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Emerging Concepts

The Clinical Learning Environment in CanMEDS 2025

L'environnement d'apprentissage clinique dans CanMEDS 2025

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Introduction

The Clinical Learning Environment (CLE) is a multi-faceted concept that is currently underrepresented in the CanMEDS physician competency framework.[1] Healthcare environments are built on the foundational tenet of person and relationship-centered care, and we must reflect upon how the concurrent objectives of delivering patient care and implementing educational programs may compete for the attention of learners and faculty. Exploration of these tensions will enable the design and implementation of interventions that are responsive to the needs of all citizens in the learning environment including patients, families, communities, and the healthcare workforce, including learners.

Hierarchies and power asymmetries are pervasive elements of healthcare systems, and the CLE more broadly, that require further attention[2]. Like two sides of the same coin, how interventions are designed within the CLE, can foster functional or dysfunctional teams and healthcare delivery. Creating inclusive, psychologically safe healthcare environments ensures improved patient safety and experience, supportive team dynamics, and professional development for learners and all members of the team; CanMEDS must reflect these objectives.

What is the Clinical Learning Environment and why is it important to physician competency?

The CLE has been defined as "…social interactions, organizational cultures and structures, and physical and virtual spaces that surround and shape participants' experiences, perceptions, and learning."[3] Other definitions reference "the overlapping space between the work environment…and the educational context."[4] These definitions span the learner continuum (undergraduate, postgraduate, and continuing medical education) as well as contexts of care, and consider all aspects of the CLE including architectural boundaries, digital spaces, sociocultural aspects, educational curricula, diversity and inclusion, psychological theories of learning, and communities of practice.[5] These definitions cast the CLE as a complex overarching structure–one that influences the norms, behaviours, and unspoken codes of conduct that touch on all CanMEDS competencies. The interpersonal is tightly linked with the systemic: people inform and create norms, while systems in turn, enable and influence behaviours. Therefore, acknowledging the CLE as an enabler of all CanMEDS 2025 competencies is critical to ensuring that individuals appreciate how they may influence healthcare and medical training programs, and how these programs, in turn, shape all members of the healthcare workforce.

Patient safety, learner experience, the need for public trust, and calls for increased accountability within the healthcare system (and across society, more generally) are the impetuses for a critical and ongoing examination of the

CLE. Policy changes have resulted from patient safety incidents[5] and subsequent advocacy for improvement in postgraduate medical training environments;[6] community-based movements have put a spotlight on persisting inequities in healthcare and medical education.

The literature has described how overlapping systems of oppression are upheld directly through medical curricula[7,8,9] and are perpetuated by a hidden curriculum that allows and even enables disrespect, exclusion, racism,[10] and mistreatment. The many power asymmetries that exist in academic medicine, both through the inherently hierarchical nature of medical training but also through societal axes of oppression, influence every learner interaction. The high prevalence of intimidation, discrimination, and harassment faced by medical learners and faculty[11,12] reminds us that the CLE is largely socially constructed, and it is our moral and fiduciary responsibility to shape and change it. Learners and faculty alike have the potential to be positive change agents and contribute meaningfully to the CLE.

Various evidence-based measures of the CLE have been published.[4,13] The Accreditation Council for Graduate Medical Education has already incorporated formal review of the CLE into their accreditation processes–a review process, known as the Clinical Learning Environment Review (CLER) Program, provides insight into both the status of American accredited institutions' CLEs and future practice styles of their graduates[4]. Similarly, the Canadian Residency Accreditation Consortium has also prioritized acknowledging and integrating equity, diversity, inclusion, and other learning environment considerations directly into the postgraduate medical education accreditation process.[14] This speaks to the need for the CLE to be formally acknowledged within CanMEDS 2025, bringing the physician competency framework into alignment with accreditation standards.

How is the Clinical Learning Environment represented in the 2015 CanMEDS competency framework?

Our working group identified CLE-specific Enabling Competencies within the Scholar, Leader, and Professional Roles (Table 1A and 1B). Since the 2015 CanMEDS framework was drafted, there have been increased calls for accountability across Canadian society related to community-based movements such as #MeToo, #BlackLivesMatter, and Truth and Reconciliation, among others. These movements have direct relevance to healthcare as they reflect lived experiences of healthcare teams and, importantly, patients, families, and communities. Historically, although consideration has been given to the social dimensions of the CLE, greater interrogation of the role that power, privilege, and social location play in enabling or disrupting the norms that comprise the CLE is required. Understanding the CLE, and how physicians and other health care providers shape it through their every action (and inaction), will require updates to competencies across multiple CanMEDS Roles.

How can the Clinical Learning Environment be better represented within the 2025 CanMEDS competency framework?

There is room to more directly incorporate concepts that are central to the CLE in the forthcoming CanMEDS 2025 revisions (Table 1C). While we acknowledge that the CLE is not a 'skill' in the traditional sense, it frames notions of psychological safety, cultural humility, and institutional culture change that other CanMEDS competencies would support.

Psychological safety can be defined as "the degree to which learners…perceive their work environment as conducive to engaging in behaviours that have inherent intrapersonal risk."[15] Psychologically safe learning environments have positive impacts on learning, communication, team cohesion, collaboration, patient experiences, and outcomes.[16,17,18] Being explicit about fostering psychological safety is critically important to promoting a growth mindset,[8] a characteristic that is necessary in competency-based training[19] and contrasts with the shame-based teaching approaches that remain pervasive in medicine.[8]

Table 1. Clinical Learning Environment competencies for the CanMEDS physician competency framework.

A. CanMEDS 2015 Competencies directly applicable to Clinical Learning Environment	
Scholar 2.1 Recognize the influence of role-modeling and the impact of the formal, informal, and hidden curriculum on learners Scholar 2.2 Promote a safe learning environment Scholar 2.3 Ensure patient safety is maintained when learners are involved Scholar 2.6 Assess and evaluate learners, teachers, and programs in an educationally appropriate manner Leader 1.2 Contribute to a culture that promotes patient safety Professional 4.3 Promote a culture that recognizes, supports, and responds effectively to colleagues in need	
B. CanMEDS 2015 Competencies partially related to Clinical Learning Environment	
Scholar 2.5 Provide feedback to enhance learning and performance Leader 3.2 Facilitate change in health care to enhance services and outcomes Professional 1.1 Exhibit appropriate professional behaviours and relationships in all aspects of practice, demonstrating honesty, integrity, humility, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality Professional 1.4 Recognize and manage conflicts of interest Professional 1.5 Exhibit professional behaviours in the use of technology-enabled communication Professional 4.1 Exhibit self-awareness and manage influences on personal well-being and professional performance	
C. Suggested additions or modifications for the CanMEDS 2025 Framework related to Clinical Learning Environment	
New or Modified Competency	Rationale for change
Leader	
1.5 (New): Purposefully co-design learning environments that promote psychological safety and a sense of belonging	Learners, academic clinicians, and community clinicians alike must be partners in identifying, implementing, and evaluating ways to cultivate psychological safety in the CLE.
3.3 (New): Commit to culture change in ensuring a diverse, inclusive healthcare workforce that is representative of, and responsive to, the needs of communities and the diverse Canadian population.	Transforming our CLE will require substantial culture change including a commitment to narrowing the representation gap and ensuring that everyone is supported to thrive in the CLE.
Scholar	
1.4 (New): Participate in continuing medical education with attention to the role of power and privilege in clinical learning environments.	Understanding the role of power and privilege and how it manifests in the CLE must be a core competency for all clinicians.
1.5 (New): Commit to a growth mindset that involves expressing humility and curiosity, and taking responsibility for, and learning from, one's mistakes.	A growth mindset is important for competency-based training and can be fostered or inhibited by the CLE.
3.6 (New): Use trauma-informed approaches in patient care, teaching, research, innovation, administration, and leadership.	Recognizing the diverse manifestations of trauma within the CLE should inform one's approach to creating safety, choice, collaboration, trustworthiness, and empowerment, with the aim of actively minimizing the re-traumatization of patients, families, learners, and all members of the healthcare team.
2.7 (New): Co-create a welcoming, supportive, and inclusive learning and working environment with individuals from all social identities and intersections	Authentic inclusivity requires celebrating diversity and recognizing the impact of differences not only between social identities but within them.
2.2 (Modified): Promote a psychologically safe learning environment	Our collective understanding of "safety" has evolved, and psychological safety must be explicitly recognized given its impact upon patient safety, team dynamics, and learning.
2.6 (Modified): Assess and evaluate learners, teachers, and programs in a culturally sensitive, psychologically safe, and educationally appropriate manner	Systems for assessment and evaluation need to be reimagined to ensure that they foster growth and inclusion and mitigate the impact of implicit bias.
3,5 (New): Practice anti-racism within teams and in the delivery of patient care	Physicians must develop the skills to actively combat racism in the CLE, in solidarity with affected communities.
Professional	
2.3 (New): Practice cultural humility, which involves building self-awareness, reflection, and critique, embracing the expertise of others (especially those with lived experiences), and building trust-based relationships.	Cultural humility is an essential skill in ensuring that the CLE serves everyone.

Cultural humility reflects a lifelong commitment to self-reflection and critique. It involves cultivating an awareness of one's social location, recognizing one's limitations in fully understanding the experiences of others, viewing others as experts of their own experiences, and fostering trust-based relationships.[20] Cultural humility involves developing knowledge, skills, and attitudes grounded in anti-racism and trauma-informed approaches, with commitment to ongoing learning and unlearning.

Finally, we all have a collective responsibility to be intentional about building and supporting a healthcare workforce that is representative of, and responsive to, the needs of our diverse population. This goal requires all healthcare providers to be part of creating institutional

culture change to create environments in which the current representation gap is eliminated, and everyone feels like they belong.

The tendency to view the CLE as an apolitical entity has been to the detriment of academic medicine's ability to meet the needs of the learners, teachers, patients, families, and communities that we serve today. CanMEDS 2025 offers us an opportunity to bring much needed nuance to how we think about the CLE and how we proactively support the acquisition and maintenance of the competencies needed to ensure inclusive and psychologically safe environments for all and most importantly, the best possible experiences and outcomes for our patients, families, and communities. Given its wide-reaching scope, the CLE will naturally touch on all the CanMEDS competencies, and we anticipate overlap in our recommendations with other working groups. The importance of select competencies will be readily identified by observing how they are amplified or converge across working group efforts.

As a self-regulating profession, we must hold both learners and faculty accountable to these re-imagined competencies relating to the CLE. This accountability will require resources for designing, implementing, and evaluating how these competencies are acquired, practiced, and taught.

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