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Developing a Novel Integrative Health Equity and Anti-racism Tool (IHEART) for Pilot Application in a Multicenter Integrative Health Elective for Medical Students and Resident Physicians: A Study Protocol

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Abstract

Background: This study protocol introduces the Integrative Health Equity and Anti-Racism Tool (IHEART), an innovative instrument designed to infuse equity, diversity, and inclusion (EDI) into Integrative Health (IH) education. Recognizing the gaps in current IH training that fail to address social and systemic inequities adequately, the IHEART is intended to respond to the growing need for inclusivity in IH practices and educational materials. The tool is mainly focused on addressing issues such as accessibility of complementary and integrative health (CIH) therapies, cultural misappropriation, anti-racism, gender diversity, disability justice, trauma-informed care, weight inclusivity, and planetary health, which are currently inconsistently covered in IH training.
Methods/Design: Developed by a team seeking to embed EDI more consistently in IH education, the IHEART provides reflection questions tailored to the unique philosophy and topics of IH. These questions are intended for use by IH educators in creating and delivering educational content, including handouts, slides, textbooks, and curricula. This tool differentiates itself from existing health equity tools used in general medical education by catering to the nuanced needs of IH training. The article outlines the iterative development process of the IHEART and plans for future pilot implementation and revision.
Discussion: By introducing this tool, the study protocol aims to enhance the inclusivity and relevance of IH education, aligning it more closely with contemporary social justice imperatives. The IHEART is positioned as a crucial step towards transforming IH education and practice, making it more accessible and equitable for diverse communities and ensuring that IH continues to evolve as a holistic and inclusive field.

Keywords

health equity, education, equity tool, integrative health elective, cultural misappropriation, qualitative

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Background/Rationale

Since its inception, the field of integrative health (IH) has served as a pioneer, inviting perspectives on health and healing not otherwise studied, taught, or practiced in biomedicine.[1] Educational endeavors in IH have provided a particular lens that informs a whole-person approach to clinical care and health systems transformation.[2] This innovative nature of IH has allowed many patients and healthcare professionals in the United States healthcare system to feel seen, heard, and healed.[3,4] The current state of IH training and educational materials still needs to consistently address the social and systemic inequities causing harm to historically underrepresented communities.[5] Concerns about accessibility of Complementary and Integrative Health (CIH) therapies (eg, acupuncture, yoga, or mindfulness meditation training), and cultural misappropriation in IH practice are increasingly being recognized and addressed.[6-11] Topics including anti-racism,[12] gender diversity,[13,14] disability justice,[15] trauma-informed care,[16] weight inclusivity,[17] and planetary health[18] are inconsistently addressed in IH training. And there have yet to be broadly accepted ways in which educator and learner sociocultural locations and biases, as well as educational assessment biases, may inform best practices for IH education.[19-22]

Many academic medical centers have either used or developed a health equity tool to facilitate awareness and inclusivity in medical education, whether in didactic learning or the development of educational materials.[23-27] While these equity tools may serve general medical education well, the philosophy and topics covered in IH training require more specific reflection questions to address some of the themes listed above, including the acknowledgement of cultural misappropriation when discussing certain CIH therapies and the invitation of diverse epistemologies into a therapeutic encounter. To more consistently center equity, diversity, and inclusion (EDI) in IH education, our team developed a novel Integrative Health Equity and Anti-Racism Tool (IHEART, review Supplemental File and Figure 1) with the intention that these reflection questions may serve as a tool used by IH educators whenever IH educational content (eg, handouts, slides, textbooks, curricula, etc) is being developed or delivered.

This study protocol will describe how this tool was created and outline how it will be piloted when developing modules for an asynchronous medical student and resident physician IH elective.

Detailed Methods

Development of the Integrative Health Equity and Anti-racism Tool

The development of this novel tool has consisted of several steps, initiated in October 2023, when the Osher Collaborative for Integrative Health hosted its annual conference of the eleven academic medical centers funded by The Bernard Osher Foundation.[28]

The first step involved collecting reflections from representatives from all eleven academic medical centers at the conference in response to a polling tool prompt: "Please enter a word or phrase to describe 3 essential ingredients when we consider an Equity Lens as it relates to Integrative Health education." Out of approximately 50 people present, there were 105 responses. The most common responses from the group included the following words/phrases: humility, access, listening, compassion, curiosity, vulnerability, fairness, positionality, acceptance, caring, understanding, self-awareness, unbiasedness, and accessibility. These words were considered when developing the language of the IHEART.

For the second step, 8 members of the Collaborative, representing 5 of the Osher Centers, gathered during the conference with assistance from an Osher Foundation faculty exchange grant to create an equity tool specific to Integrative Health education. This process involved reviewing previously published equity tools, including the Multnomah County Equity and Empowerment Lens and guides from the University of California-San Francisco, Northwestern University, Massachusetts General Hospital, and Columbia University.[27,29-33] As there has yet to be published an equity tool specific to the field of Integrative Health, we chose the above tools as ones most frequently cited in the literature as well as comprehensive tools developed by academic medical centers. The IHEART was also informed by literature on cultural misappropriation in IH,[34] decolonizing ideas of healing in medical education,[35] and a novel approach to applying an equity lens to nutrition curricula in Integrative Health education.[26]

In the third step, the 8 Osher Collaborative members independently developed a list of questions or topics that they felt were responsive to reflections from steps 1 and 2 above. These questions/topics were then shared openly, and put into groupings through a qualitative review process. A second round of independent reflection followed by collaborative sharing and grouping of these themes led to a saturation of the topics this group deemed relevant and specific to IH education. One of the members then synthesized these topic groups, developed the first draft of the IHEART, and shared it with the 8 Osher Collaborative members for feedback.

The final step in developing the version of the IHEART presented in this manuscript involved sharing the tool with 2 larger groups who may be invested in this project. First, we shared our process and draft of the IHEART with the Osher Collaborative Education Committee of 35 faculty educators across the Osher Collaborative. Second, the Osher Center Directors disseminated the draft to EDI-trained faculty or staff who would be willing and able to share feedback about the tool. In particular, we asked Center Directors to share with faculty or staff from underrepresented minority (URM) communities, given that this population was not represented in the 8 Osher Collaborative members who developed the tool. To mitigate harm from the minority tax,[36] we specifically asked Center Directors to invite URM faculty or staff who were

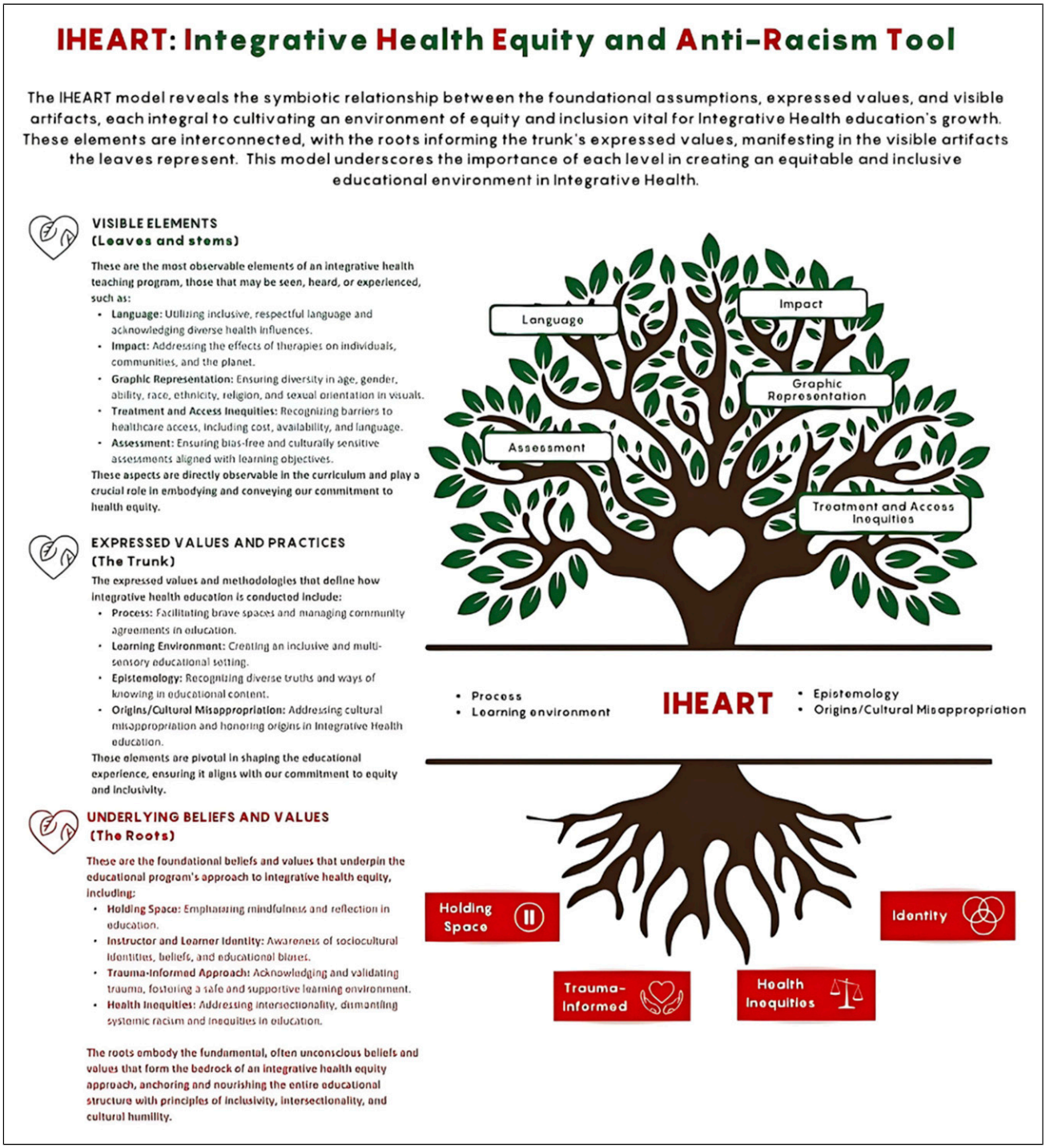

Figure 1. The IHEART model demonstrates 3 levels of reflection that facilitate the application of an equity lens to the development of Integrative Health educational materials. This figure is a pictorial representation of these 3 levels: underlying beliefs/values, expressed values/practices, and the visible elements of a health equity lens.

financially compensated for work related to their respective Osher Center.

Pilot Implementation of the Integrative Health Equity and Anti-racism Tool in the Development of a Collaborative Integrative Health Elective

In this section, we delve into the practical application and subsequent evaluation of the IHEART in reshaping an Integrative Health elective. The elective project is a collaborative initiative across the Osher Collaborative, designed to offer a comprehensive 2-week Integrative Health elective for medical students, residents, and fellows. The curriculum emphasizes evidence-based approaches to IH, focusing on topics including nutrition, supplements, bodywork, functional medicine, mindfulness, and community engagement.

Key features of the elective curriculum include:

- Virtual and Interactive Format: Adapted to an online format, it will include pre-recorded lectures, readings, live interactive sessions, and unique offerings like virtual culinary medicine classes and online journal clubs.
- Modular Design: Organized daily around foundational IH topics, allowing for a structured yet comprehensive exploration.
- Engaging Educational Activities: Involves flipped classroom teaching, wellness plan development, case presentations, and, where possible, shadowing and experiential opportunities in Integrative Medicine practices.
- Assessment and Reflection: Quizzes, daily reflection exercises, and other assignments facilitate continuous learning and self-assessment.
- Collaborative Repository: A shared resource pool of video lectures, PowerPoint presentations, and scientific articles supporting a unified and accessible curriculum across various institutions.

This new collaborative elective aims to overcome traditional barriers in IH education and establish a scalable, adaptable model for incorporating IH into medical and residency curricula, expanding its impact and accessibility.

Regarding the IHEART, this novel elective will serve as a test bed for implementing this tool, responding to the critical need to address social, structural, and systemic drivers of health in IH education—themes pivotal to the broader landscape of patient care.

We will evaluate the tool's capacity to ensure that the curriculum not only imparts knowledge but also embodies the principles of health equity and addresses the roots of health and wellness in a culturally responsive and trauma-informed manner. The pilot will integrate the tool into curriculum development, content delivery, and assessment methods to refine the teaching modules, fostering an educational environment that acknowledges and honors diverse patient and clinician identities, experiences, and needs.

We plan to detail the methodology for incorporating the tool into the curriculum development and revision process, the measures taken to evaluate its impact, and the resulting modifications to the elective. We will explore how the tool guides the selection of educational materials, the structuring of interactive opportunities, and the framing of learning objectives that align with the core values of integrative medicine. In evaluating the impact of the IHEART, we will be centering diverse voices of IH educators and learners to enhance the relevance and validity of this tool at the intersection of health equity and IH education.

Through this pilot, we anticipate establishing a scalable and adaptable educational model that serves the Osher Centers and embeds principles of health equity at its core. This approach will provide a blueprint for IH education nationally and internationally, ensuring the curriculum is inclusive and sensitive to diverse patient backgrounds. We designed this model to thrive in a post-pandemic era that continues to embrace online and hybrid learning modalities, making it accessible and relevant across a broad spectrum of educational settings.

This work was assigned exempt status by the University of Wisconsin institutional review board as it was designated as a program evaluation.

Discussion

The IHEART has several innovative features. As described, the tool was made by educators and practitioners from 11 different institutions, including 10 U.S. centers, representing significant geographic diversity and reflecting far greater heterogeneity in terms of communities served, professional and learning cultures, and EDI learning experiences than any single institution could. In using similar processes for collecting input as other academic institutions,[37] the small group that created the tool reflected institutional and professional diversity and included 4 physicians, a chiropractor, a psychologist, a nurse practitioner, and 2 education professionals. Including non-MD practitioners and educators brought an interprofessional perspective to this tool, which enriched the process and the final product; each member raised unique questions and considerations that we included in the model.

We created this tool specifically for developing and evaluating integrative health curricula. It addresses critical issues within IH, including cultural misappropriation, epistemological diversity (acknowledging many different ways of learning and knowing what is true), and professional/disciplinary diversity, which must be addressed more directly and comprehensively, especially in the context of adult learning models, which attend to the diverse needs, motivations, and experiences of learners.[38] Additionally, this tool begins with a call for mindful self-reflection, consistent with IH's emphasis on practitioners as whole people who are best

able to show up for others when we attend to our own mind/body/spirit. We believe these considerations are not unique to IH and can add value to biomedical and allied health training. We propose that the IHEART may provide a concrete way to apply an equity lens across integrative health training and education. A critical challenge in creating the tool was balancing the comprehensiveness of the domains assessed and the questions asked with creating a concise and targeted tool. As outlined in our Methods above, this tool will be further refined through piloting instruction of its use with educators and learners participating in the Osher Collaborative, following similar successful processes at other medical centers.[39]

We look forward to applying this tool in multiple ways. We envision this as a tool for self-reflection in developing integrative health curricula by providing educators with a structured and systematic means to assess their teaching practices and the effectiveness of the curriculum they have designed. This tool allows educators to evaluate the alignment between intended learning outcomes and instructional strategies, identify areas for improvement, and reflect on the overall coherence of the curriculum through a health equity lens. Educators can use the IHEART to analyze their teaching methods, the relevance of content, and the impact on student learning. This process of self-reflection enables educators to make informed adjustments, address any shortcomings, and enhance the overall quality of the curriculum. It fosters a continuous improvement mindset, ensuring that the curriculum remains dynamic and responsive to the changing needs of students and the educational landscape. As an example, the author VM has already implemented the IHEART tool in the process of rewriting the University of Wisconsin-Madison Academic Integrative Health Fellowship curriculum learning objectives. The tool was supportive in identifying curriculum gaps, eg., highlighting research about the positive impact of mind-body therapies within communities of color. This change inspired subsequent discussions with the integrative health fellows related to improving access to these therapies where there has historically/contemporarily been poor access.

In addition, it can serve as an evaluation vehicle, similar to other anti-racism curriculum tools, through which we can measure change in the curriculum content and delivery. Evaluating changes in integrative health curricula would involve a systematic and comprehensive process facilitated by this tool. Its design could serve as a structured framework to assess the effectiveness, relevance, and impact of modifications made to the curriculum through a categorical evaluation tool such as a checklist. The IHEART tool can help educators gather qualitative and quantitative data to measure learner engagement and overall satisfaction with the curriculum. Additionally, it can be used to collect and consider feedback from instructors and reviewers, providing a holistic view of any changes made. Through the analysis of these data, educators can make informed decisions, refine instructional approaches, and continuously improve the curriculum to meet the evolving needs of learners within this health equity framework.

There are several limitations of this project. First, we acknowledge the challenge of including all appropriate voices and perspectives in creating the tool, which may have resulted in blind spots, oversights, or omissions of essential dimensions and considerations. As stated above, the exact demographics of the representatives from all eleven academic medical centers at the Osher Collaborative conference were not collected so we do not have these data to document whose voices were involved in developing the IHEART. In addition, there exists a limited diversity within the field of medicine as a whole, which is also true for the field of integrative health. White individuals continue to comprise a majority of physicians in the U.S., while Black individuals represent only 5% of the field.[40] It is also essential to consider the issue of volunteerism in academic medicine, wherein much academic activity is not built into standard work time and is rarely directly compensated. Individuals who hold more privilege may have more availability or bandwidth to volunteer their labor, and this structure may exacerbate the broader issue of asking people who hold minoritized identities to devote unpaid labor to EDI work. Recognizing these complex issues, our group sought feedback on the tool from stakeholders at member institutions, explicitly requesting that center directors ask individuals with minoritized identities and dedicated compensation towards EDI or education to review and provide feedback. We received very few responses to this request. We both realize the importance of stakeholder participation and recognize the risk of "taxing" minoritized individuals and are thus actively discussing possible ways of eliciting feedback that respects the time and labor of our colleagues. Specifically, we will be evaluating the validity of this tool by engaging a diversity of educators and learners who will be participating in the Osher Collaborative IH Elective.

An additional limitation is that our process was entirely qualitative and organic. We did not conduct a formal assessment of existing curricula or a systematic literature review of existing tools. The need for an integrative health-specific checklist for EDI was recognized while creating the framework for the elective curriculum described, with the original goal of supporting our group's efforts to improve our teaching materials and processes. As the IHEART represents the first such tool in the Integrative Health field, we hope and expect that there will be multiple future iterations that will incorporate feedback received from the Osher Collaborative Integrative Health Elective pilot program as well as other communities this tool may serve. Ultimately, assessment from both faculty, learners, and patients will be required to determine the IHEART's feasibility and ability to facilitate meaningful, equitable change in IH education and clinical practice.

Conclusion

Integrative health is rooted in relationship-centered, evidence-informed, whole-person care. As such, education in

this field requires training that embodies these values and supports learners in identifying their sociocultural location, which has a role in their relationship with the people/communities they serve and the medicine they call upon to facilitate healing. The Integrative Health Equity and Anti-Racism Tool was developed to consistently address social, structural, and systemic inequities specific to IH education. It is important to note that this tool does not automatically categorize an educator or their work as "anti-racist." We hope that the multi-institutional, collaborative process that led to the IHEART will establish an action-oriented foundation for educator self-reflection and anti-racist educational content development in the Osher Collaborative IH Elective pilot. Through this pilot process and feedback integration, specifically from a diversity of educators and learners, the IHEART may also lay a foundation for future iterations of the tool to inform global IH education and, ultimately, other fields of medicine.

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Supplemental Material

Supplemental Material for this article is available online.

References

1. Rakel DP, Minichiello V. *Integrative Medicine: Integrative Medicine*. London: E-Book. Elsevier Health Sciences; 2022.
2. Whole health. https://www.va.gov/WHOLEHEALTH/veteran-resources/whole-health-basics.asp?utm_source=google&utm_medium=cpc&utm_campaign=base_year_1&utm_agid=154675520853&utm_term=veteransadministration&utm_content=677891242682&gclid=Cj0KCQiA4NWrBhD-ARIsAFCKwWubUgZBVRjpziNPr-6oHCCkAfBbQRjPSiC11jVZyHZTocHGyNZMys0aAqYwEALw_wcB. Accessed December 10, 2023.
3. Website. National Academies of Sciences, Engineering, and Medicine. *Achieving Whole Health: A New Approach for Veterans and the Nation*. Washington, DC: The National Academies Press; 2023. doi:10.17226/26854
4. Brooks AJ, Maizes V, Billimek J, et al. Professional development in integrative health through an interprofessional online course in clinical settings. *Explore*. 2021;17(6):505-512.
5. Saper R. Integrative medicine and health disparities. *Glob Adv Health Med*. 2016;5(1):5-8.
6. Cheng T, D'Amico S, Luo M, et al. Health disparities in access to nonpharmacologic therapies in an urban community. *J Alternative Compl Med*. 2019;25(1):48-60.
7. Giannitrapani KF, Ahluwalia SC, McCaa M, Pisciotta M, Dobscha S, Lorenz KA. Barriers to using nonpharmacologic approaches and reducing opioid use in primary care. *Pain Med*. 2018;19(7):1357-1364.
8. Gardiner P, Luo M, D'Amico S, et al. Effectiveness of integrative medicine group visits in chronic pain and depressive symptoms: a randomized controlled trial. *PLoS One*. 2019;14(12):e0225540.
9. Grand Rounds. Panel on cultural appropriation in integrative medicine & health. 2022. https://www.youtube.com/watch?v=kzR6kf46TU8. Accessed December 10, 2023.
10. https://im4us.org/resources/Documents/5.21.23CMinIHbranded.docx.pdf. Accessed December 10, 2023.
11. Starling W, Grace C. Experiences of shame, exclusion. In: *Appropriation in Mindfulness-Based Wellness Culture*. Maryland: University Honors Theses; 2021. doi:10.15760/honors.992.
12. Antiracism starts with you. https://www.bu.edu/antiracism-center/. Accessed December 10, 2023.
13. "Best Practices for Sex and Gender Diversity in Medical Education". American Medical Association, Council on Medical Education. May 2023. https://www.ama-assn.org/system/files/cme-issue-brief-sex-gender-medical-education.pdf. Accessed December 10, 2023.
14. Hana T, Butler K, Young LT, Zamora G, Lam JSH. Transgender health in medical education. *Bull World Health Organ*. 2021;99(4):296-303.
15. Borowsky H, Morinis L, Garg M. Disability and ableism in medicine: a curriculum for medical students. *MedEdPORTAL*. 2021;17:11073.
16. Infographic. 6 guiding principles to A trauma-informed approach. 2023. https://www.cdc.gov/orr/infographics/6_principles_trauma_info.htm. Accessed December 10, 2023.
17. Eichenberg TB, Parikh S, Cox J, Doshi D, Padilla-Register M, DallaPiazza M. An educational session for medical students exploring weight bias in clinical care through the lens of body diversity. *MedEdPORTAL*. 2023;19:11342.

18. Moloo H, Selvam R, Seguin N, et al. Integration of planetary health in undergraduate and postgraduate medical education: protocol for a scoping review. *BMJ Open*. 2022;12(6):e057207.
19. Corsino L, Railey K, Brooks K, et al. The impact of racial bias in patient care and medical education: let's focus on the educator. *MedEdPORTAL*. 2021;17:11183.
20. Lupton KL, O'Sullivan PS. How medical educators can foster equity and inclusion in their teaching: a faculty development workshop series. *Acad Med*. 2020;95:S71-S76.
21. 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.
22. Capers Q4th. How clinicians and educators can mitigate implicit bias in patient care and candidate selection in medical education. *ATS Sch*. 2020;1(3):211-217.
23. Queen-Johnson A. *Focus Area 3: Learning Environment*. San Francisco: UCSF School of Medicine. https://medschool.ucsf.edu/differences-matter/action-groups/focus-area-3. Accessed December 11, 2023.
24. The upstate bias checklist. https://redcap.upstate.edu/surveys/?s=KADLRXK8WE. Accessed December 11, 2023.
25. Inclusive & bias-free curriculum checklist. https://www.feinberg.northwestern.edu/md-education/learning-environment/checklist.html. Accessed December 11, 2023.
26. Ring M, Ai D, Maker-Clark G, Sarazen R. Cooking up change: DEIB principles as key ingredients in nutrition and culinary medicine education. *Nutrients*. 2023;15(19):4257. doi:10.3390/nu15194257
27. James AK, Matthiesen MI, Jasrasaria R, et al. An anti-racism and equity initiative improves residency educational conferences. *J Grad Med Educ*. 2023;15(3):322-327.
28. Osher Collaborative - Integrative Health. Osher collaborative. https://www.oshercollaborative.org/home. Accessed December 27, 2023.
29. Inclusive & bias-free curriculum checklist. https://www.feinberg.northwestern.edu/md-education/learning-environment/checklist.html. Accessed December 11, 2023.
30. AOC Initiative resources and tools. https://meded.ucsf.edu/current-students/anti-oppression-curriculum-initiative/aoc-initiative-resources-and-tools. Accessed December 11, 2023.
31. Jowell AR, James AK, Jasrasaria R, et al. DARE training: teaching educators how to revise internal medicine residency lectures by using an anti-racism framework. *MedEdPORTAL*. 2023;19:11351.
32. People F. Anti-racism resources. Vagelos college of physicians and surgeons. https://www.vagelos.columbia.edu/education/academic-programs/md-program/about-md-program/anti-racism-resources. Accessed December 11, 2023.
33. Shirley Bsn L, Center C, Balajee SS. The health equity initiative at Multnomah county health. *Nat Protoc*. 2020;15(4):1399-1435. doi:10.5555/20103345473
34. https://im4us.org/resources/Documents/5.21.23CMinIHbranded.docx.pdf. Accessed December 21, 2023.
35. Lokugamage AU, Ahillan T, Pathberiya SDC. Decolonising ideas of healing in medical education. *J Med Ethics*. 2020;46(4):265-272.
36. Rodríguez JE, Campbell KM, Pololi LH. Addressing disparities in academic medicine: what of the minority tax? *BMC Med Educ*. 2015;15:6.
37. Polston PM, Matthews DD, Golden SD, et al. Institutional reform to promote antiracism: a tool for developing an organizational equity action and accountability plan. *Prev Chronic Dis*. 2023;20:E50. doi:10.5888/pcd20.220368
38. Knowles M. *The Adult Learner: A Neglected Species*. Houston, TX: Gulf Publishing; 1988.
39. Jowell AR, James AK, Jasrasaria R, et al. DARE training: teaching educators how to revise internal medicine residency lectures by using an anti-racism framework. *MedEdPORTAL*. 2023;19:11351. doi:10.15766/mep_2374-8265.11351
40. Figure 18. *Percentage of All Active Physicians by Race/ethnicity, 2018*. Washington, D.C: AAMC. https://www.aamc.org/data-reports/workforce/data/figure-18-percentage-all-active-physicians-race/ethnicity-2018. Accessed December 21, 2023.