

Critical Pedagogies in Health Professions Education

January 2024, Volume 26, Number 1: E1-96

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AMA Journal of Ethics®

January 2024, Volume 26, Number 1: E3-5

FROM THE EDITOR

Critical Pedagogies in Health Professions Education

Vinayak Jain, MBBS and Lakshmi Krishnan, MD, PhD

Whether oppressive structures are legal, financial, or educational, victims of systemic injustice have almost always been those with minoritized identities. Health care—despite clinicians’ presumed fiduciary obligations extending to patients and the public via the social contract—is not exempt from these flaws. Racism, policy- and practice-based assaults on reproductive rights, gun violence, disinformation, **transphobia**, mass incarceration, and climate change are features of contemporary medicine. To believe that biomedicine can remain above abuses of power and privilege is to be complicit in perpetuation of oppression in the US health sector.

The discourse of inequity in health care has been gaining momentum within health professions curricula over the past few years. Although well-intentioned, many of these curricula fail to build knowledge among learners about structural causes that have historically—and still currently—produce and reproduce **inequity**.¹ Moreover, many of these teachings reinforce harmful stereotypes, fail to uproot bias, and fail to address how structural forces limit the autonomy of our most vulnerable patients and communities.¹ Arbitrary “race corrections” to estimated glomerular filtration rates,² **poor access to obstetric care** in rural areas and among women of color,³ and inferior health outcomes in historically redlined areas⁴ serve as few of the many examples of how a biomedical worldview of illness promotes racial essentialism while ignoring underlying institutional mechanisms that reify deeply historically entrenched patterns of oppression^{5,6}—oppression that draws its legitimacy from decades of its unopposed existence.

Brazilian educational theorist Paulo Freire advocated *critical pedagogy* as a means of empowering people to effect societal change via *critical consciousness* (ie, awareness and questioning) of power and privilege.⁷ Incorporating such a pedagogy within health professions education (HPE) would require moving from the more traditional and checklist-driven competency approach to one that encourages deeper engagement with the structural determinants and social patterns of disease. By incorporating Freire’s pedagogy, faculty in HPE can empower learners to challenge the notions of biomedical essentialism that perpetuate injustices within health care. Critical pedagogies can equip learners to contextualize scientific phenomena within the contemporary sociopolitical realities of our times.

As editors of this theme issue on critical pedagogy, our goal is for this issue to serve as a tool kit for faculty who may find Freire’s principles too challenging and perhaps even too

disruptive to incorporate in their existing curricula. The contributors to this issue apply diverse disciplinary lenses—including **medical education**, sociology, anthropology, educational psychology, and health policy—and represent the wider HPE community. Each piece highlights an important issue for health professions educators—curricular content, assessment strategies, educational scholarship, faculty development, virtual spaces, standardized patients, and more. In particular, the contributors examine how contemporary curricula promote racial essentialism, exacerbate inequity, and fail to appropriately problematize overly simplistic views of race in health and health care. In this issue, contributors contextualize the need for learners to engage with social determinants of health and provide key pedagogical ideas that can help faculty and scholars center criticality in their teaching, research, and scholarship.

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Citation

AMA J Ethics. 2024;26(1):E3-5.

DOI

10.1001/amajethics.2024.3.

Conflict of Interest Disclosure

Authors disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

CASE AND COMMENTARY: PEER-REVIEWED ARTICLE

How Should We Approach Faculty Who Create Hostile Learning Environments for Underrepresented Students and Trainees?

J. Corey Williams, MD, MA, Ashley Andreou, MD, MPH, and Susan M. Cheng, EdLD, MPP

Abstract

Faculty members who demonstrate resistance to or lack of skill in addressing negative bias in practice and learning environments can erode safety, especially among underrepresented students. This commentary on a case suggests how educators and leaders should respond to problematic behaviors of unwilling or unskilled faculty, prevent mistreatment of students and colleagues, and facilitate continuous faculty development. This commentary also considers strategies for motivating equity and building health care cultures of accountability.

Case

Dr H is associate dean of assessment at the University School of Medicine (USM). Over the last few years, when reviewing students' feedback about courses in USM's social determinants of health (SDOH) track, Dr H has seen increasing numbers of students repeatedly express concerns about course content that reinforces negative racial, ethnic, gender, and class stereotypes, especially about patients of color from under-resourced communities.

Dr H received several complaints about one faculty member—ranging from general comments about his making the learning environment uncomfortable; to his expressing condescending attitudes towards patients and using inappropriate, unprofessional, and sexist humor; to his giving more attention and learning opportunities to White male students than other students. This faculty member has also been cited for shaming underrepresented in medicine (URM) students, specifically during didactic seminars.

Dr H has also observed that this faculty member has not participated in any faculty development opportunities related to diversity, equity, and inclusion (DEI), such as the annual implicit bias training. Dr H observes inappropriate, unprofessional humor as a recurring theme in this faculty member's course evaluations. During a recent annual performance review meeting, Dr H suggested that some students have not responded well to humor he uses during supervision. The faculty member expressed frustration: "Oh great! Now I can't even joke around with the students anymore!"

Dr H wonders how to assist in developing a specific action plan to motivate behavior changes in this faculty member.

Commentary

Survey data suggest that cases like this one, in which students experience faculty disrespect for diversity, are not uncommon,¹ and **racism in academic medicine** has drawn national attention.² Despite some exceptions, there is modest but growing evidence that medical student and trainee cohorts have become increasingly diverse over the last 2 decades.^{3,4} As more URM students and trainees are matriculating into medical schools and hospitals, they are encountering systems that have been composed predominantly of White people since the institutions' beginnings; this historical pattern is arguably even more pronounced in academic medical centers, which are also White-centered in their cultural norms, values, and priorities, creating unspoken and unwritten codes of conduct (ie, hidden curricula) that uphold racial hierarchies.^{5,6} This tension between institutional norms that center whiteness and the increasing diversity of student matriculants has been compounded by the recent rise of racial justice movements (eg, Black Lives Matter) that have created national awareness of entrenched structural racism in society.⁷

This case represents an ongoing reckoning in medicine, which has catalyzed new frameworks for advancing DEI in the workplace and learning environment. Mistreatment of learners in the medical learning environment is not only shockingly common but also reported by a higher proportion of URM students than their White counterparts,⁸ which has downstream implications for student mental health and well-being. One study of medical students demonstrated that “increased microaggression frequency was associated with a positive depression screen in a dose-response relationship.”⁹ Furthermore, the burden of responsibility for reporting mistreatment often falls on URM students, who subsequently bear the brunt of potential retaliatory behaviors. Ultimately, the behavior demonstrated by the faculty member in the case above is directly at odds with ongoing DEI initiatives and serves to erode the psychological safety of the learning environment, which will render it more challenging to recruit and retain URM students and trainees.

Workplace mistreatment ranges in severity, and extreme forms of mistreatment are typically easier to recognize and address. For instance, if there were any allegations of physical or sexual assault or other forms of overt violence, the faculty member would need to be relieved of his clinical and teaching responsibilities immediately until further investigation. However, it is the more subtle, insidious forms of discrimination in the workplace that are more pervasive and difficult to detect and for which conceptualizing a response is more challenging. These quotidian forms of discrimination can include, but are not limited to, subtle forms of White favoritism and mentorship; dispensing noneducation-related tasks (eg, “scut work”) disproportionately to URM learners; providing differential opportunities for learning; rendering URM students invisible by consistently ignoring their presence; and making insensitive remarks (eg, microaggressions). Considering this continuum of mistreatment, a leader must attempt to align any institutional response with the infraction's severity.

Creating a Culture of Accountability

One might be inclined to try to educate this problematic faculty member in hopes of correcting his corrosive behaviors. Nonetheless, the power of training and education to significantly alter behavior in enduring ways—especially behavior related to matters of

race and gender that are enmeshed in a person's broader worldview—can be overestimated. Given that hundreds of studies have shown knowledge-based **anti-bias training** to be ineffective in university settings,¹⁰ appeals to “hearts and minds” through education are often insufficient when dealing with entrenched patterns of behavior and bias, especially biases related to a person's own systemic advantage (eg, White privilege). When education is insufficient, there is an approach that holds the promise of both preventing and redressing student and trainee mistreatment: building a culture of accountability.

Within public discourse, accountability has commonly been conflated with punishment. While institutional sanctions are a vital component of accountability, accountability entails a much broader set of tools, including communication, relationship building, incentives, recognition, negotiation of needs, and opportunities to repair harm,¹¹ and it can involve multiple ecological levels, from self to community. In this case, building a culture of accountability within USM will mean a comprehensive, multilevel approach that entails self-accountability (through critical self-reflection), mutual accountability (through addressing the faculty member's behavior directly), and communal accountability (through implementing sustainable strategies to enhance institution-wide culture).

Self-accountability. Developing a culture of accountability begins with self-accountability—you, Dr H, taking responsibility for your role, actions, and contributions to the institutional culture, especially as a leader within the school. You must resist feelings of apathy and helplessness or any urges to dismiss the faculty member's behavior as falling outside of your influence. You must also resist impulses to protect your own comfort and acknowledge that the predominant institutional norms in academic medicine are designed to protect your power and privilege, especially if you identify (or present) as a White man. Moreover, as hospital systems often place outsize value on clinical productivity, a leader might be disincentivized to focus on issues related to the learning environment; thus, a certain degree of ethical motivation and willingness to constructively dissent from institutional norms¹² is required for self-accountability. Bear in mind that self-accountability does not mean implementing everything yourself but, rather, recognizing your responsibility to recruit trusted and skilled colleagues to help you remediate the situation. Taking responsibility may take the form of appointing a DEI director or committee—an institutional tool with an emerging literature on best practices¹³—endowed with the authority to review complaints and issue appropriate sanctions. One major problem, however, is that the self-accountability that you model and promote may not necessarily influence this particular faculty member.

Mutual accountability. Fostering mutual accountability will necessitate addressing the faculty member directly by prioritizing not the protection of the faculty member's feelings but rather honest dialogue with him about your concerns. Simultaneously, you must seek to create a nonjudgmental framework that emphasizes values of humility and growth, acknowledging that everyone is on their own journey of learning (including yourself). In addition, you must communicate your expectation that you will collaborate with him on a tailored accountability plan that involves identifying and tracking markers of improvement via completion of a series of check-ins to review student feedback, being subject to periodic observations, and submitting attendance records for various DEI trainings, for example. While an accountability plan might seem burdensome to the faculty member, be unwavering in your expectations and highlight the valuable opportunities for growth and development. If the faculty member remains defensive

about his performance or unwilling to participate, you might relieve this faculty member of teaching responsibilities until he completes the accountability plan.

Community accountability. Establishing community accountability involves a shift in focus from individual behavior changes to changes at the structural level—specifically, of institutional practices involving performance evaluation, promotions, and pay. While you may hope that faculty members are motivated to develop their DEI competencies from a sense of ethical obligation and their inherent value, this presumption cannot be relied upon to foster sustainable change. Undoubtedly, faculty members are, at least in part, motivated by their supervisors' perceptions of them (as reflected in performance reviews), as well as by incentives to achieve the highest levels of pay and promotion.¹⁴ Leveraging these motivations could entail incorporating DEI-specific activities in annual performance evaluations for all faculty members and directly linking their DEI efforts to promotion and incentive pay eligibility. Eligibility criteria for promotion and incentive pay must be linked not to perfunctory activities but to specific and meaningful activities undertaken in the learning environment (such as designing a robust clerkship evaluation strategy that includes student feedback), thereby creating a threshold that is sufficiently challenging and motivating for faculty.

Another underutilized community accountability strategy is to invest in positive recognition and increased visibility of exemplary faculty members who are modeling DEI principles and inclusive pedagogy. This strategy could involve verbal affirmations during faculty meetings, written spotlights detailing exemplary faculty members' work in the monthly newsletter, or updates to the departmental website that feature exemplary faculty members. Additionally, you must ensure that there are ongoing faculty development opportunities in DEI throughout the course of the year, cultivate a commitment to continuous learning and humility, and provide clear messaging to faculty of your expectation that they will participate. For instance, establishing routine communities of practice¹⁵—wherein faculty meet periodically to share lessons learned, wins, and worries in prioritizing DEI—has promising implications for disarming faculty defensiveness, normalizing conversations about bias, and encouraging growth. Along with developing this type of peer network to hold faculty accountable, investing in multiple anonymous reporting mechanisms and ensuring that everyone understands how to utilize these mechanisms is critical for community accountability. Leaders must ensure that URM students are not shouldering the burden of reporting (or being retaliated against) by instilling the notion that reporting is a communal responsibility, which enhances the workplace climate as well as patient safety.

Conclusion

Leaders trying to create inclusive work and learning environments should note that DEI skills exist on a continuum, with the most resistant, unskilled novices likely doing the most harm. However, even those faculty members who are most competent in DEI will inevitably have missteps and lapses of judgment. When the inclusivity of the learning environment is diminished, it requires multilevel approaches to facilitate accountability. If the culture of medicine is to be transformed by embracing more diverse, equitable, and inclusive institutional norms, everyone must move beyond defensiveness or “good intentions” by being held accountable for continuous learning, growth, and humility. Doing so entails being willing to be uncomfortable—and to make others uncomfortable with direct action and speech—rather than being complacent.

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Editor's Note

The case to which this commentary is a response was developed by the editorial staff.

Citation

AMA J Ethics. 2024;26(1):E6-11.

DOI

10.1001/amajethics.2024.6.

Conflict of Interest Disclosure

Authors disclosed no conflicts of interest.

The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental. The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

CASE AND COMMENTARY: PEER-REVIEWED ARTICLE

Why Competency Frameworks Are Insufficiently Nuanced for Health Equity Teaching and Assessment

Zareen Zaidi, MD, PhD, Daniele Ölveczky, MD, MS, Nicole A. Perez, PhD, Paolo C. Martin, PhD, Andres Fernandez, MD, MEd, Philicia Duncan, MD, and Hannah L. Anderson, MBA

Abstract

This article suggests how competency-based medical education should robustly integrate health equity by focusing on physicians' responsibilities to (1) know *why* and *how* underlying structural mechanisms contribute to health equity and then (2) take action to achieve health equity in their practice. This article first canvasses currently available frameworks for helping trainees cultivate these 2 specific skills of discernment and action. This article then offers strategies for teaching and assessing these skills in specific learning activities.

Case

Dr A is a general pediatrician working alongside Dr B, a pediatric intern at a primary care clinic. Today is Dr A's first day working with this intern, but Dr A has already been impressed with Dr B's skills and attention to detail. Dr B says: "David is a 6-year-old boy here for a well-child visit. Dad is here today; he reports issues at school, including suspensions. His school reports suspensions are related to behavioral concerns: aggression, inattention, tearfulness. Dad reports concerns about bullying and says managing his boy's behavior at school has been difficult." Although Dr A has confidence in the intern's clinical skills, Dr A wonders if Dr B can incorporate in David's care the social determinants of health that contribute to his presentation today. Dr A has had experience with families like David's and knows that children of color like David often face interpersonal, structural, and internalized racism that affects their behavioral health.^{1,2} Moreover, Dr A is aware of the well-documented racial disparities in behavioral management and school suspensions.^{3,4,5}

How might Dr A appropriately assess this intern's developing awareness and skills in asking, listening, and addressing these potential racial disparities? Which, if any, existing competency literature could help Dr A teach this intern effectively about health equity and how to integrate it into David's care? While Dr A is aware of numerous ways to assess general clinical competencies, such as examinations and direct observation, Dr A is not comfortable in assessing health equity skills.

Commentary

The origins of competency-based medical education (CBME) can be traced to a school of psychology called behaviorism,⁶ which focused on documenting observable outcomes and ensuring that these outcomes served as the determining factor in decisions about curricula.⁷ CBME works to create **content**, experiences, and assessments based on observable outcomes to develop the necessary knowledge, skills, attitudes, and behaviors or actions that support a particular competency.⁸ The first competency framework, the CanMEDS Physician Competency Framework, which was established in 1996, outlined 7 competencies intended to improve patient care.⁹ Other efforts to enhance competency training and assessment soon followed, including the Accreditation Council for Graduate Medical Education (ACGME) Outcomes Project in 1998 that led to the ACGME's 6 core competencies (patient care, medical knowledge, practice-based learning and improvement, systems-based practice, professionalism, and interpersonal skills),¹⁰ and the Association of American Medical Colleges (AAMC) 13 Core Entrustable Professional Activities (EPAs) for Entering Residency in 2014.¹¹

Although CBME is a dominant movement in medical education, CBME frameworks did not originally define outcomes related to health equity or assess content areas related to structural determinants of health.¹² Yet there is agreement in the academy and professional organizations that individual physicians should have knowledge of health equity *and* do have a professional responsibility to realize it in their practice in order to affect patient outcomes.^{13,14} Beyond the few efforts made to amend competency-based frameworks,¹² health equity is typically an afterthought in curricula that were not designed to teach or assess the critical knowledge that is needed to understand and advance health equity.¹²

In keeping with CBME frameworks' artificial distinctions between *knowledge* and *action*, the current approach is to teach *about* inequities rather than to expose *why* and *how* underlying structural mechanisms (eg, racism, sexism, ableism, violence, differential education and employment opportunities, health care access) contribute to such health inequities.^{15,16,17} By contrast, other health professions have built foundational competencies related to health equity knowledge and action into their accreditation standards for degree-granting programs.¹⁸ In social work, for example, trainees are expected to advance social, racial, economic, and environmental justice and human rights, as well as to engage in antiracist practice and diversity, equity, and inclusion efforts by developing empathy and awareness of White privilege and taking responsibility for the structural mechanisms underlying disparities.^{18,19,20} Given that both social work and medicine are professions with foundations in caring, why are their competencies so starkly different? Medical education fails to foreground health equity as an expected part of professional knowledge and action. Thus, a critical shift is needed in the way we think about health equity in the context of CBME.

Defining a Health Equity Skill Set

There is evidence that CBME improves procedural skills,²¹ but there is ongoing debate regarding its suitability to assess the "development of values, insight, and judgment."⁶ An emphasis on proficiency that is based on measurement of observable behaviors reduces the "holistic expertise" of physician training to "a series of discrete tasks" and ignores the connections that make these tasks "a purposeful whole."²²

Consider a widely used competency framework in general pediatrics: the pediatric milestones. The "systems-based practice" subcompetency, "population and community

health,” level 1 states that trainees should demonstrate “awareness of population and community health needs and disparities” and, by level 4, adapt “practice to provide for the needs of and reduce health disparities of a specific population.”²³ In this competency framework, trainees are currently only expected to know about general health disparities, not the underlying structural mechanisms (eg, racism, sexism, ableism) that create those health disparities. In the absence of an understanding of power dynamics, how can interns realistically “adapt” their practice to patients’ needs, or how can educators teach trainees to—and assess their ability to—address and mitigate health inequities?

Health equity is a complex concept with multiple layers,¹³ including various types of health outcomes, which intersect various medical specialties, as evidenced by the pediatrician in the vignette seeking to address inequities in behavioral health outcomes related to racism. This complexity presents a challenge for CBME. Are competency frameworks—which are designed to reduce complexity—sufficient to capture such a nuanced concept as health equity?

Reimagining Assessment

In line with others who have criticized the foundations of CBME,^{6,22} we contend that building solid health equity education will require going beyond the atomization of skills and the artificial separation between knowledge and action. In contrast to others who have argued that CBME can be retrofitted for health equity,¹² we argue that because the CBME movement was never built to address health equity, its foundations are critically lacking for the purpose. The question then becomes: Can and should CBME be used to assess a trainee’s ability to address and mitigate inequities? If CBME does not serve this purpose, then what does? If the traditional assessment tools associated with competency frameworks are not enough, then what is? Below, we draw on scholarship from other professions, including education, social work, and nursing, to provide some building blocks that we believe will aid in reimagining and rebuilding new foundations for medical education for health equity.

Valuing advocacy and community-based work as central to the development of professionals. Assessment systems comprise the multiple assessment tools and methods used to measure and support learning and produce comprehensive data about learners’ development.^{23,24} Assessment systems are a direct communication of an institution’s values to learners and other stakeholders, including patients and community members. Therefore, assessments should be based on values such as learners’ growth, rather than on ranking and sorting learners, and reflect the needs of the community.²⁵ The most well-known assessment tools for CBME include multiple choice questions, direct observation, performance data, multi-source feedback, simulation exercises, and reflective writing. What these assessments often fail to value are the settings and skills necessary for teaching and assessing health equity. While a simulation exercise could be used to assess learners’ advocacy skills, it would not give insight into their understanding of how and why structural racism affects patients or, more importantly, the real-time actions that they can and should undertake. Reflection has also fallen into the trap of being viewed as a measurable construct. Specifically, **reflective writing exercises** run the risk of the trainee generating the desired response to the prompt, which may not be an honest reflection of their true feelings on the matter.²⁶ A more productive way forward is to design learning opportunities that focus on allowing learners to understand how health disparities have come into existence by actively providing them with platforms to engage in community-based and advocacy work.

Proximity to health disparities through longitudinal community engagement can help learners understand their role as a physician in their community.¹⁵

Understanding how structural racism plays a role in standardized testing. There is mounting critique of how standardized tests serve as “institutionalized mechanisms of racial exclusion.”²⁷ The fact that underrepresented learners get lower scores on standardized exams²⁷ is a product of a multitude of historical circumstances—such as redlining, suboptimal schools, and intentionally disinvested neighborhoods—which lead to lower test scores. Admissions committees may in turn place too much emphasis on these scores. We argue that allowing learners to pave their own path for community engagement without mandatory quantitative assessments could result in a more authentic learning experience. In contrast to conventional medical education wisdom, we contend that *everything that needs to be learned does not have to be measured*—at least, not in a standardized or normative way—to avoid a potential quantitative fallacy.²⁸ Deemphasizing quantification gives room for alternative approaches to building assessment systems, such as assessments for inclusion²⁹ and justice-orientation.^{30,31} These approaches recognize the roles of structural racism in education—notably, that historical educational practices such as standardized testing were designed by and for individuals from dominant race, class, gender, and ability groups.^{30,31} Furthermore, these approaches recognize that underrepresented learners often enter educational spaces both with prior experience of inequity and with unique strengths that both go unacknowledged.

Introducing creativity, flexibility, and individualization into assessments. Learners are not homogenous, and it is counterproductive to teach and assess all learners uniformly. As assessments for inclusion and justice orientation recommend, allowing learners to design their learning agenda and assessments as stakeholders would likely be more insightful than a top-down assessment rubric related to their understanding of health inequities. Other professions routinely use assessment for inclusion practices, such as “un-grading,” which intentionally focuses more on learning and less on grades and performance.³² Other examples include faculty involving trainees in designing health equity assessments, such as portfolios of work; partnering with them to design the assessment system itself; allowing multiple ways to demonstrate learning with minimal grading; and inviting trainees’ feedback on assessment processes.^{33,34}

Ensuring assessments are culturally relevant and valuing awareness of the historical and structural basis of current inequities. One practice in justice-oriented assessment—culturally relevant education and assessment—allows students to draw connections between their learning and their lived experiences.³¹ One example might include implementing capstone longitudinal community projects (identified and undertaken by trainees), with a group presentation and sharing of lived experiences throughout the project, which could be a powerful tool for learning.^{35,36,37} Designing culturally relevant assessment tools and systems would require using systematic assessment design approaches that engage patients and community members alongside learners in designing assessment tools. It would also require using equity-centered program evaluation models to evaluate the design’s influence on communities.

Returning to the case scenario above, how do the 4 proposed health equity-assessment building blocks compare with existing CBME assessment tools? The table below demonstrates how these health equity-assessment blocks, applied to David’s case,

allow for a deeper engagement with the causes of health inequities and prompt learners to develop community-based solutions.

Table. Comparison of CBME and Health Equity Assessment in David’s Scenario

Examples of assessment using CBME tools

OSCE station. Simulate David’s scenario and develop a checklist to assess interns’ ability to ask questions about SDOH.

Reflection exercise. Ask learners to reflect on how structural racism may impact David’s family and to describe what actions they would consider taking.

Problem. This exercise will not address learners’ understanding of *why* and *how* underlying structural mechanisms impact David’s family. More importantly, this exercise will not have any direct benefit for David.

Problem. Reflection does not equal action. Here again, there is no direct and immediate benefit for David. Additionally, learners will likely express what they surmise they are expected to say.

Examples of assessment using health equity-assessment building blocks

Valuing advocacy and community-based work. Enact a longitudinal program in which pediatric trainees spend time interacting with the children and teacher at David’s school, learning directly about how structural racism has impacted the school environment and therefore the child.

Understanding structural racism’s role in standardized testing. Allow learners with life experiences of marginalization similar to David’s to pave their own path for community engagement during their time spent at David’s school without mandatory assessments.

Integrating creativity, flexibility, and individualization into assessments. Involve trainees and David’s family in designing the health and equity assessment rubrics by partnering with them to design the assessment process itself, such that learning can be demonstrated multiple ways with minimal grading. Solicit feedback from learners, David, and his family on assessment processes.

Ensuring assessments are culturally relevant. Invite trainees to consult with David’s family about an idea for a capstone longitudinal community project involving a group presentation on which the family and community share their lived experiences about the history of marginalization and policy violence that leads to poorly funded schools and bias in the clinical evaluation of boys of color.

Abbreviations: OSCE, objective structured clinical examination; SDOH, social determinants of health.

Conclusion

The dominant discourses around CBME value knowledge production and assessment according to their conformity with a “zero-point epistemology” or, in simplified terms, their “objectivity.” Yet putatively objective CBME assessments have been riddled with concerns about **bias**.^{38,39} Recognizing the limitations of CBME and its assessment tools, we have provided suggestions for moving beyond health equity as an “add-on,” utilizing practices from other professions—and envisioning other practices—that center equity as a foundational part of professional knowledge and action.

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Citation

AMA J Ethics. 2024;26(1):E12-20.

DOI

10.1001/amajethics.2024.12.

Conflict of Interest Disclosure

Authors disclosed no conflicts of interest.

Views expressed herein are those of the authors and do not necessarily express United States federal government policy. The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental. The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.



AMA Journal of Ethics®

January 2024, Volume 26, Number 1: E21-25

MEDICAL EDUCATION: PEER-REVIEWED ARTICLE

Centering Justice in Health Professions Education by Owning Limitations of Anti-Bias Checklists

Tasha R. Wyatt, PhD and Jennifer Randall, PhD

Abstract

This article argues that, although efforts to integrate checklists for assessing bias in educational content represent a sincere effort to address or mitigate harm, such efforts will likely have limited (if any) impact on curricular reform or the actual lived experiences of minoritized students. This is because checklists are not designed for justice-oriented assessment and thus will not create the kind of change needed to transform health professions, especially medical education. What is needed is more attention to the ways whiteness is used to organize health professions education and a deep commitment to faculty development focused on raising educators' critical consciousness.

Introduction

Although efforts to integrate checklists for assessing bias in educational content represent a sincere effort to address or mitigate harm, such efforts will likely have limited (if any) impact on curricular reform or the actual lived experiences of racially and ethnically minoritized students. At best, they signal an important shift among educators toward critical reflection on deeply held beliefs that are transmitted to students through curricular content in ways that eventually impact patient care and also reflect a growing awareness that medicine harbors social injustice in its treatment of race, ethnicity, gender, and other characteristics.¹ However, the integration of anti-bias checklists into curricula is of limited value in that such checklists can only serve as a first, and primarily superficial, line of defense for identifying overt instances of stereotyping, bias, shaming, and stigma.² What is required to transform health professions education is a far more substantial reenvisioning of both pedagogies and curricula and linking them to a justice-oriented system of assessment and evaluation.³

John Rawls argues that social and economic institutions (which include educational institutions) should be “to the greatest benefit of the least advantaged members of society.”⁴ Using this “difference principle,” we argue that current approaches to curriculum development and assessment, including the widespread integration of anti-bias checklists to ensure inclusivity and fairness, ultimately fail to account for the ways in which power, privilege, and oppression manifest in our curricular and pedagogical assumptions and, as such, continue to benefit those individuals who have historically

dominated health professions education. Ultimately, by merely identifying harmful images or language in curricular materials, health professions education treats injustices as incidental rather than structural.

A Justice-Oriented Approach

In place of checklists, we propose a justice-oriented approach to curricular reform and assessment, which centers the needs of marginalized populations in all educational decision making. Whereas checklist questions may ask, *Does my curriculum contain an adequate number of images of racially diverse individuals?* or *Is the language to describe race in my curricula problematic?*, a justice-oriented approach would prompt educators to ask this central question: *How are my assumptions about marginalized populations (eg, persons who are not White, middle-class, male, nonelderly) being forwarded in my curricular and assessment materials, and how can I actively disrupt these assumptions to center lived experiences of other populations?*

This line of questioning is qualitatively different from what is typically included in anti-bias checklists because checklist questions do not challenge the hegemonic structures and symbols that keep injustice and inequity in place. Curricular choices have to be more than *not racist*; they must be explicitly and irrefutably *antiracist*. In other words, avoiding the portrayal of negative stereotypes of minoritized populations does not seek to disrupt stereotypes. Instead, we need to attend to the ways in which whiteness is embedded in our **educational and training systems**.

Whiteness in Health Professions Education

Whiteness is the hidden structure that organizes our institutions, providing advantages to those already in positions of power.⁵ In health professions education, it functions at the level of social norms, influencing the ways physicians think, act, and feel in their professional roles, as well as the expectations that health professions schools place on them.⁶ To give an example of how whiteness might be left untouched by anti-bias checklists, Olsen⁷ found that medical educators routinely off-load their instruction on issues of race onto health professions students, particularly those who are racially minoritized. She showed that educators encouraged students to share their racial experiences in small-group settings but used race as a biological model in the “didactic” portion of the course. This pedagogical choice thus reinforces the dominant narrative that race is biological and exposes students to unnecessary racial mistreatment from their peers. An anti-bias checklist would likely have captured the racial bias in the didactic portion of the course but not in the informal, unstructured, small-group interactions.

From a justice-oriented/antiracist approach, it’s obvious that whiteness was present in faculty members’ pedagogical choice to organize their course in the manner that was chosen. Although faculty members acknowledged that racially minoritized groups have different social realities, evidenced in creating space for these discussions, the formal curriculum (ie, didactics) treated race as a biological reality, a harmful framing that has been used throughout history to justify the mistreatment of Black and Brown individuals.⁸ By sidelining class discussions of race and then highlighting race as a biological reality, faculty members privileged the dominant perspective on race without actually encouraging students to decenter White privilege.

Other examples in which White privilege may be left untouched by anti-bias checklists include inappropriate use of racially coded language in trainees’ performance

evaluations,¹ an aspect of the curriculum that is not covered by checklists. Interactions are a crucial component of the learning process in that they shape how physicians think about the work they do, the populations they serve, and their role in the process of care. Given that, historically, medicine has been largely a White profession,⁹ whiteness is embedded throughout all aspects of medical training and practice, even though it goes unrecognized.¹⁰ Anti-bias checklists allow whiteness to maintain a preferred status within curricula and assessments,¹¹ leaving few or no opportunities for faculty to interrogate why whiteness is used as an organizing framework in medicine in the first place.

Refocus on Critical Consciousness

To create real change in health professions education, the profession needs a collective shift toward increased critical consciousness.¹² Critical consciousness equips individuals to question how power and privilege are maintained in society with the end goal of achieving liberation.¹³ Facilitating this shift will require our profession not only to develop curricular checklists, but also to invest in the consciousness raising of educators and assessment developers to disrupt the hegemony of whiteness. Rogers and Mosley¹⁴ remind us that multiple aspects of society work in concert to construct and represent whiteness as normalized and privileged, and this normalization is what makes the logic of whiteness difficult to recognize and thereby permits its continued perpetuation.

What is needed are ongoing, consistent, and perhaps uncomfortable conversations aimed at raising faculty members' critical consciousness. For instance, faculty members need opportunities to question why stereotypes have been used as heuristics in teaching disease processes, to discuss how assessment systems uphold the current social order that disadvantages minoritized groups, and to challenge the heteronormative White perspective that is embedded throughout health professions education. Additionally, they need opportunities to discuss more mundane issues, such as the fact that checklists are human artifacts developed in a specific temporal context and, as such, represent the community's thinking at a specific moment in time.

For example, while racism and sexism may be well represented in current checklists, there are other forms of bias that have not received the same amount of attention, such as ageism, which is a relatively new form of bias and has only been recently identified because the pedagogical approach used by most health professions schools is heavily biased against the management of older patients.¹⁵ Similarly, stereotypes, which are subject to society's changing understanding of what constitutes a specific identity, are not represented in anti-bias checklists.¹⁶ In essence, faculty members will need to understand that constructs are not static; they shift incrementally and are shaped by society.¹⁷ These kinds of conversations can help to disrupt fossilized understandings of social reality and reframe constructs as dynamic and responsive to society's changing values, beliefs, and influence.

Although professional development is often encouraged alongside anti-bias checklists,² we believe professional development with the end goal of raising critical consciousness with respect to issues of *whiteness* should be the focal point in creating a justice-oriented/antiracist approach to both curriculum development and assessment. Until the focus shifts from superficial concerns such as representation (eg, *Are there enough illustrations and questions that refer to Black men or elderly women?*) to a contextual presentation of material about race, **disability**, gender, and so on, the deep-seated

change that is needed in our profession will never be realized. A key goal should be to understand how whiteness has shaped health care—especially medicine—in ways that have, until this moment, gone unrecognized.

Conclusion

Ultimately, if health care is to center justice, it needs to work towards a collective elevation of its critical consciousness¹⁸ with more deliberate attention to the ways in which current and historical power structures are deeply embedded in curricular and assessment design. By focusing on how the health professions perpetuate sociopolitical injustices and designing assessments that ensure that this understanding stays elevated, the profession can resist a reductionist approach to addressing harm and injustice and begin to transform health professions education. We propose a justice-oriented system that involves a deep interrogation of both curricular content and pedagogies to show the ways in which power, privilege, and oppression manifest in assumptions underlying assessment and teaching practices.¹¹

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Citation

AMA J Ethics. 2024;26(1):E21-25.

DOI

10.1001/amajethics.2024.21.

Acknowledgements

We would like to acknowledge that transformative change is often achieved in incremental steps and those on the front lines of doing this work are pioneers to achieve this end.

Conflict of Interest Disclosure

Authors disclosed no conflicts of interest.

Views expressed herein are those of the authors and do not necessarily express United States federal government policy. The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

MEDICAL EDUCATION: PEER-REVIEWED ARTICLE

Which Priorities Should Guide Design of Online Health Professions Capability-Based Curricula?

Yianna Vovides, PhD and Jimson Mathew, MA

Abstract

Inquiry-based learning instructional design methods support online health professions *capability-based curricula*. This article proposes which instructional design priorities should guide development of inclusive, accessible online curricula and learning experiences.

Inquiry-Based Learning

In this article, we explore instructional design strategies related to *inquiry-based learning* (IBL) for online, or virtually mediated, health professions education. IBL is characterized by individual and team-based development and supports analytical reasoning through exploration and stimulating curiosity. We focus primarily on how such strategies have the potential to support online *capability-based curricula* that emphasize self-awareness and reflection in particular patient-care contexts to afford an accessible and inclusive learning environment.

Cultivating Capability

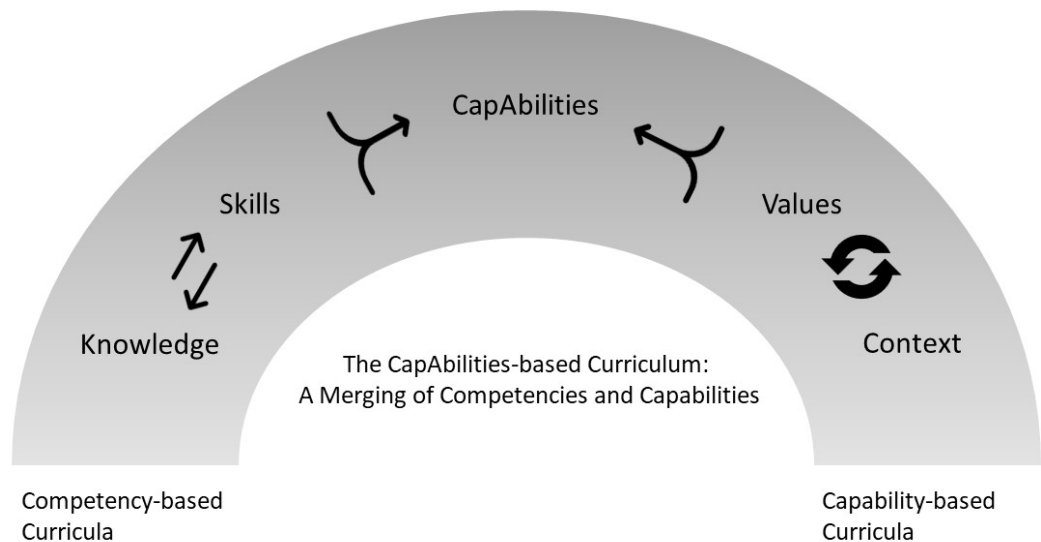
We begin by providing some context in relation to capability-based curricular design, given that health professions education has primarily adopted *competency-based curricula*, which are designed so that learning can be assessed by measuring particular outcomes (competencies).¹ Whereas competency-based curricula aim to teach observable abilities (eg, to diagnose and treat illness), capability-based curricula aim to support the development of professionals who can not only provide a medical diagnosis but also situate that diagnosis within the wider life of the patient.^{2,3} Although a competency-based curriculum does aim to account for a comprehensive set of attributes, it tends to reduce lived experience to “lists of attributes ... that exoticize patients, ultimately obscuring social context, medical culture, and structures of power.”⁴

If competency-based curricula focus on the **science of medicine**, capability-based curricula focus on the art of medicine.⁵ In particular, capability-based curricula encourage and challenge both instructors and students to explore previously unexamined beliefs and assumptions that influence their behaviors as health professionals. Capability-focused physicians would not just administer the right medicines and treatment plan; they would work with the patient to identify the most suitable pharmacy for pickup or delivery according to the patient’s needs or try to

schedule back-to-back referral appointments if they were aware that the patient is unable to keep medical appointments without taking time off from work. In other words, a capability-focused physician cultivates a holistic awareness of the patient in context. Such an awareness is considered to be an art rather than a science.⁵ It necessitates that health professionals reflect on their assumptions about patient care and the kinds of questions they ask and fail to ask patients; foster an awareness of the patient's ailment; and recommend treatment that not only meets the patient's medical needs (science) but also is tailored to the patient's lived reality (art). In other words, a capability-based curriculum seeks to support the development of a health professional who is focused on *patient* care.

A capability-based curriculum does not detract from a competency-based curriculum but rather enhances it. By enhancing competencies with capabilities, the curriculum design approach becomes a holistic one (see Figure 1). For competency-based curricula, instructional design methods for **online environments** emphasize didactic materials and knowledge acquisition. For capability-based curricula, the emphasis shifts to strategies that enable inquiry in order to facilitate the learner's awareness of the learning process. Presently, there is a large body of literature related to designing online competency-based curricula.^{6,7,8,9,10,11,12,13} Little has been written about designing capability-based curricula for online medical education, however. The rest of the article elaborates on the latter.

Figure 1. The Capabilities-Based Curriculum: A Merging of Competencies and Capabilities



Postures for Online Capability-Based Learning

Rather than focusing on observable skills, capability-based curricula aim to foster *postures* that enable building patient-centered awareness. The 3 postures that we address in this article are *radical relationality*, *collective knowledge building*, and *critical self-reflection*.^{14,15,16,17} We generated these postures from examination of other disciplines—including **disability studies**, social justice education, and feminist studies—that aim to foster learners' critical consciousness.^{2,16,18,19} Before we connect these postures to concrete design strategies, we define them below.

Radical relationality. This posture is adapted from Veletsianos and Houlden's concept of radical flexibility.¹⁴ In relation to learning and caring, radical relationality involves seeing all individuals as connected to one another and considering the multiple and changing roles and responsibilities that exist due to this connection. Individuals have rich histories and experiences that have shaped and continue to shape them throughout their lives. Radical relationality recognizes this interconnectedness and calls for responsibility on the part of the clinician to provide life-sustaining and life-supporting care reflective of the reality of each unique individual.¹⁴ A professional practicing radical relationality would ask patients about not only the nearest pharmacy but also how they feel about taking medicine or if they have cultural beliefs that inform their approach to receiving medicine.

Collective knowledge building. For collective knowledge building to occur, medical education must be seen not as a one-way transmissible process but rather as a nonhierarchical discovery process in which students and educators collectively generate answers to problems.^{15,16,19} Educators become problem posers and enable learners to think critically about medical issues.¹⁵ Ideally, a collective knowledge-building approach to clinical care is one in which a physician might invite patients to raise questions about their health care or to create mutually agreeable short-term goals.¹⁵ Such a posture might enable students to recognize patients as playing a vital role in their own health.

Critical self-reflection. Through reflection, one engages in self-probing approaches to gain insight that can aid one's professional development.²⁰ In critical pedagogy, the posture of critical self-reflection involves assessing one's personal beliefs and personal and professional interactions so that one becomes aware of the various inequities that are present in the lives of one's patients, society, and medicine as a whole; how personal biases can influence patient care; or even how professionals can support one another in cases of less-than-optimal outcomes (eg, uncooperative patients or inopportune circumstances).^{16, 17, 19} Through critical reflection, educators and students can foster empathy, examine their assumptions to manage their biases, and commit to practices that provide equitable outcomes for those they serve.

To weave these postures into online health professions education, we focus on IBL strategies.

Why IBL Is Key to Online Capability-Based Learning

With the rise of online education since the early 2000s, there has been increasing interest in more human-centered instructional strategies. IBL emphasizes a problems-first approach, starting with an examination of what the problem might be. The design of IBL activities tends to follow a sense-making process that allows for exploration in problem identification and strategy formation. According to Lim, in order for "inquiry to be meaningful, the topics need to be developed based on the learners' needs and capabilities."²¹ IBL accommodates this tailored approach to inquiry by enabling the addition of new approaches or the adaptation of existing ones as needs arise.

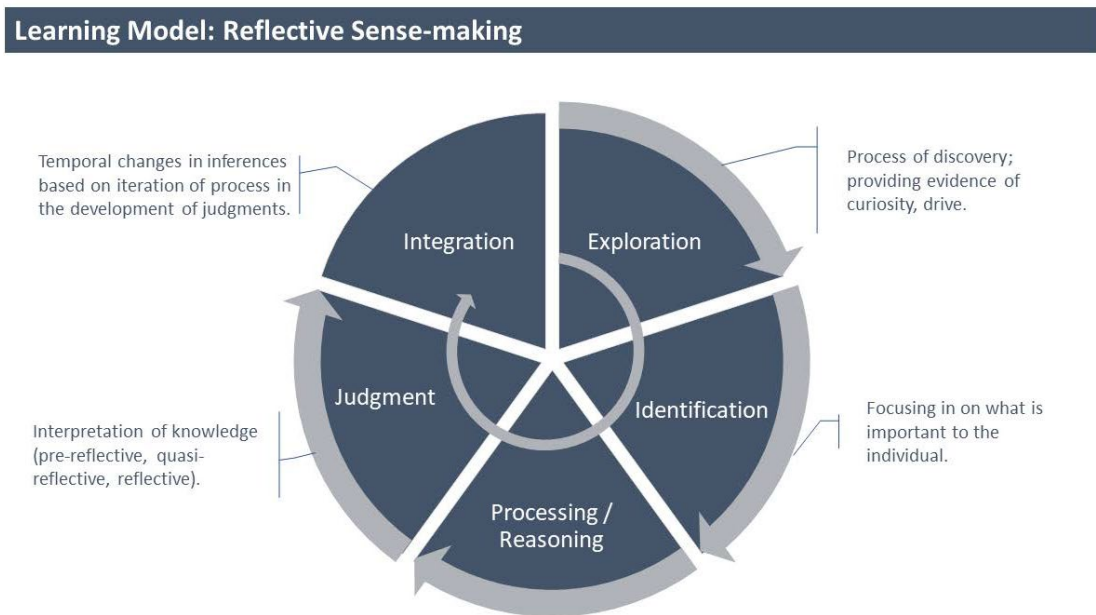
IBL can be thought of as the umbrella framework that includes more specific methods, such as problem-based learning (PBL), project-based learning, and design-based learning.²² PBL became prominent in medical education curricula that focus on the development of both individual critical thinking and clinical skills and team-based development.²³ IBL as the method of choice to support critical problem-solving skills has the added advantage of enabling a more holistic and flexible reasoning process. For

example, instead of starting a sequence of online activities with a lecture, the curricular design would begin with an exploratory activity, such as an online poll asking learners to select a response to a complex scenario, followed by a brief write-up of the justification of that selection. Once a learner submits this information, immediate feedback would be provided in relation to what their peers have also selected and justified, inviting learners to reconsider their response or justification. Starting with inquiry that fosters the postures of collective knowledge building and critical self-reflection allows learners to become active participants in their learning process.

Similar to a learner’s reasoning being enhanced by awareness of peers’ perspectives, making the right prescription requires understanding of context—here, the context surrounding the patient’s ability to obtain the prescribed medication based on cost or physical or logistical issues (the posture of radical relationality). It is therefore important to design medical education curricula that focus on the development of capabilities based on the 3 postures. Using IBL as the design framework with a focus on the sense-making process allows interrogation of the instructional strategies we currently use and exploration of strategies that we should consider using in capability-based medical education.

Consider the following sense-making model^{24,25} shown in Figure 2. This model focuses on the types of cognitive processes that take place as part of problem-solving activities: exploration, followed by identification, processing/reasoning, judgment, and integration, all of which are enhanced by the 3 postures. It represents the sense-making process as a dynamic cycle that culminates in the integration of knowledge. What this model enables us to do is to consider activities that merge instructional and learning strategies.

Figure 2. Reflective Sense-Making Learning Model



Text adapted from Lotrecchiano et al.²⁴

The IBL strategies we believe align postures and components of the sense-making process are the following: *questioning*, *pattern spotting*, and *adaptive actioning*. These

strategies are drawn from the field of human systems dynamics, which is grounded in inquiry-based methods that have been tested in online learning environments.

- **Questioning.** Questioning has been widely used across disciplines to foster critical thinking about subject matter knowledge.²⁶ According to Tofade et al, “well-crafted questions lead to new insights, generate discussion, and promote the comprehensive exploration of subject matter.”²⁷ To support capability development, we also need to focus on using questioning strategies that enable identification, a sense of connection “to some external entity (such as an idea, philosophy, person, group, or organization) that gives some measure of meaning to their identity.”²⁸ By doing so, we are more likely to enable critical self-reflection.
- **Pattern spotting.** Pattern spotting emerged from research on complex adaptive systems.²⁹ It is a type of processing/reasoning that involves recognizing patterns by identifying differences, similarities, and connections when trying to make sense of ill-structured problems. Through inquiry, we can home in on the challenges that emerge within a particular space by noticing differences and similarities between current and past problems. By doing so, we are more likely to enable collective knowledge building.
- **Adaptive actioning.** Adaptive actioning flows from pattern spotting. While pattern spotting involves analysis of the past and present, adaptive actioning enables us to consider what actions to take in the future, which takes judgment,³⁰ and in turn enables critical self-reflection.

IBL Strategies in Action

We offer the following guidance to make design decisions with intention that will support an inclusive online teaching and learning environment. Tables 1, 2, and 3 present the IBL strategies, along with guiding questions that are aligned with the postures essential to building patient-centered awareness. In addition to these questions, we present examples through which instructors can foster the exploration of these questions in an online course, either in real time (synchronous) or outside class time (asynchronous). While these examples are adapted to health professions education, several of them are based on educational interventions from other disciplines.^{18,19,31,32,33,34,35,36,37,38,39}

IBL Strategy 1: Questioning. What are you assuming about this patient that might not be true?^{40,41}

Table 1. IBL Strategy: Questioning

Online synchronous example	Online asynchronous example
<p>Find a historical case in which a professional made an incorrect response.</p> <ul style="list-style-type: none"> • Describe this case to students, removing a few key details and adding some red herrings. Do not inform them that this incident occurred in real life. • Invite students to contemplate possible solutions. If there are multiple answers, invite students to consider what evidence they prioritized to arrive at their response. 	<p>Find 2-3 historical cases in which a professional made an incorrect response. These cases should be similar to ones a health professional would expect but prompt distinct questions a health professional would ask based on the situation.</p> <ul style="list-style-type: none"> • Create professional-patient dialogues based on the cases, such that every patient response elicits another option or set of options from the professional.

- Reveal the omitted details and retract the red herrings. Do not inform your students just yet that the case describes a real incident.
- Ask your learners what conclusion they would have arrived at with the real facts of the incident. Inquire whether they would have prioritized their evidence differently with extra information.
- Finally, reveal the historical incident and the context behind the incident. Are elements of the incident within learners' experience? How might a professional recognize a variety of diagnostic or treatment possibilities when they provide care?
- What factors can enable a professional to be open to other possibilities? What factors can impede open-mindedness (eg, limited time, understaffing, bias, patient issues)?
- Repeat this cycle until the professional arrives at a conclusion, which may be similar to or different from the historical case.
- Create multiple-choice assessment questions with the help of course software, a survey, or the learning management system.
- Share with learners the different incidents the narrative was based on.
- Instruct learners to reflect on why they prioritized certain questions to the patient over other possible question choices. Learners could also look at the other incidents to recognize other possibilities.
- Allow learners to share their reflections with the class on the group discussion board, and ask them to respond to another peer's reflections, preferably someone who made a different set of choices.

IBL Strategy 2: Pattern spotting. Do I assume different outcomes because of a patient's race, ethnicity, sexuality, or linguistic background?⁴²

Table 2. IBL Strategy: Pattern Spotting

Online synchronous example ^a	Online asynchronous example ^b
<p>Ask students to write a paragraph about a person they know well that includes that individual's age group, occupation, height, weight, and 1 or 2 pieces of personal information (eg, marital status, habits).</p> <ul style="list-style-type: none"> • Inform students that these paragraphs will be shared with their peers. • Every week, assign a paragraph to a student and ask the student to create a narrative about how they ("the patient") acquired certain symptoms related to course topics. • Pair the student in the patient role with another student to act as a health professional who asks the patient questions to arrive at a diagnosis. • After the diagnosis is made, elicit a brief group discussion on why the professional asked those particular questions and phrased things a certain way, and ask the learner who wrote the paragraph and whether they would ask the same or different kinds of questions (and if different, which ones) based on their greater knowledge of this individual. • Invite all students to privately reflect on the scenario and the questions asked and inquire if there's a pattern to how these questions were asked. What is the impact of this pattern on their professional interactions with patients? 	<p>Ask students to keep a weekly log of patient interactions of particular significance to them.</p> <ul style="list-style-type: none"> • They can note salient aspects of the conversation; how they felt before, during, and after the conversation; why they felt this conversation was significant; and how this interaction informed their understanding of being a health care professional. • At specific moments during the semester, ask students to examine their previous logs and to observe any patterns that arise from their logs, either in how they see themselves as caregivers or in the kind of care they provide to patients of different identity markers.

^a This activity is good for small groups. ^b This activity was adapted from a study on preserving third-year medical students' empathy.¹⁷

IBL Strategy 3: Adaptive actioning. How might you derive value from a situation involving a bad outcome?

Table 3. IBL Strategy: Adaptive Actioning

Online synchronous example ^a	Online asynchronous examples ^b
<p>Invite students to experience some of the difficulties that patients experience that are relevant to health and health care. For example, suggest that students visit communities where many of their patients reside and try to obtain healthy food or reliable transportation.</p> <ul style="list-style-type: none"> • These experiences could be further enriched if students partner with local community organizations as part of the course. • Facilitate conversations on students' experiences, provide literature on why barriers to accessing care exist and how they affect health care, and invite students to ponder how they could remove barriers in their professional role. 	<p>Example 1. Faculty can utilize the platform's analytics to identify course materials and activities that students may not be fully engaged in. Doing so allows the instructor to provide additional resources or reach out to individual students to provide more guidance, both with the goal of improving performance.</p> <p>Example 2. Whether in lectures, demonstrations, or interviews or on discussion boards, instructors can say "I don't know" with respect to an unfamiliar topic and then respond by researching the topic, whether through recording a screen capture and referring to the medical literature, sending students a mass email answering a question raised on the discussion board, or modeling an interaction in which the instructor and a patient develop short-term goals if the patient was unable to follow the original treatment plan.</p> <p><i>The goal of these examples is to help learners avoid becoming discouraged in the midst of unfamiliar topics or difficult health care situations beyond their control. When instructors model how to respond in the "low-stakes" classroom environment, they are aiming to enable students to respond with curiosity and compassion in unfortunate circumstances.</i></p>

^a This example was taken from DasGupta et al.¹⁵ ^b This strategy involves the instructor modeling the role of adaptive actioning.

Conclusion

In capability-based curricula, instructional design emphasizes understanding contextual factors that influence individuals as well as factors that influence how the work gets done within an organization. This design enables an examination of values held at both the individual and the organizational level (ie, nonobservable attributes). The awareness of context and values influences students' approach to and success in developing their capabilities.

In design of online capability-based curricula, we propose a model that synthesizes a competencies approach based on outcomes and a capabilities approach based on cognitive processes through theoretical and practical applications. In this proposed reflective sense-making model, students are trained to recognize symptoms and provide treatment to patients (competencies) while also situating patients' health in their lived experience (capabilities). Through application of the 3 IBL strategies, educators can help students foster postures that promote patient-centered awareness. This holistic awareness, in turn, enables students to better understand the lived reality of their patients and the unique factors that promote or impact their health, as well as to tailor treatment to the individual.

Our future research aims to explore how both competency-based and capability-based curricular design approaches can come together. We hope to examine this framework in relation to online learning within the context of medical education and identify more IBL strategies that support the postures of radical relationality, collective knowledge building, and critical self-reflection, which in turn enhance learning of capabilities.

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Citation

AMA J Ethics. 2024;26(1):E26-35.

DOI

10.1001/amajethics.2024.26.

Conflict of Interest Disclosure

Authors disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

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ISSN 2376-6980



AMA Journal of Ethics®

January 2024, Volume 26, Number 1: E36-47

MEDICAL EDUCATION: PEER-REVIEWED ARTICLE

Using Critical Pedagogy to Advance Antiracism in Health Professions Education

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Abstract

This article draws on Paulo Freire's *Pedagogy of the Oppressed* to model how health professions education can advance health equity. It first introduces 3 well-known frameworks that can be meaningfully applied as critical pedagogy: structural competency, critical race theory, and participatory action research. It then highlights applications of these frameworks that can prepare trainees for reflection and action that motivate health equity.

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Status Quo in Health Equity Education

Comprehensive health equity and antiracism teaching are neither commonplace nor standardized within health professions education.^{1,2,3,4} Curricula purportedly focused on health disparities and social determinants of health often conceptualize social and structural adversity as individual risk factors without considering politico-economic contexts,⁵ prioritize reductionist biomedical frameworks over theories grounded in lived expertise,⁶ perpetuate problematic narratives about race and class,⁷ and feign neutral objectivity in the face of explicit and engineered oppression.⁸ When presented, equity-related content and institutional policies are often limited to describing the outcomes of structural oppression without encouraging action or seeking to develop skills to intervene.^{6,9,10,11} Ivory tower curricula on health inequities and social determinants are commonly devised *for* students and *for* communities rather than *with* students and *alongside* communities.^{12,13,14,15} These practices reinforce a status quo in health professions education that ignores hyperlocal contexts and results in poor learner engagement, adverse learning environments, impaired academic performance for minoritized trainees,¹⁶ and tensions between academic medical centers and the communities they serve.¹⁷

In research and education, structural racism often remains unnamed as a key driver of health inequity; race is also frequently essentialized as a biological rather than a sociopolitical risk factor.^{6,10,18,19,20} Health professions training programs and institutions are racialized organizations, yet they regularly do not explicitly name structural racism or

intervene on its effects on recruitment, retention, evaluation, or segregation within the learning environments.^{11,21,22,23,24,25,26,27}

Actions-Oriented Teaching and Learning

To advance antiracist health professions education and teach health professionals to **intervene on inequities**, a paradigm shift is needed. Paulo Freire's *Pedagogy of the Oppressed* guides us toward this end. Freire defines the ideal outcome of education as praxis—"reflection and action upon the world in order to transform it"²⁸—by recontextualizing Aristotle's original definition of *praxis* as the "theory-informed best action in a given situation."²⁹ In contrast to the traditionally passive, unidirectional pedagogy through which the educator shares "facts" that students must absorb, Freire advocates for a problem-proving approach wherein both educators and students recontextualize their thoughts together.²⁸ This approach to learning is analogous to the team-based, nonhierarchical decision-making process that should be ubiquitous in interprofessional clinical team work.^{30,31} The endpoint of Freirean philosophy is tangible: "discovery cannot be purely intellectual but must involve action; nor can it be limited to mere activism, but must include serious reflection: only then will it be a praxis."²⁸ In sum, Freire defines fundamental objectives in motivating learners to (1) examine structural underpinnings of inequity, (2) understand how their roles intersect with them, and (3) feel emboldened to work against oppression as critical pedagogy.^{28,32} A reorientation toward antiracist action is an ideal solution for medical education's approach to health inequity that has focused much on description but little on skills required to act.³³

Educating for Action

To advance health justice, educational content discussing health inequities must be contextualized within frameworks that promote critical analysis of existing systems and motivate redress. Structural competency, critical race theory (CRT), and participatory action research (PAR) are 3 existing content frameworks that can be used to implement critical pedagogy.

Structural competency: attending to upstream political determinants. Structural competency emphasizes recognizing the structural and systemic forces that affect a patient's health.³⁴ In contrast to cultural competency, which emphasizes mitigating the interpersonal stigma and biases that clinicians might bring to patient encounters,^{35,36} structural competency underscores how upstream policies and infrastructure—such as food security, zoning laws, and transportation access—contribute to downstream inequities.³⁷ Five core competencies have been proposed by Metzl and Hansen: "1) recognizing the structures that shape clinical interactions; 2) developing an extra-clinical language of structure; 3) rearticulating 'cultural' formulations in structural terms; 4) observing and imagining structural interventions; and 5) developing structural humility."³⁴ A praxis-driven approach to structural competency requires exposure to methods, perspectives, and case studies that address health injustice at a structural level.^{38,39} With this in mind, resources such as the *New England Journal of Medicine* series, "Case Studies in Social Medicine," can be used to ground structural analyses in clinical circumstances that health professions trainees are likely to encounter.³⁸ Structural competency curricula need not be separate from regular biomedical curricula; rather, they should be used in tandem. For example, social medicine cases on occupational hazards and migrant worker health⁴⁰ can be integrated into musculoskeletal curricula, segregation and exposure-related asthma inequities⁴¹ into

respiratory curricula, intersecting syndemics of incarceration and homelessness^{42,43} into infectious diseases curricula, and so forth.

CRT: naming racism and racialization. Biomedical frameworks often employ a “race-neutral” lens purportedly informed by empiricism and objectivity and thereby resistant to human influences like **bias** and racism. This assertion of neutrality is misguided and empirically false. Medical institutions—and the knowledge, paradigms, and processes that guide them—exist within historical and current contexts that are enveloped in racial dynamics.²¹ CRT was founded by legal theorists to guide our understanding of how racism is embedded in the structures of American society.^{44,45} A foundational tenet of CRT is *racialization*—how socially constructed racial groupings are used to assign value and hierarchy placement.⁴⁵ Examples of racialization in health professions training include widespread uses of “objective” criteria, with strong associations between race or class and Medical College Admission Test® and United States Medical Licensing Examination® scores, quantity of research publications, Alpha Omega Alpha induction,^{46,47,48,49,50,51} and even “subjective” clinical evaluations that create space for preceptor biases.^{21,52} By offering interdisciplinary perspectives on race, naming power structures, and acknowledging how historical policies and practices contribute to present-day inequality, CRT provides an antiracist lens by means of which learners can take action against health inequality.

PAR: centering voices from the margins. In PAR and community-based participatory research (CBPR), marginalized communities are considered equal partners throughout research formulation, development, implementation, data collection, and evaluation.⁵³ PAR originated as a “margins-to-center” approach to advance sociopolitical movements for land reform and anticolonialism in the 20th century.^{54,55} In their modern applications, PAR and CBPR equitably value the contributions of academic and community experts, reflected both in their financial compensation and in the process of knowledge production itself.⁵⁶

Historical legacies of research exploitation and academic elitism have reinforced marginalized communities’ medical mistrust and undermine the potential for ethically partnered research.^{57,58} The superimposition of structural racism further exacerbates the downstream harms of these legacies on community engagement and health outcomes alike.⁵⁸ PAR requires humility from academic partners and significant buy-in from community partners—a recipe made feasible through sustained relationships built on mutual trust. Even for learners with dominant identities, explicit and personally meaningful exposure to diverse perspectives remains among the very few interventions with demonstrable evidence of implicit bias mitigation.⁵⁹ Engaging marginalized communities in research, learner education, clinical redesign, and health systems reform, in tandem with diversifying the health workforce itself, can aid in this process.

Applying Critical Pedagogy

Applying the above frameworks in health professions education will require a shift in educational methods and in the culture of health professions knowledge sharing more broadly. We propose 3 primary means of attaining these goals: redefining who is considered a teacher, implementing novel educational tools, and institutionally embedding and incentivizing **antiracism**.

Redefining the teacher. All of the frameworks we described, as well as Freire’s *Pedagogy of the Oppressed*, emphasize the inherent value of lived expertise. With this in mind, the

University of Nebraska Medical Center (UNMC) created a community-engaged structural competency curriculum that engaged community stakeholders—ranging from small business owners to faith leaders to public agency stakeholders—as partners throughout the development, implementation, and evaluation of the curriculum and as facilitators of small-group discussions.⁶⁰ Recent iterations have expanded the curriculum to include financial compensation for partners and engagement across multiple community sites and neighborhoods, with the explicit purpose of establishing and sustaining longitudinal partnerships.⁶¹ Direct involvement of community members as teachers must be systemically embedded to sustain continued community and academic buy-in alike; at UNMC, conversations are underway to create an Academy of Community Teachers to achieve this goal.

Similarly, at Morehouse School of Medicine, students participate in a yearlong community health course wherein they identify health needs via community interviews, focus groups, and surveys; present their results and recommendations to community stakeholders, classmates, and faculty members; and implement and evaluate their intervention.⁶² This curriculum encourages students to approach community needs with the same rigor needed to investigate a patient presentation.

Moreover, learners themselves can and should be involved in curriculum development.^{63,64} For example, a team of structural competency educators developed an open-access online sexual and reproductive health curriculum in partnership with community scholars, reproductive justice advocates, and medical and nurse-midwifery trainees.⁶⁵ Together, these stakeholders worked on problem identification, goal setting, implementation, and evaluation.⁶⁵ This curriculum and other interventions highlight the necessity of integrating multidisciplinary perspectives across the social sciences, law, humanities, and other nonclinical fields in the comprehensive delivery of critical pedagogy.^{33,39,66}

Finally, recentring health equity expertise in communities can promote a shift in the ideal endpoints of health professions education. The UNMC curriculum was able to achieve its implicitly intended impact—establishment of new relationships between learners and their community—during the COVID-19 pandemic when students' learning translated swiftly into actions: students reconnected with curriculum partners to disseminate masks, multi-language public health information, personal hygiene products, and basic food supplies to marginalized communities and personal protective equipment to under-resourced hospitals and clinics.^{67,68,69} We argue that this newfound learning objective—autonomous, self-directed learner-community *actions* to address pressing needs—should be broadly considered as an ideal endpoint of reciprocal community-partnered education.

Implementing novel educational tools. Shifting toward action-based education and career development planning will require deviation from status quo teaching modalities. Neighborhood walking tours and street art tours for resident physicians that were developed and facilitated by community leaders have been shown to improve resident physicians' understanding of neighborhood-level social and structural determinants of health.⁷⁰ Another community co-designed experiential learning initiative for emergency medicine residents led to long-term improvements in their self-reported ability to apply trauma-informed de-escalation approaches to agitated patients.⁷¹ Finally, a collection of educational experiences based on Augusto Boal's *Theatre of the Oppressed*,⁷² Freire's critical pedagogy, and sensible cognition—the notion that one's understanding of the

world is based in one's senses and influenced by one's emotions—aimed to improve trainees' personal and professional development, understanding of medical training's hidden curriculum, and emotional processing and reconciliation of challenging clinical situations.⁶⁶ Extra-clinical experiences like these can ensure that health professions trainees build critical consciousness of and structural empathy for the hyperlocal contexts and lived experiences of their patients and colleagues,^{33,35} although evaluation of the efficacy of these novel curricular interventions has often been limited to learner self-reported data.^{70,71}

Podcasts can also motivate antiracist action.^{73,74,75,76,77} The Clinical Problem Solvers' *Antiracism in Medicine Series* was created by a multidisciplinary, trainee-predominant team at the start of the COVID-19 pandemic and in the aftermath of George Floyd's murder to redress a lack of action-oriented antiracism education in medical training.⁷⁸ It should be noted that the series' creation and iterative development itself reflect antiracist action. Moreover, the democratized accessibility of the tool has allowed for its widespread use across undergraduate, health professions, and graduate medical education settings.^{79,80}

Embedding and incentivizing antiracism. Structural shifts within health professions education, academic medical centers, and health policy are long overdue. First, praxis-based work should be incentivized rather than discouraged or obfuscated. Recent analyses have highlighted the striking dearth of empirical research published on racism, white supremacy, and health in leading clinical and public health journals that play fundamental roles in reshaping the knowledge and priorities of the health workforce,^{81,82} despite an expansive and ever-growing body of research on these fundamental causes of health inequality.^{83,84} Second, metrics for admission to health professions training programs, faculty promotion, and program prestige alike often fail to appropriately recognize and protect health equity work.^{85,86,87} Reforming admissions criteria and professional advancement incentives can alleviate the minority tax, mitigate compensation inequities, and redress leaks at every stage of the career pipeline.^{21,88,89,90,91,92,93} Third, efforts to change institutional culture must be pragmatic and grounded in critical theories. The Icahn School of Medicine at Mount Sinai's Racism and Bias Initiative offers one such transformational change framework, beginning with a margins-to-center problem-proving approach and transitioning through phases of cultural climate evaluation, tangible actions with measurable outcomes, and iterative cycling to ensure that reforms are achieving their stated goals and can be sustained long-term.⁹⁴ Lastly, because segregated care within academic health centers and pervasive price discrimination between hospitals divert resources away from marginalized communities,^{95,96,97,98,99,100} fundamental payment reform remains necessary to ensure that academic health centers can equitably fulfill a quadripartite mission of education, research, clinical care, and community engagement.^{101,102}

Conclusion

Current approaches to health equity education frequently fall short, and, as a result, minoritized learners, marginalized communities, and their relationships to academic medical institutions suffer. Structural competency, CRT, and PAR can guide the implementation of critical pedagogy by striving to foster antiracist praxis: theory-driven actions to redress systemic oppression.¹⁰³ By engaging our communities as teachers with valued expertise, expanding the use of creative educational tools, and structurally embedding and incentivizing antiracism, clinicians can be better equipped to mitigate health injustice.

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Citation

AMA J Ethics. 2024;26(1):E36-47.

DOI

10.1001/amajethics.2024.36.

Conflict of Interest Disclosure

Dr Khazanchi served as a health equity consultant to the New York City Department of Hygiene and Mental Health's Coalition for Ending Racism in Clinical Algorithms and to the Office of the Chief Medical Officer, advises the Rise to Health Coalition, and serves on *The Lancet* Commission on Antiracism and Solidarity. The other authors disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.



AMA Journal of Ethics®

January 2024, Volume 26, Number 1: E48-53

MEDICAL EDUCATION: PEER-REVIEWED ARTICLE

What Might It Mean to Embrace Emancipatory Pedagogy in Medical Education?

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Abstract

An emerging and important goal of professional health training and education is to develop a workforce that is equipped to address patients' social and structural determinants of health and to contribute to health equity. However, current medical education does not adequately achieve this vision. Emancipatory teaching, as described by scholars such as Paulo Freire and bell hooks, equips students with tools to identify and challenge oppressive systems. It helps students achieve freedom for themselves, thereby contributing to more emancipatory and humanistic patient care. Changing teaching in this way would help reverse implicit curricular values that tend to enshrine hierarchy and oppression. Humanities and bioethics scholars working within health professional schools thus should promote a more critical, emancipatory pedagogy in their institutions.

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Educating for Equity

Modern medical education seeks to combine rigorous scientific instruction with skills training in humanistic care and health advocacy.¹ A critical emerging goal is the development of a physician workforce trained to address health inequities—differences in health outcomes across demographic categories, including race, class, religion, and gender identity.² This training requires understanding forces that work against physicians' promotion of justice and freedom by restricting their full recognition of patients' humanity—including macro forces like structural determinants of health and micro forces like implicit bias.^{1,3,4,5} Curricula addressing these forces are often developed by (or with input from) faculty with backgrounds in bioethics and the humanities. Yet very little pedagogical consensus exists on best practices to advance these challenging goals.^{1,3,6}

Medical instruction remains rooted in important but dated bioethical principles, such as respect for autonomy, beneficence, and distributive justice. Concepts arising from Black,

urban, feminist, and queer bioethics (among others) can identify problems and create more expansive visions for physician behavior.^{7,8,9} However, bioethics scholars often stop short of putting forth concrete implementation models for substantive practice. Moreover, medical education implicitly teaches hierarchy and oppression through a hidden curriculum because it is rooted in a **hierarchical**, oppressive pedagogical approach.^{6,10} This curriculum's implicit norms teach students to unconsciously infringe upon patients' freedom,¹⁰ further entrenching the inequality they will eventually be tasked with solving.

This article will examine critical pedagogy and the inadequacy of the existing model of medical education to advance the causes of justice and freedom as expressions of health equity. After examining key ideas of critical pedagogy, we describe several ways the educational system enacts the opposite of justice and freedom—oppression—to which both students and patients are subjected. We argue that models of emancipatory pedagogy should be adapted to medical education with the goal of teaching future physicians to be free thinkers and conscientious actors who can, in turn, promote freedom for their patients. Rather than operationalizing traditional bioethics principles, such as respect for autonomy and beneficence, medical education should adopt more radical concepts such as agency, humanity, and liberation.

Emancipatory Pedagogy

Pioneers of critical and emancipatory pedagogy, such as bell hooks, Paulo Freire, and Henry Giroux, have long argued that education should be actualized as a practice of freedom.^{11,12,13} Counteracting education that can legitimize, reinforce, or even create **systems of domination**,^{11,12,13,14,15} emancipatory pedagogies equip students with tools to identify systems of oppression in their lives and the greater society.^{11,12} When knowledge is combined with active processes of reflection and action, education becomes a process of liberation.¹¹

Critical pedagogy asserts that the hierarchy of traditional education dehumanizes students by treating them like empty vessels to be filled with the teacher's "true knowledge." Paulo Freire coined the term "banking concept of education" to problematize this process, whereby students passively and uncritically receive information from a teacher presumed to be more expert than they.¹¹ By contrast, in emancipatory pedagogy the teacher is a facilitator and guide for learning rather than a director.^{11,12} Deference to authority and passive intake of information give way to "problem-posing" forms of mutual discovery. The students and teacher participate in praxis: a cycle of reflection upon the origins of injustice, actions to change it, and reflection upon the actions' effects. Special attention is paid to power and to positionality—how teacher and student are shaped by the world¹¹—which increases students' awareness of systemic oppression, its influence on individual interactions, and its coercive silencing of freedom.¹²

Importantly, critical pedagogy balances the inherent power differences that accompany or develop from knowledge.^{11,12} Teachers learn and practice in solidarity with their students, constantly attentive to their own position and working to address power imbalances when possible.^{11,12} Simultaneously, students learn to identify and resist ways that their new awareness could be used to manipulate or oppress others. Through this reciprocal learning process, students actualize a sense of their own freedom and become equipped to assist others to do so as well.^{11,12}

Freedom From . . .

Historically, medical education has epitomized the “banking model,” insofar as it propagates a knowledge hierarchy that implicitly dismisses input from those who have not yet achieved the designation of expert, as well as those, such as patients, who never will. Overdependence on the banking model disempowers medical students as authors of their own professional development and represents an implicit devaluation of knowledge generated by those not included in the process of medical education. Moreover, the banking model is overly reliant on didactic coursework and an assessment structure that focuses on quantification and ranking, which minimizes or even denies the relevance of instilling in students humanistic characteristics known to benefit patients, such as reflexivity and sensitivity to power dynamics.

Although medical education has recently embraced small-group discussions and problem-based learning as innovative ways to augment or ameliorate the limitations of the didactic approach, these innovations, while important, are not a panacea.^{15,16,17} The hierarchy of knowledge remains embedded in what is, admittedly, a more collaborative approach to learning. Group learning is often designed by faculty and assessed based on faculty members’ perspective. Group learning thus reinforces the underlying assumptions that there are correct answers, single or universal truths, and that the most experienced people hold the keys to the discovery of these truths. Currently, discussion-based educational activities hold many of the same risks as traditional educational practices.

The use of the banking model in medical education also disempowers patients as experts about their own bodies. Medical students, trainees, and students in allied health professional programs achieve the status of expert by following the accepted pathway of undergraduate and graduate education. Patients, however, have no mechanism to assert such expertise. Their own illness narratives, symptoms, and perceptions of their illnesses are subordinate to both the objective data physicians can collect about them and physicians’ interpretations of these data.

It is notable that students begin school with a cadaver that is described as their “first patient.”¹⁸ Cadavers create the first opportunity for data to flow unilaterally from the silent patient to the student for interpretation and ascription of meaning. Students implicitly and explicitly learn to objectify patients as problems to be solved, collections of demographic data points from which to make assumptions—or, in the case of standardized patients—actors to practice on.

Medical trainees receive far more evaluation and feedback from other physicians than from patients on their skills. Proactive efforts to involve living patients in clinical skills assessment is a positive step but still embodies problematic power dynamics. As in problem-based learning, the role of the faculty evaluator remains unchallenged. The attending physician mediates the interpretation of the patient interaction through the lens of the establishment. As a result, a potentially dangerous status quo is maintained wherein physician knowledge supersedes patient knowledge, even when physicians themselves become patients—especially physicians in marginalized bodies, as in the case of Susan Moore, who died of Covid-19 after being disbelieved, despite her professional status.¹⁹

Envisioning Emancipation

We refrain from offering a specific roadmap for how to teach using emancipatory pedagogies—to do so would be to replicate the very knowledge hierarchy that we argue against and to fail to acknowledge that each classroom is its own unique body, with each teacher working from their own position and set of experiences. However, we offer suggestions for beginning a journey toward radical pedagogy. Emancipatory education requires several forms of interconnected work. The first is *personal*. Educators can become more knowledgeable by engaging with the teachings of experienced critical pedagogists. They can translate knowledge into practice by critically engaging with the limitations of other scholars and with how their own identities mediate interpretation. The second is *interpersonal*. Educators must learn about their students as individuals and practice nonhierarchical interaction, such that they are disentangled from the learned position of “knowledgeable authority.” They should actively seek to learn from students as well as about students, helping to create an environment of responsiveness and to engender solidarity. The third is *collective*. Educators must engage in continuous practice to improve the sense of safety that lays the foundation for emancipatory classroom spaces.

In our own work, we envision the classroom as a body. We monitor the classroom environment for signs of “health”—such as cohesion, respectful exchange, and openness to mistakes—and actively address signs of “disease”—such as distraction, disengagement, self-segregation, or intolerance of difference. Transparency about one’s intentions to adopt emancipatory pedagogy and encouraging real-time feedback from students about teaching and classroom structure can promote a healthy collective identity wherein all share the title of “learner.” When meaningful suggestions from the teacher or students are taken seriously and incorporated responsibly, trust and motivation for learning can be further built up.

Emancipatory education represents a radical paradigm shift that will require its own praxis to implement properly. The emphasis should be on improving the process and accepting progress over perfection. All of us, as teachers, must model a deep humility arising from our awareness that the social problems embedded in medicine were hundreds of years in the making and cannot be dismantled in one course or small-group discussion. Simultaneously, we must take seriously our role in the iterative action of praxis by pushing colleagues to see the connection between the way we teach and the likely outcomes for both students and patients. In a field that is very insular, we can raise our multidisciplinary voices to create awareness of the social impact of education on our institutions, trainees, patients, and communities.

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Citation

AMA J Ethics. 2024;26(1):E48-53.

DOI

10.1001/amajethics.2024.48.

Conflict of Interest Disclosure

Authors disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.



AMA Journal of Ethics®

January 2024, Volume 26, Number 1: E54-61

MEDICAL EDUCATION: PEER-REVIEWED ARTICLE

Aspiring to Disability Consciousness in Health Professions Training

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Abstract

Lack of disability-competent health care contributes to inequitable health outcomes for the largest minoritized population in the world: persons with disabilities. Health care professionals hold implicit and explicit bias against disabled people and report receiving inadequate disability training. While disability competence establishes a baseline standard of care, health professional educators must prepare a disability conscious workforce by challenging ableist assumptions and promoting holistic understanding of persons with disabilities. Future clinicians must recognize disability as an aspect of diversity, express respect for disabled patients, and demonstrate flexibility about how to care for disabled patients' needs. These skills are currently undervalued in medical training, specifically. This article describes how integrating disability consciousness into health professions training can improve health equity for patients with disabilities.

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Discomfort Providing Care for Patients With Disability

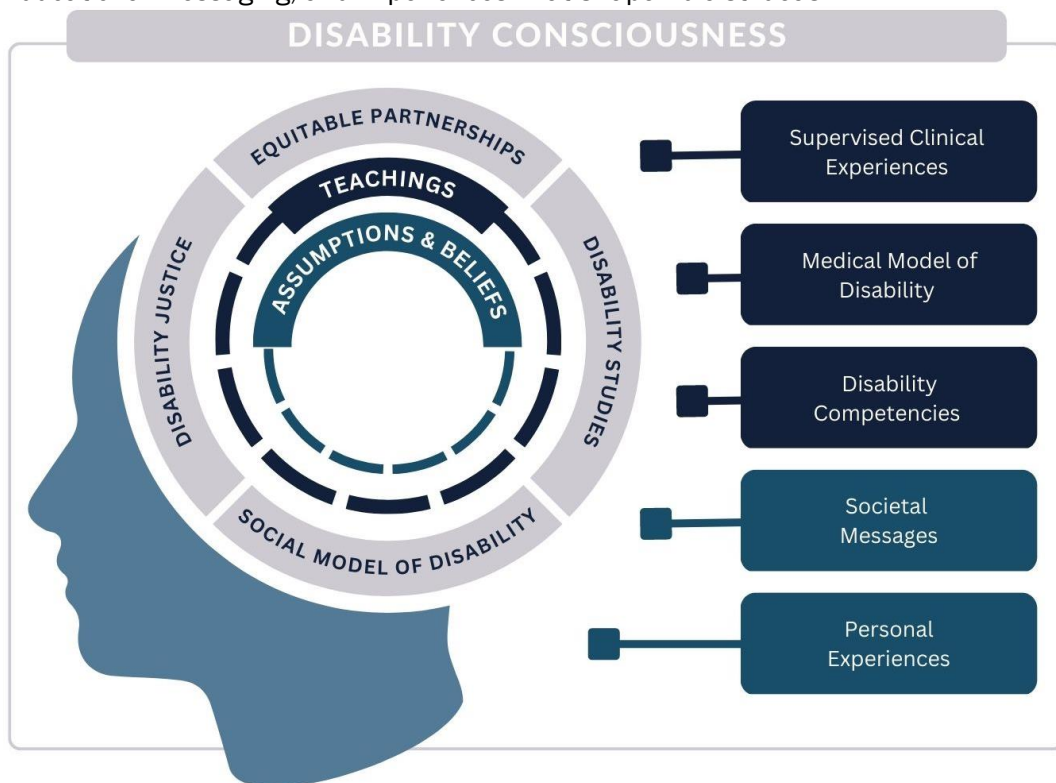
People with disabilities were estimated to compose 16% of the world's population in 2021,¹ making it inevitable that health care professionals will care for disabled patients, regardless of their practice location or specialization. Recent work demonstrates that physicians are hesitant about providing—and sometimes unwilling to provide—care for disabled patients.² Additionally, medical students report greater discomfort when caring for disabled patients than nondisabled patients.³ These findings on current and future physicians' perceptions suggest that the current disability curriculum in medical educational is insufficient. Furthermore, the COVID-19 pandemic has exacerbated deeply entrenched ableism⁴ and clinicians' negative beliefs about disabled patients,⁵ further contributing to health inequities for disabled patients.¹ There is thus a significant need for radical change in pedagogical approaches regarding how we teach medical trainees about disability.

Competency-Based Curricula

Disability training across the medical education continuum is paramount to improving health equity. Nevertheless, medical students report that current disability education is inadequate to fully capture or contextualize the needs of disabled patients.³ Implementing the core disability competencies for health care education, proposed by the Alliance for Disability in Health Care Education,^{6,7} would guide curriculum development to provide students with disability-specific knowledge, skills, and beliefs needed to provide quality care. When taught, disability competencies increase both comfort and clinical skills in caring for disabled patients.^{7,8} However, competency-based education alone may not compensate for years of ableist education and experiences internalized by medical trainees. Indeed, a larger shift in medical education toward disability consciousness is needed.

Disability competence introduced the notion of disability as an identity, similar to race, while a disability conscious curriculum leverages disability justice principles to help reframe trainees' perspectives and cultivate openness in clinical reasoning.^{9,10} Specifically, disability consciousness utilizes disability studies to raise awareness of the historical violence and injustices against the disabled community and "more fully promote the respect, beneficence, and justice that patients deserve."⁹ Disability consciousness adds an appreciation of the disability community's broader lived experiences and can be conceptualized as a framework to interrogate the multiple ableist systems at play, thus leaving the learner better positioned to consciously employ a patient-centered approach (see Figure).

Figure. Model of Disability Consciousness Relative to Sources of Information, Educational Messaging, and Experiences That Shape Ableist Ideas



The inner ring highlights ableist assumptions and beliefs that are filtered through the middle ring of educational exposure and through an outer ring of disability consciousness.

What and How We Teach Matters

While the inclusion of disability topics in medical education presents an opportunity to counteract ableist assumptions, attention must be paid to what is taught and how it is taught. A recent study revealed that 82.4% of practicing US physicians believe that significantly disabled patients have a worse quality of life than nondisabled patients,⁵ an assumption discordant with disabled patients' self-perceptions.^{11,12} The medical model of disability may perpetuate these inaccurate ableist assumptions by conceptualizing disability as merely a "health condition" and not as a marginalized identity of persons with unique lived experiences.^{13,14} Unfortunately, some students receive no disability training. A 2017 study found that only 52% of responding US allopathic and osteopathic medical schools included disability awareness programs.¹⁵ Many curricula are isolated, one-time lectures that fail to provide trainees with sufficient tools to approach disabled patients with a balance of knowledge and humility.¹⁶

Recently, **disability-related humanities principles**, disability rights education, and social model of disability topics have been embedded globally in Indian and Australian health professions education.^{17,18} In the United States, the commitment to the social model of disability is led by student advocates and faculty collaborators. For example, disability culture, the social model of disability, and direct interaction with disabled patients have been incorporated longitudinally in medical school curricula at Harvard Medical School,¹⁹ and similar topics are being piloted at Penn State College of Medicine and Ohio State College of Medicine (L. Smeltz et al, unpublished data, August 2023).^{20,21,22} Other US medical schools have similarly integrated disability rights and disabled patients as teachers into their curricula²³ and advocated for universal design, or design with diversity and accessibility at the forefront, to be included as an educational topic and to guide curricula development. Positioning disabled people as teachers and including direct interactions with them in learning experiences have been well received by medical students and been shown to increase students' and residents' awareness, sensitivity, and preparedness to deliver high-quality care.^{24,25,26,27,28} Importantly, these curricula included topics related to the humanities and social and human rights to help students develop a holistic understanding of disability. Improving trainees' recognition of implicit bias and increasing their confidence in assessing barriers to care will also help build disability consciousness. In the future, as disability conscious health care professionals, they will continually navigate assumptions about disability and humbly partner with a growing population of diverse, disabled patients.

Anti-Opressive Health Care

Discrimination, prejudice, and ableism are pervasive in health care. Mere individual recognition of differential treatment is insufficient to drive change,²⁹ as the multi-layered medical training environment serves to uphold and reinforce deeply embedded ableist structures and attitudes. Fully addressing ableism, as well as related forms of oppressions such as racism, homophobia, trans-phobia, ageism, and sexism, will require flexibility, intentional curiosity, and a longitudinal commitment.

We believe that medical education should develop disability consciousness in health professions trainees. An idea that has been transformative in antiracism efforts,²⁹ *consciousness* requires constant, active metacognition and reflection that lends itself to continual identity formation, skill development, open-minded thinking, and humility. Consciousness could be a novel vehicle for social change and for revolution in anti-ableist health care. Disability consciousness would lead transformation in health care by shifting the conception of disability from an individual and static view toward a holistic

and dynamic view, allowing trainees to visualize how ableism permeates experiences at the individual, interpersonal, institutional, systemic, and structural levels. The disability conscious curriculum is supported by disability studies and disability justice principles that explicitly recognize disability's unique culture and intersectionality with other identities. This heightened awareness is a critical step toward culturally responsive, comprehensive, and high-quality health care delivery.

Cultivating Humility

Including disability consciousness in training will add a layer of nuance and complexity to trainees' awareness of disability, teach them to recognize and dismantle ableism at multiple levels, and ultimately help them develop the skills to apply adaptable, informed solutions to improve health equity for disabled people. For example, medical education has historically taught disability through the medical model, which views disability as a condition to be prevented, cured, or fixed,³⁰ reinforcing ableist views. As mentioned, a disability conscious curriculum leverages disability justice principles to help reframe trainees' perspectives and cultivate openness in clinical reasoning.

Trainees should aspire to develop respectful curiosity and seek ongoing engagement with disabled people. Just as disability consciousness learns from the fields of disability justice and disability studies, so clinicians must partner with and learn from others. This interprofessional team-based approach includes uniting with those in other disciplines and, most importantly, forming true partnerships with disabled patients and disabled physician colleagues. Collaborating on a team requires explicit focus on including diverse perspectives, which includes recognizing disability as part of diversity.³¹ Although increasing the representation of medical students and physicians with disabilities is a critical step toward promoting disability consciousness, from an ethical standpoint, we should be careful not to burden our minoritized colleagues by forcing them to constantly educate their colleagues.³² Similar to culturally responsive health care for other marginalized groups, approaching patient care with humility is essential for health equity. Humility underscores recognition of the need to practice self-awareness, acknowledge personal limitations, and seek continual growth. Therefore, we must, as a profession, fully address ableism and closely related forms of oppression with intentional curiosity and a longitudinal commitment. While anti-ableist health care is built on a foundation of competency, disability consciousness will lead us to an interprofessional, holistic understanding of the lived experience of disability.⁹

People with disabilities have historically been mistreated in health care, as evidenced by forced sterilization laws (upheld by *Buck v Bell*), institutionalization, and, most recently, the distribution of resources during the COVID-19 pandemic.^{33,34} Continuing to teach this information without behavioral and structural change is wrong. We have an ethical imperative to foster **disability humility** and better serve our disabled patients,³⁵ and that duty starts with critically revamping the way we teach disability from the moment medical students begin their health care education.

“Conscious” Education

Medical education programs should partner with disabled people to build a curriculum and to develop experiences that cultivate trainees' disability consciousness. Equitable inclusion of disabled people in health care is not only an ethical imperative but also improves learning.^{24,25,26,27,28} Collaboration with the disability community is a prerequisite to disability conscious curriculum development and directly combats inaccurate and damaging assumptions.

A disability conscious education would address each disability competency within the context of consciousness, necessitating the inclusion of the social and identity models of disability, disability studies, and disability justice (see Table). To implement these changes in medical education, educators need a standardized, interprofessional curriculum that is inclusive of diverse disability identities and that is explicitly informed and led by disabled people at all levels.

Table. Recommendations for Creating Disability Conscious Medical Education

Theme	Recommendations
Recognize diversity of disability	<ul style="list-style-type: none"> ● Include a variety of disability types. ● Consider the balance between education focusing on a specific subset of disability (eg, physical disability) and education focusing on a broader representation of different disability lived experiences. ● Include intersectional identities in the curriculum.
Move beyond medical model	<ul style="list-style-type: none"> ● Define ableism and its manifestations at the individual, institutional, and societal levels. ● Include the social model of disability in teaching. ● Utilize disability studies and disability justice principles.
Develop respectful curiosity	<ul style="list-style-type: none"> ● Acquire the skills to ask questions that advance trainee knowledge of how to provide patient-centered care.
Prioritize continual engagement and learning	<ul style="list-style-type: none"> ● Integrate a longitudinal curriculum across preclinical and clinical years. ● Utilize a variety of teaching formats (eg, standardized patients with disabilities, patient panels, home and community visits). ● Leverage existing knowledge and resources.
Center disabled people	<ul style="list-style-type: none"> ● Engage with people with disabilities. ● Hire disabled people as teachers. ● Include disabled faculty on high-level curricular committees. ● Continually seek feedback from disabled people.

Preparedness and Progress

Trainees are increasingly pushing for a self-driven curriculum that prepares them to care for an increasingly diverse patient population, including a growing population of disabled patients. We acknowledge the work by student groups, federal agencies, and social justice movements—and agree that more training is needed. Unfortunately, progress has been incremental and slow.

The profession must approach disability conscious education with the same dedication, commitment, and vigor as other diversity, equity, and inclusion initiatives. Disability is a valuable contributor to diversity and must be explicitly included under the goal of anti-oppressive, culturally responsive health care.

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Citation

AMA J Ethics. 2024;26(1):E54-61.

DOI

10.1001/amajethics.2024.54.

Acknowledgements

The authors acknowledge Dr Christopher Lunsford for introducing the idea of disability consciousness and Michigan Medicine's MDisability Program for connecting the coauthors.

Conflict of Interest Disclosure

Authors disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

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ISSN 2376-6980

MEDICAL EDUCATION: PEER-REVIEWED ARTICLE

Which History and Social Science Concepts Should Inform Health Professions Education?

Alexandre White, PhD and Jeremy A. Greene, MD, PhD

Abstract

Teaching and learning patient advocacy in academic health centers requires critical engagement with social, political, and cultural conceptions of racial difference. This article considers understandings of race and racism typically drawn upon in health care and suggests which historical and social science-based approaches should be used in health professions teaching and learning.

Navigating Complex Terrain

Racial categories, often derived from US census categories, have been used in studies of risk factors for illness and disease as well as in diagnostic and clinical algorithms that adjust for the imputed race of a health care seeker.^{1,2,3} Discussion of these uses of race or ethnicity as “markers of an intrinsic health difference between human populations”⁴ has produced widespread debate over how to reckon with ongoing systemic inequalities that contribute to racial inequalities in health and the use of race as a proxy for genetic differences in supposedly heritable traits.⁵ Responding to lingering perceptions that racial categories constitute a biologically salient and observable basis of difference, Dorothy Roberts argues in her book, *Fatal Invention: How Science, Politics, and Big Business Re-Crete Race in the Twenty-First Century*, that an assumed biological basis of race was preceded by the employment of racial difference for the purposes of political and social classification, exploitation, and separation.⁶ Indeed, scientific racism or biological explanations of racial difference and ordering developed in tandem with European colonial expansion and the trans-Atlantic slave trade. While it was established decades ago that race has no underlying biological basis,⁷ the biological effects of racism on health are easily demonstrable in health disparities and disparities in care due to clinician bias, to name 2 examples. Importantly, the ongoing effects of the use of race in medicine are the subject of contemporary debates in medical education.

Race in Health Care

While the hereditary basis of racially and ethnically associated disease categories, such as sickle cell disease and Tay-Sachs disease, are well known, race-based thinking in medicine exists across many different areas of practice and training. In 2021, the American College of Obstetricians and Gynecologists shifted its stance about using race as risk factor in the vaginal birth after cesarian calculator⁸ after articles critiquing the

use of race as a risk factor in birthing decisions were published.^{4,9,10} Yet, at the same time, efforts to develop global respiratory reference values through the Global Lung Function Initiative have increased the use of reference equations for pulmonary function based on 3 ethnic referents: Caucasian, North and South East Asian, and African American.¹¹ This push to increasingly standardize the use of racialized pulmonology practice—even under the altered term of “ethnicity”—has led to attempts both to generalize racial/ethnic categories for populations of African descent¹² and to limit such efforts, given differences in environmental and social dynamics and genetic heritage.¹³ These challenges have led to calls to greatly expand the collection of spirometry data to include far more ethnic categories,¹⁴ even as other research has found “no evidence that race/ethnicity-based spirometry reference equations improved the prediction of clinical events.”¹⁵ To parse and understand the complex relationships between health, organ function, and structural forms of harm stemming from legacies of racial oppression, migration, and marginalization is a difficult, ongoing, and complex process about which scientific literature is still developing. While effective arguments have been made to move beyond race-based medicine in the United States,¹⁶ understanding how to do so within medical curricula is a more complicated task.

Centering Students

For students, learning information about the ways that race and racial categories are or are not clinically relevant presents many challenges. On the first week of medical school, students might be told that race is not a biological category, only to see it used as such in practice in pathophysiology classes in the second year and then in daily work on nearly all of their clinical rotations. Students receive seemingly contradictory information, as one block in their curriculum might emphasize the necessity of race correction or the employment of race, while another might wholly refute the practice. Students might understandably be confused as to why race is pertinent in one case and not in another. Furthermore, when being taught “racial” risk factors for diseases such as lupus erythematosus or diabetes mellitus, students might be given opportunity to discuss differences in risk factors being due to ongoing effects of disenfranchisement, segregation, and unequal access to goods and services that correlate with the lived experiences of structural racism—or they might simply infer that differences in risk are innate. For educators, understanding the need to distinguish between socially produced and shifting racial categories and hereditary genetic indicators, disabusing students of assumptions related to racial difference and pain, and developing a core competency on these topics are all of great significance clinically and from an educational perspective.

A 2016 survey of medical students’ perceptions of pain attests that many believe there are racial differences in pain tolerance or even that differently racialized bodies have thicker skin or skin less sensitive to pain sensation.¹⁷ For students who likely arrive at medical school with significant training in the natural sciences but perhaps less grounding in historical and social scientific understanding of the social determinants of health, understanding histories of medical racism and broader forms of discrimination becomes a significant challenge that will eventually affect patient care and patient outcomes. For example, Eneanya et al have demonstrated the potentially hazardous effects of race corrections in kidney function tests and their effects on time to dialysis and transplants.¹⁸ Yet students now increasingly enter medical school with a greater awareness of these topics than their educators, given the Medical College Admission Test’s addition of content on psychological and sociological bases of behavior in 2015.¹⁹ For instance, students might be comfortable discussing the intricacies of the social determinants of health as they relate to racism and its effects but be deeply confused

about how to disentangle genetic from social risk factors. It is also worth pointing out that, as the student body of medical schools in the United States now includes more students from minoritized groups underrepresented in science and medicine, the friction between *de jure* and *de facto* race thinking in the medical classroom can have different stakes for present-day medical student bodies than it did for prior generations.

New Directions

A key aim of structural competency is the development of “an extraclinical language of the structural elements beyond clinical symptoms, signs, and pathophysiology of disease.”²⁰ While training in both cultural and structural competency is now much more common across medical education and helps students understand how cultural backgrounds and structural inequalities might affect a health care seeker’s medical decisions, health care-seeking practices, or self-presentation to a physician, it is largely silent on the role of medicine in the production of **racist knowledge**. Training in structural competency thus should also include studying histories of medical violence^{21,22} and how ideologies of racial difference that affect health care too often are unaddressed in clinical training.

At Johns Hopkins, we have sought to build targeted interventions into the curriculum on structural competency that aim to undergird what a truly effective physician needs to know in order to navigate powerful social structures and respond to legacies of racism and ongoing racial inequalities and racism in medicine. Developing critical interventions at various points within the medical curriculum has proven effective in facilitating students’ consideration of these topics and issues.

By incorporating curricular materials from the history, sociology, and anthropology of medicine, the training at Johns Hopkins seeks to shed light not only on the history of race-based thinking in medicine and how it affects contemporary processes, but also on how to disentangle the **inequities** produced by racism from biologically deterministic views of race. For instance, lectures aimed at considering racism as a fundamental cause of health inequalities and the assumptions underlying race-specific pharmaceuticals like the heart failure medication isosorbide dinitrate/hydralazine can be a useful pedagogical tool for examining histories of segregation and unequal care and their attendant health effects, as well as for considering and questioning how racial essentialism becomes a proxy for social determinants of health. Similarly, while lectures on renal pathophysiology will necessarily focus on the function of kidneys and nephrology, guest lectures, required for students, can also be an opportunity to consider work by historians, sociologists, and other specialists in the social sciences and critical medical humanities who have explored the legacies of treating organs and organ function as indicators of racial inferiority.^{23,24} Such interventions can be critical to students’ and future clinicians’ engagement with competencies needed to navigate challenging and contradictory clinical recommendations and to care well for patients.

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Citation

AMA J Ethics. 2024;26(1):E62-67.

DOI

10.1001/amajethics.2024.62.

Conflict of Interest Disclosure

Authors disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

AMA CODE SAYS

AMA Code of Medical Ethics' Opinions Related to Critical Pedagogy in the Health Professions

Maya Roytman

Abstract

The *AMA Code of Medical Ethics* offers ample guidance regarding professionalism, communication, and education in medicine. This article highlights opinions in the *Code* that exemplify obligations to promote social justice and equity in health care pedagogy and training.

Professionalism Qualities

Medical education is a critical component of training competent clinicians and necessitates going beyond teaching scientific and procedure-based preparation for health care practice. Critical pedagogy, as put forth by Paulo Freire's *Pedagogy of the Oppressed*, is "problem-posing education" in which students explore conditions of inequity and challenge the status quo through collaborative dialogue and a shared praxis of justice and liberation.^{4,2,3} The need for critical pedagogy and health justice studies in medical education has been recognized in the literature as important to supporting trainees' capacities to respond with care to **structural biases** in the health sector.^{2,3,4,5,6} Critical pedagogy in medical education requires teaching and learning about social, political, cultural, and environmental determinants of human health.³

Although there are examples of academic boundaries of medical education being pushed to provide more comprehensive and justice-driven service-learning experiences for medical trainees,^{7,8} this approach is certainly not standard in training programs. The American Medical Association (AMA) *Code of Medical Ethics* provides guidance on physicians' ethical obligations to be socially responsible and to **advocate for health equity**, thereby supporting the need for prioritizing critical pedagogy and social justice learning in medical education.

Professional Identity Formation

Opinion 8.13, "Physician Competence, Self-Assessment and Self-Awareness," stipulates that education and training programs must teach and assess technical knowledge and skills and promotes a broad view of what it means to be competent. That is, competence "is fluid and dependent on context"⁹ and requires "habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and the community being served."¹⁰ Being a competent physician, according to the *AMA Code*, means expressing

one's commitment to ongoing self-reflection, receptiveness to critical feedback, self-care, and attentiveness to factors—including nonclinical factors—that could compromise a patient's best interest.⁹ Critical pedagogy nurtures students' and trainees' deep reflection about biases, for example, thereby facilitating their moral formation and preparation to consider social and structural causes of patients' illness experiences.

Skill Development, Communication, and Team-Based Care

Problem-posing critical pedagogical models restructure physicians' roles from "most responsible problem-solver" to one [in which physicians are one] of multiple situated actors with insight and agency."³ This approach and commitment to social justice and shared responsibility in health care is consistent with Opinion 10.8, "Collaborative Care,"¹¹ which encourages "open discussion of ethical and clinical concerns and foster[ing] a team culture in which each member's opinion is heard and considered and team members share accountability for decisions and outcomes."¹¹ Dialogue is essential to critical pedagogy, so uplifting all clinical team members is imperative. Opinion 10.8 also encourages physicians to challenge their institutions to address barriers to effective collaboration and to facilitate **effective teamwork**.¹¹

Cultural Humility and Health Equity

Advancement of equity in health care is an ethical imperative to be undertaken by all health care professionals. As stipulated in Opinion 8.5, "Disparities in Health Care," physicians have responsibilities to mitigate inequity by serving disadvantaged populations and, in particular, by promoting "effective communication and trust by seeking to better understand factors that can influence patients' health care decisions, such as cultural traditions, health beliefs and health literacy, language or other barriers to communication and fears or misperceptions about the health care system."¹² Cultural humility and equity, as outlined in Opinion 8.5, mutually support compassionate, competent practice.

Physicians' obligations to advance health equity and social justice are also articulated in the AMA's Principles of Medical Ethics. Principle I describes the obligation to provide competent care "with compassion and respect for human dignity and rights," which complements Principle VII's description of an obligation to "participate in activities contributing to the improvement of the community and the betterment of public health."¹³ Relatedly, Principle IX describes physicians' duties to "support access to medical care for all people."¹³ These principles inform and support critical pedagogical approaches to all health professions education.

Conclusion

Centering obligations to promote equity, critical dialogue, and cultural humility helps nourish social and clinical competency and patient-centered practice.^{4,14} The AMA Code's opinions support critical pedagogical approaches grounded in justice and equity that facilitate introspective professional formation, team collaboration, equity-based structural change in the health sector, and, ultimately, improved outcomes for patients and communities.

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Citation

AMA J Ethics. 2024;26(1):E68-71.

DOI

10.1001/amajethics.2024.68.

Conflict of Interest Disclosure

Author disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.



AMA Journal of Ethics®

January 2024, Volume 26, Number 1: E72-83

MEDICINE AND SOCIETY: PEER-REVIEWED ARTICLE

Cultivating Critical Love to Improve Black Maternal Health Outcomes

S. Michelle Ogunwole, MD, PhD and Francheska D. Starks, PhD

Abstract

Racism is responsible for the maldistribution of power in society and manifests as persistent disparities in maternal health among Black women in the United States. Testimonial injustice is an expression of prejudice that uses identity to undermine individuals' credibility as authoritative "knowers" of their own bodies, selves, and experiences. Among Black women, experiences of testimonial injustice in health care encounters are common and likely contribute to disparities in Black maternal health. To promote more equitable power distribution and prioritize testimonial justice in clinical encounters, this article proposes a conceptual framework for fostering critical-racial consciousness among health professions students and trainees. The goal is for critical-racial consciousness development and refinement to stimulate antiracist actions in medical decision making and, ultimately, lead to a more equitable health care system in which Black women can thrive.

Of course innocent mistakes occur, but the accumulated insults and indignations caused by racial presumptions are destructive in ways that are hard to measure. Constantly being suspected, accused, watched, doubted, distrusted, presumed guilty, and even feared is a burden borne by people of color that can't be understood or confronted without a deeper conversation about our history of racial injustice.

Bryan Stevenson¹

There must exist a paradigm, a practical model for social change that includes an understanding of ways to transform consciousness that are linked to efforts to transform structures.

bell hooks²

Reproductive Health Inequity

In the United States, Black women are 3 to 4 times more likely to die of a complication of pregnancy than White women.^{3,4} The COVID-19 pandemic widened these disparities: in 2020 and 2021, Black women had the highest maternal mortality rate of all racial groups and the largest increase in mortality rate from 2018.⁵ The magnitude of this inequity is also mirrored in disparities between Black and White women in severe maternal morbidities,⁶ and it will likely be exacerbated by the overturning of *Roe v Wade*: one study estimates a total abortion ban will yield a 21% increase in maternal deaths among all women and a 33% increase among Black women.^{7,8}

While abhorrent, these inequities are nothing new. They are well documented across all stages of the reproductive health cycle and persist despite significant diagnostic and therapeutic medical advances.^{9,10} The insidious and seemingly unalterable nature of these inequities reflects something so deeply rooted in society that one can only describe it as foundational. Many health equity scholars have argued that the foundation and root cause of these inequities is structural racism.^{11,12,13}

Structural racism refers to what Bailey et al call “the totality of ways in which societies foster racial discrimination through mutually reinforcing systems of housing, education, employment, earnings, benefits, credit, media, health care, and criminal justice.”¹⁴ This poisonous legacy has systematized inequities in hospitals,^{15,16} been reinforced through ahistorical and **biased medical curricula**,^{17,18} and leaked into clinicians’ interpersonal interactions with patients wherein their assignment of value is implicitly or explicitly based on patient identity. In consequence, data gathering, diagnostic reasoning, and therapeutic choices are biased, ultimately affecting patient safety and experience.^{19,20}

Crucially, structural racism and its attendant interpersonal prejudices create health inequities that directly reflect the power distribution within US society. This power distribution is recreated and sustained in the patient-clinician relationship. Currently, power within the patient-clinician relationship implicitly belongs to the clinician. In the health care encounter, clinicians are viewed as “knowledge holders” due to their professional status and, accordingly, hold the greatest power in the treatment process. Power can also be assigned to patients as “knowers” of their bodies, enabling them to provide history to support the therapeutic process. However, structural racism and discrimination stemming from interpersonal prejudice affect from *which* patients credibility as knowers is withheld—a phenomenon philosopher Miranda Fricker describes as *testimonial injustice*.²¹ Frequent occurrences of testimonial injustice in health care interactions likely contribute to existing racial disparities in Black maternal health outcomes. To ensure more equitable distribution of power and the prioritization of testimonial justice in clinical encounters, we propose a conceptual framework for fostering critical-racial consciousness among health professions students and trainees. We argue that the cultivation and refinement of critical-racial consciousness will catalyze **antiracist actions** in medical decision making, foster a flattened hierarchy that equally values the contributions of patients and clinicians and thus allows for truly collaborative decision making, and ultimately lead to a more equitable and just health care system wherein Black women can thrive.

Testimonial Injustice

For Black women, testimonial injustice occurs when their words are assigned less credibility in the treatment process because of their racial and gendered identities. Just as the term *hysterical* is recognized as a gendered reflection of sexism used to discredit a woman’s complaints, so too are many stereotypes at the intersection of race, gender, and socioeconomic position (eg, the irrational “angry Black woman,” the Black single mother, the “welfare queen,” and the sexually promiscuous “Jezebel”) used repeatedly to discredit Black women’s knowledge and experiences.^{22,23,24} As a result, Black women patients are often omitted from participation in their own treatment, an injustice that results in misdiagnosis, dismissal of serious concerns, and disregard for the clinical warning signs that precede severe adverse outcomes, including death. Regrettably, the state of Black maternal health in the United States is a stark example of the repercussions of testimonial injustice. Numerous Black maternal morbidity and mortality cases have garnered media attention, specifically for how testimonial injustice

contributed to these outcomes.^{25,26,27,28} The resulting activist movements, with names like “Believe Black Women” and “#Trust Black Women,”^{29,30} emphasize the importance of recognizing and valuing the experiences and voices of Black women in health care settings. These movements underscore that listening to Black women is a means to prevent adverse outcomes. Practices of discrediting Black women as credible knowers of their bodies and conditions is a manifestation of the power imbalance caused by structural racism. We argue that this quotidian practice is perpetuated by mutually reinforcing educational and health care systems. Ultimately, the practice contributes to the persistence of Black maternal health inequities in the United States.

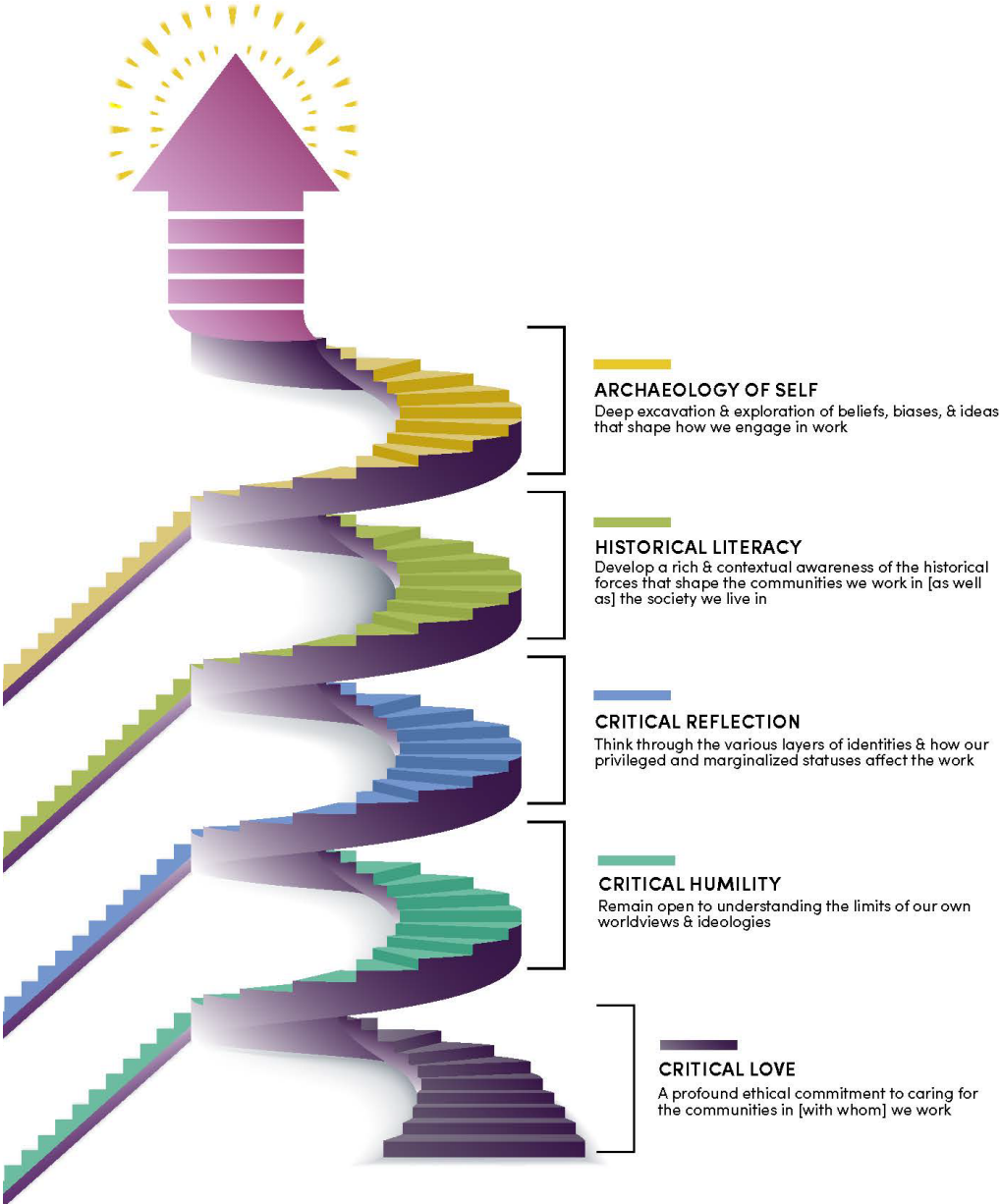
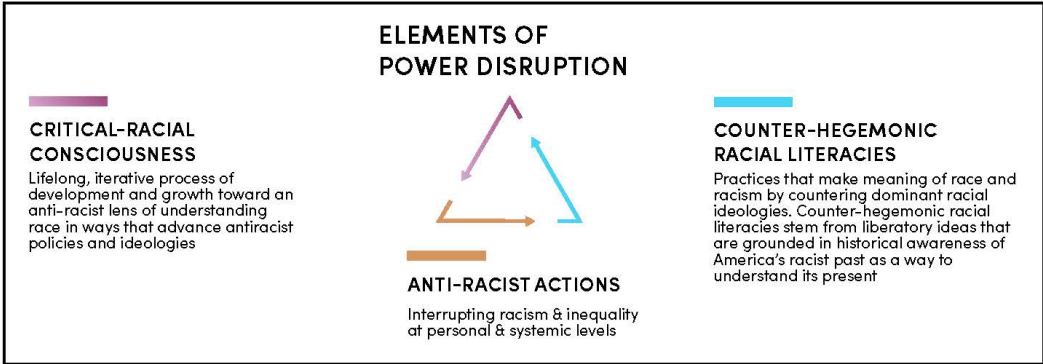
Righting Testimonial Injustice

To create different, more equitable, outcomes for Black women, clinicians must learn to (1) interrogate structural racism and its resulting power imbalances in their profession and (2) engage in actions that disrupt the status quo of biased credibility assignment. Accordingly, we advocate for an enhanced medical education curriculum that incorporates critical analysis and reflection and uses critical pedagogy to achieve this objective. Critical pedagogy describes practices that medical educators can use to guide their students toward critiquing and countering discriminatory practices such as testimonial injustice.³⁴ We recommend that medical educators use critical pedagogy to support students’ critical consciousness development, which in turn will enhance students’ ability to actively redistribute power within their own patient-clinician relationships in the service of testimonial justice and Black maternal health equity.

To support our recommendation, we share our interdisciplinary perspectives as Black cisgender women, mothers, and aunties whose scholarship is grounded in Black feminist thought and spans the fields of medicine, health disparities, early childhood development, and education disparities. We work on challenging systemic and personally mediated forms of racism that contribute to inequities for Black women. Here, we provide an orienting framework at the intersection of medicine and education to address the injustices that allow these inequities to persist.

We propose a conceptual framework for critical-racial consciousness development as a tool for health professions educators and their students to redistribute power and promote testimonial justice within patient-clinician relationships (see Figure). Critical-racial consciousness derives from the foundational framework of critical consciousness proposed by Paulo Freire³² and is infused with the urgency of addressing racial dynamics in a society marked by evasive attitudes toward race.³³ Critical-racial consciousness encapsulates an antiracism that not only identifies instances of racial inequalities but also steadfastly resists dominant ideologies and practices that reinforce racial hegemony. Our framework combines the work of 2 critical race and education scholars: Laura Chávez-Moreno³³ and Yolanda Sealey-Ruiz.³⁴ We intend for medical educators to reference this model and use it as a guide for students (and themselves) to develop a deeper awareness of how power functions within patient-clinician relationships. We also intend for educators and students to take actions to disrupt the power, authority, and credibility dynamics that maintain testimonial injustice in clinical encounters. While pursuing equity and justice for Black mothers inspired these recommendations, the proposed framework may be useful for advancing health equity for other historically marginalized patients experiencing inequity whom racism has attempted to render voiceless.

Figure. Conceptual Framework for Critical-Racial Consciousness Development



Framework based on Chávez-Moreno³³ and Sealey-Ruiz.³⁴

The Figure describes the capabilities that individuals develop along their path toward critical-racial consciousness. The figure's winding nature and the arrow at the top suggest a step-wise process without a defined endpoint—a continuous journey toward higher levels of critical-racial consciousness. Critical love is the foundational first step, but the other elements have no predetermined sequence. Each can be used as power-disrupting critical pedagogy. Students can arrive at and reengage with any component based on their specific need for clarity, reflection, and understanding. Importantly, critical-racial consciousness does not exist as a distinct practice, but rather operates symbiotically and along a continuum with counter-hegemonic literacies and antiracist action. This relatedness is symbolized as a triangle at the top of the figure, wherein each element that aids in power disruption makes up one leg of the triangle.

Developing Critical-Racial Consciousness

Here, we describe the elements of the critical-racial consciousness development framework and examples of how each component can be used to disrupt power inequities in health care settings in order to support health professions educators' use of the model as a tool for critical pedagogy.

Critical love. Sealey-Ruiz defines critical love as a “profound ethical commitment to caring for the communities we work in.”³⁴ In the context of health equity, this commitment must extend beyond care delivery to overcoming the withholding of credibility that defines testimonial injustice. To critically love patients, clinicians must commit to recognizing their humanity and seeing them as intrinsically valuable. Critical love helps clinicians extend credibility to their patients despite stereotypes about socially constructed categories (eg, race and gender) that are used to describe—or, more concerningly, denigrate—patients. Cornel West defines love as tenderness in private moments and a willingness to speak about injustices in public moments.³⁵ Black women deserve kindness and respect in private, interpersonal interactions with clinicians. They also deserve clinicians who publicly advocate for them when withholding credibility from them silences their voices.

We suggest that medical educators emphasize critical love as a competency for medical students. Students should understand that humanism and intrinsic-value appraisal resulting from critical love ultimately support a more accurate diagnosis.

Critical humility. Sealey-Ruiz defines critical humility as a willingness to “remain open to understanding the limits of our own worldviews and ideologies.”³⁴ Medicine is a discipline with inherently paternalistic, hierarchical, and patriarchal ideologies. These ideologies privilege specific ways of knowing, particularly those of authority figures (eg, physicians) and those grounded in objective data (eg, lab or imaging results). Critical humility asks clinicians to consider that medicine's ideologies protect rather than challenge privileged ways of knowing. More pragmatically, critical humility permits clinicians to say to their patients, “I don't have all the answers; I need your help to figure this out,” or “I believe you and your concerns despite some of the data in front of me,” to disrupt clinician-privileged power dynamics. Critical humility allows clinicians to center ways of knowing of Black women and other historically marginalized people—such as intuition. These ways of knowing may oppose ways of knowing traditionally privileged in medicine.

Health profession educators can support students' journeys toward critical humility by modeling how to interrogate the history of medical education and guiding students to

consider how structural racism is evident even in standard medical practice. Specifically, educators can teach students to question how structural racism can lead to erroneous assumptions and biased decision making. For example, medical students' inclusion of race in the history of present illness may inadvertently create anchoring biases and prematurely narrow differential diagnosis to a set of illnesses presumed to be correlated with specific racial categorizations. Educators can guide students to reflect on this traditional practice and why it might be problematic. Alternatively, students can ask patients about their experiences of racism, include this information in the social history, and consider its implications for the diagnostic workup.

Critical reflection. Sealey-Ruiz defines critical reflection as the ability to “think through the various layers of our identities and how our privileged and marginalized status affect our work.”³⁴ Critical reflection allows one to think about the positions of unearned privilege and disadvantage that one simultaneously occupies.³⁶ Often, people who hold positions of unearned privilege unilaterally seek to improve disadvantaged groups' conditions—but without seeking the expertise of those with lived experiences of disadvantage. As a result, their strategies to address inequitable conditions tend to be incomplete, lacking the perspectives necessary for comprehensive, effective, and equitable solutions.

One practical way to partner with patients through critical reflection is to ask whether you, as a clinician, are missing anything. Are you making assumptions about patients' needs, access, or diagnosis and treatment? Collaboration with the patient can help answer these questions. For example, a Black, cisgender female clinician without disabilities may simultaneously have unearned privilege through heterosexuality and ability and unearned disadvantage through race and gender. It may be difficult for this clinician to understand the access challenges faced by her Black female patient with disabilities. Without critical reflection, she may offer resources based on her own experiences without honoring the patient's expertise, thereby reducing the patient's credibility as a knower. By contrast, critical reflection privileges a patient's experiences over the clinician's. Critical reflection helps clinicians consider multiple identity factors and choose an alternative path to invite patients to participate. Clinicians can even ask patients to educate them on what they need. This frame shift disrupts the power imbalance caused by unearned privilege and allows clinicians to serve their patients more constructively.

Historical literacy. Black maternal health provides a case study of the importance of historical literacy, which Sealey-Ruiz defines as the ability “to develop a rich and contextual awareness of the historical forces that shape the communities we work in but also the society we live in.”³⁴ As Dorothy Roberts elucidates in *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty*,³⁷ the racist assault on the reproductive freedoms of Black women in the United States that began with the transatlantic slave trade still endures. Black women have been forced to bear children resulting from sexual assault. Eugenic ideologies have led to state-sanctioned control of Black women's reproductive capacity (eg, unauthorized, unnecessary hysterectomies and social and economic rewards for implantable contraceptives).^{11,37} Moreover, media stereotypes from the 1970s through the 1990s of Black mothers as welfare queens who had children to profit from social services have contributed to a credibility and integrity assault on Black women that persists. These narratives have profoundly impacted how Black women approach reproductive care and help explain some of the tentativeness of Black women toward the health care system.

Historical literacy is about teaching history *and* allowing history to shape a clinician's belief in a patient's credibility. For example, a Black pregnant person who withholds information about drug use may not be intentionally lying but instead be rightfully mistrustful of presenting the full facts. They may withhold information because they know of the disproportionate penalties faced by Black mothers who use substances,³⁸ such as prejudicial engagement with child protective services that recreates the dismantling of families reflective of the antebellum period.

In practice, teaching historical literacy may look like providing students with patient-care scenarios and asking them to think about the sociological and historical implications of their diagnostic and therapeutic decisions. This approach is about critical questioning. Why are students making their decisions? Based on what evidence? What might they be missing, informed by their historical understanding of structural racism? Students need ample time to practice suspending their assumptions and filtering them through lenses of privilege, historical knowledge, and biases in medicine and medical education.

Archaeology of self. Sealey-Ruiz defines the archaeology of self as “deep excavation and exploration of beliefs, bias, and ideas that shape how we engage in work.”³⁴ It involves hard and sometimes painful self-reflection and self-critique. Unlike critical humility—which involves questioning what one knows and how one knows it and being willing to see things differently—or critical reflection—which requires considering how one's privilege can color decision making and judgment—archaeology of self requires, in our model, an individual willingness to acknowledge structural racism in society and examine its implications for how one sees the world. It is not necessarily about privilege or knowledge, as critical reflection and critical humility are. It is about recognizing the impact of society (in this case, structural racism) on the individual, in whatever ways that impact materializes, and how that impact informs attitudes and behavior.

This personal examination of heart and mind may include journaling about how one's upbringing was affected by race and culture. Archaeology of self may often feel displaced in educational spaces, as if we shouldn't attend so closely to personal experiences as they relate to our profession. However, it is problematic when we don't acknowledge that we bring our entire selves as practitioners when engaging with patients. It would be negligent to ignore the potential influence of personal experiences on professional outcomes.

Critical race consciousness—the culmination of these 6 steps—does not exist as a distinct practice from counter-hegemonic literacies and antiracist action. Chavez-Moreno characterizes the relationships among the three in the following way: “Antiracist actions and [counterhegemonic] literacy practices both emanate from and help produce critical-racial consciousness.”³³ These closely related elements share a symbiotic relationship that iteratively leads to change (ie, power disruption). We discuss them below and describe their tri-directional relationship (see Figure) and their role in power disruption.

Counter-hegemonic racial literacy. In education, the concept of literacy extends beyond basic reading and writing skills to encompass the broader process of meaning making through sociocultural practices surrounding text and discourse. When students attempt to make meaning of race and racism, they can do so through (1) hegemonic racial literacies (ie, oppressive ideologies that uphold inequitable power structures, limit critical thinking, and downplay the social construction of race, hindering solutions for equity and justice) or (2) counter-hegemonic racial literacies (ie, anti-oppressive

ideologies that challenge dominant narratives and power structures, foster a deeper understanding of the historical and sociocultural aspects of race, encourage critical analysis and questioning of racial hierarchies, and explore transformative solutions to address racial inequities).³³

As Chavez-Moreno points out, “Educational institutions play an important role in providing people with formal and informal lessons about race and justice, even in lessons that do not explicitly focus on racial issues.”³³ For example, using race in medical risk calculators promotes the false notion that race is a biological determinant of health. It overlooks the influence of social determinants of health (SDOH), such as poverty, education, access to health care, and discrimination. Overlooking SDOH may result in overestimating risks for certain racial groups and underestimating risks for others, creating unequal access to appropriate interventions and resources.³⁹ In obstetrics, an example is using race in calculations of the probability of successful vaginal birth after cesarean (VBAC). The older VBAC calculator includes a correction factor for race/ethnicity⁴⁰ (which has since been removed⁴¹). Because the older calculator lowers the estimated success rate and raises the risk of unsuccessful VBAC for Black and Hispanic women, it may have predisposed clinicians to recommend cesarean sections instead of supporting VBAC attempts, leading to unnecessary surgical interventions.⁴¹

Antiracist actions. Antiracist actions are deliberate efforts to challenge and dismantle racism in all its forms. For clinicians, these actions can include impartial approaches to diagnostic reasoning, sharing clinical decision making with patients, and direct advocacy for patients. For example, a clinician may encounter a patient with unexplained pain who is unjustly labeled as “drug seeking” due to the patient’s race and socioeconomic background. The clinician can take action to counter the racism faced by the patient. This action may involve obtaining a new medical history without pretense or preconceived notions, inquiring about the patient’s experiences of racism and other forms of harm, and actively acknowledging biases that may have influenced prior diagnoses. The clinician can then reassess the initial differential diagnosis and advocate for additional diagnostic testing. This proactive approach helps clinicians broaden the scope of possibilities, including diagnostic options that were previously overlooked. Of course, antiracist actions can also extend to advocacy outside of the clinical encounter—such as political advocacy against police brutality, which has a known impact on maternal mental health.⁴²

Critical-racial consciousness. Development of critical-racial consciousness is an ongoing and evolving process. It involves recognizing and critically examining how race intersects with power, privilege, and societal oppression. Individuals with critical-racial consciousness actively engage in self-reflection, education, and dialogue to challenge and dismantle racist attitudes within themselves and racist structures across broader systems. This dynamic process involves consciously choosing which aspects of the critical-race consciousness development framework require attention in any given situation. The continuous development of critical-race consciousness enables individuals to navigate and challenge racial dynamics in a more informed and intentional manner.

The symbiotic relationship among critical-racial consciousness, counter-hegemonic racial literacies, and antiracist actions offers students awareness, knowledge, and an opportunity to disrupt the power dynamics that enable testimonial injustice. Instructors

and students gain new and increasing awareness of structural racism and its impact on their daily lives, including on their roles as medical students and clinicians, as they progress through elements of the model in the Figure and take action in their clinical practices to extend testimonial justice to Black women and other historically marginalized populations.

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Citation

AMA J Ethics. 2024;26(1):E72-83.

DOI

10.1001/amajethics.2024.72.

Acknowledgements

S. Michelle Ogunwole is supported by a career development award from the Johns Hopkins Building Interdisciplinary Research Careers in Women's Health K12 Program and a Robert A. Winn Diversity in Clinical Trials: Career Development Award.

Conflict of Interest Disclosure

Authors disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

ART OF MEDICINE

Visual Abstract of “Six Tips for Giving Good Health Care to Anyone With a Cervix”

Kelly Wang

Abstract

This visual abstract is based on an [article](#) from the February 2020 issue of the journal.



Media
Procreate®.

Kelly Wang is a cartoonist, printmaker, and musician based in Chicago, Illinois.

Citation

AMA J Ethics. 2024;26(1):E84-85.

DOI

10.1001/amajethics.2024.84.

Conflict of Interest Disclosure

Author disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

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ISSN 2376-6980



AMA Journal of Ethics®

January 2024, Volume 26, Number 1: E86-91

ART OF MEDICINE

Need More Reasons to Curb Gun Violence?

Jamaji C. Nwanaji-Enwerem, MD, PhD, MPP

Abstract

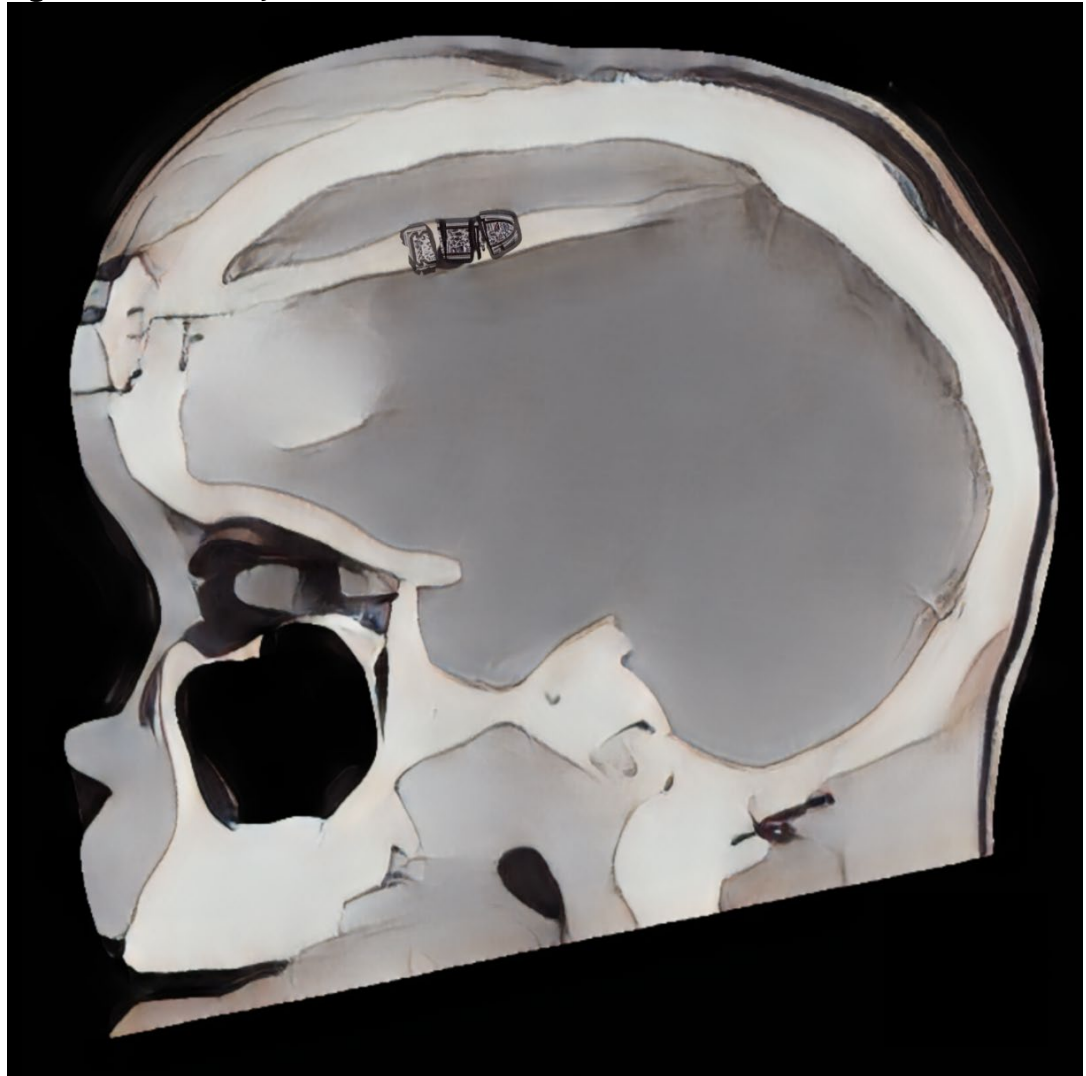
This collection of images considers complex ethical, public health, and sociopolitical dimensions of firearm injuries. Since many firearm bullets contain lead, visual parallels are drawn between clinical and public health approaches to managing lead poisoning and efforts to reduce gun violence. Like lead toxicity from paint or water, gun violence and toxicity from retained ballistic fragments can adversely influence health and should be a source of concern to clinicians.

Lead Toxicity

Lead poisoning has long been a threat to health. Water crises like those in Flint, Michigan, remind us that lead toxicity threatens 21st-century United States residents, particularly those of lower socioeconomic status.^{1,2} In addition to its multisystem contributions to cardiovascular, reproductive, and gastrointestinal disease, lead is a potent neurotoxin and contributor to neurodevelopmental inequity during a person's childhood and entire life span.³

Lead exposure commonly occurs through one's work, drinking water, soil, or paint. Public health efforts, such as clinical screening and policy changes, continue to attempt to mitigate these exposures. New legislation, for example, has catalyzed phasing out lead contamination from paint and promoted replacement of lead pipes with installation of lead-free civic plumbing and water supply infrastructure.⁴ The increasing prevalence of **firearm violence** demands health policy to mitigate additional sources of lead toxicity: nonlethal bullet penetration can increase lead exposure risk because ammunition can contain lead.^{5,6} Fractures, recent trauma, bullet fragment retention (especially in body fluid compartments, such as intra-articular spaces), and increased metabolism at a time of injury might exacerbate a gunshot wound victim's risk for lead toxicity.⁷

Figure 1. *Intentionally Retained*



Media

Canva design software iterated through Media.io and LunaPic.

Caption

The digitally created sagittal head computer tomography scan shows bullet fragment retention in the brain matter of an injured patient.

Figure 2. *Intentionally Fragmented*



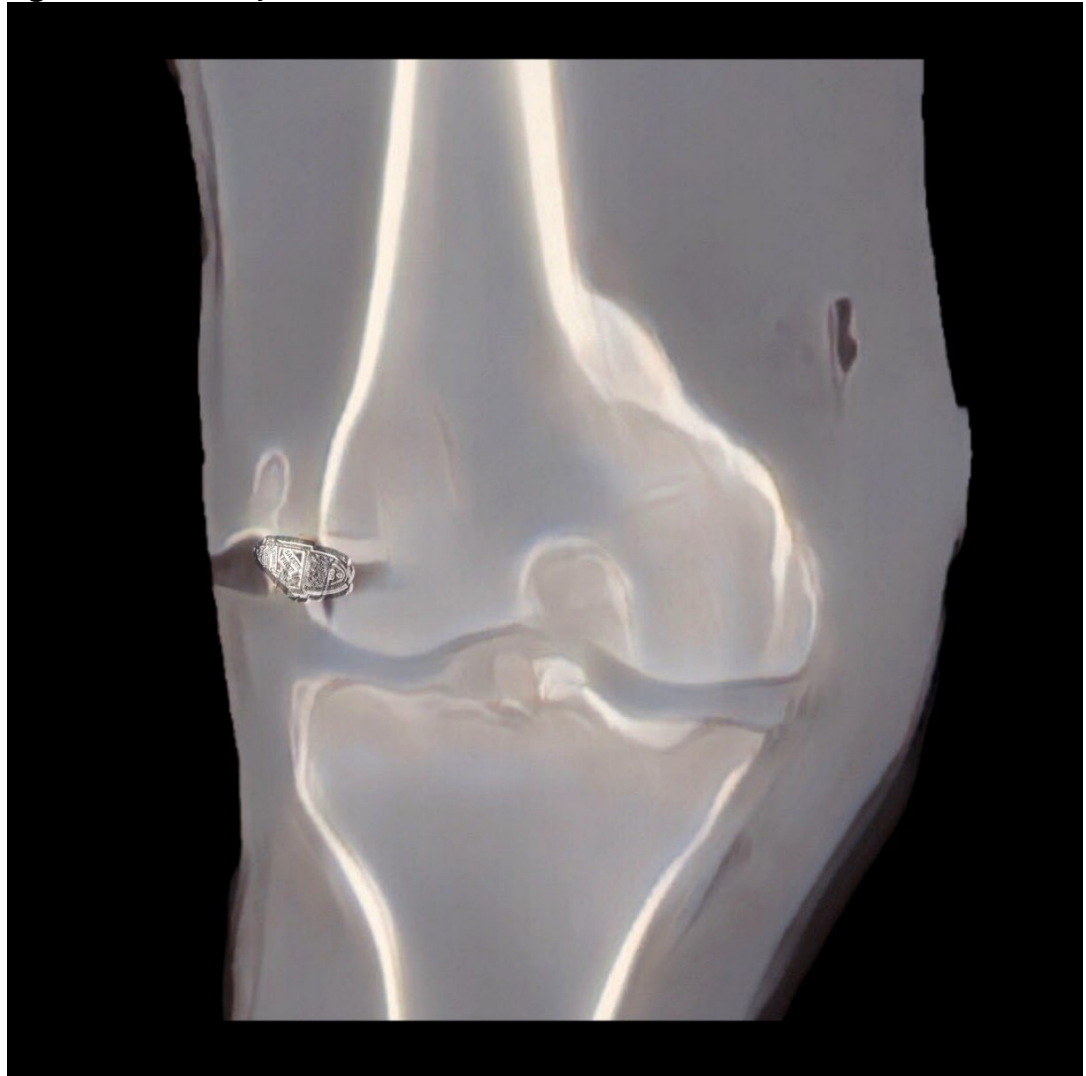
Media

Canva design software iterated through Media.io and LunaPic.

Caption

Zooming in on ammunition fragments retained in a patient's brain depicts a collage of **social, cultural, and political features** of gun violence.

Figure 3. Accidentally Retained



Media

Canva design software iterated through Media.io and LunaPic.

Caption

This digitally created knee computer tomography scan shows bullet fragment retention in the knee of an injured patient.

Figure 4. *Accidentally Fragmented*



Media

Canva design software iterated through Media.io and LunaPic.

Caption

Zooming in on ammunition fragments retained in a patient’s knee depicts a collage of questions about the adequacy and implications of the individual right to self-defense as an interpretation of “the right of the people to keep and bear Arms” clause of the Second Amendment to the United States Constitution.

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Citation

AMA J Ethics. 2024;26(1):E86-91.

DOI

10.1001/amajethics.2024.86.

Conflict of Interest Disclosure

Author disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

ART OF MEDICINE

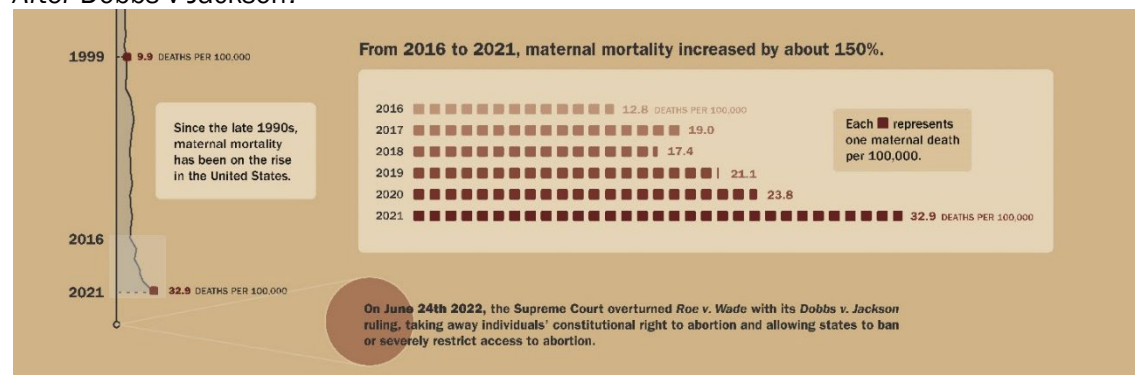
How Do We Know What We Don't Know About Maternal Mortality After *Dobbs v Jackson*?

Hanna Renedo

Abstract

This narrative information graphic contextualizes the lack of current maternal morbidity and mortality data in the United States since the *Dobbs v Jackson Women's Health Organization* decision in 2022.

Figure. Detail from *How Do We Know What We Don't Know About Maternal Mortality After Dobbs v Jackson?*



(Click here to view the entire information graphic.)

Media

Adobe Illustrator.

Caption

An infographic visually contextualizes potential long-term ethical, clinical, and policy consequences of the lack of current maternal morbidity and mortality data in the United States since the US Supreme Court holding in *Dobbs v Jackson Women's Health Organization* in 2022.

Hanna Renedo is an MFA student at the School of the Art Institute of Chicago in Illinois. She earned a BA degree in biology from Bowdoin College. In her artwork, she focuses on data visualization, with particular attention to relationships among science, design, and visual communication.

Citation

AMA J Ethics. 2024;26(1):E92-93.

DOI

10.1001/amajethics.2024.92.

Conflict of Interest Disclosure

Author disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.



AMA Journal of Ethics®

January 2024, Volume 26, Number 1: E94-96

VIEWPOINT

How to Gird Up “Watch One, Do One, Teach One” for the Moral Psychological Demands of Just Action

Christy A. Rentmeester, PhD

Abstract

This article interrogates the “watch one, do one, teach one” model that is common in health professions education and suggests how to augment it with critical rigor to better prepare all levels of health professional learners for affective demands of just practice.

Trouble With the Trio

A common set of assumptions in health professions teaching is that when a student, trainee, or clinician watches something, they can do that thing and then, as if by magic, also teach that thing. This assumption set, the linguistic summation of which is “watch one, do one, teach one,” seems to operate at all levels of **health professions education**, including continuing education, so the term *clinician* is used henceforth to refer to each of these learners. Although “watch one, do one, teach one” might be sufficient for some procedural skill acquisition, it dramatically oversimplifies how affective skill sets in health care work are taught and learned, especially in settings in which clinicians must practice orienting themselves to persons who are suffering and, specifically, to persons suffering from conditions of injustice that undermine their health and health care.

Teaching Character and Just Action

Unlike many words in health care with Greek origins, *patient* comes from the Latin *patiens*, which means *to suffer*. A moral psychological foundation of affective practice in health care is that clinicians who tend those who suffer have special duties to discern how patients are vulnerable and to respond with care through just action. Although he didn't apply his ideas specifically to health care, Paulo Freire understood these connections among perception, motivation, just action, and character.

In his **critical pedagogy** writings of the 1970s,¹ for example, Freire suggests that a key function of teaching is giving learners opportunities to practice who they want to become. In health care, experiencing motivation to become a clinician is referred to by some as a *calling*. A calling can be to a long-term career² or respond to a specific, real-time situational landscape. In ethics terms, calling is a metaphor for a moral psychological cascade that generally includes 3 things: discerning a reason to act, experiencing motivation to act, and acting. These 3 things have also been used to explain how erosion of one's sense of calling can lead to burnout³ and can damage the

characters of those who cannot act as they are motivated to act, sometimes due to external, systemic constraints on their moral agency.⁴

Augusto Boal was concerned specifically with individual moral agents' needs to practice overcoming forces that constrain their impulses to act justly. His work suggested that improvisational co-creation among teachers and learners in theater settings enables the practice, the rehearsal, of responding to injustice. Writing in the 1970s, Boal drew upon Freire's ideas⁵ to establish *Theater of the Oppressed* to help learners achieve readiness to act to disrupt injustice in real time, in real persons' lives.

Preparing Clinicians for Anti-Oppressive Practice

Many health professions students demanded, during and following summer 2021 protests and uprisings in the United States, that their curricula equip them to respond robustly to needs of patients whose illnesses and injuries are exacerbated by social, cultural, historical, political, and material conditions of injustice.⁶ To modify “watch one, do one, teach one” to express Freire's, Boal's, and these students' demands to be more formally and fully moral psychologically prepared for just action, we might interrogate each phrase as follows:

When invited to “watch one,” clinicians should also be prepared to ask questions like these:

Which habits of perception are cultivated in health professions education—and why and when— and who is well- or ill-served when clinicians learn to see patients' needs and vulnerabilities in specific ways?

When invited to “do one,” clinicians should also be prepared to ask questions like these:

How should clinicians' perceptions of patients' needs and vulnerabilities inform what clinicians think patients deserve from them? Are clinicians' conceptions of what patients deserve from them generous or meager, and how does what they think patients deserve from them give rise to or inhibit their motivation to act justly?

When invited to “teach one,” clinicians should also be prepared to ask questions like this:

Which habits of perception and motivation should clinicians practice to maintain generous conceptions of what patients deserve from them?

Double Down on “Woke”

Asking critical reflection questions like these can help health professions faculty prepare clinicians to cultivate robust awareness of the moral psychological and affective underpinnings of their curricula, which can better equip them to commit anti-oppressive actions and series of actions that can promote the interests of patients suffering injustice. Call these suggested amendments to “watch one, do one, teach one” *woke*, if you must. Freire and Boal remind us that one duty of academic health institutions' faculty is to prepare clinicians to meet the moral psychological and characterological demands of just practice.

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Citation

AMA J Ethics. 2024;26(1):E94-96.

DOI

10.1001/amajethics.2024.94.

Conflict of Interest Disclosure

Author disclosed no conflicts of interest.

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.