Competency-Based Medical Education: A Requirement for Training "Better Physicians"

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One of the most significant changes in medical education during the last decade was a paradigm shift to Competency-Based Medical Education (CBME) (1). The first competency-based medical framework in Iran has been designed in Tehran University of Medical Sciences (TUMS) and replaced a time-based education framework (2). This appears to be a remarkable accomplishment, but still some changes could be made to improve this framework in one way or another. For instance, the importance of leadership,collaborator and life-long learning roles of a physician is required to be addressed clearly, as it has not been previously fully recognized.

Like other places in the world , the paradigm shift in the medical education in Iran has been due to several reasons: first, a concern regarding incompetency of current medical graduates (3), second, a need to adapt the status of medical education to emergence of new technologies and techniques, and third, addressing the challenges associated with treatment of an aging population (e.g., treatment complications), which requires new medical competencies, such as a more in-tune collaboration between healthcare professionals . Finally, the society expects more transparency in the medical training. More specifically, the society wants to know whether medical graduates achieve all required competencies to provide the best care for patients. In other words, the society expects "good doctors" to serve them. Obviously, CBME is a proper response to the abovementioned challenges.

For designing TUMS framework of CBME, several available competency-based frameworks, such as CanMEDS and Scottish Doctors have been reviewed (3). Through a participatory approach, a group of faculty members, students, and graduates of Tehran University defined the eight domains of competency for physicians. Three domains of the framework define medical knowledge and skills required for medical experts. These include (i) clinical skills, (ii) patient management, and (iii) decision-making, reasoning and problem-solving. The emphasis on these domains shows that there has been a huge attention focused on clinical and technical knowledge of medical graduates. Other domains of the framework include (i) health promotion and disease prevention, (ii) professionalism, medical ethics and law, and (iii) communication skills. In the defined domain of the health system, various roles of a physician such as medical expert, researcher, teacher, manager, and health advocate are established. Personal development is the last domain, which describes psycho-social and economic well-being of a physician (3).

Critical analysis of the framework reveals that more than anything else, there is a lack of participation of the society in the process of defining the framework. In other words, it appears that the primary source of defining the competencies of a physician is related to institutional requirements rather than the society.

Moreover, various competencies need to be clarified or explicitly addressed in this framework. For example, despite the fact that the role of communication has been noted in the framework, the primary goal of effective communication, which is shared decision-making, has not been expressed clearly. Needless to say, such a method of decision-making helps to find common ground with patients to develop a plan to address their needs and preferences. This will bring more satisfaction for the patient and success in the treatment plan. Furthermore, although a significant portion of communication is nonverbal, in this framework the role of non-verbal communication has not been identified. To the author's experience, there is a deficiency in communication role of physicians in Iran, which could be improved through education in medical schools.

Another deficiency of the framework is that one cannot find an explicit collaborator role for physicians. In the real world, a physician should collaborate with other health professionals and sectors to provide the best care for his/her patients. This is needed so that deficiencies regarding one's role and limits are compensated, and realization of shared decision-making

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and inter-professional and trans-professional health care relationships are ensured. As a third major deficiency of the framework, one can point out the undermining of the leadership role of physicians, despite the fact that current graduates lack such training and competency among their acquired skills (4). Due to their experience and accountable position in the health system and society, physicians could be leaders of change in local, national, and global spheres. Also, leadership could be seen as an important component of health advocacy, and physicians could speak up for patients and support mobilization of resources to protect health. The fourth deficiency of the framework that could be addressed here is the fact that the role of lifelong learning is not acknowledged within this framework. This is a vital competency for medical graduates so that they could be able to self-learn in an ever-changing environment of medical practice, new technologies and discoveries.

Beyond defining of the framework, the real challenge is aligning learning methods with the training goals. For instance, medical students are expected to achieve competency in communication skills (3). Therefore, suitable training in communication is required. As trainees are different in their learning, various methods of teaching of communication skills should be available. To this end, CBME as a student-centered education addresses differences in trainee's educational needs. Accordingly, trainees could have more responsibility to define their own learning priorities. Also, assessment tools should be developed to assess achieving competency in each competency. In fact, assessment is an important drive for learning and determines to achieve training outcomes. More specifically, an assessment tool should exactly evaluate what trainees are expected to "do" in their future job. New technologies, such as mobile-based platforms, are opportunities in medical education with various benefits, including continuous assessment, support, and networking (3).

In summary, reviewing TUMS framework of CBME shows that some of the competencies required for physicians, such as leadership and collaboration, have not been explicitly and sufficiently addressed. Also, society involvement is necessary to define characteristics of a "better physician ," which is lacking in this framework. Hence, academic and community discussions are vital in clarification of the roles of physicians, as well as resource allocation and pinpointing priorities in training of the next generation physicians.

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