

**Using Critical Pedagogy to Advance Antiracism in Health Professions Education** 

Chioma Onuoha, Jennifer Tsai, MD, MEd, and Rohan Khazanchi, MD, MPH

#### 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.

The American Medical Association designates this journal-based CME activity for a maximum of 1 AMA PRA Category 1 Credit™ available through the AMA Ed Hub™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

#### 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, equityrelated 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.<sup>6,10,18,19,20</sup> 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.<sup>28</sup> This approach to learning is analogous to the team-based, nonhierarchical decision-making process that should be ubiquitous in interprofessional clinical team work.<sup>30,31</sup> 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.<sup>37</sup> 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 health<sup>40</sup> can be integrated into musculoskeletal curricula, segregation and exposure-related asthma inequities<sup>41</sup> into

respiratory curricula, intersecting syndemics of incarceration and homelessness<sup>42,43</sup> into infectious diseases curricula, and so forth.

CRT: naming racism and racialization. Biomedical frameworks often employ a "raceneutral" 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.<sup>21</sup> 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.<sup>21,52</sup> 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.<sup>53</sup> PAR originated as a "margins-to-center" approach to advance sociopolitical movements for land reform and anticolonialism in the 20th century.<sup>54,55</sup> 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.<sup>56</sup>

Historical legacies of research exploitation and academic elitism have reinforced marginalized communities' medical mistrust and undermine the potential for ethically partnered research.<sup>57,58</sup> The superimposition of structural racism further exacerbates the downstream harms of these legacies on community engagement and health outcomes alike.<sup>58</sup> 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.<sup>59</sup> 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. 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. 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. 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. Together, these stakeholders worked on problem identification, goal setting, implementation, and evaluation. 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, recentering 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. 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. Finally, a collection of educational experiences based on Augusto Boal's Theatre of the Oppressed, Preire'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.<sup>66</sup> 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,<sup>33,35</sup> although evaluation of the efficacy of these novel curricular interventions has often been limited to learner self-reported data.<sup>70,71</sup>

Podcasts can also motivate antiracist action. <sup>73,74,75,76,77</sup> 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. <sup>78</sup> 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. <sup>79,80</sup>

Embedding and incentivizing antiracism. Structural shifts within health professions education, academic medical centers, and health policy are long overdue. First, praxisbased 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.<sup>21,88,89,90,91,92,93</sup> 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. <sup>103</sup> 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.

#### References

- 1. Jernigan VBB, Hearod JB, Tran K, Norris KC, Buchwald D. An examination of cultural competence training in US medical education guided by the tool for assessing cultural competence training. *J Health Dispar Res Pract*. 2016;9(3):150-167.
- 2. Ricks TN, Abbyad C, Polinard E. Undoing racism and mitigating bias among healthcare professionals: lessons learned during a systematic review. *J Racial Ethn Health Disparities*. 2022;9(5):1990-2000.
- 3. Chandler CE, Williams CR, Turner MW, Shanahan ME. Training public health students in racial justice and health equity: a systematic review. *Public Health Rep.* 2022;137(2):375-385.
- 4. Doobay-Persaud A, Adler MD, Bartell TR, et al. Teaching the social determinants of health in undergraduate medical education: a scoping review. *J Gen Intern Med*. 2019;34(5):720-730.
- 5. Nieblas-Bedolla E, Christophers B, Nkinsi NT, Schumann PD, Stein E. Changing how race is portrayed in medical education: recommendations from medical students. *Acad Med.* 2020;95(12):1802-1806.
- 6. Amutah C, Greenidge K, Mante A, et al. Misrepresenting race—the role of medical schools in propagating physician bias. *N Engl J Med.* 2021;384(9):872-878.
- 7. Braun L. Theorizing race and racism: preliminary reflections on the medical curriculum. *Am J Law Med*. 2017;43(2-3):239-256.
- 8. Gutierrez KJ. The performance of "antiracism" curricula. *N Engl J Med.* 2020;383(11):e75.
- 9. Sharma M, Pinto AD, Kumagai AK. Teaching the social determinants of health: a path to equity or a road to nowhere? *Acad Med.* 2018;93(1):25-30.
- 10. Tsai J, Ucik L, Baldwin N, Hasslinger C, George P. Race matters? Examining and rethinking race portrayal in preclinical medical education. *Acad Med.* 2016;91(7):916-920.
- 11. Brown A, Auguste E, Omobhude F, Bakana N, Sukhera J. Symbolic solidarity or virtue signaling? A critical discourse analysis of the public statements released by academic medical organizations in the wake of the killing of George Floyd. *Acad Med.* 2022;97(6):867-875.
- 12. Wilkins CH, Alberti PM. Shifting academic health centers from a culture of community service to community engagement and integration. *Acad Med.* 2019;94(6):763-767.
- 13. Hunt JB, Bonham C, Jones L. Understanding the goals of service learning and community-based medical education: a systematic review. *Acad Med.* 2011;86(2):246-251.
- 14. Sharma M. "Can the patient speak?": postcolonialism and patient involvement in undergraduate and postgraduate medical education. *Med Educ*. 2018;52(5):471-479.
- 15. Khazanchi R, Keeler H, Marcelin JR. Out of the ivory tower: successes from a community-engaged structural competency curriculum. *Acad Med.* 2021;96(4):482.
- 16. Orom H, Semalulu T, Underwood W 3rd. The social and learning environments experienced by underrepresented minority medical students: a narrative review. *Acad Med.* 2013;88(11):1765-1777.

- 17. Lale A, Moloney R, Alexander GC. Academic medical centers and underserved communities: modern complexities of an enduring relationship. *J Natl Med Assoc.* 2010;102(7):605-613.
- 18. Tsai J, Cerdeña JP, Khazanchi R, et al. There is no "African American physiology": the fallacy of racial essentialism. *J Intern Med*. 2020;288(3):368-370.
- 19. Braun L, Saunders B. Avoiding racial essentialism in medical science curricula. *AMA J Ethics*. 2017;19(6):518-527.
- 20. Tsai J. How should educators and publishers eliminate racial essentialism? *AMA J Ethics*. 2022;24(3):E201-E211.
- 21. Nguemeni Tiako MJ, Ray V, South EC. Medical schools as racialized organizations: how race-neutral structures sustain racial inequality in medical education—a narrative review. *J Gen Intern Med*. 2022;37(9):2259-2266.
- 22. Wijesekera TP, Kim M, Moore EZ, Sorenson O, Ross DA. All other things being equal: exploring racial and gender disparities in medical school honor society induction. *Acad Med.* 2019;94(4):562-569.
- 23. Kalifa A, Okuori A, Kamdem O, Abatan D, Yahya S, Brown A. "This shouldn't be our job to help you do this": exploring the responses of medical schools across Canada to address anti-Black racism in 2020. *CMAJ*. 2022;194(41):E1395-E1403.
- 24. Sukhera J, Goez H, Brown A, Haddara W, Razack S. Freedom from discrimination or freedom to discriminate? Discursive tensions within discrimination policies in medical education. *Adv Health Sci Educ Theory Pract*. 2022;27(2):387-403.
- 25. Nguyen M, Chaudhry SI, Desai MM, et al. Association of mistreatment and discrimination with medical school attrition. *JAMA Pediatr*. 2022;176(9):935-937.
- 26. Nguyen M, Chaudhry SI, Desai MM, et al. Association of sociodemographic characteristics with US medical student attrition. *JAMA Intern Med*. 2022;182(9):917-924.
- 27. Low D, Pollack SW, Liao ZC, et al. Racial/ethnic disparities in clinical grading in medical school. *Teach Learn Med*. 2019;31(5):487-496.
- 28. Freire P. *Pedagogy of the Oppressed*. 30th anniversary ed. Bergman Ramos M, trans. Continuum; 2000.
- 29. Ng SL, Wright SR. When I say... praxis. Med Educ. 2017;51(8):784-786.
- 30. DasGupta S, Fornari A, Geer K, et al. Medical education for social justice: Paulo Freire revisited. *J Med Humanit*. 2006;27(4):245-251.
- 31. Cavanagh A, Vanstone M, Ritz S. Problems of problem-based learning: towards transformative critical pedagogy in medical education. *Perspect Med Educ*. 2019;8(1):38-42.
- 32. Ross BM. Critical pedagogy as a means to achieving social accountability in medical education. *Int J Crit Pedagog*. 2015;6(2):169-186.
- 33. Tsai J. Building structural empathy to marshal critical education into compassionate practice: evaluation of a medical school critical race theory course. *J Law Med Ethics*. 2021;49(2):211-221.
- 34. Metzl JM, Hansen H. Structural competency: theorizing a new medical engagement with stigma and inequality. Soc Sci Med. 2014;103:126-133.

- 35. Manca A, Gormley GJ, Johnston JL, Hart ND. Honoring medicine's social contract: a scoping review of critical consciousness in medical education. *Acad Med.* 2020;95(6):958-967.
- 36. Kumagai AK, Lypson ML. Beyond cultural competence: critical consciousness, social justice, and multicultural education. *Acad Med*. 2009;84(6):782-787.
- 37. Metzl JM, Roberts DE. Structural competency meets structural racism: race, politics, and the structure of medical knowledge. *Virtual Mentor*. 2014;16(9):674-690.
- 38. Stonington SD, Holmes SM, Hansen H, et al. Case studies in social medicine—attending to structural forces in clinical practice. *N Engl J Med*. 2018;379(20):1958-1961.
- 39. Neff J, Holmes SM, Knight KR, et al. Structural competency: curriculum for medical students, residents, and interprofessional teams on the structural factors that produce health disparities. *MedEdPORTAL*. 2020;16:10888.
- 40. Moyce SC, Schenker M. Migrant workers and their occupational health and safety. *Annu Rev Public Health*. 2018;39(1):351-365.
- 41. Martinez A, de la Rosa R, Mujahid M, Thakur N. Structural racism and its pathways to asthma and atopic dermatitis. *J Allergy Clin Immunol*. 2021;148(5):1112-1120.
- 42. Fazel S, Geddes JR, Kushel M. The health of homeless people in high-income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations. *Lancet*. 2014;384(9953):1529-1540.
- 43. Nijhawan AE. Infectious diseases and the criminal justice system. *Am J Med Sci.* 2016;352(4):399-407.
- 44. Crenshaw K, Gotanda N, Peller G, Thomas K, West C, eds. *Critical Race Theory: The Key Writings That Formed the Movement*. New Press; 1996.
- 45. Delgado R, Stefancic J. *Critical Race Theory: An Introduction*. 3rd ed. New York University Press; 2017.
- 46. Nguyen M, Mason HRC, Russell RG, Boatright D. Professional identity formation among diverse US medical students: a quantitative analysis of the impact of socioeconomic status. *Acad Med.* 2022;97(11)(suppl):S170-S170.
- 47. Nguyen M, Chaudhry SI, Desai MM, et al. Rates of medical student placement into graduate medical education by sex, race and ethnicity, and socioeconomic status, 2018-2021. *JAMA Netw Open.* 2022;5(8):e2229243.
- 48. Jones AC, Nichols AC, McNicholas CM, Stanford FC. Admissions is not enough: the racial achievement gap in medical education. *Acad Med*. 2021;96(2):176-181.
- 49. Nguyen M, Chaudhry SI, Asabor E, et al. Variation in research experiences and publications during medical school by sex and race and ethnicity. *JAMA Netw Open*. 2022;5(10):e2238520.
- 50. Williams M, Kim EJ, Pappas K, et al. The impact of United States Medical Licensing Exam (USMLE) step 1 cutoff scores on recruitment of underrepresented minorities in medicine: a retrospective cross-sectional study. *Health Sci Rep.* 2020;3(2):e2161.
- 51. Nguyen M, Mason HRC, O'Connor PG, et al. Association of socioeconomic status with Alpha Omega Alpha honor society membership among medical students. *JAMA Netw Open*. 2021;4(6):e2110730.

- 52. Boatright D, Anderson N, Kim JG, et al. Racial and ethnic differences in internal medicine residency assessments. *JAMA Netw Open*. 2022;5(12):e2247649.
- 53. Wallerstein N, Duran B. Community-based participatory research contributions to intervention research: the intersection of science and practice to improve health equity. *Am J Public Health*. 2010;100(suppl 1):S40-S46.
- 54. Glassman M, Erdem G. Participatory action research and its meanings: *vivencia*, praxis, conscientization. *Adult Educ Q*. 2014;64(3):206-221.
- 55. Hall BL. From margins to center? The development and purpose of participatory research. *Am Sociol.* 1992;23(4):15-28.
- 56. Ahmed SM, Palermo AGS. Community engagement in research: frameworks for education and peer review. *Am J Public Health*. 2010;100(8):1380-1387.
- 57. Corbie-Smith G. The continuing legacy of the Tuskegee Syphilis Study: considerations for clinical investigation. *Am J Med Sci.* 1999;317(1):5-8.
- 58. Manning KD. More than medical mistrust. *Lancet*. 2020;396(10261):1481-1482.
- 59. van Ryn M, Hardeman R, Phelan SM, et al. Medical school experiences associated with change in implicit racial bias among 3547 students: a medical student CHANGES study report. *J Gen Intern Med*. 2015;30(12):1748-1756.
- 60. Khazanchi R, Keeler H, Strong S, et al. Building structural competency through community engagement. Clin Teach. 2021;18(5):535-541.
- 61. Keenan J. Med students engage with underserved communities. *University of Nebraska Medical Center Newsroom*. November 20, 2021. Accessed October 2, 2023. https://www.unmc.edu/newsroom/2021/11/30/med-students-engage-with-underserved-communities
- 62. Buckner AV, Ndjakani YD, Banks B, Blumenthal DS. Using service-learning to teach community health: the Morehouse School of Medicine community health course. *Acad Med.* 2010;85(10):1645-1651.
- 63. Khan H, Smith EEA, Reusch RT. Shifting medical student involvement in curriculum design: from liaisons to cocreators. *Acad Med.* 2022;97(5):623-624.
- 64. Milles LS, Hitzblech T, Drees S, Wurl W, Arends P, Peters H. Student engagement in medical education: a mixed-method study on medical students as module co-directors in curriculum development. *Med Teach*. 2019;41(10):1143-1150.
- 65. Julian Z, Mengesha B, McLemore MR, Steinauer J. Community-engaged curriculum development in sexual and reproductive health equity: structures and self. *Obstet Gynecol.* 2021;137(4):723-727.
- 66. de Carvalho Filho MA, Ledubino A, Frutuoso L, et al. Medical Education Empowered by Theater (MEET). *Acad Med.* 2020;95(8):1191-1200.
- 67. Welcome to our community. Muna Box Project. Accessed October 2, 2023. https://www.munaboxproject.org/our-vision
- 68. Kratochvil TJ, Khazanchi R, Sass RM, Caverzagie KJ. Aligning student-led initiatives and Incident Command System resources in a pandemic. *Med Educ*. 2020;54(12):1183-1184.
- 69. Taylor R, Khazanchi R, Medcalf S, et al. Design and evaluation of a novel health security, infectious diseases, health systems science, and service

- learning course during the COVID-19 pandemic. *Health Secur.* 2022;20(3):238-245.
- 70. Cross JJ, Arora A, Howell B, et al. Neighbourhood walking tours for physicians-in-training. *Postgrad Med J.* 2022;98(1156):79-85.
- 71. Caretta-Weyer HA, Hess JM. Bridging the gap: development of an experiential learning-based health disparities curriculum. *AEM Educ Train*. 2022;6(6):e10820.
- 72. Boal A. *Theatre of the Oppressed*. McBride CA, McBride MOL, trans. Pluto Press; 2019.
- 73. Zhang AY. *Not Built For Us.* Accessed October 2, 2023. https://www.notbuiltforus.com/
- 74. Lindo E. *The Praxis*. Accessed October 2, 2023. https://podcasts.apple.com/us/podcast/the-praxis/id1495416316
- 75. Nguemeni Tiako MJ. *Flip the Script*. Accessed October 2, 2023. https://podcasts.apple.com/us/podcast/flip-the-script/id1402777078
- 76. Lim B, Carvajal N, Tokunboh I. *Woke WOC Docs*. Accessed October 2, 2023. https://www.intersectionalmedicine.com/wokewocdocs
- 77. Clinical Problem Solvers. *Antiracism in Medicine*. Accessed October 2, 2023. https://clinicalproblemsolving.com/antiracism-in-medicine/
- 78. Onuoha C, Fields NF, Khazanchi R. Democratizing the praxis of antiracism: the clinical problem solvers podcast antiracism in medicine series. *Acad Med.* 2022;97(7):945-946.
- 79. Roth JR, Gavin CF. Race and the ivory tower: an antiracism exercise for an undergraduate neuroscience classroom. *J Undergrad Neurosci Educ.* 2021;20(1):A40-A48.
- 80. Kamal S, Trivedi SP, Essien UR, Nematollahi S. Podcasting: a medium for amplifying racial justice discourse, reflection, and representation within graduate medical education. *J Grad Med Educ*. 2021;13(1):29-32.
- 81. Krieger N, Boyd RW, De Maio F, Maybank A. Medicine's privileged gatekeepers: producing harmful ignorance about racism and health. April 20, 2021. Accessed October 2, 2023. https://www.healthaffairs.org/content/forefront/medicine-s-privileged-gatekeepers-producing-harmful-ignorance-racism-and-health
- 82. Hardeman RR, Murphy KA, Karbeah J, Kozhimannil KB. Naming institutionalized racism in the public health literature: a systematic literature review. *Public Health Rep.* 2018;133(3):240-249.
- 83. Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: evidence and interventions. *Lancet*. 2017;389(10077):1453-1463.
- 84. Phelan JC, Link BG. Is racism a fundamental cause of inequalities in health? *Annu Rev Sociol.* 2015;41(1):311-330.
- 85. Talamantes E, Henderson MC, Fancher TL, Mullan F. Closing the gap—making medical school admissions more equitable. *N Engl J Med*. 2019;380(9):803-805.
- Mullan F, Chen C, Petterson S, Kolsky G, Spagnola M. The social mission of medical education: ranking the schools. *Ann Intern Med*. 2010;152(12):804-811.
- 87. Batra S, Orban J, Zhang H, et al. Analysis of social mission commitment at dental, medical, and nursing schools in the US. *JAMA Netw Open*. 2022;5(5):e2210900.

- 88. Garcia G, Nation C, Parker NH. Increasing diversity in the health professions: a look at best practices in admissions. In: Smedley BD, Stith Butler A, Bristow LB, eds. *In the Nation's Compelling Interest: Ensuring Diversity in the Health-Care Workforce*. National Academies Press; 2004:10885.
- 89. Rodríguez JE, Campbell KM, Pololi LH. Addressing disparities in academic medicine: what of the minority tax? *BMC Med Educ*. 2015;15(1):6.
- 90. Williamson T, Goodwin CR, Ubel PA. Minority Tax reform—avoiding overtaxing minorities when we need them most. *N Engl J Med*. 2021;384(20):1877-1879.
- 91. Ly DP, Seabury SA, Jena AB. Differences in incomes of physicians in the United States by race and sex: observational study. *BMJ*. 2016;353:i2923.
- 92. Nunez-Smith M, Ciarleglio MM, Sandoval-Schaefer T, et al. Institutional variation in the promotion of racial/ethnic minority faculty at US medical schools. *Am J Public Health*. 2012;102(5):852-858.
- 93. Lett E, Orji WU, Sebro R. Declining racial and ethnic representation in clinical academic medicine: a longitudinal study of 16 US medical specialties. *PLoS One*. 2018;13(11):e0207274.
- 94. Hess L, Palermo AG, Muller D. Addressing and undoing racism and bias in the medical school learning and work environment. *Acad Med.* 2020;95(12)(suppl):S44-S50.
- 95. Kaplan A, O'Neill D. Hospital price discrimination is deepening racial health inequity. *NEJM Catalyst*. December 21, 2020. Accessed October 2, 2023. https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0593
- 96. Hassan SF, Viscoli CM, O'Connor PG, et al. Separate but not equal? A cross-sectional study of segregation by Payor Mix in academic primary care clinics. *J Gen Intern Med.* 2023;38(10):2318-2325.
- 97. Eberly LA, Richterman A, Beckett AG, et al. Identification of racial inequities in access to specialized inpatient heart failure care at an academic medical center. *Circ Heart Fail*. 2019;12(11):e006214.
- 98. Essien UR, He W, Ray A, et al. Disparities in quality of primary care by resident and staff physicians: is there a conflict between training and equity? *J Gen Intern Med.* 2019;34(7):1184-1191.
- 99. Vanjani R, Pitts A, Aurora P. Dismantling structural racism in the academic residency clinic. *N Engl J Med.* 2022;386(21):2054-2058.
- 100. Vaughan Sarrazin MS, Campbell ME, Richardson KK, Rosenthal GE. Racial segregation and disparities in health care delivery: conceptual model and empirical assessment. *Health Serv Res.* 2009;44(4):1424-1444.
- 101. Singletary KA, Chin MH. What should antiracist payment reform look like? *AMA J Ethics*. 2023;25(1):E55-E65.
- 102. Park B, Frank B, Likumahuwa-Ackman S, et al. Health equity and the tripartite mission: moving from academic health centers to academic community health systems. *Acad Med.* 2019;94(9):1276-1282.
- 103. Crear-Perry J, Maybank A, Keeys M, Mitchell N, Godbolt D. Moving towards anti-racist praxis in medicine. *Lancet.* 2020;396(10249):451-453.

Chioma Onuoha is a third-year medical student at the University of California, San Francisco School of Medicine.

Jennifer Tsai, MD, MEd is an emergency medicine physician in the Department of Emergency Medicine at the Yale School of Medicine in New Haven, Connecticut.

Rohan Khazanchi, MD, MPH is a resident physician in the Harvard Combined Internal Medicine and Pediatrics Residency Program at Brigham and Women's Hospital, Boston Children's Hospital, and Boston Medical Center and a research affiliate at the François-Xavier Bagnoud Center for Health and Human Rights, all in Boston, Massachusetts.

### 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.

Copyright 2024 American Medical Association. All rights reserved. ISSN 2376-6980