

AAIM Perspectives

AAIM is the largest academically focused specialty organization representing departments of internal medicine at medical schools and teaching hospitals in the United States and Canada. As a consortium of five organizations, AAIM represents department chairs and chiefs; clerkship, residency, and fellowship program directors; division chiefs; and academic and business administrators as well as other faculty and staff in departments of internal medicine and their divisions.

AAIM Recommendations to Promote Equity in the Clerkship Clinical Learning Environment



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INTRODUCTION

Despite widespread recognition of inequities related to sex, race, and ethnicity in undergraduate medical education, effective solutions have been difficult to identify. In this perspective, the Alliance for Academic Internal Medicine (AAIM) focuses on issues specific to the clerkship clinical learning environment (CCLE).

The pre-clerkship classroom tends to be closely regulated, with standards provided by leadership and understood by teachers and learners. In contrast, the CCLE is more variable, with multiple clinical, structural, systems-based, and educational factors that may introduce or amplify inequities in learner experiences.

Adapted from the definition of health equity, educational equity describes the concept that all learners have the opportunity to attain their full potential without structural or social barriers.¹ Educational equity in the CCLE depends on clerkship and other medical

education leaders sharing a mental model of the CCLE scope. These recommendations are based on a conceptual framework for the clinical learning and working environment (LWE) AAIM developed in 2017.² While these recommendations come from the perspective of clerkship leaders, the Alliance recognizes that inequities in the CCLE are not isolated to clerkships and therefore, recommends that clerkship and other medical education leaders collaborate to develop and implement interventions.

AAIM CONCEPTUAL MODEL TO OPTIMIZE THE LEARNING ENVIRONMENT

In 2017, AAIM created a conceptual model to describe the LWE.² This model describes 4 factors that interact dynamically: interconnectedness of all domains in the medical education continuum, learners at multiple stages, central role of the patient, and sociocultural context. The model also describes 4 domains through which educators can view the LWE: personal, relational, curricular, and structural. These domains can be used to categorize factors that impact the learning environment when analyzing and planning innovations. The recommendations to promote educational equity in the CCLE are organized by these domains (Table).²

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PERSONAL

Acknowledging Imposter Syndrome and Stereotype Threat

Imposter syndrome is the syndrome of persistent self-doubt despite personal accomplishment. Prevalent in medical professionals, it has been demonstrated to be higher in women and groups historically under-represented in medicine (UIM).³ It has been associated with lower job performance, lower job satisfaction, and higher burnout.⁴ Stereotype threat describes when an individual's concern for confirming negative stereotypes about their identity group leads to underperformance in a given domain.⁵ As students transition among clerkships, teams, and systems, they may acutely experience both phenomena, which may then diminish their sense of belonging and affect their ability to perform well in the CCLE. Systemic factors such as a lack of diverse role models may amplify these feelings. Familiarity with these concepts is therefore important for learners and their faculty/resident supervisors.

Recommendations

- Educate students and faculty/resident supervisors about imposter syndrome and stereotype threat and their impact on learner experiences. This content^{6,7} can be introduced during the pre-clerkship curriculum and in the clerkship curriculum with students and supervisors.
- Encourage faculty/resident supervisors to share their experiences with imposter syndrome or stereotype threat and share helpful strategies.

Fostering a Growth Mindset

When individuals hold a growth mindset, they believe that abilities can improve through challenge and learning from failure.⁸ Alternatively, when individuals hold a fixed mindset, they believe that characteristics such as talent are immutable. Attending to a growth mindset and mastery orientation in the CCLE may cultivate an

environment that allows students to meet their full potential.⁹⁻¹¹

Recommendations

- Encourage students to self-identify learning goals and participate in creating their own learning action plans.
- Train faculty/resident supervisors in self-theories¹⁰ and how to foster a growth mindset.

PERSPECTIVES VIEWPOINTS

- Successful approaches to address inequities in the clerkship clinical learning environment (CCLE) are unclear.
- Clerkship and medical education leaders have the opportunity to collaborate to promote equity in the CCLE.
- Recommended strategies include acknowledging imposter syndrome, fostering a growth mindset, cultivating psychological safety, recognizing implicit bias and addressing mistreatment, designing curricula to promote inclusion, promoting use of certified interpreters, intentional recruitment for faculty educational opportunities, and educational continuous quality improvement.

RELATIONAL

Cultivating Psychological Safety

Psychological safety describes a person's perceptions of the consequences of taking interpersonal risks in a particular context, such as a workplace, and is a critical factor in teamwork and team learning.¹² Tsuei et al¹³ describe psychological safety in medical education as the "state of feeling freed from a sense of judgment by others such that learners can authentically and wholeheartedly concentrate on engaging with a learning task without a perceived need to self-monitor their projected image." When faculty/resident supervisors foster psychological safety, they strengthen team dynamics, allowing students to feel safe to explore difficult topics, take risks, and acknowledge their limits.^{13,14}

Recommendations

- Provide faculty and residents with resources¹⁵ and support to help them develop the skills to cultivate a climate of psychological safety in the CCLE.
- Incorporate techniques such as inviting input from all team members, active listening, debriefing, recognizing the limits of one's own knowledge, and engaging in effective feedback to engender trust and build alliances.^{14,15} Examples of phrases¹⁵ that can be used in either team settings or one-on-one situations include:
 - "If you see anything that concerns you, please speak up. We're a team focused on being the best we can be for our patients and for each other, and we have to have each other's backs."

Table Recommendations to Promote Equity in the Clerkship Clinical Learning Environment (CCLE) Using the AAIM Conceptual Model			
AAIM Conceptual Model Domain and Definition	Suggested Topics	Recommendations for Clerkship and Medical Education Leaders: Clerkship and Other Medical Education Leaders Should Collaborate to Develop and Implement Action Plans, as Inequities in the CCLE are Not Isolated to Core Clerkships	Feasibility (High, Moderate, Low) of Implementation Led by Clerkship Director*
Personal The lens through which a learner experiences the CCLE and the intrinsic qualities the learner adds.	Imposter syndrome and stereotype threat	<ul style="list-style-type: none"> Educate students and faculty/resident supervisors about imposter syndrome and stereotype threat and their impact on learners' experiences Encourage faculty/resident supervisors to share their experiences with imposter syndrome or stereotype threat and share helpful strategies. 	Moderate
	Growth mindset	<ul style="list-style-type: none"> Encourage students to self-identify learning goals and participate in creating their own learning action plans. Educate faculty/resident supervisors in self-theories and how to foster a growth mindset. 	Low to Moderate
Relational The ways in which individuals or groups interact and the impact of these interactions upon learners and the CCLE as a system.	Psychological safety	<ul style="list-style-type: none"> Provide faculty and residents with resources and support to help them develop the skills to cultivate a climate of psychological safety in the CCLE. Incorporate techniques such as inviting input from all team members, active listening, debriefing, engaging in effective feedback to engender trust and build alliances. 	Low to Moderate
	Implicit bias and mistreatment	<ul style="list-style-type: none"> Incorporate implicit bias recognition and management training in faculty and resident development programs. Educate teams on how to recognize and address all forms of mistreatment. 	Low to Moderate
Curricular Factors relating to formal and educational experiences, and includes a process of learner assessment and feedback. Hidden curriculum is part of this domain, although this overlaps with other domains.	Cultural humility, inclusivity, and belonging	<ul style="list-style-type: none"> Include DEI in the curriculum objectives. Be intentional with the use of race, gender and sexual identity in teaching cases and materials. Do not use race routinely in the HPI. If race or ancestry is relevant to the case, it may be discussed in the social history, or in family history. Teach how to ask about an individual's self-identified racial, ethnic, gender and sexual identities, preferred language, and accommodations used or needed. Teach and model use of preferred name, pronunciation, and pronouns in classroom and clinical settings. Acknowledge the current controversies in race-based medicine practice such as the use of race in clinical algorithms and study interpretation. 	High

Table (Continued)

AAIM Conceptual Model Domain and Definition	Suggested Topics	Recommendations for Clerkship and Medical Education Leaders: Clerkship and Other Medical Education Leaders Should Collaborate to Develop and Implement Action Plans, as Inequities in the CCLE are Not Isolated to Core Clerkships	Feasibility (High, Moderate, Low) of Implementation Led by Clerkship Director*
Structural The organizational, programmatic, and physical context within which clinical learning occurs. Components can be specific to the local CCLE, or may be externally defined.	Use of certified interpreters	<ul style="list-style-type: none"> • Recommend teams work with assigned certified interpreters. Discourage using students as ad-hoc interpreters. • Allow certified student interpreters to volunteer to interpret for team patients (opt-in approach). • Encourage all students to work with patients with limited English proficiency and to utilize interpretive services. 	High
	Faculty educational opportunities: Mitigating the effect of “minority tax” and “affinity bias”	<ul style="list-style-type: none"> • Create a “request for application” (RFA) process for all clerkship teaching and mentoring opportunities. The RFA should include a description of the opportunity and selection criteria and should be disseminated widely within relevant settings. • Be deliberate in recruitment and hiring efforts and intentionally include UIM faculty as educators for all clerkship topics, not exclusively DEI topics. 	High
	Educational continuous quality improvement	<ul style="list-style-type: none"> • Regularly review school-collected data that relates to the CCLE and equity and inclusion, as part of the annual clerkship review. • Seek out additional verbal feedback from students through non-evaluating staff or faculty, as formal course evaluations may not capture inequitable learning experiences. • Build centrally-supported, anonymous reporting mechanisms to gather student reports about the CCLE and mistreatment. 	Moderate to High

Adapted from Table 2 of Jaffe et al, 2019.2

AAIM = Alliance for Academic Internal Medicine; DEI = diversity, equity, and inclusion; HPI = history of present illness; UIM = underrepresented in medicine.

*High feasibility: Multiple resources already exist and can be readily adapted, that is, Clerkship Directors can implement on their own, with minimal need to develop new content; Low feasibility: Fewer resources exist and may require more content development with external groups, for example, central medical school or hospital system leadership, content experts.

- “Great point! The whole team should hear that. Can you bring it up on rounds tomorrow?”
- “I’m not sure we’re following the guideline correctly. Let’s check together.”

Recognizing Implicit Bias and Addressing Mistreatment

Implicit bias refers to attitudes or stereotypes that unconsciously affect our understanding, actions, and decisions. They can be difficult to recognize, acknowledge, and manage, and can have negative consequences on the CCLE, learners and faculty, clinical decision-making, and quality of care.^{16,17} When faculty and learners confront their own biases¹⁸ and understand the sociocultural context for their biases, they can foster mutual understanding and respect, as well as unlearn stereotypes.¹⁹

Mistreatment encompasses microaggressions (the subtle, intentional or unintentional, insults or behaviors against a member of a historically marginalized group) and macroaggressions (the overt aggressions and discrimination against a member of a historically marginalized group).²⁰ Microaggressions in the CCLE can cause psychological distress, depression, and anxiety²¹ by, for example, triggering stereotype threat and increased cognitive load.⁵ Mistreatment from patients also affects emotional well-being and detracts from the CCLE.²² Students have described uncertainty about how to respond to these encounters.²²

Recommendations

- Incorporate implicit bias recognition and management training in faculty and resident development programs.
- Key features include creating a safe learning context; increasing knowledge about the science of implicit bias; emphasizing how implicit bias influences behaviors and patient outcomes; increasing self-awareness of existing biases; improving conscious efforts to overcome implicit bias; and enhancing awareness of how bias influences others.^{18,23}
- Educate teams on how to recognize and address all forms of mistreatment. Consider preemptively asking students their preferences in how to manage situations of mistreatment, including individual or team debriefs and support for the student, or no debriefs.^{24,25} This approach promotes psychological safety and empowers the student.²⁴ Include this information in team orientation e-mails for wide dissemination

and review it at annual resident and faculty meetings.

CURRICULAR

Cultural Humility, Inclusivity, and Belonging

Although educators have long used cultural competency as a framework for education about race, culture, and social determinants of health, there is growing recognition that this framework may have the unintended consequence of propagating stereotypes.²⁶ Educators are therefore reframing the competency as cultural humility, reflecting a more self-aware and inclusive perspective. A review of clerkship teaching cases identified 6 common mistakes faculty make when using race and culture in teaching materials.²⁷ They include using race as a genetic risk factor without acknowledging the social and structural causes of disparities; associating disease with individual behaviors without providing the context of social and structural factors; describing patients using reductionist and essentialist portrayals of non-Western cultures and people of color; ignoring or portraying a sense of futility in addressing social and structural causes of disease and illness; developing cases that lack critical reflection on health disparities and implicit bias; and not portraying minority identities among faculty, students, and patients that accurately reflect the current US population.²⁷ Inclusion of education on gender, sex, and sexuality is also critical for promoting equity in medical education.²⁸

Recommendations

- Include diversity, equity, and inclusion (DEI) in clerkship curricular objectives. For example, include the Association of American Medical Colleges core Entrustable Professional Activity 5.5: “Demonstrates sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.”²⁹
- Be intentional with the use of race, gender, and sexual identity in teaching cases and materials. Several evidence-based resources exist to guide this process.^{27,30} To identify potential bias when reviewing/writing a case, ask 3 things: does the case involve a patient of color or minority culture; is attribution of a patient’s health belief or practice made to cultural values, beliefs, or practices; and is guidance provided on how to approach minority patients (based on their “unique belief systems” as a group)? If the answer is yes, consider editing to mitigate bias.

- Do not use race routinely in the history of present illness. If race or ancestry is relevant to the case, it may be discussed in the social history or in family history.^{31,32}
- Teach how to ask about an individual's self-identified racial, ethnic, gender, and sexual identities,³³ preferred language, and accommodations used or needed.
- Teach and role model use of preferred name, pronunciation, and pronouns in orientation, classroom, and clinical settings.²⁸
- Acknowledge the current controversies in race-based medicine practice such as the use of race in clinical algorithms (atherosclerotic cardiovascular disease risk) and study interpretation (kidney function and pulmonary function tests).³⁴ For example, state that there is a widespread current discussion about race-based medical practice, and that it is important and it is evolving.³⁵
- Contextualize group differences in disease/illness burden by identifying social determinants of health and racism rather than race as risk factors for illness.^{31,36}

STRUCTURAL

Use of Certified Interpreters

Professional interpreters have been shown to improve the care for patients with limited English proficiency (LEP) in the areas of communication (errors and comprehension), utilization (shorter length of stay and lower readmission rates), clinical outcomes, and satisfaction.^{37,38} Professional interpretation services are required by law at any institution receiving federal funding (Title VI of the Civil Right Act and the Executive Order 13166).³⁹

Students who speak a second language may be asked to interpret for patients with LEP even when not fluent or certified.⁴⁰ Use of ad hoc interpreters has been demonstrated to compromise patient safety and patient care.⁴¹ While interpreting can be an opportunity for students to contribute to patient care, it can detract from their role as a learner. Maintaining a distinction between their clinical and interpreter roles can be challenging and can introduce inequities.⁴²

Recommendations

- Recommend teams work with certified interpreters. Discourage using students as ad hoc interpreters. Add this information to team orientation e-mails for wide dissemination to students and supervising physicians.
- Allow certified student interpreters to volunteer to interpret for team patients (opt-in approach). Supervisors should not ask students to interpret for

multiple patients because it may detract from their role as a learner.

- Encourage all students to work with patients with LEP and to utilize interpretive services.

Faculty Educational Opportunities: Mitigating the Effect of Minority Tax and Affinity Bias

Faculty from UIM groups are often asked to take on extra responsibilities in medical education, for example, mentoring UIM learners or teaching DEI-related concepts. While many UIM faculty may take pride in contributing to DEI efforts, they are often not compensated or given time to support their efforts, which has been described as a "minority tax."⁴³

Educational leaders may be prone to affinity bias, the unconscious favoring of faculty with shared connections or backgrounds.⁴⁴ This bias may cause leaders to preferentially offer educational opportunities and possible career advancement to certain faculty members.

Recommendations

- Create a "request for application" process for all clerkship teaching and mentoring opportunities. This request should include a description of the opportunity and selection criteria and should be disseminated widely within relevant settings.
- Be deliberate in recruitment and hiring efforts and intentionally include UIM faculty as educators for all clerkship topics, not exclusively DEI topics.

Educational Continuous Quality Improvement

Adopting a culture of quality improvement (QI) means shifting focus from individual blame to system responsibility.⁴⁵ The educational continuous QI process includes monitoring programmatic variables related to identity to evaluate for differences between groups and a review of mistreatment reports submitted by students to assess for bias-related events and opportunity for action.⁴⁶⁻⁴⁸ It is critical to adopt an approach of system responsibility to support psychological safety and encourage growth mindset in supervisors.

Recommendations

- Build anonymous reporting mechanisms to gather student reports about the CCLE and mistreatment, such as an automated process that reviews anonymous course evaluation comments for reports of bias.^{48,49}
- Review school-collected quantitative and qualitative data on variables that relate to the CCLE and equity

and inclusion as part of the annual clerkship review process (eg, metrics that could be related to an inequitable learning environment). Utilize QI techniques to address data systematically. Metrics could include differences in numerical performance and grades by certain demographics. Other data can include the number and type of mistreatment experiences reported by students or a review of student satisfaction with the clerkship to identify areas of concern.

- Seek out additional verbal feedback from students through non-evaluating staff or faculty because formal course evaluations may not capture inequitable learning experiences.

CONCLUSION

In this article, AAIM describes evidence-based recommendations to address inequities in the CCLE using our conceptual model as a framework. The Alliance believes that clerkship leaders and other medical education leaders can partner together to address and implement strategies to promote equity in the CCLE.

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