Entrustment Decision-Making in Competency-Based Teaching and Assessment in Health Professions Education

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Workplaces are essential for the education of professionals. While there is an increasing call for valid assessment of trainees to meet predefined competence standards [1–3], workplaces have traditionally not been well structured for the evaluation of learner competencies [4, 5]. Dynamic, real-life workplaces in professional domains cannot be standardized, as the problems professionals face are to some extent always unique. Much of the assessment of learners in the workplace involves single trainees, single assessors, and unique contexts (e.g., dealing with a unique patient), leading to persistent psychometric problems, such as rater leniency bias or generosity error, halo effects, restriction of range, poor discrimination between trainees, lack of documentation of deficits, low intra-rater and inter-rater, and cross-occasion consistency [6–8]. In terms of the Standards for Educational and Psychological Testing sources of validity evidence, there is legitimate concern about *response process* (low accuracy and quality of the scoring) and *internal structure* (low reproducibility), *relationship to other variables* (poor generalizability) and *consequences* (hardly any trainee “fails” a workplace internship). Many authors have attempted to capture the requirements of workplace environments for effective learning [9–11] and realize that workplace-based assessment should not be treated the same way as assessment in classrooms and courses, but must incorporate critical workplace conditions, such as the expectation to provide safe, effective, and patient-centered care [12, 13].

Many clinicians, forced to evaluate trainees on general competencies, feel unsure what scores to give. In contrast, when asked: Can this trainee be trusted to carry out this activity without your direct supervision? a more reliable answer can be expected [14]. Clinical activities that have the property that you can entrust them to trainees, when they have demonstrated the required competencies to be ready to do this, have been called Entrustable Professional Activities (EPAs) [15–17]. EPAs are part of essential professional work in a given context, require adequate knowledge, skill, and attitude, generally acquired through training, lead to recognized output of professional labor, are usually confined to qualified personnel, are executable independently of other tasks, within a time frame, are observable and measurable in their process and their outcome, and reflect one or more of the competencies to be acquired.

If a clinical training program is well described in their clinical activities, EPAs can serve as the building blocks of a workplace curriculum, can be the primary focus of assessment of learners, and can provide clear objectives for learning and practice. Instead of attempting to evaluate separate competencies of trainees, such as knowledge, communication skill, collaboration skill, and professionalism, EPAs integrate these and focus on the task as a whole. Table 1, adapted from Ten Cate & Scheele [18], shows how EPAs in obstetrics require multiple competencies in an integrated fashion.

It is hard to think of any EPA that would not integrate several competencies. The assessment of trainees should therefore primarily focus on EPAs (horizontal dimension), not on separate competencies (the vertical dimension). When evaluating learners, specifically those with marginal performance, a well-described EPA mapped to competencies will then enable a more valid judgment and tailored feedback to learners. So the first question is: can the trainee do this in all respects? and only secondly: if not, why not?

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Table 1 Mapping EPAs to the most important competency domains

Competencies EPAs	Medical expert	Communicator	Collaborator	Leader	Scholar	Health advocate	Professional
Uncomplicated pregnancy	•					•	•
Normal delivery	•	•	•			•	•
Uncomplicated puerperium and neonate	•					•	
High-risk complicated delivery	•	•	•	•			
Perioperative care	•	•				•	•
Low-risk surgery	•		•				
Breaking bad news conversation		•					•

When an EPA is fully mastered, the trainee may be granted permission to act unsupervised, while a different EPA may require more time a practice. Likewise, for a different trainee, the moments of summative entrustment decisions or certification for EPAs may differ. An EPA is like driving a car—as soon as the learner has demonstrated competence, he or she may be certified to practice without supervision.

EPAs have become popular and many undergraduate and postgraduate medical programs in the USA and other countries have now described their programs using EPAs [19–21].

Assessing learners based on EPAs differs from traditional assessment in the clinical workplace. EPAs are geared to *entrustment decisions*. An entrustment decision includes not only the evaluation of ability or competence, but it also grants the permission to act under a designated level of supervision (e.g., direct supervision, indirect supervision, distant supervision), and enables to schedule trainees for clinical service [22, 23]. It essentially changes the nature of assessment of learners in the workplace and enables to acknowledge trainees' readiness for unsupervised practice of specified units of professional work and, thus, gradually allows them to become a practitioner, complying with the principle of competency-based medical education: certification based on competence rather than on time in training.

Entrustment decisions as assessment include patients in the equation (is it safe to leave the student alone to act with this patient?) and also the liability of the supervisor. Trusting a trainee with your patient means making yourself vulnerable. It includes taking a calculated risk that adverse events are manageable. Entrustment decisions allow trainees to carry out activities that supervisors may not have been able to observe and learners may have never encountered before, as each patient is different and may pose new challenges. Entrustment decisions therefore require an estimation of adaptive competence of the learner.

It is likely that the leniency bias, so prevalent in workplace-based assessments, will to some extent be countered, if the assessment is an entrustment decision to work with patients without direct supervision. A “marginal pass” may harm the patient [24]. EPAs and the entrustment decisions that come

with this concept may thus help to improve the current workplace-based assessment practices.

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