SPECIAL COMMUNICATION

Addressing and Dismantling the Legacy of Race and Racism in Academic Medicine: A Socioecological Framework

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Over the past several years, in both clinical and academic medicine, there seems to be a growing consensus that racial/ethnic health inequities result from social, economic and political determinants of health rather than from nonexistent biological markers of race. Simply put, racism is the root cause of inequity, not race. Yet, methods of teaching and practicing medicine have not kept pace with this truth, and many learners and practitioners continue to extrapolate a biological underpinning for race. To achieve systemic change that moves us toward racially/ethnically equitable health outcomes, it is imperative that medical academia implement policies that explicitly hold us accountable to maintain a clear understanding of race as a socio-political construct so that we can conduct research, disseminate scholarly work, teach, and practice clinically with more clarity about race and racism. This short commentary proposes the use of a socioecological framework to help individuals, leadership teams, and institutions consider the implementation of various strategies for interpersonal, community-level, and broad institutional policy changes. This proposed model includes examples of how to address race and racism in academic medicine across different spheres, but also draws attention to the complex interplay across these levels. The model is not intended to be prescriptive, but rather encourages adaptation according to existing institutional differences. This model can be used as a tool to refresh how academic medicine addresses race and, more importantly, normalizes conversations about racism and equity across all framework levels. (J Am Board Fam Med 2022;35:1239–1245.)

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In confronting the syndemics[1] of our time, where racialized health disparities are magnified by a catastrophic pandemic and the eruption of protests in response to police violence, many academic medical groups are urgently articulating policies to ensure equity and justice in medicine.[2–4] Such policies reflect a growing understanding that racial/ethnic health disparities are a result of differences in social, economic and political determinants of health and inequities in power, that significantly or disproportionately impact racial/ethnic communities.[5–9] In addition, the phenomenon of "weathering,"[10,11] the epigenetically-driven deterioration of health in Black individuals as a consequence of the cumulative impact of social and economic adversity and political marginalization, is clearly implicated in the morbidity and mortality experienced by Black

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Americans. Scientists have linked biomarkers, including cortisol levels, sympathetic nervous system activity, blood pressure reactivity, cytokine production, and glycohemoglobin levels, to racial discrimination, socioeconomic status, occupation, birth outcomes, and environmental risk.[12–15] This reinforces or supports the concept of allostatic load, which is the cumulative wear and tear on the body's systems resulting from repeated exposure and adaptation to stressors. Simply put, these are the physiologic manifestations of *racism*, making racism, not race, the fundamental root cause of racial/ethnic health inequities.

Despite the growing acknowledgment in the academic medical community of racism contributing to health disparities in marginalized communities, our current methods of teaching and practicing medicine continue to suggest to learners and patients a biological underpinning to race. For example, medical educators may focus on background epidemiologic data noting that Black women have a significantly higher rate of preterm birth than White women. Without further context, learners may then extrapolate that Black race has a biological basis for preterm birth among Black women in America.[16,17] In the clinical setting, patients may see their clinicians input race into algorithms that then determine their 10-year risk for a heart attack or stroke (eg, ASCVD risk estimator[18]). As a result, clinicians may also inadvertently also teach patients that race is biological, and thus the outcomes, "based on race," are not modifiable.

To achieve systemic change that moves us toward racially/ethnically equitable health outcomes, it is imperative that medical academia implement policies that explicitly hold us accountable to maintain an appreciation of race as a socio-political construct. It is vital that we are equipped with the knowledge and skills to: (1) contextualize teaching about racial inequities so learners understand that race is often a marker of racism and not a surrogate for biology; (2) critically

Figure 1. A Socioecological model for addressing race in academic medicine. Abbreviations: AMC, academic medical centers; RAC, racial-affinity caucusing.

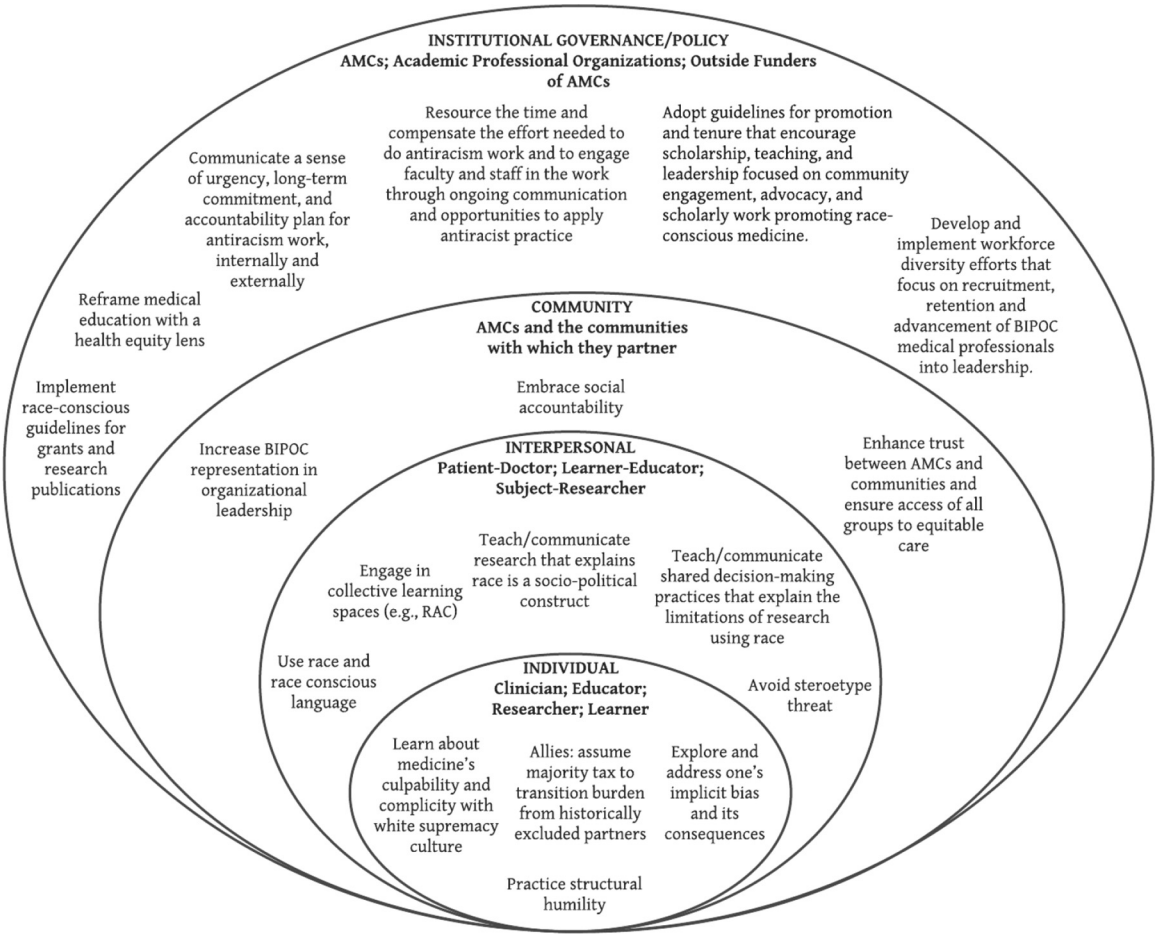

Table 1. Explaining the Socioecological Model for Addressing Race in Academic Medicine

Core Concepts	Examples
INDIVIDUAL (Clinician; Educator; Researcher; Learner)	
Learn and unlearn medicine's culpability and complicity with white supremacy culture[22,23,24]	Individuals should educate themselves on the historical injustices that have occurred in medicine and seek opportunities to dismantle policies and practices rooted in white supremacy. Center learning from BIPOC scholars using a transdisciplinary context (e.g., law, sociology, history).
Explore, confront, and seek tools to begin addressing one's implicit bias and the inequitable consequences associated with it[25]	Take an implicit bias test, such as the Harvard Implicit Association Test, to increase one's awareness of implicit bias and do the requisite work to prevent causing harm.
Use race- and racism-conscious language[26]	Learn not to describe and ascribe people to a single identity such as "minorities" or "disabled", but rather "people from historically marginalized racial and ethnic groups" or "people with disabilities." Broaden your understanding of and appreciate the intersectionality of multiple identities that people hold.
Practice structural humility[27]	Appreciate and acknowledge the wisdom and teachings from historically marginalized and systemically excluded communities. Center the voices of, listen to, and learn from BIPOC communities.
Allies, accomplices and co-conspirators should assume a "majority tax"[28] to shoulder and transition some of the burden off of historically marginalized and systemically excluded stakeholders	Paying the "majority tax" requires accepting the discomfort, energy, and socioeconomic capital required to acknowledge and leverage white privilege. Examples include: • relinquish power/leadership roles so that minoritized populations may advance. • leverage bestowed power to highlight racist practices and ideology in medicine. • approach decision-making (medical and policy) with an antiracist equity lens.
INTERPERSONAL (Patient-Doctor; Learner-Educator; Subject-Researcher)	
Do the critical work by engaging in collective learning spaces such as caucusing[29]	Facilitate and support caucusing within affinity groups to help with collective healing, learning/unlearning, and knowledge and skills building within one's own identity group.
Avoid teaching or communicating research that includes racial/ethnic descriptive health inequities without explicit explanation that race is a socio-political construct[30, 31]	Discuss the implications of race versus racism when teaching about racial ethnic health differences and discussing research findings.
Avoid stereotype threat[a]: i.e., Consider the context in which people will be "threatened" by being reminded of a disadvantaged identity[32]	Remove portraits of leadership that showcase all white deans and chairs lining medical school hallways. Cultivate spaces of belonging by sharing photos of BIPOC leaders, staff, educators, learners, and community members.
Engage and teach shared decision-making practices that explain the limitations of research using race. Instead amplify race as a sociopolitical construct and proxy for socioeconomic status or racism[33]	Openly discuss race-based calculators with patients and learners; specifically discuss how they may affect patients' diagnoses, treatment options and management plans.
COMMUNITY/POPULATION (AMCs and the communities they partner with)	
Embrace social accountability[33]	Cultivate and deepen relationships with the community. Amplify strengths of the community and address their collective needs. Center community voice in meetings where decision-making occurs. Community advisory boards should hold research and workforce development accountable to the community's needs. Honor the wisdom and work of community members through funding/honorariums.
Enhance trust and assure access	• Hire community health workers to elevate community voice in clinical care, education, and research. • Invest in and advocate for community organizations doing antiracism work. • Support leaders of and advocates for marginalized communities with tangible resources that include not only money, but also AMC's time, expertise, connections/networks, and power.
Increase BIPOC representation in organizational leadership[28]	Establishing leadership term limits may allow BIPOC voices to shape curricula, prioritize issues that impact minoritized communities, allocate funding and resource priorities, and determine inclusive policies.

Continued

Table 1. Continued

Core Concepts	Examples
INSTITUTIONAL/GOVERNANCE/POLICIES (AMCs; Academic Professional Organizations; Outside Funders of AMCs)	
Implement race-conscious guidelines for grants and research publications[6,30,31]	Assure there is: • explicit criteria for why race and ethnicity are being used as variables in research[34] • collection of biological and socioeconomic variables • examination and discourse when whiteness is used as a reference value • intention and deliberate action to not use whiteness as reference value • application of an equity lens to research design and clinical implications[35,36] • opportunity for research subjects to self-identify their demographic information to include qualitative descriptions of their known genetic ancestry
Reframe medical education with a health equity lens	Assure there is: • standardized language to appropriately describe race/ethnicity • avoidance of language and content that pathologizes race explication of structural determinants of health and health equity, including racism when discussing disproportionate disease prevalence among different populations, rather than attributing to race[29] • elimination of the use of race-corrected algorithms and replace with more equitable alternatives[5]
Leadership communicates a sense of urgency, long-term commitment, and accountability plan for antiracism work, internally and externally	Disseminate antiracism messaging in regular newsletters/communications from leadership, including opportunities for antiracism engagement and training; highlight both short and long-term antiracism goals/achievements; and elevate BIPOC voices. Provide metrics of accountability.
Resource time and compensate effort needed to do antiracism work. Engage faculty and staff in antiracism work through ongoing communication and opportunities to apply antiracist practice	Provide FTE allocation and compensation for those engaged in antiracism work.
Revise guidelines for promotion and tenure to encourage scholarship, teaching, and leadership focused on community engagement, advocacy, and scholarly work promoting race-conscious medicine[38, 39]	Adjust and clearly define requirements for promotion and tenure to include scholarship, teaching, community engagement, institutional service, and mentorship focused on diversity, equity, inclusion, antiracism, advocacy for all faculty, not just BIPOC faculty.
Develop and implement workforce diversity efforts by academic institutions that focus on recruitment, retention and advancement and promotion of BIPOC medical professionals into leadership positions, especially those underrepresented in medicine[40, 41,42, 43]	Set metric goals for clinician and faculty representation to reflect the demographics of the patients they work with and for, and the AMC's surrounding geographic community. Focus on advancing and promoting BIPOC faculty into leadership positions that confer both voice and power to implement and sustain change.

Abbreviations: BIPOC, Black, Indigenous, and People of Color; AMC, academic medical centers; FTE, full-time equivalent.
[a]Stereotype threat refers to the risk of confirming negative stereotypes about an person's racial, ethnic, gender, or cultural group which can create high cognitive load and reduce academic focus and performance. The term was coined by the researchers Claude Steele and Joshua Aronson.[44]

evaluate race parameters and 'corrections' found in medical guidelines and algorithms to promote comprehension for our learners and shared decision making with our patients; and (3) challenge research that utilizes race indiscriminately without clear explanations in study protocols. To effectively teach and practice these recommendations, we need leaders and educators willing to interrogate the foundation of modern academic medicine that has its roots in white supremacy. This interrogation is especially crucial as we seek to increase racial/ethnic diversity among the leadership of our institutions and grapple with the minority tax experienced by the few existing Black, Indigenous, and People of Color (BIPOC—including Latino/a/x, Asian, and other marginalized racial groups) faculty.

A Way Forward

Although there have been many important recommendations challenging and dismantling how currently we think about and use race,[19] we propose

using a socioecological framework[20] (Figure 1) to provide more clarity about the strategies needed at the individual, interpersonal, community, and systemic levels to assure enduring change. This figure not only provides core concepts of how to address race in academic medicine across different spheres but also shows the complex interplay between and necessary dependence across these levels. This approach can be used as a tool to reframe how academic medicine addresses race and, more importantly, normalizes conversations about racism and equity across all framework levels.

Addressing race requires us to address racism and white supremacy. In confronting this classic "wicked problem,"[21] disruption requires us to grapple with potential interventions at multiple, interdependent levels with a variety of stakeholders. For example, although policy change is critical, effective change first requires introspective work by individual leaders to identify and prioritize areas for growth. Several tactics are needed for sustained transformational change. We have provided substantive and practical examples in Table 1 for how to begin addressing and dismantling racism in academic medicine. Of note, we recognize that there is no "one size-fits-all" roadmap because institutions are unique or have distinct structures, policies, and practices in place. Thus, each will need its own self-assessment to design a comprehensive plan that is contextualized by the attributes and attitudes of its membership and the culture and climate of its organization. In fact, a multi-pronged, nonlinear approach will likely be most effective with bottom-up grassroots innovations converging with top-down policies. For example, there has been increasing attention to encourage and even mandate implicit bias trainings across institutions, but this strategy alone will not eliminate racism in academic medicine without diverse leaders and voices at decision making tables and adequate compensation and specific promotion guidelines for those engaging in diversity, equity, inclusion, and antiracism work. These latter strategies are especially critical for recruiting and retaining BIPOC faculty who are often expected to lead antiracism efforts while also actively engaging in community-facing advocacy work. It is imperative to address and underscore the need for funding not only individuals and their teams leading and developing antiracism efforts but also for the necessary programming that equips all members of our academic communities to effectively join in advocating for and contributing to these efforts. In addition, mobilizing the skills and expertise of nonmedical stakeholders is equally important. Academic medical centers (AMCs) are often part of larger institutions with enormous capacity for transdisciplinary teaching and learning: historians can contextualize modern medicine with a deep grounding in its past; social scientists can help us better bridge cultures and address social determinants of health; lawyers and economists can also help move our social mission to one of social action; and community organizers can assure advocacy is grounded in the needs and assets of communities. But, although we seek many diverse and interprofessional partners, it will be critical that white allies assume some of the tax currently assumed by many BIPOC clinicians, academicians, and leaders to assure sustainable and actualizable change. White allyship rarely means leading antiracism efforts or health equity research, but rather doing the hard work of learning about white privilege and how to be an effective ally; partnering, supporting, and elevating BIPOC colleagues; and even stepping aside from leadership positions in nondiversity-inclusion-and-equity-focused spaces to enable BIPOC voices and ideas to be heard throughout the health care and academic systems.

In offering this model, we especially encourage accountability from leaders and power brokers to commit to interventions that can address and eventually eliminate racist clinical, teaching and research practices. The examples we offer are not meant to be prescriptive, but meant to demonstrate the depth of work and investment needed as we strive to confront and eradicate the fallacies that academic medicine has historically held as self-evident. In this way, we can forge a brighter, more just future for learners, clinicians, scholars and, fundamentally, our patients and communities.

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