Episode 4: Rethinking Assessment of Clinical Competence in the Age of AI (Part 2)

Featuring Eric Holmboe, MD

In Part 2 of this conversation, host Leslie Fall, MD ,continues with Eric Holmboe, MD, CEO of Intealth, turning to a question that sits at the heart of competency-based education: Why did it take so long to prioritize direct observation of patient care alongside knowledge exams? Dr. Holmboe traces the history from the oral exams of the 1960s and 70s through early efforts like the clinical evaluation exercise and the mini-CEX, explaining how faculty long relied on proxies, such as a polished case presentation, to infer clinical skills. He describes how the patient safety and patient-centeredness movements, along with a growing evidence base in areas like communication science, built the case for watching learners with real patients. He also credits nursing and other health professions for expertise medicine is just now starting to adopt, noting that the harmonized milestones were deliberately written to be interprofessional.

The conversation then turns to what is working and what still isn't. Dr. Holmboe points to real progress, from the visibility the competencies gave to care coordination and teamwork, to stronger research on programmatic assessment, and the factors shaping a learner's trajectory. But he is just as clear about the work ahead. Drawing on research showing that program effects still matter significantly, he challenges educators to look beyond proving that an assessment is valid and ask what they will do with the signal it gives them: who isn't ready, and what will programs do about it? Dr. Fall adds the boots-on-the-ground reality of acting within health systems that make that hard.

From there, the two explore practical ways to bring more flexibility to training. Dr. Holmboe cautions against jumping straight to time-variable training and instead describes steps programs can take within current

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structures, including promotion in place pilots and keeping accelerated learners challenged so they don't plateau. For learners who need more support, he stresses identifying struggles early, getting the educational diagnosis right, and embracing a mastery-based mindset that moves beyond pass/fail. He sees promise in virtual and AI-supported practice to make that kind of self-paced, repeated learning less resource intensive.

The episode closes with a look ahead to AI and a reflection on what Dr. Holmboe would do differently. On AI, he calls it the million-dollar question, discussing the potential for learning analytics, the open questions about what clinical reasoning looks like in an AI age, the concerns about automation bias, and the debate over how learners should work alongside it. Asked what he would change about the last 25 years, his answer is co-production: bringing learners, patients, and colleagues from other professions into the work from the start, rather than relying only on expert panels. Dr. Fall adds that AI may be forcing exactly that kind of collaboration, with a new teammate at the table.

Make sure to check out Part 1 of their conversation, where Drs. Fall and Holmboe discuss the origins of the six general competencies, the decision to launch the milestones before they were perfect, and the limits of any assessment framework.

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