

4 phases to making goal of lifelong physician learner a reality

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Too many practicing physicians take lessons learned during their training years and apply them, without significant deviation, throughout their decades-long careers in medicine. When that happens, both patients and physicians are worse off.

“We want physician lifelong learners, but we struggle with the practical implementation of what that actually looks like,” said William B. Cutrer, MD, an assistant dean for undergraduate medical education at Vanderbilt University School of Medicine. “While we like the idea of lifelong learning, always continuing to improve and staying current with the literature, as a group, a lot of practicing physicians don’t always accomplish that goal.”

With that problem in mind, Dr. Cutrer and faculty members from several schools within the AMA’s Accelerating Change in Medical Education Consortium have developed a conceptual model that aims to provide medical students the skills and habits they need to constantly improve their skills through retirement. It is their belief that providing the tools that foster adaptive expertise as a skill set among medical students will create a generation of physicians equipped to handle the rapidly changing health care landscape.

Dr. Cutrer presented his ideas about the importance of this concept, known as the master adaptive learner, during a pair of recent AMA conferences—the AMA ChangeMedEd™ 2017 National Conference in Chicago and a meeting focusing on “The Role of Adaptive Expertise in Health Systems Science” in New York.

Learning how to find new solutions

In mapping out a method to create medical students with the desired adaptive skill set, physicians first had to define what medical students are and what this model hopes they become.

Typically, medical students work toward and demonstrate early routine expertise. In essence, this is the ability to do the same tasks repeatedly, more efficiently and effectively. Routine expertise allows physicians to remember solutions to prior problems and apply them to new patients.

Routine expertise, however, falls short when a problem arises that differs from others a physician has encountered. That’s when a physician needs to use adaptive expertise by taking what they already now and incorporating new learnings to find new solutions.

“The skill set we are trying to target with this initiative is training medical students with the right habits to apply routine expertise when appropriate and adaptive expertise when appropriate,” Dr. Cutrer said.

The 4 phases of adaptive learning

The model through which Dr. Cutrer hopes to educate students to become master adaptive learners includes four phases. Breaking it down this way creates a system in which a learner, perhaps with the

assistance of a coach or mentor, can determine where she is falling short.

The phases break down as follows:

- **Planning:** The learner identifies a knowledge gap without which she would not be able to begin learning solutions.
- **Learning:** The learner must first appraise the resources she found—are they the right solutions to the problem?—then go about digesting the information so it sticks.
- **Assessing:** A combination of self-assessment and external feedback in which the learner determines if her findings would require her to change her practice.
- **Adjusting:** The learner applies any necessary changes to her practice while determining the scope and scale at which they should be implemented.

Moving beyond textbooks

The master adaptive learner differs from nearly every other aspect of medical education, Dr. Cutrer argues. Rather than teaching facts or concepts, this model is one that teaches learners how to learn. But as with much of the medical school curriculum, Dr. Cutrer believes the model is honed through experience.

“We really want people in the workplace learning from patient encounters, learning from actual scenarios ... starting to build their bank of expectations for what is the normal progression of different diseases. Textbooks are important, especially early on, but we have to move past that. We have to move to a deeper understanding and ability to use the knowledge as opposed to being able to regurgitate it for a test.”

To expose students to these concepts, programs are trying a wide array of tangible methods, including exposing students to data that highlight how practicing physicians struggle to adapt following their residency training.

While the methods of reinforcing the techniques that turn a medical student into a master adaptive learner are still a work in progress, it is Dr. Cutrer’s belief that the concept has never been more necessary.

“Health care is changing dramatically compared to where it was even 10 or 15 years ago, as far as the complexity and all of the different things that weigh into taking care of an individual patient,” he said. “So the physician of tomorrow, the physician of five or 10 years from now, is really going to need a different skill set of problem solving.”

The presentation about the master adaptive learner concept was among dozens that took place during the ChangeMedEd conference. The event showcased how the AMA, through its Accelerating Change in Medical Education initiative, is working to reimagine and shape the future of medical education.

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