PRACTICAL TIPS

REVISED Fostering Inclusivity in the Clinical Learning Environment [version 2; peer review: 2 approved, 1 approved with reservations]

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v2 **First published:** 09 Aug 2024, **14**:61
https://doi.org/10.12688/mep.20515.1
Latest published: 15 Oct 2024, **14**:61
https://doi.org/10.12688/mep.20515.2

Abstract

Despite the Supreme Court's decision on race-based admissions, academic medical centers, medical societies, and accreditation bodies remain committed to recruiting a diverse workforce. Many medical schools and graduate medical education programs created initiatives to expand their census of underrepresented in medicine (UIM) as the key to addressing health care disparities. As a result, an influx of an UIM physician workforce has entered clinical learning environments, often without consideration of the inclusivity of these settings. To create inclusive, safe, and comfortable CLEs, we must first recognize the challenges faced by UIM trainees, students, and faculty and the complex ways in which discrimination manifests. Ultimately, having inclusive CLEs allows all learners, especially those from historically excluded identities, to thrive in their training and working environment, making it essential to retain the diverse workforce necessary. Using case examples, we discuss strategies of inclusivity and ways in which we can maintain clinical learning environments where learners feel safe and supported through their training.

Keywords

Inclusion, Graduate Medical Education, Inclusivity, Diversity, Equity, and Inclusion, Clinical Learning Enivonrment

Open Peer Review

Approval Status ✓ ? ✓

	1	2	3
version 2 (revision) 15 Oct 2024			✓ view
version 1 09 Aug 2024	✓ view	? view	

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Any reports and responses or comments on the article can be found at the end of the article.

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Competing interests: No competing interests were disclosed.

Grant information: The author(s) declared that no grants were involved in supporting this work.

How to cite this article: Smith TY, Terhune K and Caniano DA. **Fostering Inclusivity in the Clinical Learning Environment [version 2; peer review: 2 approved, 1 approved with reservations]** MedEdPublish 2024, **14**:61 https://doi.org/10.12688/mep.20515.2

First published: 09 Aug 2024, **14**:61 https://doi.org/10.12688/mep.20515.1

REVISED **Amendments from Version 1**

We appreciate the favorable response to our article. We believe this work can have a valuable impact on the perspective of inclusivity in graduate medical education. We value the reviewers' feedback and believe the requested revisions were an added benefit to the quality of the manuscript. We have added evidence and citations of the literature that speak to the effectiveness of the strategies. We believe the addition of examples and resources of operational frameworks has allowed our concrete examples to be even more useful to the readers.

Any further responses from the reviewers can be found at the end of the article

Introduction

The majority of, if not all, academic medical centers and community health systems that sponsor graduate medical education programs, continue to incorporate diversity, equity, and inclusion (DEI) into their mission and aims[1]. Inclusion refers to the institutional culture that promotes the diversity and uniqueness of each individual through practice, policy, and the development of cultural norms, and creates a high sense of belonging for all members within the organization[2]. The clinical learning environment (CLE) includes the institutional culture experienced by learners training and working in the clinical setting, and it may vary in the degree to which all learners, including those from historically excluded identities, feel welcomed[2,3]. While diversity and equity permit objective measures of success, inclusion relies on how learners and graduate medical education (GME) stakeholders perceive the CLE. Often, the "I" in diversity, equity, and inclusion, is unintentionally underdeveloped in the CLE. In order to create an inclusive CLE that values and respects all members, postgraduate leaders and hospital administrators should consider the formal, informal, and hidden components of training and clinical work which may be inadvertently creating an exclusive and isolating culture.

When an institutional culture is defined by dominant societal norms, learners, including underrepresented in medicine (UIM) trainees, are often expected to acclimate to this culture rather than the institution focusing on creating a culture accepting of differences brought by the diversity of its workforce and patient population[4,5]. Achievement of an inclusive CLE requires all learners to feel a sense of belonging that allows them to portray their authentic selves and share their perspective and experiences within the team dynamics in the clinical setting. It is imperative for an inclusive organizational culture to be set with systematic and intentional strategies through the collaboration of the GME and CLE by way of institutional policies, practices, and cultural norms. The following situations illustrate how failure to promote inclusivity may result in an adverse CLE despite the best intentions of graduate medical education leaders. Each situation represents an actual case that has been de-identified to respect confidentiality of participants and clinical sites.

Case 1

A residency program agreed to host residents in the same specialty from a nearby program for subspecialty rotations unavailable at their clinical site. Residents from the visiting program represented diverse racial and ethnic backgrounds. The host program residents were recruited from the academic institution's medical school and undergraduate university, and few UIM residents. Within a few months of rotating at the host program, the visiting residents lodged complaints of a discriminatory and unwelcoming CLE at the host program.

When the leadership of both programs and institutions interviewed all the residents, they learned that the residents from the host program, including the few UIM residents, were acclimated to a "common culture" at the host hospital, and comfortable with its CLE. The residents from the host program did not report any experiences of abuse, mistreatment, bias, and/or discrimination. The visiting residents described interactions between themselves and nurses as often confrontational and feeling questioned on their overall medical competency and efficiency. The visiting residents felt excluded from group lunches and did not feel welcomed by the residents of the host program. The visiting residents reported that they had minimal orientation to the host hospital, were not aware of preferred clinical guidelines and medications, and did not have an opportunity to meet the nurses and non-physician staff before assignment to inpatient units. Given the racial and ethnic diversity of the visiting residents, their perception was that their treatment was due to their racial and ethnic backgrounds.

Strategies of Inclusivity

To welcome the visiting residents the home program should have provided an orientation that included introduction to the host residents, faculty, nurses and other non-physician staff members. The visiting residents should have been given copies of the host program's clinical guidelines and formulary of preferred medications. Several studies have found that providing rotation-specific orientation (incorporating mobile and/or multimedia to supply site specific information), skills training, and a core lecture series have improved the educational experience of rotating residents[6–8]. A buddy system that paired each visiting resident with a host resident as a near-peer mentor may have permitted easier adjustment to the new CLE[9].

Case 2

A fellowship program was excited to accept and train one of their first UIM fellows. Within the first year, the UIM fellow experienced many challenges including judgment based on their accent, given that English was not their first language. While the fellow was successful in completing residency at a prestigious program, they were now experiencing difficulty adjusting to a new CLE where they felt questioned on their medical knowledge and clinical performance. Oftentimes the faculty cited that the fellow had an inability to communicate effectively due to a language barrier. This led to feelings of inferiority and anxiety when presenting patients to the faculty. The fellow avoided speaking up on rounds, which was interpreted

as lack of knowledge about patients. The fellow was placed on a performance improvement plan (PIP) and placed at a different teaching site with lower patient volumes, a more diverse patient population, and more intimate interactions with faculty. At this hospital, the fellow began to thrive, and developed a mentoring relationship with a faculty member for whom English was also a second language. The fellow gained confidence, was less afraid to speak up, impressed the faculty at this site with their medical knowledge, and used their bilingual skills as a communication asset. The fellow successfully completed the PIP and graduated with accolades from the program.

Strategies of Inclusivity

Many UIM trainees find that the "diversity" which they were recruited for, they are later asked to modulate and/or change to acclimate to the dominant societal and working culture[10]. While addressing concrete deficiencies in academic, clinical, and professional performance are essential, literature has shown that it is equally important to ensure that the CLE is not creating barriers (including macro- and micro-aggressions) which prevent all learners from thriving[4]. In this case, it was important to utilize the fellow's diverse language skills as a positive attribute. It has been shown that doctor patient language concordance is beneficial to the quality of patient care, and thus is an asset[11]. In addition, early mentorship is essential. While mentorship is important for all trainees, it is fundamental in the retention of UIM trainees. An example is Indiana University's Incentivizing Diverse Recruitment for Equity in Academic Medicine (iDREAM) program which offers mentorship and stipends for UIM residents who commit to faculty positions at the academic center upon graduation. This mentorship also ensures bidirectional feedback about resident performance and the clinical learning environment's acceptability and continuous evaluation to ensure it is free of bias[12,13].

Case 3

A second-year resident was assigned to a high acuity service following an eight-week parental leave of absence. The resident experienced challenges upon returning to work, including time and availability of convenient locations for lactation. The lactation space available in the hospital was distant from clinical activities, and did not have a computer, therefore, the resident was unable to complete patient care notes while pumping. This resulted in a state of anxiety about missing clinical duties and pending work. Ultimately, the resident had poor milk production and discontinued human milk feeding. During the semiannual evaluation the resident received negative comments about absences from clinical duties since returning from parental leave. The resident did not feel free to discuss with the program director the challenges with lactation for fear of retaliation and gender discrimination.

Strategies of Inclusivity

The CLE must have lactation accommodations that are close to patient care units and fitted with computers that permit residents to continue with clinical duties while pumping (Accreditaton Council of Graduate Medical Education (ACGME) Institutional Requirement III.B.7.d).(4))[14]. Program leadership should have considered assigning the resident to a lower acuity inpatient service or an outpatient selective for the first rotation following parental leave. The resident should be provided with mentorship and a means to give feedback on how she is adjusting to the return from parental leave, and the dual roles of mother and physician-in-training[15]. Programs have successfully implemented inclusion practices, such as flexible scheduling for pregnant and new parent residents that have been accepted by trainees and added no additional burden to scheduling clinical work[16].

Discussion

Creation of inclusive, safe, and comfortable CLEs requires recognition of the challenges faced by all trainees, and the complex ways in which exclusion manifests, especially for UIM residents[17]. These challenges are frequently set by entrenched societal discriminations, biases, and gendered treatment that underlies the original foundation of medical training[4,5]. Ultimately, having inclusive CLEs allows all learners to thrive in their training and working environment. Program, GME, and CLE leaders must be proactive in the intentional design of inclusive practices in conjunction with their diversity and equity initiatives. Faculty development is essential for faculty to receive up-to-date, practical diversity, equity, inclusion, and belonging training that prepares them to work with a diverse group of learners. Programs should consider faculty mentorship and/or peer mentorship programs. Program leaders should encourage bidirectional feedback with frequent check-in meetings with trainees to build trust so that when concerns are brought forth, there will be every attempt to address them. Ongoing dialogue between program leaders, learners, and other members of the clinical team permit all stakeholders to co-create the inclusive attributes and monitoring of their CLE.

Several programs have published toolkits which can be used as a framework that describe their successful strategies to advancing DEI in graduate medical education, including the ACGME's Equity Matters initiative[18,19]. The ACGME launched the Barabara Ross-Lee DO DEI Award which recognizes intuitions who have successfully implemented DEI efforts across their GME programs[20]. In an exploratory content analysis of the award applications, Boatright *et al.* describe successful inclusion practices such as DEI committees, faculty/resident-led affinity groups, longitudinal DEI curricula, and community partnerships[21]. Some of the themes of success are institutional support, an invested community of stakeholders, and a shared value among all learners, program and institutional leaders, and other members of the team within the CLE. The challenges are centered around the institutional buy-in and the equal prioritization of both GME and CLE, which includes providing funding and resources towards success of the DEI initiatives[18]. Organizational culture change is the strongest barrier to success of any change management initiative, and thus using intentional strategies to set

new cultural norms takes a collaborative effort of the programs, GME, and CLE. There must be a commitment to go beyond appreciation of DEI to actually incorporating these efforts into the fabric of the organizational culture of the CLE and its training programs[22]. Our discussion is limited in scope, and just touches the surface of the breadth of innovation into the area of DEI, specifically inclusion. The key to creating inclusive clinical learning environments for all learners is developing a clear focus on the "I" in DEI.

Data availability

No data are associated with this article.

References

1. Farrell TW, Greer AG, Bennie S, *et al.*: **Academic health centers and the quintuple aim of health care.** *Acad Med.* 2023; **98**(5): 563–568.
PubMed Abstract | Publisher Full Text
2. Razack S, Philibert I: **Inclusion in the clinical learning environment: building the conditions for diverse human flourishing.** *Med Teach.* 2019; **41**(4): 380–384.
PubMed Abstract | Publisher Full Text
3. Youmans QR, Maldonado M, Essien UR, *et al.*: **Building inclusion and belonging in training environments.** *J Grad Med Educ.* 2022; **14**(3): 333–334.
PubMed Abstract | Publisher Full Text | Free Full Text
4. Ellis J, Otugo O, Landry A, *et al.*: **Dismantling the overpolicing of black residents.** *N Engl J Med.* 2023; **389**(14): 1258–1261.
PubMed Abstract | Publisher Full Text
5. McDade W, Mason BS: **Making the case for equity in Graduate Medical Education.** *J Natl Med Assoc.* 2021; **113**(1): 3–5.
PubMed Abstract | Publisher Full Text
6. Fein JA, Lavelle J, Giardino AP: **Teaching emergency medicine to pediatric residents: a national survey and proposed model.** *Pediatr Emerg Care.* 1995; **11**(4): 208–11.
PubMed Abstract | Publisher Full Text
7. Chreiman KM, Prakash PS, Martin ND, *et al.*: **Staying connected: service-specific orientation can be successfully achieved using a mobile application for onboarding care providers.** *Trauma Surg Acute Care Open.* 2017; **2**(1): e000085.
PubMed Abstract | Publisher Full Text | Free Full Text
8. Sobolewski B, Kerrey BT, Geis GL, *et al.*: **The April effect: a multimedia orientation approach to improve rotation transitions during pediatric residency.** *Acad Pediatr.* 2016; **16**(3): 220–3.
PubMed Abstract | Publisher Full Text
9. Cheng K, Grabowski C, Chong A, *et al.*: **Initial experience with formal near-peer mentoring in radiology residency.** *Curr Probl Diagn Radiol.* 2022; **51**(3): 304–307.
PubMed Abstract | Publisher Full Text
10. Tsai J: **Diversity and inclusion in Medical schools: the reality. scientificamerican.com.** Published July 12, 2018; Accessed September 20, 2024.
Reference Source
11. Balch B: **The United States needs more Spanish-speaking physicians.** *AAMC*. Published July 18, 2023.
Reference Source
12. Crites K, Johnson J, Scott N, *et al.*: **Increasing diversity in residency training programs.** *Cureus.* 2022; **14**(6): e25962.
PubMed Abstract | Publisher Full Text | Free Full Text
13. iDREAM: **Hiring and recruitment faculty affairs and professional development**. IU School of Medicine. Iu.edu. Published 2024; Accessed October 2, 2024.
Reference Source
14. **ACGME Institutional requirements**.
Reference Source
15. D'Ambrosio A: **Motherhood during residency? New policies make the two more compatible.** Medpagetoday.com. Published July 29, 2020; Accessed October 2, 2024.
Reference Source
16. Chernoby KA, Pettit KE, Jansen JH, *et al.*: **Flexible scheduling policy for pregnant and new parent residents: a descriptive pilot study.** *AEM Educ Train.* 2020; **5**(2): e10504.
PubMed Abstract | Publisher Full Text | Free Full Text
17. Liebschutz JM, Darko GO, Finley EP, *et al.*: **In the minority: black physicians in residency and their experiences.** *J Natl Med Assoc.* 2006; **98**(9): 1441–8.
PubMed Abstract | Free Full Text
18. Nabhan ZM, Scott N, Kara A, *et al.*: **Advancing equity in graduate medical education recruitment through a Diversity Equity and Inclusion (DEI) toolkit for program directors.** *J Med Educ Curric Dev.* 2023; **10**: 23821205231203136.
PubMed Abstract | Publisher Full Text | Free Full Text
19. **Accreditation council for graduate medical education**. dl.acgme.org.
Reference Source
20. **Barbara Ross-Lee, DO Diversity, Equity, and Inclusion Award.** Acgme.org. Published 2024; Accessed October 2, 2024.
Reference Source
21. Boatright D, London M, Soriano AJ, *et al.*: **Strategies and best practices to improve Diversity, Equity, and Inclusion among US graduate medical education programs.** *JAMA Netw Open.* 2023; **6**(2): e2255110.
PubMed Abstract | Publisher Full Text | Free Full Text
22. Landry A, Boatright D, Smith TY: **Call to action in academic emergency medicine: going beyond the appreciation of Diversity, Equity, and Inclusion to true practice.** *AEM Educ Train.* 2021; **5**(Suppl 1): S7–S9.
PubMed Abstract | Publisher Full Text | Free Full Text

Open Peer Review

Current Peer Review Status: ✔ ? ✔

Version 2

Reviewer Report 19 October 2024

https://doi.org/10.21956/mep.22198.r38759

✔ **Kat Butler**
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Fostering Inclusivity in the Clinical Learning Environment

Overall
This is a helpful paper which provides realistic case studies and concrete tips for programs that may face similar issues, or issues stemming from similar underlying inequity in clinical learning environments.

My only question, which is one I have whenever the topic of inclusion and specifically 'including all' is brought up, is to consider who we mean to include when we say inclusive environments will allow "all learners" to thrive - the authors here specify 'especially those from historically excluded identities,' and their meaning is clear. But do we also want to have people who hold or promote vehemently racist, sexist, homophobic, ableist, transphobic or otherwise oppressive beliefs to thrive in our learning environments ? Of course, as the authors point out, CLEs unfortunately have been established with these forms of discrimination embedded in them.

Overall I do believe that CLEs which take into account the wide range of human needs and cultures (and the varying experiences, needs, and strengths of learners as individuals) truly benefit learners from all groups, and also that these spaces may not always feel 'safe' as we challenge one another to grow and question our underlying beliefs and long-held institutional practices.

Abstract
Briefly situates the topic in the current American legal context; given that this is an international journal it may be helpful to specify to which Supreme Court the authors are referring. I also note that this context is not included in the introduction, but only in the abstract. Otherwise an excellent summary of the paper.

Introduction
Again, a helpful and brief summary of the issue at hand and the knock-on effects of an

overemphasis on recruitment without a simultaneous focus on changing the culture in clinical learning environments. A further citation that may be helpful for the sentence about the importance an environment that supports learners in feeling a sense of belonging may be the Sternszus R et al.(2024[1]) paper I have included a link to below.

Cases
Excellent cases which certainly resonate with challenges faced by programs and residents. I did find it interesting that the authors used gender neutral language about the resident in case 3 in the case description, but then used gendered pronouns in the strategies for inclusivity. I don't think that this detracts from the paper in any way, just noticed the shift between the two sections.

Strategies of Inclusivity
Concrete and relevant tips for addressing these issues.

Discussion
The discussion moves appropriately to higher level guidance for considerations of improving inclusivity in PG programs. The emphasis on faculty education is certainly one that is very supported by literature and practice.

References
1. Sternszus R, Steinert Y, Razack S, Boudreau JD, et al.: Being, becoming, and belonging: reconceptualizing professional identity formation in medicine.*Front Med (Lausanne)*. 2024; **11**: 1438082 PubMed Abstract | Publisher Full Text

Is the topic of the practical tips discussed accurately in the context of the current literature
Yes

Are all factual statements correct and adequately supported by citations?
Yes

Are arguments sufficiently supported by evidence from the published literature and/or the authors' practice?
Yes

If evidence from practice is presented, are all the underlying source data available to ensure full reproducibility?
Not applicable

Are the conclusions drawn balanced and justified on the basis of the presented arguments?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Trans inclusion in medical education

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 1

Reviewer Report 01 October 2024

https://doi.org/10.21956/mep.21957.r38761

?

Russyan Mark Mabeza
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Akeive Burrows
University of California Los Angeles David Geffen School of Medicine (Ringgold ID: 12222), Los Angeles, California, USA

Thank you for the opportunity to review this article. In brief, this manuscript emphasizes the importance of integrating and tailoring specific needs into diversity, equity, and inclusion (DEI) efforts within graduate medical education programs, particularly the clinical learning environment (CLE). The article presents three cases which demonstrate how a CLE's failure to effectively promote inclusivity can negatively impact trainees that are underrepresented in medicine (UIM). For each case, it offers strategies for improvement and advocates for proactive efforts by educational leadership to design inclusive practices centered around UIM trainee needs, alongside diversity and equity initiatives.

This is important work and can be useful for graduate medical education programs who are aiming to bolster inclusion initiatives within their institutions.

Please consider the following comments upon revision of the article:

- Consider providing a more explicit statement to establish the necessity for systematic implementation of inclusion strategies in graduate medical education.
- The case studies provide clear and concrete illustrations of instances of exclusion. They effectively highlight real-life consequences of a CLE that is not inclusive for UIM trainees.
- The cited strategies are clear, practical, and actionable. However, they lack evidence of effectiveness or critical analysis of potential promise and limitation.
- Consider providing an operational framework for how suggested strategies might be implemented. It would be helpful to cite prior studies that demonstrate in some detail how these strategies could look like. If not from prior studies, consider providing perspectives from authors' own experiences of operationalizing these strategies in their own institutions.
- Consider discussing the challenges and other factors that programs should consider when attempting to implement these strategies, including differences in institutions, political

systems within which GME programs exist, financial/logistical constraints, etc.

- Consider discussing the limitations inherent to this article.
- Consider revising the first sentence, as it is not necessarily supported by the first citation.

Is the topic of the practical tips discussed accurately in the context of the current literature
Yes

Are all factual statements correct and adequately supported by citations?
Partly

Are arguments sufficiently supported by evidence from the published literature and/or the authors' practice?
Partly

If evidence from practice is presented, are all the underlying source data available to ensure full reproducibility?
Not applicable

Are the conclusions drawn balanced and justified on the basis of the presented arguments?
Partly

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Antiracism, medical education

We confirm that we have read this submission and believe that we have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however we have significant reservations, as outlined above.

Reviewer Report 30 September 2024

https://doi.org/10.21956/mep.21957.r38768

Arlene Chung
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This is a brief report that provides an overview of the literature to date regarding inclusion in the clinical learning environment, followed by three real-life cases that have been de-identified to respect the confidentiality of the participants and the clinical sites. The cases are meant to illustrate common challenges and provide practical strategies for addressing them. While the

literature on diversity, equity, and inclusion is still evolving, the authors provide adequate and factual background on the topic and best practices known to date. The report is well written and the authors' arguments are logical and justified. Overall, I recommend indexing for this publication.

Is the topic of the practical tips discussed accurately in the context of the current literature
Yes

Are all factual statements correct and adequately supported by citations?
Yes

Are arguments sufficiently supported by evidence from the published literature and/or the authors' practice?
Yes

If evidence from practice is presented, are all the underlying source data available to ensure full reproducibility?
Not applicable

Are the conclusions drawn balanced and justified on the basis of the presented arguments?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Medical education; graduate medical education; well-being; mentorship; medical education research

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.