

# Speaking for Ourselves

## Getting to 'Shows how'

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### INTRODUCTION

Competency-based Medical Education (CBME) is a modern approach to medical education that focuses on the development of specific competencies or skills in medical students and residents. The implementation of CBME in India has been a major undertaking with the aim of improving the quality of medical education and healthcare delivery.<sup>1</sup>

As of 2023, the rollout of CBME in India has gained momentum and has been gradually implemented in various medical institutions across the country. Some key developments in the rollout of CBME in India are:

1. *Curriculum restructuring*: Medical colleges and universities in India have been restructuring their curriculum to align with CBME principles. Traditional lecture-based teaching has been replaced with more learner-centred approaches, including small group discussions, problem-based learning and simulation-based training. The focus is on developing specific competencies in medical students, such as clinical reasoning, communication skills and professionalism.
2. *Competency-based assessments*<sup>2</sup>: CBME emphasises ongoing formative assessments and feedback, rather than just summative assessments. Medical institutions in India have been adopting various assessment methods, such as direct observation of procedural skills, mini-clinical evaluation exercise (Mini-CEX) and multi-source feedback, to assess the competencies of medical students and residents. These assessments help identify areas for improvement and provide feedback for continuous learning and improvement.
3. *Clinical exposure*: CBME emphasises early and increased clinical exposure for medical students. Many medical institutions in India have been reorganising their clinical rotations to provide more hands-on experiences and opportunities for students to apply their competencies in real-world clinical settings. This includes rotations in different specialties, primary healthcare settings and community-based care to provide a well-rounded clinical experience.
4. *Faculty development*<sup>3,4</sup>: CBME requires a shift in the role of faculty from traditional didactic teaching to being facilitators of learning. Many medical institutions in India have been providing faculty development programmes

to equip them with the necessary skills to implement CBME effectively. This includes training on competency-based assessment methods, feedback skills and curriculum development.

5. *Adoption of technology*<sup>5</sup>: CBME implementation in India has been facilitated by the adoption of technology. Many medical institutions have incorporated digital tools, such as electronic health records, simulation software and online platforms for assessments and feedback. These technologies enable better tracking and monitoring of competency development, and facilitate remote learning and assessments.
6. *Challenges and way forward*: The rollout of CBME in India has faced challenges such as resistance to change, lack of standardized assessment tools and varying levels of faculty readiness. However, efforts are being made to address these challenges through collaborative efforts among medical institutions, regulatory bodies and stakeholders. The way forward includes continuous monitoring and evaluation of CBME implementation, refinement of curricula and assessments and sustained faculty development programmes.

The rollout of an outcome-based curriculum marks a major milestone in medical education in India and an important step towards improving the quality of medical education and healthcare delivery. A revision of the 1997 Graduate Medical Regulations was accompanied by the publication of subject-wise outcomes that need to be achieved by learners.<sup>6</sup>

Some key aspects of the outcome document bear emphasis. These include: (i) measurable outcomes as enumerated in the role-based global competencies and subject-based outcomes (competencies or sub-competencies), (ii) definition of levels of achievement of the learner—'Knows how' (KH) to 'Shows how' (SH) and performs independently, and (iii) inclusion of communication as a domain of learning.

In addition to traditional learning modalities, the curriculum provided for additional learning experiences; the principal intent of these learning experiences was to allow the learner to acquire competencies outlined in the curriculum documents. These include (i) early clinical experience, (ii) electives, (iii) skills laboratory, (iv) learning at primary and secondary care centres, (v) clinical clerkship and (vi) the longitudinal attitude, ethics and communication programme.

Through several faculty development programmes called curricular implementation support programmes, publication of support documents and implementation of curricular governance structures, an attempt has been made to provide faculty, medical colleges and universities with tools to navigate change. No prescription for brick and mortar level actual assessment was provided, allowing for local culture requirements and logistics to shape the acquisition of learning. Allowing sufficient autonomy for institutions, teachers and learners while achieving

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similar outcomes is key to continued growth and innovation in curricular delivery.

#### SH: A CONCEPTUAL SHIFT

A conceptual shift that was envisioned in the curricular documents is the emphasis on skill acquisition by learners. Many components of the outcomes require the learner to demonstrate (SH) acquisition of skill (e.g. demonstrate the ability to perform and interpret an ECG, demonstrate the ability to suture a wound in a simulated environment). In addition to these, the document moots the concept of certifiable competencies, without whose acquisition, progression to the next level or successful completion of the course will not be possible. As a natural extension of this concept, the successful acquisition of 'loggable' outcomes becomes a prerequisite to take the summative examination and not its appendage. We are gratified by the tremendous support and welcome received for the curriculum. Most institutions, faculty and learners have been able to navigate the cultural and logistical challenges that change creates. The provision of broad latitude within a regulatory framework has spurred a host of innovations in learning delivery. These innovations have made their way into the medical education literature.

#### A FRAMEWORK FOR GETTING TO SH

Several challenges remain: A valid criticism of the document is that too many competencies remain at the KH level and will have to be addressed in subsequent iterations of the document. A key difficulty that we have noted in our interactions with learners, faculty and institutions is in the transition of learner achievement from KH to SH. We contend that the learning environment is still not geared to allow learners to achieve SH levels for most competencies that require this level of achievement.

In many instances, where an SH level of achievement is required, learners are tested for KH levels. Several factors have been cited. Most of these relate to faculty time and resource management and teacher-learner ratio. Some solutions include the recruitment of adjunct faculty and the use of postgraduate trainees to supplement the perceived need in faculty.

We propose a conceptual framework for institutions to 'get to SH' for a majority of outcomes. Broadly, we suggest: (i) an incremental approach using the criticality feasibility matrix, (ii) promote shared responsibility in achieving outcomes, (iii) creating structured immersive learning and unstructured occurrences to achieve outcomes, (iv) use multimodal assessments to ensure acquisition of competencies, and (v) use the logbook as the primary tool to document SH achievements.

#### *Incremental approach*

While it would be ideal to get to SH in one go, given the logistical planning, training, and resource difficulties, it would be pragmatic to use an approach that addresses the critical and feasible. We had suggested the use of the criticality feasibility matrix as a way for curriculum planners to determine priorities while allocating greater faculty time and resources. Using this matrix, institutions can initially work on critical and feasible initiatives, build capacity for the critical but not currently feasible, and then expand to the non-critical.

#### *Promote shared responsibility*

A key aspect of the learner centricity in curricula is promoting responsiveness and responsibility in the learner for their learning. Many SH competencies require effort in moving from passively acquiring knowledge to actively doing. This includes practice, review of performance, self-assessment, correction and improvement, working collaboratively with peers and more advanced learners, other members of the healthcare team, mannequins, and standardized patients. Self-directed learning also requires the cultivation of honesty and integrity, the ability to introspect, reflect, confront, and address deficiencies, and plan improvement. Transfer of trust and responsibility to learners not only improves the efficiency of the SH programme—it also develops lifelong skills such as self-directed learning, leadership and teamwork.

#### *Create immersive experiences—planned structured and planned unstructured*

*Planned structured.* Planning a SH outcome acquisition through structured learning by the learner requires consideration of (i) prerequisite KH achievements, (ii) incremental steps required, (iii) exact certifiable or loggable outcomes, (iv) creation of opportunities for safe observation, practice, demonstration, review, critique, improvement, assessment and remediation, (v) provision of curricular time, off-time access to skills laboratories to practice, availability of mannequins and standardized patients. The learning must be a planned activity that is part of the curriculum and must be as immersive as possible. If possible, an effort to create the clinical environment must be made. It is important to ensure that there is the ability to review the performance by the learner, observers, and, if needed, supervisors.

Some caveats bear reinforcing. It is our observation that many of these outcomes are 'taught' in a 'let's get it done in a session fashion'. Providing time to practice, with the ability to review and be observed (by peers or superiors) and the opportunity to improve before formal testing is crucial. A mechanism that will allow learners to work with their preferred learning style and pace is important. Second—the achievement of an outcome often requires stepwise acquisition of the prerequisite knowledge or skills that occur over time and across several subjects of study. It is essential to identify and outline these steps and ensure that they have been acquired in the respective years of study and subjects. Needless to add that this would require coordination of curricular planning across phases and subjects

*Planned unstructured.* Learning opportunities occur in almost any learner encounter. This is especially true for clinical learning. While surprises are possible, most clinical encounters are predictable to a large extent; variations from the norm indeed provide an opportunity to help the learner recognise differences. Most clinicians are experts in using patient encounter events for imparting clinical knowledge. We suggest that these are opportunities to help students move from KH to SH for some outcomes, both clinical and behavioural. Less stressful postings, such as clerkships, are ideal for planned unstructured interventions. Caution is required as the situation involves real and often unprepared patients; also, even in a small group, this approach exposes students to circumstances that take them out of the comfort of a private and comfortable environment. The following steps can be used while looking at unstructured environments: (i) plan and

identify a list of outcomes that can be commonly achieved in unstructured environments; note that even if an outcome cannot be achieved, some prerequisite steps can be achieved in these environments. Make sure that these are brief and can be achieved by a learner in a short time. All learners in a group do not need to perform the activity; others can acquire it during the course. If agreeable to the learner and patient, others can observe and support a debrief, (ii) ensure that it is safe for both the patient and the learner to participate in the activity, (iii) if the learner requires achievement of prerequisites to perform the activity, ensure that these are completed, (iv) ensure patient comfort with participating in the activity, (v) ensure learner comfort and preparedness with participation with the activity, (vi) debrief the principles and steps with the learner, if it is a behavioural intervention, debrief core ethical principles and issues, (vii) learner demonstrates skill or behaviour under supervision, (viii) if time permits, a short debrief and feedback are done in private or debrief and feedback are postponed to a more favourable space, (ix) the learning is logged with appropriate disposition (complete, repeat, remedy required).

#### *Use multimodal assessments*

While end-of-year summative assessments and periodic internal testing are sufficient to test KH competencies to a large extent, SH competencies require other year-round testing strategies. Until the certifying step, formative assessment with feedback and opportunity to improve is the keystone to testing SH competencies. Indeed, assessment is part of learning SH competencies. Use of peers, patients and recording devices are invaluable in this process. Furthermore, brief testing sessions in patient care areas with feedback are useful. Several instruments, such as the mini-CEX, lend themselves well to workplace-based testing. 'Let me see you talk to this patient' is often an informal but powerful way to test, observe and help learners in the clinical care setting. This is especially true while promoting ethical behaviour and communication skills. The key to SH is to ensure direct observation of skill acquisition and performance.

#### *The log book as proof of SH acquisition*

The logbook is envisaged as a primary tool for documentation of SH acquisition. Well-constructed log entries that document progression in the acquisition of skills are invaluable in ensuring that the learner has achieved intended outcomes. Of note, submission of a completed logbook is a prerequisite to attempting the end-of-professional-year examinations. When used correctly, the log ensures that only learners who achieve stated outcomes move to the next level or graduate from the system.

#### *Conclusion*

We have tried to alert medical educators to the need to ramp up learner achievements from largely KH to SH. We have outlined a simple approach to getting to SH. The framework we have provided will allow institutions to adapt to the needs of outcome-based learning incrementally with existing tools that will not tax the resources of the organization. Institutions and regulatory bodies such as the NMC and professional organizations must create faculty development programmes that can help institutions and faculty adapt their planning and delivery strategies to get to SH. This will help the next generation of Indian medical graduate be more relevant and responsive to their community at the primary level.

*Conflicts of interest.* None declared

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