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Re-examining the value proposition for Competency-Based Medical Education

Réexamen de la proposition de valeur de la formation médicale axée sur les compétences

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Abstract

The adoption of competency-based medical education (CBME) by Canadian postgraduate training programs has created a storm of excitement and controversy. Implementing the system-wide Competency by Design (CBD) project initiated by the Royal College of Physicians & Surgeons of Canada (RCPSC), is an ambitious transformative change challenge. Not surprisingly, tensions have arisen across the country around the theoretical underpinnings of CBME and the practicalities of implementation, resulting in calls for evidence justifying its value. Assumptions have been made on both sides of the argument contributing to an atmosphere of unhealthy protection of the status quo, premature conclusions of CBME's worth, and an oversimplification of risks and costs to participants.

We feel that a renewed effort to find a shared vision of medical education and the true value proposition of CBME is required to recreate a growth-oriented mindset. Also, the aspirational assertion of a direct link between CBME and improved patient outcomes requires deferral until further implementation and study has occurred. However, we perceive more concrete and immediate value of CBME arises from the societal contract physicians have, the connection to maintaining self-regulation, and the potential customization of training for learners.

Résumé

L'adoption de la formation médicale axée sur les compétences (FMAC) dans les programmes canadiens d'études postdoctorales a suscité une tempête d'enthousiasme et de controverse. La mise en œuvre à l'échelle du système du projet Compétence par conception (CPC), lancé par le Collège royal des médecins et chirurgiens du Canada (CRMCC), pose le défi d'un changement ambitieux et transformateur. Il n'est pas surprenant que des tensions soient apparues dans tout le pays autour des fondements théoriques de la FMAC et des aspects pratiques de sa mise en œuvre, donnant lieu à des demandes de preuves pour démontrer sa valeur.[1] Détracteurs et partisans ont avancé des suppositions, contribuant à un climat malsain de protection du statu quo, à des conclusions prématurées sur la valeur de la FMAC et à une simplification exagérée des risques et des coûts pour les participants.

Nous estimons qu'un effort pour retrouver une vision commune de l'éducation médicale et une proposition sérieuse quant à la valeur de la FMAC sont de mise afin de restaurer une attitude orientée vers l'avancement. De plus, il conviendrait de s'abstenir d'affirmer l'existence d'un lien direct entre la FMAC et l'amélioration des résultats pour les patients en attendant qu'une mise en oeuvre plus étendue et que de la recherche plus approfondie aient eu lieu. Cependant, on peut observer dans la FMAC une valeur concrète et immédiate découlant de la présence d'un engagement des médecins envers la société, de son orientation vers le maintien de l'autorégulation et de la personnalisation potentielle de la formation pour les apprenants.

The arrival of competency-based medical education (CBME) within postgraduate training programs across Canada has brought with it excitement and controversy. CBME is an outcomes-based approach to the design, implementation, assessment, and evaluation of medical education programs, using an organizing framework of competencies.[1] Its theoretical rationale is the move towards both learner-centredness of training and our ability to meet societal needs via enhanced graduate competency, documentation of graduate abilities, and a shift from rigid time-based training models.[2] Implementing one system-wide change, the Competency by Design (CBD) project announced in 2014 by the Royal College of Physicians & Surgeons of Canada (RCPSC) is an ambitious transformative change initiative. It follows five separate Fundamentals of Innovation in Residency Education (FIRE) pilot initiatives at the University of Toronto (Orthopedic Surgery, Psychiatry), University of Ottawa (Anaesthesiology), Dalhousie University (Anaesthesiology), and Queen's University (29 postgraduate programs). Characteristic of change processes, tensions have been felt across the country surrounding residents' lived experience of CBME,[3] the practicalities of implementation,[4] and the promise of CBME's true value, its value proposition.[1,5] Given these observations, we will explore a fresh perspective on the value proposition of CBME, against which the above noted challenges, among others, will be assessed.

The social contract

Physicians have the privilege of self-regulation and assume accountability to a public trust. This social contract demands that practitioners demonstrate competencies required for independent practice upon certification and beyond. Traditional training approaches no longer function in today's world of evidence-based training and practice, due in part to monumental advances in medical knowledge, more mandatory technical skills, increasing demands for evidence-supported training systems,[6] and an ongoing "failure to fail" training environment.[7] The shift to CBME helps to immediately satisfy societal expectations related to self-regulation with explicit criteria for success throughout training and the transition to independent practice, more frequent observations and documented assessments, and deliberate promotion decisions made by data-enabled competence committees.

Patient-centred outcomes

Do CBME training systems directly result in improved patient outcomes? The evidence on patient outcomes remains unclear,[8] and at present, this assumption that competency-based approaches will improve patient care also remains to be demonstrated Studying educational interventions in isolation within healthcare delivery is difficult due to the complexities of human, social, political, and economic factors. It is perhaps more valuable to re-frame the CBME value proposition not as whether all things CBME improve all patient outcomes, but instead, as which elements of CBME have a positive and meaningful impact on which outcomes. For example, there is evidence that improved trainee supervision,[9] simulation training,[10] and the institution at which one trains reduces medical error and complication rates.[11] It is not a big leap of faith, therefore, to conclude that CBME optimization could have positive impact. Will CBME lead to improved access to care, enhanced patient safety, reductions in medical errors, and improved patient outcomes? Answering these questions is our job as medical education scientists, as is redefining "best practices" for medical education. In the early days of implementation, it is important to promote early program evaluation which can lead us to early process improvement.

Learner-centredness

CBME training systems strive to support learners in many areas where the current system is wanting. With debate about CBME frequently prioritizing patient outcomes, an important part of the value proposition of CBME for trainees has been understated. Arguments for CBME emphasize time-independence and improved direct supervision as well as feedback and coaching from supervisors, with a focus on quality improvement and higher levels of competence.[2] With a societal mandate to prepare graduates for practice in diverse settings, there must be commensurate discussion about trainee wellness, self-regulation, training customization, and earlier recognition and assistance to residents in difficulty. The traditional time-dependent model is now seen as inadequate; there has been little flexibility for trainees to tailor their required and elective experiences to prioritize development based on professional interests, capitalize on past experiences and demonstrated competencies, and consider their life circumstance(s). With such key wellness elements as self-determination, control over one's work, and ability to achieve individual meaning missing from rigid training models, trainees are experiencing high rates of

burnout and stress-induced leaves.[12] Educational leaders need to prioritize system flexibility so that competency attainment can co-exist with non-linear trainee development. Trainees need environments that can be customized to learning needs, while simultaneously satisfying service needs. Early program evaluation exploring CBME involving input from the residents and frontline faculty experiences reveal challenges in early implementation along with associated unintended negative consequences.[3,4,13] There are important concerns that the lived experiences of the end-users of the CBME initiative, the resident trainees, are not enhanced by the theoretical advantages of CBME training systems. Presently, this provides an excellent opportunity for improvement based on program evaluation.

Medical educators must recognize that the value proposition of CBME can be organized into three key tenets: 1. To keep our social contract so that we may continue to properly regulate our training systems within our profession; 2. To drive educational system change that will improve patient outcomes; and 3. To transform the training experience to meet evolving resident needs. Understanding that CBME immediately bolsters our social contract for self-regulation and that measuring impact on patient outcomes is a distant goal, our current focus should be on creating enhanced value within the resident training experience. Converting theory to transformative practice within a stressed and complex healthcare system is a challenging task that must be carefully managed. Focusing on comprehensive program evaluation efforts, the placement of resident leaders at all levels of Postgraduate Medical Education governance and pursuing research that focuses on the lived experience of resident trainees and frontline faculty would be a good start. In the end, CBME leaders and education scientists have an opportunity to look at the early days of implementation progress and make needed shifts to ensure the benefits of CBME are realized.

Notes on authors: J Damon Dagnone is an Associate Professor of Emergency Medicine and was the Competency-Based Medical Education (CBME) Faculty Lead at Queen's University in Kingston, Ontario, Canada from 2015-2020. Since that time, he has been immersed in the institutional transition of 29 specialty programs to CBME curriculums. Glen Bandiera is Professor of Emergency Medicine and Associate Dean of Postgraduate Medical Education at the University of Toronto. He has extensive experience leading complex change in both the university and hospital sectors. Ken Harris is currently the Executive Director for the Office of Specialty Education at The Royal College of Physicians & Surgeons of Canada. He is the previous Associate Dean of Postgraduate Medical Education, Chair and Professor of Surgery at the University of Western Ontario.

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