https://doi.org/10.1038/s41572-023-00423-8

# The role of Deep Medicine and Cultural Safety in medical education to address health disparities

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Current medical education propagates bias and power imbalances in medical institutions, which cascade into professional practices and organizations. To serve the needs of all, we need an understanding of how modern medicine was set up, the biases that are embedded in the structures of health care and strategies to transform those structures.

Inequalities in health outcomes based on patients' skin colour and/or ethnicity are well documented. For example, these disparities are seen in migrants from Commonwealth countries in the United Kingdom and historically marginalized people in the United States. In the United Kingdom, the NHS Race & Health Observatory states that, compared with their white counterparts, Black women are four times more likely to die in childbirth and Black African or Black Caribbean people are more than eight times more likely to experience coercive, discriminatory and intrusive mental health services. Furthermore, South Asians have a 40% higher death rate from coronary heart disease than the general population. Euro–American medical education fails to overcome racial disparities in health outcomes, because it does not properly address their root causes, which lie in societal power distributions created through the historic processes of colonialism. Current curricula in diversity and antiracism focus on changing attitudes, perceptions and behaviours of individuals but do not fully describe the constructed nature of prejudicial structures in medicine and society at large[1] (Box 1).

Specifically, contemporary medical education is inadequate in teaching how historical power inequalities create and reinforce the systems that lead to poor health outcomes for Black and brown people. Race-based medicine, which treats race as a biological reality, is a relic of colonial medicine[2], but the inherent racist misunderstandings persist. A 2016 US survey found that around half of medical students and residents held false beliefs about biological differences between Black and white people, such as Black skin is thicker than white skin[3]. Those with more false beliefs thought that Black patients would feel less pain and provided less adequate treatment recommendations for Black patients than for white patients, leading to undertreatment.

As a further example, textbook illustrations of common skin disorders predominantly depict white skin, leaving dermatologists untrained in treating people with darker skin and contributing to excess skin cancer mortality in this population[4]. Furthermore, early reports of the skin manifestations of COVID-19 did not include examples of findings in brown and Black skin, leading to treatment delays[5].

Of note, keeping in mind the data from the NHS Race & Health Observatory, caution should be exercised to avoid racial profiling by assuming that darker skinned peoples could be more physiologically faulty than their white counterparts. Debates on reaching inaccurate conclusions about pathologies based on race owing to flawed underlying data are emerging[2]. For example, structural racism is a confounder to epidemiological studies on historic cohorts, because the hardships it creates can cause epigenetic changes and intergenerational disease in disadvantaged racial groups — an effect called weathering[6]. Implementing change in medical education will result in better-trained medical staff, who are able to diagnose patients with dark skin and/or ethnic minority groups faster and more accurately, and improve patient outcomes.

The hidden curricula of education allow bias and prejudice to propagate unrecognized among students, cascading into their eventual professional practices and the organizations they will join. Medicine's own history as an apparatus of colonialism replicates the same power dynamics within health-care systems. Faculty from under-represented minorities including Black, Latinx and Indigenous communities, make up less than 10% of US medical educators; thus, curricula are being set by a white majority[7]. Of note, Black and brown educators ascending in academic rank could be tokenized without being given real power to transform the curriculum and the power structures of their work environment. In addition, those from marginalized communities in positions of power in medicine could become enculturated in existing colonial dynamics and unwittingly perpetuate historic imbalances instead of transforming them.

To start the process of reimagining medical education, we need to understand the lines of power that dictated how modern medicine was set up and the lingering biases in the structure of health care and society. Deep Medicine and Cultural Safety are two interlocking conceptual frameworks, which originated in communities of struggle and can advance medical education to address disparities at their root.

> "we need to understand ... how modern medicine was set up and the lingering biases in the structure of health care and society."

Deep Medicine is a framework of diagnosis that enables an analysis of how social, political, ecological and environmental power gradients create health or illness, an understanding of the processes that led to these structural developments and the actions needed to improve the health of those who are harmed. It offers students the

## Box 1

# Definitions

**Cultural Safety**
An innovation of care originating from Maori nurse, Irihapeti Ramsden. Cultural Safety instructs health practitioners and organizations to reflect on their own culture(s), especially arrangement of power within the therapeutic encounters they participate in and services they provide. Cultural Safety promotes a continuous process of reflexivity and commitment to action, recognizing the importance of marginalized patient communities in defining what constitutes a 'safe' cultural encounter and steering away from the stereotypes and assumptions.

**Deep Medicine**
A systems approach to diagnosis that includes an analysis of history and power that create the social, economic and environmental structures causing health disparities and the transformative practices to change those structures to achieve health for all.

**Hidden curricula**
Unwritten, unofficial and often unintended lessons, values and perspectives that students learn in school.

**Race**
A social and political construct in which people are grouped by shared physical and/or social attributes.

**Racism**
A system of oppression built into the invisible structures of institutions, markets and neighbourhoods, not simply an attribute of individuals.

**Weathering**
Physiological and epigenetic phenomena describing how long-term intersectional oppressions in marginalized groups can produce disease pathology.

opportunity to understand how individuals become sick through structural forces and how shifting those structures is necessary for health to be possible[8].

The best teachers of Deep Medicine are those who live and practise it: communities in struggle who are working to transform the circumstances of power that have committed their lives to poor health. We recommend adjusting the medical curriculum to start the first 3–6 months of training with students embedded within local community groups, learning alongside them and serving their health agendas. Through this experience, medical students will start their education with an anatomy of injustice, understanding why communities in struggle feel they are sick and what they advance as the goals to improve their wellness. Medical curricula that have engaged this immersive approach have found success in shifting students' perspectives and note that offerings need to be long enough for students to form substantive relationships[9].

Central to the intersection of medical education with communities in struggle must be the practice of Cultural Safety, a strategy for patient empowerment that originates from Maori nurse Irihapeti Ramsden[10]. It is a process-based, iterative engagement that includes people from oppressed groups in the co-production of knowledge. Cultural Safety instructs health practitioners and organizations to reflect on their own cultures, especially the arrangement of power in their therapeutic encounters and in the services they provide. Cultural Safety promotes a continuous process of reflexivity and commitment to action, recognizing the importance of marginalized patient communities in defining what constitutes a safe cultural encounter and steering away from stereotypes and assumptions. A key component of Cultural Safety is also co-production of health-care services by patients and organizations, thereby creating solutions while flattening previous power hierarchies.

It is ultimately important to reimagine medical education to include systems analysis that elucidates how social structures have been historically organized. Through learning how to identify and change harmful power structures from community groups who engage this as daily practice, medical students will become literate in discussions of history and power. They can then influence changes in their institutions and in society as they progress in their careers. The role of medical educators would be to expose students and themselves to these teachers of Deep Medicine and to facilitate Cultural Safety. Moreover, educators need to participate in changing the structures of medical institutions to account for the needs and agendas of those who are historically excluded from power in medicine.

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Published online: 09 February 2023

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## Competing interests

A.U.L. is on the Board of Directors of the International MotherBaby Childbirth organization (NGO) deriving no financial remuneration. A.U.L. is a member of the maternal and neonatal health working group as part of the NHS Race and Health Observatory, although her views expressed in this publication are her own and do not reflect any organizational affiliation. A.U.L. is a company director of a small publishing company called Docamali Ltd. R.M. is the Executive Director of the Deep Medicine Circle, a non-profit public benefit organization working to heal the wounds of colonialism through food, medicine, restoration, story and learning. R.M. is also a co-founder of the Do No Harm Coalition, receiving no financial benefit from the organization.

## Related links

**Hidden curriculum:** https://www.edglossary.org/hidden-curriculum/
**Improving health and care:** https://www.nhsrho.org/what-we-do/improving-health-outcomes/