

Competency-based Physician Education, Recertification, and Licensure

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ABSTRACT

Discussions about competency-based education are occurring at all levels of medical education: medical school, residency, and continuing education. Competencies are also an important aspect of certification and are likely to be a part of physician licensure. The 6 General Competencies from the Accreditation Council for Graduate Medical Education (ACGME)—patient care, medical knowledge, practice-based learning and improvement, professionalism, interpersonal and communication skills, and systems-based practice—are firmly established in residency education and are rapidly infusing and changing both medical student and continuing medical education. As physicians must continuously learn and maintain certification throughout their careers, it is essential to understand what competency-based education is and its implications. This article provides an overview of the meaning, history, and evolution of competency-based education and emerging approaches to assessing competence across the continuum of physician education. The discussion asserts that a new view of education is required in which individual competence in key areas is synergistically taught, learned, and assessed.

INTRODUCTION

Competency-based education is emerging at all levels of physician training, from medical students, to residents, to continuing medical education. Indeed, competency-based programs for maintenance of licensure may be coming soon, given a recent summit conference on “Physician Accountability for Physician Competence” involving the Federation of State Medical Boards (FSMB) and several councils and agencies in medical education.¹ Likewise, maintenance of certification has

evolved to include peer-, patient-, and self-assessment to confirm competence in communication and interpersonal skills, among other competencies.² To understand the potential impact of competency-based initiatives to both the practicing physician and the physician in training, we need to take a closer look at what competency-based education is, its definition, origin, and evolution.

THE NATURE OF COMPETENCE

Competency, according to Dictionary.com, is the state or quality of being adequately or well qualified. To say that a physician is competent, then, is to say he or she is well qualified and is sufficiently able to practice medicine.³ Leach, executive director of the Accreditation Council for Graduate Medical Education (ACGME), describes competency as something developed over time and suggests physicians should “make it a habit” to develop competency.⁴ This definition corresponds with the “Dreyfus” model of skill or competence acquisition, where competence is developed over time in a series of stages wherein a learner progresses from novice to expert.⁵ In the Dreyfus’ model, the learner moves from rule-governed behavior with an inability to separate relevant from irrelevant findings (e.g., medical student includes data unrelated to the chief complaint in a focused history presentation) to being able to synthesize details subconsciously and focus on the unique features that define each particular case. Others view competence as a “binary, yes/no” model⁶ or “threshold” approach to competence.³ In these models, a resident either “has it” or doesn’t “have it” and the goal is to find that “threshold” that distinguishes competence from incompetence. When considering physician-in-training competence, a binary/threshold set of standards or criteria may need to be established by trainee level: initial competence for medical students with increasing expectations for residents and/or fellows. Once a physician has met the criteria, continued competence becomes an evolving life-long process toward expertise.

The evolution of competence from a criteria-based

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approach transitioning toward life-long expertise is a model that begins in medical school, continues through residency education, licensure, and board certification, and continues with ongoing maintenance of certification. The ACGME and the American Board of Medical Specialties (ABMS) have defined 6 “General Competencies” to be achieved by residents and fellows. These competencies are patient care, medical knowledge, practice-based learning and improvement, professionalism, interpersonal and communication skills, and systems-based practice. Each area represents a set of attitudes, skills, and knowledge that, when combined, describes a well-rounded and competent physician. Upon graduation, per the ACGME’s competency outcome guidelines, residents are expected to have competence in each area to the level of a “new practitioner,” consistent with the criteria-based model of competence. To determine if a resident has achieved this level of competence, an assessment plan for resident performance must be benchmarked against agreed-upon measurement criteria for the targeted competencies throughout the training program.

Competency-based definitions and documentation of performance using the ACGME competencies as a frame for the practicing physician are emerging. In 2004, the Accreditation Council for Continuing Medical Education (ACCME) Task Force on Competency and the Continuum issued its final report stating that the ACCME must work at “identifying common terms and definitions so that the expectations of the competencies are shared along the continuum” and that CME providers must incorporate, “as measurable outcomes, the desirable physician attributes recognized with the continuum of medical education.”⁷ Building on this work, the most recent accreditation criteria for CME providers explicitly states that programs must “link to competencies” and demonstrate that the program impacts the physician attendees’ “toolbox of strategies for patient care (competence), their actual performance-in-practice, and/or their patient outcomes.”⁸ Thus, the CME experiences are becoming competency-based, similar to the competency-driven education of physicians-in-training.

ASSESSING PHYSICIAN COMPETENCE

Assessment of a physician’s competence against an identified set of criteria requires medical educators to link performance with reliable and valid measures. Spencer and his colleagues offer advice on assessing competence, particularly job competence.⁹ They suggest the traditional forms of assessments, skills, and aptitude tests aren’t always good predictors of job performance be-

cause the tests focus exclusively on the tasks required in the job. In addition to knowing if job applicants meet base level standards, Spencer argues it is important to assess applicants using as the benchmark criteria the merits of the people successful in that job/task. In medical education, for example, in-service exams can measure base standards of knowledge yet fail to measure the other competencies or characteristics that define a good physician at different levels. In particular, a physician’s ability to give the patient “bad news” and communicate with other members of the health care team are performance skills not assessed via a written examination. Both the ACGME and the ACCME require that physicians be assessed specific to a pre-determined set of competencies, and both accrediting bodies allow each specialty to determine the benchmark criteria associated with those competencies.¹⁰ Additionally, both the ACGME and the ACCME require that outcome measures for physician competence be used to evaluate the educational effectiveness of the program and make any necessary changes to the program. To assist residency program faculty in setting criteria and assessing performance, the ACGME has developed a “Toolbox of Assessment Methods” specific to the 6 general competencies,¹¹ and the ACCME has outlined similar resources for CME providers.⁸

Certifying boards are currently developing approaches for practicing physician self-audits, which are expected to provide information on best practices and outcomes of patient care.¹² For example, the American Board of Internal Medicine (ABIM) requires completion of self-evaluation modules, employing the same methods of peer and patient surveys described in the ACGME toolbox.² Thus, as accrediting and certified bodies focus on competency-based education, the resident and practicing physician assessments of competence become a seamless continuous process.

Approaching competency-based assessment as a step-wise progress of defining competence and then selecting methods for assessment has a long-standing history in education. Reviewing the history of competency-based education provides an opportunity to identify and address potential obstacles as medicine implements this educational approach.

HISTORY OF TRAINING BASED ON COMPETENCE

Competency-based training or education has had a long history in traditional K-12 education. Its roots can be traced back as far as John Dewey when he stressed the importance of experience in education and how stan-

dards (competence) should come from the real-world occupational settings where education is applied.¹³ Competency-based education in the medical-related professions emerged in the 1970s with a strong emphasis on identifying areas of competence in specific specialties.¹⁴ Competency-based education was typically seen as an alternative to focusing on coursework or a “structure- and process-based system” of education.⁴ Today competencies are a part of the expectations for all levels of physician training. At the graduate medical education (GME) level and more recently emerging at the continuing medical education (CME) level, all physicians must demonstrate their competence not only in medical knowledge and patient care but also in their commitment to life-long learning, professionalism, systems-based health care, and communication.

Why will competency-based education succeed this time around when the similar movement in the 1970s lost its momentum? As Carraccio and her colleagues discuss, the movement in the 1970s focused exclusively on the identification of competencies with little attention paid to assessment of physician’s competencies.³ The ACGME’s concurrent focus on both curriculum and assessment of competence bodes well for the success of the competency-based medical education movement. Although the ACGME assessment of competencies follows the “threshold” model (measuring whether a resident has or doesn’t have a competency), the ACGME supports the concept that competency is acquired over time,⁴ consistent with the ACCME’s approach for practicing physicians. This evolutionary model of competency aligns with the “Maintenance of Certification” process as well, where demonstration of base level competencies is complimented by a requirement to show a commitment to life-long learning and professionalism.¹⁵ Competency, therefore, is constantly evolving. Both the threshold and evolutionary models of competency require a transition period for teachers and learners across the continuum of physician education.

TRANSITIONING TO COMPETENCY-BASED RESIDENCY EDUCATION: A DETAILED LOOK

Historically, medical education has focused on the teacher and the process of teaching.³ This teacher-centered approach meant that when learners failed, the focus was on the learner, not the curriculum or the teacher. Competency-based education argues that the problems may be an interaction between the 3 elements: the teacher, the curriculum, and the learner.

To transition away from a teacher-centered to a competency-based approach to education, physician edu-

cators must see the learner and teacher as mutually responsible for education. The goal of competency-based medical education is to achieve excellence in patient care through instruction. Therefore, the medical educator’s role, whether it be in resident education or continuing medical education, is to create an instructional environment in which expected competencies and associated assessments are clearly defined. This means the learner and teacher can identify competency gaps, then select and implement instructional strategies that are responsive to individual differences. This approach to education requires the clear articulation of competencies and associated criteria, or “threshold levels,” be it for residency, licensure, continuing medical education, or certification. It also involves the incorporation of an “evolutionary” view of competency as a life-long learning progression towards expertise. In summary, competency-based education seeks to provide competency-specific learning opportunities and feedback for residents and practicing physicians matched to their stage of expertise.

SUPPORTING A COMPETENCY-BASED APPROACH TO LEARNING

This shift from focusing on what is taught to an integrated approach that concurrently looks at teaching and assessment of what is learned requires a change in perspective for teachers, leaders, and accrediting bodies. Louie and his colleagues describe it as a “change in culture.”¹⁶ As a first step it is necessary to change the language of the education so that the learner-centered curriculum provides clear guideposts linked to specific competencies so the adult learner can self assess and navigate using accepted metrics of progress. The next step is to change the actual process of teaching and learning to become competency-focused such that learners and teachers alike will be aware of and can converse about targeted competencies. For example, in residency education, this occurs when an attending physician asks a resident to “look up” some articles that pertain to a relevant case and points out to the resident that by doing so, she/he is gaining competence in Practice-based Learning and Improvement. Likewise in CME, practicing physicians need to link their educational activities to specific competencies beyond increasing medical knowledge to systems-based practice (e.g., team-based care), professionalism, and communication (e.g., giving bad news).

The resources of the ACGME at www.acgme.org provide the ability to view residency programs from a competency-based education perspective as does the ABMS Web site (www.abms.org) on continuing main-

tenance of certification.¹⁵ All physicians, whether they are active teachers of students and residents in the office, at CME events, or are practicing physicians attending CME activities to maintain board certification, will need to adopt the language and active practice of competency-based education.

CONCLUSION

Competence, seen as abilities acquired over time, is rapidly becoming the basis for physician education across the continuum of medicine. Though an unsuccessful movement in the 1970s, competency-based education for physicians has made a resurgence with the ACGME General Competencies, the ACCME accreditation requirements, and new standards for Maintenance of Certification. Coupled with discussions about physician competence by the FSMB, it appears that competency-based education is likely to frame the relicensure requirements for practicing physicians. What this means is that at every level of physician training, a new view of education is required. Education needs to be competency-centered. Teachers and learners can then jointly pursue attainment of pre-determined competencies with articulated criteria benchmarked along the progression toward expertise and excellence in medical care.

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