



ASSESSMENT METHODS IN COMPETENCY BASED MEDICAL EDUCATION UG CURRICULUM

Medical Education

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ABSTRACT

Competency-Based Medical Education (CBME) evaluates whether trainees can safely perform actual medical tasks. It primarily uses Workplace-Based Assessments (WBAs)—like the Mini-Clinical Evaluation Exercise, Direct Observation of Procedural Skills (DOPS), and 360-degree feedback—coupled with longitudinal Portfolios and OSCEs. This method shifts the focus from basic recall to authentic, milestone-based clinical performance

KEYWORDS

1. INTRODUCTION

Competency based education has been defined as an outcome-based approach to the design, implementation, assessment and evaluation of a medical education program using an organizing framework of competencies. Much more than a different style of teaching, competency based curriculum obligates a vastly different perspective on assessment. It mandates greater emphasis on setting up an ongoing and longitudinal assessment so that teachers can identify the stage of the learner and decide whether they need further or different learning opportunities to acquire competency. Assessment in competency based curriculum plays a crucial role in its implementation. Competency is not an all or none phenomenon. Rather it is incremental. The role of teachers is to help the learner acquire and improve upon the competencies. Competency based curriculum moves away from time bound education and looks at competency as the end point. Consequently, we are no longer interested in demonstration of discrete behaviours by the learners; rather we are interested in application of these in each patient context. Thus, it is more about integration of the required knowledge, skills and attitudes rather than anyone of them in isolation. Therefore, assessment in competency based curriculum should incorporate integration to the extent feasible while maintaining subject identity.

2. Objectives of the Document To Help the Reader to:

- Understand the role and place of assessment in new competency based curriculum. Understand the changes in assessment as per new curriculum.
- Understand the differences between the traditional assessment and Competency Based Assessment (CBA).
- Understand the components of competency based assessment.
- Understand the tools for competency based assessment. Understand the role of feedback in assessment.
- Plan, develop and implement CBA in the colleges and universities.

The central goal of CBME assessment is to shift away from sporadic, high-stakes testing toward continuous, low-stakes coaching. The process is highly reliant on Direct Observation and is categorized into two main types:

Formative Assessment:

Continuous, day-to-day feedback at the point of care. The evaluator states observations, the learner replies, and together they create an action plan.

Summative Assessment:

Evaluations at the end of a rotation or program to determine if the trainee has achieved the required milestones to pass or be promoted

3. Primary Assessment Tools

Because no single tool can measure all facets of clinical practice (medical knowledge, technical skills, and professional attitudes), CBME employs a diverse toolkit of evaluation methods: <https://pmc.ncbi.nlm.nih.gov/articles/PMC5734320/>

A. Workplace-Based Assessments (WBAs)

These evaluate trainees "in the wild" while they are interacting with real patients or working on the ward. <https://srjhs.org/assessment-of-competencies-in-medical-education/>

- **Mini-Clinical Evaluation Exercise** : A brief, 15-minute encounter where an observer evaluates a trainee's history-taking, physical examination, and clinical judgment on a real patient,

followed immediately by targeted feedback. <https://eportfolios.in/resources/guides/assessment-methods-in-cbme/>

- **Direct Observation of Procedural Skills (DOPS)**: Similar to the Mini-Clinical evaluation Exercise, but specifically tracks a learner's technical proficiency and safety while performing a specific medical procedure. <https://eportfolios.in/resources/guides/assessment-methods-in-cbme/>
- **Case-Based Discussion (CbD)**: A structured review of a patient chart or clinical scenario. It evaluates a trainee's clinical reasoning, decision-making, and understanding of medical guidelines. <https://srjhs.org/assessment-of-competencies-in-medical-education/>
- **Multi-Source Feedback (MSF) / 360-Degree Evaluation**: Surveys completed by the broader healthcare team, including nurses, pharmacists, administrative staff, and patients. This measures professional behavior, communication, and teamwork.

B. Simulation and Structured Examinations

- **Objective Structured Clinical Examination (OSCE)**: Trainees rotate through stations where they encounter actors portraying standardized patients. This assesses communication, examination, and critical diagnostic skills in a controlled, standardized environment. <https://pmc.ncbi.nlm.nih.gov/articles/PMC5734320/>
- **OSATS (Objective Structured Assessment of Technical Skills)**: A simulation-based evaluation of surgical or procedural technique using synthetic models or animal tissues

C. Longitudinal Tracking

- **Portfolios and E-Portfolios**: Collections of workplace assessments, procedure logs, reflective writing, and feedback summaries. They demonstrate a trainee's progression over time rather than just a single snapshot of learning. https://www.nmc.org.in/wp-content/uploads/2020/01/Module_Competence_based_02.09.2019.pdf
- **Clinical Competency Committees (CCC)**: Instead of relying on a single attending physician, a dedicated faculty committee synthesizes data from multiple WBAs, portfolios, and multisource feedback to make holistic decisions about a trainee's competence and progression.

4. How does CBA Differ from Traditional Assessment?

Traditional assessments are easy to design, administer, score and analyse compared to CBA but may not be able to provide complete information about the stage of the student. Traditional assessments are snap shot observations of learning, are generally not linked to instructions or outcomes and promote test taking behaviour. They are fragmented and mainly focus on knowledge (sometimes skills).

CBA, on the other hand, provides more comprehensive information about not only the current stage of the student but also about his progression and ascendancy. They are longitudinal, often with low stakes and help to reduce examination anxiety. CBA is based on direct observation and therefore helps in generation of authentic feedback, which helps the students to learn better. This process of assessment for learning is crucial for the acquisition of competencies. Competency based assessment should help in collecting and analysing evidence to decide if a student is competent in relation to a required competency

and in relation to his/her stage of training. The underlying concept of competency – i.e. the habitual and consistent use of knowledge, technical skills, clinical reasoning, communication, emotions, values and reflection in daily practice for the benefit of the individual and the community being served, again demands that the student should consistently demonstrate the desired behaviour rather than only during the final examination. Competency based assessment aids in the process of learning. Effective feedback is paramount to helping learners improve. CBA is an ongoing process so that any deviation in learning can be recognized early and taken care of by providing formative feedback. This concept is crucial and aligns very well with the basic principles of competency based medical education viz. active involvement of the learner, creating an authentic environment for learning, direct observation and provision of formative feedback. CBA requires active participation of the student in the form of self-assessment and reflections.

5. REFERENCES

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