

Closing Editorial: New Advancements in Medical Education

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The Special Issue “New Advancements in Medical Education” was intended to create a compilation of ideas on how medical education is preparing to keep up with a changing world. This world is, on the one hand, characterized by multiple healthcare-related issues, such as a graying population, fragmented care models, and persistent societal inequalities [1]; on the other hand, it is marked by the continuous emergence of new fields and approaches aimed at addressing these issues. These developments are reflected in innovations such as community-engaged learning, increased attention to diversity and inclusion, interprofessional education, and the rise in generative artificial intelligence (AI). A central insight emerging from this Special Issue is that preparing future healthcare professionals requires competencies that extend far beyond disciplinary expertise.

The first important theme concerns equity, diversity, and wellbeing. Cruickshank et al. (2026) explore student perceptions of admission pathways for Black and Indigenous applicants, revealing both support for diversity initiatives and concerns regarding fairness and transparency [2]. This highlights the ongoing tension between widening participation and maintaining trust in selection processes. In parallel, Dietzsch and colleagues (2026) address the topic of physician wellbeing [3]. Amidst the rising incidence of physician burnout [4], the authors argue that supporting the wellbeing of healthcare professionals is essential for sustainable healthcare systems. Together, these contributions draw attention to issues that are often acknowledged at a surface level yet continue to shape how medical education is designed and experienced.

Another major theme that emerged in this Special Issue is the growing presence of AI, which introduces both opportunities and tensions [5–10]. Several contributions explore how AI can enhance learning through simulation, assessment, and access to practice opportunities. For example, virtual patients powered by large language models can support the development of communication skills [8], while AI-generated assessments may offer scalable alternatives to traditional resources [10]. Broader applications of AI in medical education, including personalized learning and decision support, are also highlighted [5]. Yet, these advancements are accompanied by concerns regarding trust or ethics [6], as well as the potential erosion of critical thinking [7]. These papers acknowledge the potential of AI in improving medical education, but they also warrant careful integration in ways that preserve human judgment, agency, and responsibility.

Educational approaches in this Special Issue increasingly point toward the importance of authentic learning environments [11] as a response to the complexities of contemporary healthcare. These environments take different, yet complementary forms. Community-engaged learning situates students within societal contexts, where they engage with patients and community partners, fostering the development of empathy, leadership, and a deeper understanding of the social dimensions of health [12]. This complements the knowledge students gather from textbooks or clinical practice. In parallel, interprofessional learning focuses on collaboration across professional boundaries, preparing students to function



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effectively within team-based healthcare systems and strengthening mutual understanding of roles and responsibilities [13–15]. Simulation-based learning, including high-fidelity environments, provides structured opportunities to practice clinical skills in safe yet realistic settings [9]. Interestingly, many studies used virtual learning environments [8,13], demonstrating how such approaches can expand access and enable collaboration across distances.

Finally, this Special Issue also highlights the importance of strengthening the academic dimension of the medical profession by preparing undergraduate students to become adept in research. Ong et al. (2024) show that sustained engagement in research during medical training is associated with increased academic productivity after graduation [16]. This is particularly relevant in a context where access to knowledge is rapidly expanding; future physicians are expected to navigate and apply existing evidence but also to contribute towards advancing the field.

The contributions of this Special Issue demonstrate how medical educators from diverse contexts are responding to contemporary healthcare challenges and applying evolving technologies to address them. Technology can support this process, provided it is applied in an ethical and conscious manner. At the same time, these developments invite a more critical reflection. Many approaches remain situated at the level of individual courses or tools, leaving open the question of how they contribute to coherent educational trajectories. Moreover, the increasing reliance on technology and structured learning environments may inadvertently obscure the importance of uncertainty, relational learning, and informal interactions that characterize real-world practice. Additionally, the geographical distribution of contributions highlights ongoing disparities in global knowledge production, with certain regions remaining underrepresented in medical education scholarship [17]. Against this backdrop, this collection contributes to ongoing conversations about how medical education can remain responsive to the changing world it serves, while also calling for continued efforts to embrace complexity and strengthen the inclusion of diverse and global perspectives within medical education research and practice.

Conflicts of Interest: The author declares no conflict of interest.

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