

The introduction of competency-based medical education for postgraduate training in South Africa

Specialist training has increasingly become the subject of public discourse, with greater demands for accountability from various stakeholders in safe delivery of healthcare. This includes the appropriate selection of specialist trainees, the assurance that these trainees are afforded suitable opportunity for achieving clearly outlined learning goals in appropriate contexts with adequate support, and the requirement that they are subjected to assessment that allows them to showcase their development over time.

The traditional approach to medical training and assessment has focused primarily on lists of knowledge objectives, but is now shifting towards an outcomes-based education (OBE) framework, where learning outcomes guide all curriculum and assessment decisions in a constructively aligned manner. Competency-based medical education (CBME), which can be considered a type of OBE, aims to ensure that all graduates attain the minimum standards for unsupervised practice (competence) in their field.^[1] The five core components of CBME curricula are: outcome competencies; sequenced progression; tailored learning experiences; competency-focused instruction; and programmatic assessment (PA).^[2] PA intends to build a system of assessment that is embedded in the entire learning cycle of registrar training, thereby addressing the current challenges in assessment inherited from our 20th-century models. PA, with a commitment to assessment for learning, includes a greater emphasis on: workplace-based assessment (WBA); the assessment of multiple domains of competence; the use of many raters and multiple assessment methods over time; and thereafter, valid summative decisions that are taken by a credible group (e.g. a competence committee), rather than an individual, using a collated set of assessments to provide a more holistic view of the learner's progress and achievement of defined competencies.^[3]

CBME, proposed over 50 years ago, has taken centre stage over the last 20 years, owing to several forces and trends. The first is greater public accountability, which means that medical curricula must ensure that graduates are competent in all essential domains. The second is a greater emphasis on skills and attitudes, and their incorporation into observable competencies, rather than pure emphasis on knowledge objectives. The third is a de-emphasis on time-based training, recognising that learners progress at different rates and achieve threshold competencies at their own pace. Finally, CBME enhances learner-centredness by providing learners with a curriculum of competencies that delineate clear goals for them to achieve, with continual guidance on their progress and how to achieve those goals.^[4]

The practical steps to implementation of CBME begin with identification of the abilities required by graduates in a specific context, which is followed by defining the required competencies and their components. In the last two decades, various competency frameworks have been described by a number of countries, and now form the basis of training for the majority of learners in these settings. In 2014, the Health Professions Council of South Africa published the list of South African (SA) competencies for medical professionals, dentists and clinical associates.^[4] These were adapted from the CanMEDS physician competency framework, and reflect the following:^[5]

- (i) healthcare practitioner: the central, integrating clinical role requiring the contextual application of knowledge, skills and attitudes
- (ii) communicator: interacting with patients and patients' families

- (iii) collaborator: working effectively within a team to achieve optimal patient/client care
- (iv) leader and manager: contributing to the healthcare system, through cost-effective resource utilisation, improving efficiency and enhancing patient safety
- (v) health advocate: using expertise and influence in partnership with individuals, patient populations and communities to improve their health
- (vi) scholar: demonstrating a commitment to the creation, dissemination, application and translation of knowledge
- (vii) professional: ensuring ethical practice and high personal standards of behaviour.

Following identification of competencies, instructional methods and educational activities are selected, which will aid learners in achieving competence in the specified competency domains.

The next component of planning CBME curricula is the selection of assessment tools to measure learners' progress in achieving the required competencies.^[1] Unfortunately, competencies can feel somewhat detached from the clinical environment in which they are applied, making it difficult for them to be practically taught and assessed. Initial attempts to confirm attainment of the various competencies specified by these frameworks depended on directly assessing long lists of individual competencies.^[6]

Entrustable professional activities (EPAs) were introduced to make the connection between competencies (characteristics/abilities of learners) and the professional activities to be entrusted to them on graduation.^[6] Ten Cate and Taylor^[7] define EPAs as 'units of professional practice (tasks or bundles of tasks) that can be fully entrusted to an individual, once they have demonstrated the necessary competence to execute them unsupervised'. Guidelines for the correct description and implementation of EPAs have been published, which include a description of the relevant competency domains, as well as knowledge, skills and attitudes required to execute that specific professional activity in a given context.^[7]

For postgraduate medical training, EPAs represent the translation of daily specialist practice into units of practice that can be overseen, assessed, monitored and certified. Therefore, EPAs facilitate workplace-based assessment within a CBME context. By describing the specific skills proficiency, knowledge and higher-order abilities required to be entrusted to perform a specific activity, EPAs provide a framework for assessment tools to measure the degree to which a trainee can be entrusted to perform that activity unsupervised. Defining the units of practice that encompass a specialty also allows for redesign of the curriculum and re-evaluation of training methods, with emphasis on providing trainees with the knowledge and skills required to carry out these activities.^[7]

The national conversation regarding mandatory WBA was initiated in 2017 and, while progress has been slow, there is a renewed commitment to achieving this goal by both the Colleges of Medicine of SA (CMSA) and the SA Committee of Medical Deans (SACOMD).^[8] The joint national WBA Steering Committee, with representatives of all specialist training platforms, has been launched in the last year in a collaborative effort between the CMSA and the SACOMD. The aim of the committee is the implementation of WBA for postgraduate medical training in SA. Following a series of

successful webinars in 2021, further roadshows and workshops are planned for the second half of 2022 to address the essential issues around WBA – what it is, why we need it, how we are going to design and implement it, who is responsible for it, and when all of this will take place. The current estimate of national implementation is the beginning of 2024. There is growing commitment to the groundwork needed to ensure that the SA implementation of WBA is not only educationally sound, but feasible and acceptable to our clinical teachers, who shoulder substantial service delivery burdens. We believe the inclusion of a carefully designed WBA process is not only feasible, but also promises to enhance clinical service delivery.

The SA clinical training platform, while unique, will benefit through the implementation of the various components of CBME. Our commitment to a transformed and decolonised curriculum demands that we translate the learnings from the Global North into systems and processes that recognise our inequitable contexts, while building a national framework for development. We are at a threshold at which our response to the calls for greater accountability will translate into modern curricula, which will deliver globally competent specialists and subspecialists who are fit for purpose in SA and beyond.

D Nel

Department of Surgery, Grootte Schuur Hospital and University of Cape Town, South Africa
danielnel87@gmail.com

V Burch

Colleges of Medicine of South Africa

S Adam

Department of Obstetrics and Gynaecology, University of Pretoria, South Africa

T Ras

Division of Family Medicine, University of Cape Town, South Africa

D Mawela

Department of Paediatrics and Child Health, Sefako Makgatho Health Sciences University, Pretoria, South Africa

E Buch

Colleges of Medicine of South Africa

L Green-Thompson

Faculty of Health Sciences Deanery, University of Cape Town, South Africa

1. Frank JR, Snell LS, Ten Cate O, et al. Competency-based medical education: Theory to practice. *Med Teach* 2010;32(8):638-645. <https://doi.org/10.3109/0142159X.2010.501190>
2. Van Melle E, Frank JR, Holmboe ES, et al. A core components framework for evaluating implementation of competency-based medical education programs. *Acad Med* 2019;94(7):1002-1009. <https://doi.org/10.1097/ACM.0000000000002743>
3. Bok HG, Teunissen PW, Favier RP, et al. Programmatic assessment of competency-based workplace learning: When theory meets practice. *BMC Med Educ* 2013;13:123. <https://doi.org/10.1186/1472-6920-13-123>
4. Frank JR, Snell L, Sherbino J. CanMEDS 2015 Physician Competency Framework. Ottawa: Royal College of Physicians and Surgeons of Canada, 2015. https://canmeds.royalcollege.ca/uploads/en/framework/CanMEDS%202015%20Framework_EN_Reduced.pdf (accessed 24 June 2022).
5. Health Professions Council of South Africa. Core competencies for undergraduate students in clinical associate, dentistry and medical teaching and learning programmes in South Africa. Pretoria: HPCSA, 2014. <https://www.hpcsa-blogs.co.za/wp-content/uploads/2017/04/MDB-Core-Competencies-ENGLISH-FINAL-2014.pdf> (accessed 24 June 2022)
6. Ten Cate O, Scheele F. Competency-based postgraduate training: Can we bridge the gap between theory and clinical practice? *Acad Med* 2007;82(6):542-547. <https://doi.org/10.1097/ACM.0b013e31805559c7>
7. Ten Cate O, Taylor DR. The recommended description of an entrustable professional activity: AMEE Guide No. 140. *Med Teach* 2021;43(10):1106-1114. <https://doi.org/10.1080/0142159X.2020.1838465>
8. Satheke MM. Work-based assessment: A critical element of specialist medical training. *S Afr Med J* 2017;107(9):728. <https://doi.org/10.7196/SAMJ.2017.v107i9.12655>

S Afr Med J 2022;112(9):742-743. <https://doi.org/10.7196/SAMJ.2022.v112i9.16717>