

The Mythology of Competence in Medical Education

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The Competent Educator

“See one, do one, teach one.” We have all heard it, uttered it. The message is enticing to a medical learner—both daunting and empowering. Are medical knowledge and skill so tangible and easily transferred? The idea defies personal experiences of hard-won knowledge, and yet there is something to it. Even as learners, there are valuable things to share with one’s peers or patients. This “teaching” becomes part of a developing sense of competence. Competent clinicians have seen things, can do things, and can teach them to others. But for the medical educator, competence can represent both aspiration and anchor.

This special issue of *WMJ* presents novel health professions educational approaches and innovations. We offer the frameworks below to readers as lenses through which to consider the issue and its potential to fuel their growth as educators.

The Competency-Based Educator

The competency-based medical education (CBME) movement has recently produced a

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variety of frameworks, such as Accreditation Council for Graduate Medical Education (ACGME) Milestones¹ and entrustable professional activities (EPAs),² which identify professional activities and their expected developmental path. CBME views development as

continuing over time, compared to the finite mastery of “see one, do one, teach one.” Mahan et al³ developed the Clinical Educator Milestones (CEMs), a competency-based framework for medical educators. CEMs highlight continuous development with this universal pillar: “Demonstrate the commitment to lifelong learning and enhancing one’s own behaviors as a clinician educator.”

Unfortunately, many health professionals have limited opportunities to develop substantially as medical educators. Health professions education institutions dedicate far less resources to developing the learner’s capacity to “teach,” rather than to “see” and “do” medicine.⁴ While medical learners are often placed in teaching roles, they are less frequently provided with formal training in teaching methods or theories.^{4,6} What is offered ranges widely, lacks consensus on content or approach, and is often optional.⁶ Medical learners largely enjoy

teaching and are motivated to improve their teaching skills, often seeking informal development opportunities such as feedback from learners and mentors or by observing others’ approaches.⁷ However, without robust formal training, they may rely on their own experi-

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ences as students to guide them. The resulting teaching can vary widely in approach and effectiveness. Faculty expect this teaching to be sufficient to help junior learners prepare for rounds, to identify and share new information, to provide feedback, to assist in evaluations, and to fulfill other critical roles.^{6,8} While longitudinal teaching development programs for medical students exist,⁶ support in the continual development of teaching skills is inconsistent. Unfortunately, this “competent” teaching is vulnerable to breaking down when the dynamic context of medical education shifts, as it often does, from one learner, circumstance, format, or generation to the next.

Practicing clinicians—no matter their credentials, specialty, or practice environment—are highly sought after to educate all manner of medical learners. While many enjoy teaching, there are persistent challenges with time constraints, lack of appropriate com-

pensation or recognition, and inadequate support.⁹ In short, these individuals are very busy. Academic institutions seek to support volunteer preceptors in many ways, including providing continuing medical education (CME) around teaching skills and direct mentorship and support to help develop preceptor skill and efficiency. Anecdotally, community preceptors who engage more in teaching skill development activities experience more fulfillment from teaching and less burden from time constraints. Given the irreplaceable value these clinical teachers provide, it is critical to support their continued development as educators.

Those who enter academic roles are more likely to center teaching in their professional identity. In addition to being clinical teachers, they are expected to occupy roles such as advisor, mentor, didactic instructor, small group facilitator, and education scholar. To address this diversity of skills, academic clinicians are more likely to encounter training in teaching methods through faculty development programs, membership in education-focused professional societies, CME, and mentorship. But the mythology of competence acts here as well. There is a focus on ensuring new faculty are able to fulfill the common teaching roles expected of those joining the roster of academic clinicians. After they achieve this reputation and a place on the schedule, continued development in teaching skills is variable. After all, they must also focus on their evolving clinical, research, community engagement, and/or leadership roles. Teaching skills may therefore be suspended in a moderately developed state, vulnerable to the evolving needs of learners.

The Evolving Educator

Modern medical education demands a transformation in the educator's role. The image of a traditional educator has long been that of an authoritative figure delivering knowledge to passive recipients, a teaching style familiar to many academic physicians.¹⁰ This model emerged from an era when expertise was scarce and information was centralized, with educators at the core of the learning process serving primarily to relay informa-

tion to students. In medicine, this structure aligned with the apprenticeship model of clinical training, where an experienced clinician transmitted knowledge to the novice.¹¹ While this conventional approach develops technical competence and has long been used, it leaves minimal space for critical inquiry, creative exploration, and reflective growth in the learner—all essential elements in modern medical practice.

An evolving educator is crucial in current medical training. With rapidly evolving health care systems, clinicians today must not only master established protocols but also adapt to new technologies and patient-centered approaches to care. The evolving educator embraces transformation as a continuous state and remains responsive to changing contexts, technologies, and learner needs, ultimately taking on the identity of a co-learning collaborator rather than a content expert.¹² Active learning, problem-based approaches, outcome-based education, and simulation have emerged as central tools with the evolution of medical education.¹⁰ These methods allow learners to engage directly with uncertainty, test and refine their reasoning, and bridge gaps between abstract knowledge and lived experiences. In modern medical learning environments, the educator must design conditions for deep learning while modeling curiosity, humility, and adaptability.¹⁰

In today's learning environment, student wellness is emphasized, and learners no longer rely on the educator solely for information.¹⁰ Instead, they come with access to digital resources, artificial intelligence tools, and open platforms for knowledge exchange.¹³ The educator's role has shifted from content delivery expert to mentor, guiding learners through flexible opportunities to synthesize, apply, and contextualize information in authentic and adaptive ways.^{10,14} The evolving educator is now a facilitator for change, helping learners build frameworks for lifelong learning and navigating the ethical and human dimensions of practice.

The Technological Educator

Humans are naturally attracted to novelty. With technological advancements, the contempo-

rary educator must keep up. Technology integration into medical education has expanded the possibilities for education delivery methods. Artificial intelligence, virtual health care, mobile and wearable technologies, and adaptive learning platforms have redefined what is possible in medicine and medical education.¹² These powerful tools minimize administrative burden, allow for personalized learning plans, and generate data-driven insights on how learning occurs and where it can improve.^{13,15} For the educator, this new ground involving the use of chatbots and simulation-based learning offers the capacity to design individualized and interactive learning experiences that were once unimaginable.

Yet with this opportunity comes the responsibility to preserve the humanistic values that define medicine. Compassion, professionalism, and patient-centered care remain at the heart of what we hope to model and instill in students.¹⁰ The technological educator must balance innovation with intention, ensuring technology serves not as a substitute for human connection, but rather as a means of enhancing it.¹³ Inclusion is central to this balance, and the integration of these tools without diminishing empathy and ethical reasoning is vital.¹⁶ Technology should not only expand access but also promote equity in how learning occurs, how success is measured, and how institutional culture evolves. Creating inclusive curricula, fair assessments, and supportive learning environments requires deliberate design and ongoing reflection.¹³ Mentorship plays an important role here, functioning as a professional framework that develops future educators who can themselves navigate the balance between technological advancement and humanistic medicine.¹⁷

In this new educational era, the technological educator must resist implementing innovation without a proper foundation and ensure that educational practice stays anchored in theory, scholarship, and rigorous quality improvement. Even though technology transforms teaching methods, effective learning should remain rooted in human connection, reflection, and guided discovery.¹⁴

Conclusions

The potential of a medical educator need not be defined by mastery alone, but by movement between knowledge and curiosity, between tradition and transformation, and between the enduring human connection of teaching and the expanding horizon of technological possibility. Competence anchors a medical educator, while evolution and innovation permit them to reach the sky.

Financial disclosures: None declared.

Funding/support: None declared.

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WMJ

WMJ (ISSN 2379-3961) is published through a collaboration between The Medical College of Wisconsin and The University of Wisconsin School of Medicine and Public Health. The mission of *WMJ* is to provide an opportunity to publish original research, case reports, review articles, and essays about current medical and public health issues.

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