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Limitations to the Assessment of Clinical Competence

Hossam Hamdy
Gulf Medical University Ajman, United Arab Emirates, hossam.hamdy@gmu.ac.ae

EDITORIAL

Limitations to the Assessment of Clinical Competence

Hossam Hamdy[1]

Gulf Medical University, Ajman, United Arab Emirates

'Clinical competence can be deconstructed, and its components can be measured using valid, reliable instruments.'

This statement is generally believed to be true in health professions education. But is this really true?

Before answering this question, it is important to go back in time and examine the roots of competency-based education (CBE) and how it has evolved into the current definitions and practice.

Ralph Tylor, the educational psychologist [1], has posed four questions that have influenced education until today. The Tyler rationale: (1) What purposes should a school seek to attain? (2) What educational experiences can be provided to attain these purposes? (3) How can these be organized? And (4) How can one determine whether these purposes are being attained?

So, the starting point in developing a curriculum, a program, or any educational training episode should be the first question: What is the purpose of this education? Based on Tyler's rationale, Benjamin Bloom, developed his taxonomy of educational objectives (cognitive knowledge, psychomotor skills, and affective objectives [2]. It was Caroll's [3] contribution to explicitly link the outcomes of education with the future performance of the graduate in the workplace and reducing the importance of fixed time to compel and educational programs so long the outcomes have been achieved. This 'outcome-based education' can be considered the precursor of 'competency-based education,' the latter first adopted in medical and teacher education as both are forms of professional education.

A question that may be raised is whether there is a difference between 'outcome-based education' and 'competency-based education'? I believe that the answer is yes! Stating 'outcomes' as objectives in terms of Bloom's taxonomy leads to artificial categorization of these outcomes in order to fit with one of the categories, i.e., knowledge with its different types and hierarchy, skills with its confusion about whether it concerns psychomotor skills, cognitive skills, reasoning skills, and—most troublesome of all–the affective domain with its blurred definitions of affects, attitudes, emotions, and ethics, all related to different psychological and philosophical perspectives and contexts of practice. Philosophers like Ryle [4] considered everything cognition: 'knowing what, knowing how, and knowing with,' emphasizing the artificial fragmentation of competence.

From Tyler to Bloom and their successors, the meaning and intention of the purpose of education is lost in the translation and implementation. Hence the tradition in medical schools to write objectives for each domain, at each level, and the continuous emphasis on the form of these objectives, i.e., containing an action verb, being measurable, etc. This tradition exaggerates the value of the form over the importance of meaning, purpose, and application in the context of practice in the workplace.

It is important to differentiate between outcome-based education focusing on objectives, "Course learning Outcomes" and outcome-based education focusing on competencies. In health professions education, the majority of educators probably agree with the following definition of competency as 'the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served.' [5] Competencies are here integral parts constituting the full spectrum of the 'Professional competence".

My argument is that we need to be conscious of the limitations of assessment instruments that

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E-mail address: Hossam.hamdy@gmu.ac.ae.
[1] **Notes on contributors: Hossam Hamdy**, MBCHB, FRCSEd, PhD, is Professor of Paediatric Surgery and Medical Education and Chancellor, Gulf Medical University, Ajman, United Arab Emirates.

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attempt to measure competency by using simulation. The well-known "OSCE" and its family "OSPE", "OSTE" etc. which suffer from the fragmentation of the tasks, limitation on what can be simulated, and the use of checklists emphasizing thoroughness i.e., 'Coverage rather than authenticity'. Deconstruction of complex tasks and measuring the discrete elements is the wrong approach. Rethans et al., 2002 [6] stated that "What professionals do in controlled representations of practice i.e. simulation is different from what professionals do in real life". Now more emphasis on assessment of professional competence should be in workplace-based assessment.

We claim that student assessment and programs evaluation systems should be objective while we are using subjective instruments based on human perceptions and reactions.

Over the last three decades, we have moved from course-based education to competency-based education and now trust-based education. Trust and entrustability are more complex than just observing a student or trainee while managing a patient and giving him/her a score e.g., 8 out of 10. Trust is tacit, we know it and we feel it when we see it. It cannot easily be expressed in numbers. We either trust someone or we don't. It is time now to revisit the metrics used in measuring professional competency. Qualitative measurements are more meaningful when it comes to answering the question "Can I trust this graduate to treat me, my child, or my wife".

Conflicts of interest

None.

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