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FROM THE EDITOR

CBME—The Challenge Is in the Details

Sarina Schrager, MD, MS

AUTHOR AFFILIATION:

Department of Family Medicine and Community Health, School of Medicine and Public Health, University of Wisconsin, Madison, WI

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The idea of competency-based medical education (CBME) has been around for 25 years. The concept is straightforward, ie, try to assess whether a medical student or resident is competent to perform a specific procedure or intervention in a specific clinical situation. CBME is based on evaluating a learner through the scaffold of a predesigned list of concrete tasks or milestones. The idea is that structured evaluation of competency will lead to improved patient care.

However, practice and education in family medicine pose multiple challenges to developing a clear model of CBME due to the wide array of clinical situations, diversity of patients and practice settings, and multitude of conditions that family medicine residents encounter over the course of a week. A successful plan for CBME must assess a first-year resident's ability to perform a circumcision, a second-year resident's ability to do a suicide assessment in a depressed adolescent, and a third-year resident's ability to manage complex medical and psychiatric symptoms in an office visit, just to name a few. It is a complex and intimidating task that goes beyond ability to perform a certain procedure.

Competence is defined as the ability to do something successfully or efficiently and as the quality of having sufficient knowledge, judgment, skill or strength. Every medical educator's goal is to support learners who are competent to go out and take care of patients independently after residency. We want our residents to have excellent patient outcomes, creating a culture where people feel comfortable talking to their clinicians who are knowledgeable about medical conditions, have excellent clinical diagnosis skills, and use their training and experience to make good decisions about their patients' care. CBME is predicated on adult learning principles that include receiving learner input on educational needs and developing a process to evaluate proficiency.[1,2] So, instead of developing a static curriculum for all residents, there are ways for each resident to adapt the curriculum to meet their own needs.

The article by Tulshian et al in this issue of *Family Medicine* pulls together medical education literature to present a list of recommendations for family medicine residency programs to follow to robustly incorporate CBME principles into residency education. Their recommendations include both resident-level interventions (ie, providing guidance for residents to reflect on their performance in a systematic way and developing an individual learning plan) and program components (ie, faculty development focused on evaluation of CBME, coaching, feedback, and development of individual learning plans). As adult learners, residents should be active participants in the design of their curriculum.[3] The authors also recommend that the discipline invest in development of a smartphone application to monitor residents' progress.[3] Faculty will also need robust training programs in order to develop skills to make clear evaluations of residents' competence.

These recommendations are important and necessary to move the specialty toward the routine use of CBME in residency education. However, the challenge is to ensure that evaluation of competence is done in a structured and unbiased manner. Much has been written about the process of evaluating competency.[4–7] In order to provide the most comprehensive evaluation of competence, evaluations need to be standardized, thorough, and come from an assortment of evaluators. A mixed-methods approach to evaluation of competence includes narrative feedback from a variety of evaluators in addition to a structured, quantitative evaluation (ie, tests or case evaluations).[8] Getting feedback from faculty, coresidents, nurses, and patients can help develop comprehensive learning. Educators must also be aware of potential biases in performance evaluations as some research has documented differential evaluations of residents based on gender.[9]

Much effort has been invested describing what CBME is and what it should be. The challenge remains to demonstrate how it is done in a manner that is supportive of residents and faculty. How do faculty evaluate residents for competency in a way that

assures fidelity between residents and faculty evaluators?[7,10] Would two faculty members assess a resident in the same manner after observing the same patient interaction? Would two residents be able to develop individual learning plans that accurately define their learning needs? These questions have yet to be decisively answered in the literature. The list of recommendations presented in this month's article by Tulshian et al is most welcome. We invite educators to continue evaluating methods of implementing and standardizing CBME in a real-world residency program, and sharing their results with the medical education community.

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