Competency-Based Medical Education: Developing a Framework for Obstetrics and Gynaecology

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Abstract

The development of a Canadian competency-based medical education (CBME) curriculum in obstetrics and gynaecology, slated to begin in 2017, must be rooted in, and aligned with, the principles of CanMEDS 2015 and Competence by Design. It must also reflect the unique realities of the practice of the specialty. The Dutch Society of Obstetrics and Gynaecology has been at the forefront of the movement to design and implement competency-based training for obstetrics and gynaecology. The Dutch curriculum represents a practical example of how such a program could be developed. Several CBME curricular initiatives have now also begun across Canada.

Résumé

La mise sur pied d'un curriculum canadien de formation médicale fondée sur les compétences (FMFC) en obstétrique-gynécologie (devant débuter en 2017) doit être ancrée dans les principes des programmes « CanMEDS 2015 » et « La compétence par conception ». Ce curriculum doit également refléter les réalités particulières de la pratique de la spécialité. La *Dutch Society of Obstetrics and Gynaecology* est à l'avant-garde du mouvement visant la conception et la mise en œuvre de la formation fondée sur les compétences en obstétrique-gynécologie. Le curriculum hollandais représente un exemple pratique de la façon dont un tel programme pourrait être élaboré. Plusieurs initiatives de FMFC ont maintenant vu le jour au Canada.

Key Words: Competency-based medical education, obstetrics and gynaecology curriculum, assessment, milestones

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INTRODUCTION

Physician competence is a complex construct that is multidimensional, dynamic, contextual, and developmental in character.[1] For each individual competence there is a spectrum of capabilities from novice to master. This progressional competence for learning is situated in the workplace. Frank et al. introduced the term "dyscompetence" to refer to a relative deficiency in one or more domains of competence.[1] This term is less pejorative than "incompetence," and it encompasses both a competency not yet achieved and a competency that has been lost. Currently, obstetrics and gynaecology trainees commonly graduate with skills they do not need or use once they begin practice. Conversely, there are practices for which their training programs did not prepare them. Hence, there is a need to restructure our current training to better align with the authentic professional activities of our specialty.

Why Should We Move to a Competency-based Medical Education Format?

The Royal College of Physicians and Surgeons of Canada is adopting a competency-based medical education approach to training, integrating best practices in medical education, to better meet and respond to patient and societal needs.[2] The CanMEDS Physician Competency Framework,

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around which Canadian specialty training and continuing professional development is structured, required a significant update to align with a CBME approach. To this end, the Royal College of Physicians and Surgeons of Canada undertook the CanMEDS 2015 project in 2012. CanMEDS 2015[3] includes more clarity in role descriptions and definitions, with less overlap between the seven roles of Medical Expert, Communicator, Collaborator, Leader (formerly Manager), Health Advocate, Scholar, and Professional. CanMEDS 2015 was unveiled in October 2015 at the International Conference on Residency Education in Vancouver.

Competency milestones within each role have been developed to describe physician abilities across the continuum of medical education: from entry into postgraduate training, throughout residency, transitioning into practice, throughout independent practice, and transitioning out of professional practice. Milestones refer to the abilities expected of a physician or trainee at defined stages of their development. Milestones form a developmental model of training, with descriptions of behaviours that must be observable or demonstrable and that have a goal to make explicit what is implicit.[4] Milestones serve as a learning roadmap for trainees, and they allow teachers to track the progression from a dependent to an independent learner.

CBME requires that trainees demonstrate competence in progressing along the path from novice to expert. This requires clear definitions of "expected" competencies or milestones, along with appropriate assessments, to determine if the competencies are being met and performed consistently within the context of the clinical environment or workplace. This concept of developmental competence has been used successfully in other health professions. Benner developed a similar concept using five stages of competence, also from novice to expert, which has been used extensively in nursing and adapted to other professions.[5]

Competence is considered to be "the ability to do something successfully." Competencies are general attributes that may be components of an ability to execute a specific activity that can be observed and appraised, but competencies cannot be measured and appraised independently. In clinical practice, competencies are intertwined in complex ways that make them less explicit and measurable. They can be built by starting with concrete clinical activities. However, in developing a CBME curriculum, we must disentangle competencies from the activities themselves, as a competency is an intrinsic personal attribute rather than an action, even though a competency is made manifest in the action(s) that we carry out to demonstrate it.

The development of competence requires an environment that nurtures the learner. We know that experience and mistakes contribute to learning, and that effective learning is promoted by a supportive environment which allows learners to make mistakes with minimal or no consequences. A supportive environment promotes knowledge construction, as learners gradually and comfortably expand their skill set. An example of this would be a child learning to ride a bicycle. The child starts by riding a bicycle with training wheels, progressing to riding without training wheels but with a steadying hand on the back of the bicycle. The child then practises riding independently on quiet streets and masters this ability before progressing to riding on busy streets. At each stage, new skills are built on prior skills as confidence and mastery increase. Similarly, medical competence is consolidated with practice and a chance to make mistakes in an environment that will encourage learners to try again.

Learning From Others

CBME in obstetrics and gynaecology was initiated in the Netherlands in 2004,[6] and a great deal may be learned from the Dutch experience. A crucial concept developed by the Dutch is the Entrustable Professional Activity.[7] EPAs are the integrated competencies of everyday practice that allow one to perform the professional activities expected of a "good" doctor within any given specialty.[7] At their core, EPAs are essential professional activities that:

1. specify knowledge, skills, and attitudes;
2. lead to recognized outputs of professional work;
3. can be independently executed;
4. are observable and measurable; and
5. encompass a set of competencies across different roles.[8]

EPAs define a specialty in terms of the specific independent professional activities that are familiar to learners, faculty, and the public, and make core competencies meaningful by placing them in a familiar context without losing a holistic view of the profession.[9] Milestones are behavioural descriptors that need to be linked to a context to allow for training and assessment in daily practice. EPAs provide that necessary context and allow for individual learning trajectories based on longitudinal assessment.[9]

ABBREVIATIONS

CBME	competency-based medical education
EPA	Entrustable Professional Activity
STAR	Statement of Awarded Responsibility