

Entrustability of professional activities and competency-based training

Olle ten Cate

The idea of competency-based training (CBT) seems to have entered medical education with a speed and impact that has outperformed problem-based learning in the 1980s and 1990s. Within less than 10 years, the CanMEDS competencies in Canada, the ACGME competencies in the United States and similar frameworks in other countries have been introduced for postgraduate medical training countrywide, and examples of competency-based undergraduate medical training have now begun to emerge.¹⁻³ The growing number and impact of medical education journals and medical education conferences have helped in the spread of what could almost be called a 'competencies hype'. It is likely that 2000-10 will be remembered as the decade of CBT in medical education. Competency-based training could remain in our memories as a lasting change that really advanced medical training. However, if we do not want to end up 10 years from now with the conclusion that a 'competency' was essentially nothing but a label, replacing what we conveniently used to call 'educational objective', it will now be necessary to specify its definition and translate it into daily practice. Signs of confusion about the concept of competency are already visible in the literature from

fields other than medical education.^{4,5} The way in which we succeed in defining competencies, implement competency-based education and – most crucially – assess competencies will be critical.

2000-10 could be remembered as a decade of CBT in medical education

The literature suggests that competencies should be (a) specific, (b) comprehensive (i.e. include knowledge, attitude and skill), (c) durable, (d) trainable, (e) measurable, (f) related to professional activities and (g) connected to other competencies.^{6,7} In addition, the dictionary definition of 'competence' has a legal connotation, signifying not only the ability but also the entitlement to act or judge as a professional.

This is where the assessment of competence and competencies connects with the medical profession and where training and professional duty meet. The identification of 'entrustable' professional activities (EPAs) can help programme directors and supervisors in their determination of the competence of their trainees.

Supervisors of trainees should be able to decide when a trainee may be trusted to bear responsibility to perform a professional activity, given the level of competence he or she has reached. This serves both education and patient care. In this

respect, trust is essential. Every day, supervisors consider whether or not to delegate professional activities to trainees. They must trust them to perform these with reasonable chances of success. The information to guide these decisions is often implicit. New residents 'may be assumed' to have enough knowledge and skill, based on their MD diploma, to begin walking the ward, to carry out full physical examinations and to take systematic histories. In more delicate situations, trust must be earned by demonstrating specific skills and performances with an attending supervisor present. In addition, colleagues or nursing staff may provide information on trainees. Even if competencies are not well documented, conscientious supervisors often sense when they can either trust trainees to make critical decisions or perform critical medical procedures independently, or when close supervision or observation will be necessary.

Entrustable professional activities can help supervisors in their determination of competence of trainees

Competencies can be operationalised and assessed by linking them with professional activities. When this is conducted clearly, disputes about the value of competencies may disappear and trainees, supervisors and the public could begin to know precisely what a competent physician can and cannot perform. Bearing in mind the seven attributes

Correspondence. Professor Olle ten Cate, School of Medical Sciences, University Medical Centre Utrecht, 3508 GA, the Netherlands.
Tel. +31 30 2507010; Fax: +31 30 2538200;
E-mail: t.j.tencate@umcutrecht.nl

doi: 10.1111/j.1365-2929.2005.02341.x

of competencies stated earlier, the daily routine of the medical profession in a speciality can be analysed to identify activities to be entrusted to trainees. These can then be used to infer a threshold competence.

Supervisors can match a trainee with EPAs and decide which could and could not be entrusted to them. 'EPA' needs some further clarification. Many daily activities do not require particular training, some may not be measurable, others are not linked specifically to the profession. It is therefore valuable to specify the attributes of EPAs. They:

- 1 are part of essential professional work in a given context;
- 2 must require adequate knowledge, skill and attitude, generally acquired through training;
- 3 must lead to recognised output of professional labour;
- 4 should usually be confined to qualified personnel;
- 5 should be independently executable;
- 6 should be executable within a time frame;
- 7 should be observable and measurable in their process and their outcome, leading to a conclusion ('well done' or 'not well done'); and
- 8 should reflect one or more of the competencies to be acquired.

Performing well could be defined as being trusted to carry out critical EPAs

It is not difficult to think of examples: performing a vena puncture, performing an appendectomy, giving a morning report after a night call, designing a therapy protocol, chairing a multidisciplinary meeting, requesting an organ donation, and so on. In these examples, a supervisor would not trust un-

trained personnel to take responsibility. EPAs have a holistic nature. They include knowledge, attitude and skill. Performing a sternum puncture requires that a resident has the knowledge and skill to perform the procedure, can explain to a patient why it is necessary, collaborate with a nurse and organise all the required conditions to be met. Current competency frameworks such as the CanMEDS roles or ACGME competencies show distinctions between these abilities. EPAs and competency frameworks, therefore, can be viewed as interrelated in a matrix. Performing a sternum puncture requires competence in such roles as medical expert, communicator, collaborator and manager. Conversely, being a skilled communicator can be inferred from observing different EPAs, showing communication with patients, family, colleagues, nursing staff, and so on.

We should cease to call objectives 'competencies' if we cannot think of EPAs to observe them

Performing well in a profession could be defined as being entrusted to carry out all its critical EPAs. If this is a logical point of view, and if we cannot think of EPAs to observe these objectives, then we should cease to call training objectives 'competencies'. The thinking in EPAs will foster observation and the deliberate granting of responsibilities. In this way, as training progresses, trainees may be gradually entitled or qualified to perform EPAs and transform from a trainee into a professional.⁷

Medical training could change from fixed-length variable-outcome programmes to fixed-outcome variable-length programmes

If programmes really move towards observing and qualifying the competence of individual candidates for critical professional activities, instead of assuming competence at the end of a predetermined training period, a paradigm shift will occur.⁸ Medical training could then change from fixed-length variable-outcome programmes to fixed-outcome variable-length programmes.

REFERENCES

- 1 CanMEDS 2000 Project. *Skills for the New Millennium*. Report of the Societal Needs Working Group, Ottawa, September 1996.
- 2 Accreditation Council for Graduate Medical Education (ACGME) *Outcome Project*. Accreditation Council for Graduate Medical Education. <http://www.acgme.org/outcome> [Accessed 19 October 2005].
- 3 Bleker OP, ten Cate ThJ, Holdrinet RSG. General competencies of the future medical specialist. *Dutch J Med Educ* 2004;**23**:4–14 [in Dutch].
- 4 Van der Klink MR, Boon J. Competencies: the triumph of a fuzzy concept. *Int J Human Resources Dev Manage* 2003;**3**:125–37.
- 5 Chapman H. Some important limitations of competency-based education with respect to nursing education: an Australian perspective. *Nurse Educ Today* 1999;**19**:129–35.
- 6 Van Merriënboer JJG, Van der Klink MR, Hendriks M, eds. *Competencies: from Complications Toward Agreement*. The Hague: Dutch Educational Council 2002 [in Dutch].
- 7 Ten Cate O. The use of entrustable professional activities in competency-based training and assessment [Submitted].
- 8 Carraccio C, Wolfsthal SD, Englander R, Ferentz K, Martin C. Shifting paradigms: from Flexner to competencies. *Acad Med* 2002;**77**:361–7.