping the contemporary world. By taking racism and its broader colonial legacy as objects of study, the systematic elisions of racisms can be brought into view. As examples, Bastos *et al.* (2021) described how racisms across different levels (institutional, cultural and behavioural) create oral health inequalities (Bastos *et al.*, 2021). Hedges *et al.* (2021) showed how enduring colonial legacies impact the oral health of Aboriginal communities at structural and individual levels.

Second, decolonisation intends to offer new transformative ways of thinking about the world. But the positivist position of the sciences including dentistry, are often resistant to this. Thus, the discourse around decolonisation in dentistry has predominantly focused on diversity and expanding clinical teaching to improve diagnosis and outcomes for people with darker skin (Ali *et al.*, 2021). And although diversity and improving clinical outcomes for racially minoritised people is extremely important; this restricted view of decolonisation does not fully recognise nor concede ‘epistemic violence’, the violence exerted through knowledge practices (Spivak, 2010).

Violence and hierarchy are deeply entrenched in Western knowledge paradigms (Said, 2003; Spivak, 2010). UK universities (which house dental schools) were built on the spoils of slavery and colonialism (Francois, 2019; Reuters, 2019). More particularly, sugar, tobacco and alcohol (rum) were not only key commodities in the disenfranchisement of Black and brown people but are central to oral diseases. Therefore, the legacy of colonialism has shaped both the ethnic diversity and oral health profile of the British metropolis (Mintz, 1986; Ortiz, 1995). This historically situated character of oral diseases and health inequalities has been effaced from the dental curricula. I argue that this is because dentistry has an unapologetically hierarchical knowledge paradigm. Dental schools are sites of hierarchised knowledge production. The ‘hierarchy of evidence’ which informs clinical practice gives credence to ‘validated scientific observations’ or measured differences from clinical trials and cohort and case-control studies. The historically contingent character of scientific observations and knowledges from marginalised communities are relegated to the bottom of the evidence pyramid as mere opinion or background (Bhakuni and Abimbola, 2021; Burns *et al.*, 2011). This is due to academic knowledge production practice being predicated on Eurocentric values and the maintenance of unequal colonial relations of power. Research funding bodies, journals and student curricula all work towards upholding Eurocentric values and legitimating Western knowledge. Token appreciation is given to the values and knowledges of marginalised communities, but they are positioned as intellectually inferior/‘Other’; outwith the scope of ‘science’ (Biermann, 2011).

Dentistry has the overarching aim of preventing oral diseases and improving oral health (functionally and aesthetically) whilst reducing oral health inequalities. Thus, I apply Bhambra *et al.*’s (2018) two referents of decolonisation to the prevention of a common oral disease, dental caries, and cosmetic dentistry. In doing so, I aim to show how colonial hierarchisation ingrained in dentistry’s epistemic paradigm reproduces and reinforces racial and intersectional inequalities.

Preventing Dental Disease (Caries)

Dental caries is mired with inequalities. Caries-related teeth extractions is the leading cause of hospital admissions amongst UK children. Epidemiological analysis shows that children living in ‘economically-deprived’ areas are significantly more likely to be admitted to hospital (Broomhead *et al.*, 2020). It is unsurprising that racially minoritised British children, who experience greater material disadvantage than their white counterparts (Institute of Health Equity, 2020) also have greater levels of caries (Public Health England, 2020). This social pattern is reproduced globally with marginalised children and those living in poverty experiencing greater levels of dental diseases and having poorer access to dental care (Peres *et al.*, 2019). Since sugar is the principal aetiological agent in the development of caries, dental pedagogy and clinical practice have focused on attempting to reduce people’s sugar consumption. By applying a decolonial lens to sugar, dentistry’s entanglement with the enduring colonial relations of power is brought into view.

First, by proceeding from the position of racism and colonialism we observe how caries-related inequalities have a historical and contemporary socio-political context. Sugar was extremely important for British colonial and capitalist expansion. Britain’s colonies were the biggest producers and global exporters of sugar. The demand for low-cost sugar was intentionally created among the working-classes in Britain; both for sugar-related profits and to improve workers’ energy and thus productivity. There was a push to seize more colonies and import more slaves to meet the intentionally created rising sugar demands of the British working-class. At a cost to overall nutrition, sugar provided the much-needed calories in the working-class diet. Moreover, because protein was scarce and reserved for ‘labouring’ fathers, working-class mothers and children had higher sugar consumption and under-nourishment (Mintz, 1986). We therefore observe how race, class and gender hierarchies are formed within colonialism.

After emancipation, the purported ‘free’ labour within capitalism was also racialised. The British transported labourers from India, China and other colonies to work the sugar plantations in the Caribbean. There were special legislations in place to prevent these labourers from voting and owning land. With the migration of 100 million people by the 19th century, sugar has been one of the world’s greatest demographic and health influences (Mintz, 1986; Ortiz, 1995).

Second, persisting caries-related inequalities warrant an exploration of new ways of knowing and clinical application of that knowledge. At present, dental public health practice aims to narrow population-level inequalities and clinical prevention in dental practice intends to prevent caries in individual patients. But public health practice and clinical knowledge paradigms are interwoven with the interconnected histories of colonialism, capitalism and patriarchy (Browne *et al.*, 2005; Fricker, 2009; Richardson and Farmer, 2020; Smith, 2012). Specifically, dentistry’s positivist epistemic position creates what Du Bois (1897) described as ‘problem people’ rather than people who are experiencing problems.

As examples, prevention in clinical dental practice has been shown to create gendered moralisations that stigmatise working-class mothers (Nettleton, 1992). This stigmatisation has racial dimensions with ‘cultural’ explanations given for poor health (Browne *et al.*, 2005; Lala *et al.*, 2021b). At a population level, the epidemiological picture of dental caries fails to capture the material and political conditions under which people experience greater levels of disease. The poorer oral health of racially minoritised communities is simply explained away as ‘economic disadvantage’ (Institute of Health Equity, 2020; Public Health England, 2020). There are blind spots to the racisms that lead to lack of job, education and housing opportunities which contribute to economic disadvantage.

Critical (dental) public health discourse on the ‘commercial determinants of health’ recognises that capitalist exploitation continues to shape health inequalities (Jamieson *et al.*, 2020; Kickbusch, 2012). And although the gendered, racial and political dimensions encompassing this exploitation have been highlighted in the wider literature (Kickbusch, 2015; Smith, 2005; Williams and Sternthal, 2010), they have generally been ignored in dentistry.

We therefore observe how dentistry's epistemic paradigm systematically effaces race and racisms. Race and racism have not been identified as determinants of oral health in the undergraduate or specialist dental public health curricula (General Dental Council, 2015, 2010). At a knowledge production level, the complex historically-situated relations between racisms, poor health and economic inequalities remain under-explored (Salway *et al.*, 2020). These elisions in research and the dental curricula translate into dentist-patient relationships that are not empathic to the material and political conditions under which people experience oral diseases. Moreover, these elisions also shape dental public health practice.

Despite recognising the role of capitalism in creating oral health inequalities, public health practice is entangled with these exploitative relations of power. As examples, a national public health campaign in the UK (NHS Better Health) promotes low-sugar diets (NHS, 2022). This campaign has partnered with 200 actors to discourage sugar consumption, including those like Britvic with interests in increasing sugar consumption (Britvic, 2018). But public health actions undertaken by commercial actors have been shown to be largely driven by self-interests (Knai *et al.*, 2018). The Soft Drinks Industry Levy ('sugar tax') has led to higher costs for consumers and increases economic inequalities (Scarborough *et al.*, 2020). Generally, public health approaches tied to commercial interests make high demands on individuals to change their behaviours (Theis and White, 2021). The racial dimensions to these demands placed on communities have been largely neglected in dentistry.

Cosmetic Dentistry

By starting from the position of racism and colonialism in cosmetic dentistry, once again we observe how dental knowledge has a historical and contemporary socio-political context. Teeth beautifying practices (cosmetic dentistry) has a rich and diverse history (Arcini, 2005; Gonzalez *et al.*, 2010; Kunzle, 1989). As far back as the 14th century B.C, the Olmecs filed their teeth (Tapia *et al.*, 2002). Later, the Mayas decorated their teeth with jade and gold inlays (Kunzle, 1989) and in the Tokugawa period, married Japanese women blackened their teeth (Ring, 1992).

Today, diverse teeth beautifying practices are found across the world. The Montagnards of Vietnam liken human teeth to those of dogs. Therefore, at puberty, boys' upper incisors are extracted or filed down, and their lower incisors filed to a point to re-express the human essence which is considered beautiful (Gonzalez *et al.*, 2010). The Potong Gigi in Bali celebrate the Mapandes ceremony at puberty, when boys and girls have the incisal edges of their upper six anterior teeth chipped to symbolise protection against six cardinal sins as children cross the threshold leading to adulthood (Brown, 2011).

Nevertheless, these diverse dental traditions and beauty ideals are absent from the dental curricula. This is because they are considered unscientific; intellectually Other (Biermann, 2011) and cannot be neatly boxed into the hierarchy of evidence pyramid. Western academic thought has constructed a colonial European-Other divide (Said, 2003). Within this racist epistemic paradigm, Europeans

produce science and logic and the 'Other' produces myth and superstition (Said, 2003). Therefore, only Western societies have the privilege of producing science. This Western privilege of making science and the constructed European-Other divide is brought into stark view when examining cosmetic dentistry including orthodontics.

The 'science' of orthodontics teaches students to measure people's faces and teeth to 'objectively' score if they need treatments to attain a 'normal' dento-facial appearance. This score is assessed using the Index of Orthodontic Treatment Need (IOTN). This British index (IOTN) was developed by a tiny group of white dental academics (Brook and Shaw, 1989). Consequently, it is encumbered with Eurocentric ideals. For example, teeth positions like maxillary diastemas are considered beautiful in some African cultures, (Mugonzibwa *et al.*, 2004) but regarded as unattractive in Western societies (Kerosuo *et al.*, 1995). Diastemas, class III jaw relationships, bimaxillary proclinations; all of which are more common in non-European people, are more likely to score as needing treatments using Western orthodontic indices (Brook and Shaw, 1989; Farrow *et al.*, 1993; Proffit *et al.*, 1998). Objective science; in this case orthodontics, disproportionately labels Black and brown people as not 'normal'. This labelling is effective because it has academic authority (Jenkins, 1996) and as such, it is especially violent (Spivak, 2010).

The science of measuring people and assessing differences from the 'normal' has a dark history. Decolonial scholars have described the dehumanising practice of colonisers measuring Indigenous persons to assess peoples' humanity (Smith, 2012). The measuring of racial differences and eugenics by University College London was used to justify the horrors of the Nazi Holocaust (Bauman, 1991; Das, 2020). Anti-Semitic references to a 'Jewish nose' in academic publications dates as far back as 1892 (Haiken, 2000; Roberts, 1892). It may seem that these racist ideas and practices no longer exist; however, Lala (2020) showed dentists problematising the 'Pakistani' nose which is an Islamophobic descendent of anti-Semitism in cosmetic medicine. Moreover, the European-Other divide is crystallised in contemporary academic publications that describe non-European teeth modification practices as savage 'mutilations' (Gonzalez *et al.*, 2010; Pinchi *et al.*, 2015). In contrast, orthodontics and cosmetic dentistry, which often result in the extraction of healthy premolar teeth and invasive surgery such as osteotomies are legitimated as science and healthcare.

Just like sugar and dental caries, the legacy of racism, colonialism and the 'problem Other' in cosmetic dentistry persists through capitalist exploitation or more specifically 'racial capitalism', the mutual interdependence of racism and capitalism (Robinson, 2021). Lala (2020) showed that the principal driver behind cosmetic dentistry to improve people's dento-facial appearance is profit. Dentistry's capitalist model has resulted in British dentists creating demand for elective treatments to attain a more European appearance. Dentistry's ideal of the straight white smile is a cipher for whiteness that is unaccommodating of wider beauty ideals. Specifically, UK dentists consider Black aesthetic ideals such as gold crowns or Grillz to be in poor taste. This suppression of alternative beauty ideals and stigmatisation of the 'Other'

is an enduring colonial logic ingrained within the dental epistemic paradigm. Furthermore, due to the patriarchal character of beauty practices, the Eurocentric smile ideal also disproportionately impacts women, those who cannot afford cosmetic dentistry and people with living with facial differences (Lala, 2020). We therefore observe how epistemic violence compounds to disproportionately harm people who occupy multiple minoritised social categories (Crenshaw, 1991; Spivak, 2010).

In summary, by applying a decolonial lens it emerges how multiple axes of oppression of race, class and gender are formed and endure within colonialism. Moreover, we observe how violence and hierarchy are deeply entrenched in dental knowledge paradigms supporting the case for new ways of learning and knowing.

The importance of focusing on decolonisation and not diversity

Dental schools are sites of knowledge production and more importantly, give credence to how that knowledge is applied in the real world. Akin to all disciplines, the dental curriculum is the product of a power struggle (Gebrial, 2018). But the staunch positivist propensity of the sciences has meant that dental knowledge is considered objective and neutral. By starting from the position of racisms and empire it becomes apparent that dental knowledge is not scientifically neutral, but inherently political. Caries-related inequalities cannot be separated from the politics of sugar and food poverty. People's unhappiness with their appearance cannot be detached from racial capitalist interests in promoting white supremacist beauty ideals. We therefore observe how the highly racialised projects of economic, political, and cultural dominations of empire and slavery continue to shape dental education and oral health inequalities (Gebrial, 2018).

Epistemic violence is often not recognised as violence (Spivak, 2010). This is particularly the case for healthcare institutions like dental schools which aim to heal. But dentistry's hierarchised epistemic paradigm is complicit in racial harms. Dental knowledge promotes Eurocentric beauty ideals and effaces the role racisms in caries-related inequalities. In the UK, these Eurocentric beauty ideals have led to a rise in the demand and provision of private cosmetic dentistry (LaingBuisson, 2019). Sitting alongside this widespread cosmetic dental provision is the lack of basic dental access for working-class and racially minoritised people experiencing greater levels of oral disease (Healthwatch, 2021). We therefore observe the interconnected and reinforcing character of inequalities (Icaza and Vazquez, 2018).

Because dentistry has an objective epistemic paradigm, to address racial inequalities it has predominantly focused on the overrepresentation of white people rather than the white European colonial endeavour (Lala *et al.*, 2021a). This approach will simply subsume marginalised voices into the existing hierarchised knowledge paradigm and continue to reproduce a hierarchised, unequal world (Adebisi, 2021). To work towards a more equal and just world, dental schools' diversity initiatives must recognise and include the epistemic diversity of the world (Icaza and Vazquez, 2018). This is not to say that diversity is

not important. Dental schools continue to be places where racialised minorities and their knowledges are excluded (Lala *et al.*, 2021a). But a cursory nod to diversity without acknowledging and addressing the relations of power that primarily led to racial and intersectional inequalities will woefully fall short in providing adequate representation for minoritised communities (Icaza and Vazquez, 2018). Tick-box diversity will continue to embrace the system that produced the inequalities in the first place. Consequently, we need to transform our ways of knowing. Specifically, teaching and learning the situated character of knowledge brings to the fore the limits of knowledge, and therefore it humbles knowledge (Icaza and Vazquez, 2018). A humbled knowledge sits in stark contrast to the existing ways of knowing; that is, the arrogant knowledge canonised aloft the evidence pyramid. I argue that dental students equipped with humbled knowledge will become humbled practitioners who value the rich knowledges and experiences of their patients. Egalitarian knowledges can open-up egalitarian dentist-patient relationships which will better serve minoritised communities and work towards reducing inequalities.

Conclusion

Colonialism has resulted in enduring patterns of power and hierarchies which are embedded in Western epistemic paradigms. Dental knowledge is not objective, nor neutral. It is shaped by colonial histories and racial capitalist interests. But dentistry's positivist epistemic position has meant that in the face of persisting racial inequalities the discipline has simply focused on diversity and not the wider colonial endeavour. To decolonise is to confront and weaken our messy entanglement with the patterns of power and hierarchies that maintain inequalities. If dental schools want to address inequalities, they need to address and transform their hierarchised knowledge practices. By embracing the epistemic plurality of the world, representative diversity will emerge organically. Without decolonisation, dental schools simply train people to obtain a license to practice a craft. It is only by transforming our ways to know and learn, will we equip students to work towards social justice in the outside world.

References

- Adebisi, F. (2021): Should we rethink the purposes of the Law School? A case for decolonial thought in legal pedagogy. *Amicus Curiae* 2 2, 428–449.
- Ali, K., McColl, E., Tredwin, C., Hanks, S., Coelho, C. and Witton, R. (2021): Addressing racial inequalities in dental education: decolonising the dental curricula. *British Dental Journal* 230, 165–169.
- Arcini, C. (2005): The Vikings bare their filed teeth. *American Journal of Physical Anthropology* 128, 727–733.
- Bastos, J.L., Constante, H.M. and Jamieson, L.M. (2021): Making science and doing justice: The need to reframe research on racial inequities in oral health. *Community Dental Health* 38, 132–137.
- Bauman, Z. (1991): *Modernity and the Holocaust*. Polity, Cambridge.
- British Dental Association (2020): BDA and FGDP(UK) commit to tackling racism and discrimination. *British Dental Journal* 229, 81–81.

- Bhakuni, H. and Abimbola, S. (2021): Epistemic injustice in academic global health. *The Lancet Global Health Online First*.
- Bhambra, G.K., Gebrial, D., Nisancioglu, K. (2018): Introduction: Decolonising the University? in: *Decolonising the University*. Pluto Press, London, pp.1-18.
- Biermann, S. (2011): Knowledge, Power and Decolonization: Implication for Non-Indigenous Scholars, Researchers and Educators. *Counterpoints* **379**, 386–398.
- Gebrial, D. (2018): Rhodes Must Fall: Oxford and Movements for Change, in: *Decolonising the University*. Pluto Press, London, pp. 19–36.
- Britvic (2018): Britvic supports Public Health England's 2018 Change4Life campaign with Fruit Shoot. *Britvic -Corporate News*. <https://www.britvic.com/media-centre/corporate-news/2018/02-01-2018>
- Brook, P.H. and Shaw, W.C. (1989): The development of an index of orthodontic treatment priority. *European Journal of Orthodontics* **11**, 309–320.
- Broomhead, T., Rodd, H.D., Baker, S.R., Jones, K., Davies, G., White, S., Wilcox, D., Allen, Z. and Marshman, Z. (2020): National patterns in paediatric hospital admissions for dental extractions in England. *Community Dentistry and Oral Epidemiology* **49**, 322-329.
- Brown, S., 2011. Balinese Tooth-Filing Ceremony. *Travelfish*. http://www.travelfish.org/orientation_detail/indonesia/bali/bali/bali_overview/166
- Browne, A.J., Smye, V.L. and Varcoe, C. (2005): The relevance of postcolonial theoretical perspectives to research in Aboriginal health. *Canadian Journal of Nursing Research* **37**, 16–37.
- Burns, P.B., Rohrich, R.J. and Chung, K.C. (2011): The levels of evidence and their role in evidence-based medicine. *Plastic and Reconstructive Surgery* **128**, 305–310.
- Crenshaw, K. (1991): Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Review* **43**, 1241–1299.
- Das, S. (2020): Living with Eugenics. UCL Minds. <https://www.ucl.ac.uk/ucl-minds/podcasts/living-eugenics>
- DDAG (Diversity in Dentistry Action Group) (2021): *Equality Diversity and Inclusion within Dentistry - A profession wide commitment*. <https://www.bda.org/advice/Coronavirus/Documents/equality-diversity-and-inclusion-in-dentistry-ddag.pdf>
- Du Bois, W.E.B. (1897): Strivings of the Negro People. *The Atlantic*. <https://www.theatlantic.com/magazine/archive/1897/08/strivings-of-the-negro-people/305446/>
- Farrow, A.L., Zarrinnia, K. and Azizi, K. (1993): Bimaxillary protrusion in black Americans—an esthetic evaluation and the treatment considerations. *American Journal of Orthodontics and Dentofacial Orthopedics* **104**, 240–250.
- Francois, M. (2019): It's not just Cambridge University – all of Britain benefited from slavery. *Guardian*. <https://www.theguardian.com/commentisfree/2019/may/07/cambridge-university-britain-slavery>
- Fricke, M. (2009): *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford University Press, Oxford.
- Gebrial, D. (2018): Rhodes Must Fall: Oxford and Movements for Change, in: *Decolonising the University*. Pluto Press, London, pp. 19–36.
- General Dental Council (2015): *Preparing for Practice*. General Dental Council <https://www.gdc-uk.org/docs/default-source/quality-assurance/preparing-for-practice>
- General Dental Council (2010): *Specialty Training Curriculum Dental Public Health*. Specialist Advisory Committee for Dental Public Health, The Faculty of Dental Surgery, The Royal College of Surgeons of England, London. https://www.gdc-uk.org/docs/default-source/specialist-lists/dphcurriculum.pdf?sfvrsn=9010b45e_2
- Gonzalez, E.L., Perez, B.P., Sanchez, J.A.S. and Acinas, M.M.R. (2010): Dental aesthetics as an expression of culture and ritual. *British Dental Journal* **208**, 77–80.
- Haiken, E. (2000): The making of the modern face: Cosmetic Surgery. *Social Research* **67**, 81–97.
- Healthwatch (2021): *Twin crisis of access and affordability calls for a radical rethink of NHS dentistry*. Healthwatch. <https://www.healthwatch.co.uk/news/2021-05-24/twin-crisis-access-and-affordability-calls-radical-rethink-nhs-dentistry>
- Hedges, J., Haag, D., Paradies, Y. and Jamieson, L. (2021): Racism and oral health inequities among Indigenous Australians. *Community Dental Health* **38**, 150–155.
- Icaza, R. and Vazquez, R. (2018): Diversity or Decolonisation? Researching Diversity in the University of Amsterdam, in: *Decolonising The University*. Pluto Press, London, pp. 108–128.
- Institute of Health Equity (2020): Health Equity in England: The Marmot Review 10 Years On. *Institute of Health Equity*. <https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on>
- Jamieson, L., Gibson, B. and Thomson, W.M. (2020): Oral Health Inequalities and the Corporate Determinants of Health: A Commentary. *International Journal of Environmental Research and Public Health* **17**, 6529.
- Jenkins, R., 1996. *Social identity*. Routledge, London.
- Kerosuo, H., Hausen, H., Laine, T. and Shaw, W.C. (1995): The influence of incisal malocclusion on the social attractiveness of young adults in Finland. *European Journal of Orthodontics* **17**, 505–512.
- Kickbusch, I. (2015): The political determinants of health-10 years on. *British Medical Journal* **350**, h81.
- Kickbusch, I. (2012): Addressing the interface of the political and commercial determinants of health. *Health Promotion International* **27**, 427–428.
- Knai, C., Petticrew, M., Douglas, N., Durand, M.A., Eastmure, E., Nolte, E. and Mays, N. (2018): The Public Health Responsibility Deal: Using a Systems-Level Analysis to Understand the Lack of Impact on Alcohol, Food, Physical Activity, and Workplace Health Sub-Systems. *International Journal of Environmental Research and Public Health* **17**, 2895.
- Kunzle, D. (1989): The Art of Pulling Teeth in the Seventeenth and Nineteenth Centuries: From Public Martyrdom to Private Nightmare and Political Struggle, in: *Zone 5: Fragments for a History of the Human Body: Part Three*. MIT Press, New York, pp. 28–89.
- LaingBuisson (2019): *Dentistry Market Report - 5th Edition*. LaingBuisson. <https://www.laingbuisson.com/shop/dentistry/>
- Lala, R. (2020): *The Great British Smile: An institutional ethnography of power in cosmetic dentistry*. The University of Sheffield. <https://etheses.whiterose.ac.uk/27841/>
- Lala, R., Baker, S.R. and Muirhead, V.E. (2021a): A Critical Analysis of Underrepresentation of Racialised Minorities in the UK Dental Workforce. *Community Dental Health* **38**, 142–149.
- Lala, R., Gibson, B.J. and Jamieson, L.M. (2021b): The Relevance of Power in Dentistry. *JDR Clinical & Translational Research* 2380084421998619. <https://doi.org/10.1177/2380084421998619>
- Mintz, S.W. (1986): *Sweetness And Power: The Place of Sugar in Modern History*, Penguin, New York.
- Moyes, W. (2020): *Racism and discrimination – the challenge for the GDC and dentistry*. General Dental Council. <https://www.gdc-uk.org/news-blogs/blog/detail/blogs/2020/09/01/racism-and-discrimination-the-challenge-for-the-gdc-and-dentistry>
- Mugonzibwa, E.A., Kuijpers-Jagtman, A.M., van't Hof, M.A. and Kikwilu, E.N. (2004): Comparison between the opinions of Tanzanian parents and their children on dental attractiveness. *Angle Orthodontics* **74**, 63–70.

- Nettleton, S. (1992): *Power, Pain and Dentistry*. Open University Press, Buckingham.
- National Health Service (2022): *Better Health. NHS*. <https://www.nhs.uk/better-health/>
- National Union of Students (2016): *Why is My Curriculum White? - Decolonising the Academy*. NUS Connect. <https://www.nusconnect.org.uk/articles/why-is-my-curriculum-white-decolonising-the-academy>
- National Union of Students (2015): *Liberate the curriculum*. NUS Connect. <https://www.nusconnect.org.uk/campaigns/liber8-education/liberate-the-curriculum>
- Ortiz, F. (1995): *Cuban Counterpoint: Tobacco and Sugar*, Illustrated edition. Duke University Press, Durham.
- Peres, M.A., Macpherson, L.M.D., Weyant, R.J., Daly, B., Venturelli, R., Mathur, M.R., Listl, S., Celeste, R.K., Guarnizo-Herreño, C.C., Kearns, C., Benzian, H., Allison, P. and Watt, R.G. (2019): Oral diseases: a global public health challenge. *Lancet* **394**, 249–260.
- Pinchi, V., Barbieri, P., Pradella, F., Focardi, M., Bartolini, V. and Norelli, G.-A. (2015): Dental Ritual Mutilations and Forensic Odontologist Practice: A Review of the Literature. *Acta Stomatologica Croatica* **49**, 3–13.
- Proffit, W.R., Fields, H.W.J. and Moray, L.J. (1998): Prevalence of malocclusion and orthodontic treatment need in the United States: estimates from the NHANES III survey. *International Journal of Adult Orthodontic and Orthognathic Surgery* **13**, 97–106.
- Public Health England (2020): *National Dental Epidemiology Programme for England: oral health survey of 5-year-olds 2019 - A report on the variations in prevalence and severity of dental decay*. PHE Publications. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/873492/NDEP_for_England_OH_Survey_5yr_2019_v1.0.pdf
- Reuters (2019): How have British universities grappled with links to the slave trade? *Reuters*. <https://www.reuters.com/article/us-britain-slavery-universities-factbox-idUSKCN1S61TX>
- Richardson, E.T. and Farmer, P. (2020): *Epidemic Illusions: On the Coloniality of Global Public Health*. MIT Press, Cambridge, Massachusetts.
- Ring, M.E. (1992): *Dentistry: An Illustrated History*. Revised edition. Harry N. Abrams, Inc., New York.
- Roberts, J.B. (1892): The Cosmetic Surgery of the Nose. *The Journal of the American Medical Association* **19**, 231–233.
- Robinson, C.J. (2021): *Black Marxism: The Making of the Black Radical Tradition*. 3rd Edition. Penguin Classics, London
- Said, E.W. (2003): *Orientalism*, 3rd Edition. Penguin Random House, London.
- Salway, S., Holman, D., Lee, C., McGowan, V., Ben-Shlomo, Y., Saxena, S. and Nazroo, J. (2020): Transforming the health system for the UK's multiethnic population. *British Medical Journal* **368**, m268.
- Scarborough, P., Adhikari, V., Harrington, R.A., Elhussein, A., Briggs, A., Rayner, M., Adams, J., Cummins, S., Penney, T. and White, M. (2020): Impact of the announcement and implementation of the UK Soft Drinks Industry Levy on sugar content, price, product size and number of available soft drinks in the UK, 2015-19: A controlled interrupted time series analysis. *PLOS Medicine* **17**, 2,11
- Smith, D.E. (2005): *Institutional Ethnography: A Sociology for People*. AltaMira Press, Walnut Creek, CA.
- Smith, L.T. (2012): *Decolonizing Methodologies: Research and Indigenous Peoples*, 2nd Revised edition. Zed Books Ltd, London.
- Spivak, G.C. (2010): “Can the Subaltern Speak?,” in: Morris, R.C. (Ed.) *Can the Subaltern Speak? Reflections on the history of an idea*. Columbia University Press, pp. 21–78.
- Tapia, J.L., Suresh, L., Plata, M. and Aguirre, A. (2002): Ancient esthetic dentistry in Mesoamerica. *Alpha Omegan* **95**, 21–24.
- Theis, D.R.Z. and White, M. (2021): Is Obesity Policy in England Fit for Purpose? Analysis of Government Strategies and Policies, 1992-2020. *The Milbank Quarterly* **99**, 126–170.
- Williams, D.R. and Sternthal, M. (2010): Understanding racial-ethnic disparities in health: sociological contributions. *Journal of Health Social Behavior* **51**, 1-Suppl, S15–S27.