

## Inclusive learning environments in medicine: a protocol on scoping what we know

### Environnements d'apprentissage inclusifs en médecine : un protocole sur l'état des connaissances

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Published ahead of issue: Jan 13, 2025. CMEJ 2025 Available at <https://doi.org/10.36834/cmej.79360>

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## Introduction

Health advocacy and issues on equity, diversity, and inclusion (EDI) have been increasingly more important in discussions within medical education. Accreditation bodies in the United States and Canada have been working towards integrating these EDI principles and practices within program and institutional requirements.<sup>1-3</sup> The literature emphasizes that a broader diversity of learners and teachers in clinical learning environments, along with a thorough understanding of social determinants of health, enhances the quality of care provided to the population and reduces inequality in access to healthcare.<sup>4-5</sup> Issues involving EDI principles and health advocacy are particularly present in key moments of medical training, including admission into medical school, residency application, postgraduate training as well as career plans. Furthermore, these issues are particularly important in clinical learning environments as learners encounter inequities affecting not only themselves but also their colleagues and their patients. Despite the known positive impacts of increasing diversity within the medical workforce, there remains a significant gap and contrast between the diversity of healthcare professionals and the diversity of patient populations they treat.<sup>6</sup> Therefore, it is vital to optimize inclusion within clinical learning environments to ensure having more physicians and teachers who are underrepresented in medicine (URIM).

We conducted a preliminary literature search (ERIC, Medline, Education Source, Academic Search Complete, APA PsycInfo) to better assess the current state of EDI concepts within medical learning environments. We found that, to address these important issues, there is an increasing number of local and larger-scale initiatives aiming to integrate EDI principles and practices within medical education.<sup>7-10</sup> As such, our research's purpose is to outline how health advocacy and EDI concepts are integrated within clinical learning environments, as well as to better understand facilitating factors and obstacles to the creation of an inclusive learning environment.

## Methods

We are conducting a scoping review to paint the portrait of how EDI concepts are integrated within clinical learning environments. We chose the scoping review format because it is a structured framework to conduct this knowledge synthesis. This approach allows us to collect and present existing literature about our research question while including an analytic reinterpretation of the literature.<sup>11</sup> Furthermore, it is particularly useful to scope the ever-increasing literature on this important topic to better identify gaps and inform future research.

We used the methodological framework developed by Arksey and O'Malley (2005)<sup>12</sup> as well as Levac et al. (2010),<sup>13</sup> which includes the following six steps.

### Step 1. Defining the research question

What do we know about the operationalization of EDI concepts in clinical learning environments in medicine?

### Step 2. Identifying relevant literature

We will consult an academic librarian and develop a search strategy using keywords related to EDI and clinical contexts within medicine. We will test and refine our strategy using the keywords in Table 1 to ensure the most comprehensive and pertinent literature review.

Table 1. Search strategy and databases

Concept 1: Learning	Concept 2: EDI	Concept 3: Medicine
In Title, Abstract, and Keywords: "residency" OR gme OR pgme OR "postgraduate medical education" OR "post-graduate medical education" OR "graduate medical education" OR "undergraduate*" OR undergraduate* OR clerk*	In title and Keywords: inclus* OR equit* OR diversit* OR inequ* OR "cultural competenc*" OR EDI OR DEI OR "implicit bias" OR "unconscious bias" OR URIM OR UIM OR underrepresent* OR minorit*	In Title, Abstract, and Keywords: medicine OR physician*
Database: Scopus, ProQuest, Medline with full text, ERIC, PsycInfo, Education source, Academic Search Complete. Date range - 2015 to 2023		

For the next two stages, we ensure that two team members select the articles and perform data charting using a consensus-based approach to ensure a rigorous process. Therefore, we will carry out the following tasks through steps three and four: co-coding a set number of articles, comparing decisions, and reviewing our processes.

### Step 3. Selecting the literature

We will identify inclusion and exclusion criteria to select the relevant research articles. We will include original articles in English or French published after 2015. Both researchers will first review every article based on its title and abstract using a consensus-based approach. In the second phase of the screening process, we will then review full-text articles.

### Step 4. Data charting

We will extract relevant data such as publication year, country of origin, target population, clinical contexts, operationalization of EDI processes, curriculum content and implementation, facilitators, and challenges. Three members of our team will review the same ten articles and compare their extracted data. Then, the same three members will carry on the data charting, and uncertainties

will be discussed by the entire research team through an iterative process.

### Step 5. Analyzing and reporting the results

We will analyze our data using thematic analysis.<sup>14</sup> We will use the PRISMA extension for scoping reviews to record and report our final scoping results.<sup>15</sup>

### Step 6. Discussing results with knowledge users through consultation

We will conduct two 90-minute group discussions with an advisory committee of stakeholders, including leaders in medical education, residents, and faculty members at the Université de Sherbrooke. This process informs the decisions to be made regarding the relevance of our results and how these can be considered for inclusive learning environments in various residency programs and at the institutional level. We will obtain research ethics approval for this step.

## Summary

This study will help advance our understanding of EDI in clinical learning environments. Our findings may serve as a springboard to inform dialogue around the renewal of the CanMEDS 2026 framework.<sup>2</sup> This study will address a knowledge gap specifically related to the integration of EDI for both residency programs and faculties. This work could also facilitate the implementation of new EDI-oriented accreditation standards.<sup>16</sup>

**Funding:** This article draws funding from the Société des Médecins de l'Université de Sherbrooke (Fonds de développement pédagogique 2023). Through this process, our research protocol was peer-reviewed.

**Conflicts of Interest:** TD and CS are on the *Canadian Medical Education Journal* editorial board. None were involved in any decision regarding this manuscript. All other authors report no conflicts of interest.

**Acknowledgements:** The authors wish to thank two research assistants, Charlotte Boilard and Anaelle Moreau, for their contributions during the early stages of the scoping methodology. The authors also want to thank the team of academic librarians at the Université de Sherbrooke.

**Edited by:** Marcel D'Eon (editor-in-chief)

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Published ahead of time