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## Editorial

### Workplace-based Assessment in Clinical Forensic Medicine

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New competency based curriculum (CBME) for medical education in India is being implemented from year 2019.<sup>1</sup> With the implementation of new competency based curriculum (CBME), there are major changes in undergraduate teaching-learning pattern. The subject teaching Forensic Medicine & Toxicology is spread over period of phase II & Phase III- Part I teaching and the final assessment will be taken at the end Part I of Phase III with subjects such as Community Medicine, Ophthalmology & ENT.<sup>2</sup> The competency based curriculum teaching in Forensic Medicine will be started in phase II and major attention on Clinical Forensic Medicine (CFM) teaching will be given in phase III with special emphasis on case-based teaching in Clinical Forensic Medicine. Assessment of competence Clinical Forensic Medicine is a challenge.<sup>2</sup>

A framework for clinical competence assessment given by psychologist George Miller in 1990 who proposed a pyramid with knowledge (knows) at the lowest level, followed by competence (knows how), performance (shows how), and action (does) at highest level.<sup>3</sup> He distinguished 'action' from lower levels, which focuses on what happens in real clinical settings rather than artificial test settings. Workplace based assessment tools targets on the highest level of pyramid by collecting direct information on learner's performance at clinical practice. Other traditional methods of assessment include simulation tests, multiple choice questions and objective structured clinical examinations (OSCEs) focuses the lower levels of the pyramid. Traditional clinical assessment has many

shortcomings as it is a snapshot observation. There are artificial settings and lack of opportunity to improve performance to the learners.<sup>4</sup> Workplace based assessment (WPBA) refers to various tools of assessment which evaluates learner's performance with direct observation of performance at the workplace i.e. during the clinical settings followed by feedback based on that observation by observer. This makes assessment valid & reliable with use of multiple encounters using different assessors in different settings.<sup>5</sup> It helps to measure performance, as well as promotes improvement in performance. The learners' clinical performance observation at real workplace clinical settings along with relevant feedback by assessor fosters reflective practices and enables improvement in performance. WPBA gives more emphasis on formative assessment i.e. assessment for learning, rather than summative assessment i.e. assessment of learning.<sup>6</sup>

WPBA includes various assessment strategies which help to evaluate learner in clinical settings and provide feedback. Workplace based assessment (WPBA) includes clinical performance observation, clinical cases discussion and feedback from co-workers, peers, patients. The observation of clinical performance assessment can be done using tools like mini-clinical evaluation exercise, direct observation of procedural skills; clinical case discussion assessment. Before the discussion, the trainee used to select 2 (or more) cases and relevant clinical records to the assessor who selects one of them.<sup>7</sup>

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can be done using the tool like Case based discussion and the feedback from peers, coworkers & patients can be collected using Multisource feedback tool.

The different categories of WPBA<sup>3,5-7</sup> assessing the various facets of learners' performance are given in [Table 1](#).

**Table 1: Different categories of workplace based assessment and their objectives**

S. No.	Activity/Task	Assessment Tools
1	Observation of clinical performance	<ul style="list-style-type: none"> <li>• Mini-clinical evaluation exercise (mCEX)</li> <li>• Direct observation of procedural skills (DOPS)</li> </ul>
2	Discussion of clinical cases	<ul style="list-style-type: none"> <li>• Case based discussion (CBD)</li> </ul>
3	Feedback from peers, coworkers, and patients	<ul style="list-style-type: none"> <li>• Multisource feedback (360° assessment)</li> <li>• Mini peer assessment tool (mPAT)</li> <li>• Team assessment of behaviors (TAB)</li> <li>• Patient satisfaction questionnaire (PSQ)</li> </ul>

The detailed descriptions of various WPBA tools<sup>6,7</sup> are as follows-

#### **a. Observation of clinical performance**

##### **1. Mini-clinical evaluation exercise (mCEX):**

In this tool the assessor evaluates the trainee's performance based on the observation of the interaction between trainee & patient at real clinical settings at workplace for specified time period. Usually, it is for 15 minutes' period of observation by assessor in which trainee expected to conduct history taking, physical examination including medico-legal examination in given stipulated time. Trainee used to suggest opinion & management plan at the end. The performance observed by assessors graded on nine-point Likert scale (unsatisfactory to superior performance). Different domain-specific clinical assessments were conducted with ratings by different assessor at each session with a final rating of clinical competence done at the end of year.

It enables evaluation with broader set of patients' problems in real time clinical settings where learner can choose a different assessor for each assessment. The various domains of clinical competence can be covered include history

taking, medico-legal examination including physical examination, efficiency, communication skills, professionalism, judgment. This can be used as assessment tool in different clinical settings such as outpatient clinics, wards, ward rounds, on-call shifts.

##### **2. Direct observation of procedural skills (DOPS)**

In DOPS, procedural skills of trainee were assessed in single encounter in real clinical settings on patient. DOPS designed to provide constructive feedback on procedural skills which are essential in the provision of good medico legal & clinical care. An assessor observes a learner performance in practical procedure at real clinical settings and marks the performance on structured checklist. It is scored evaluations by assessor with a face-to-face feedback session based on practical procedures and clinical examinations performed by trainee in a routine practical training with set criteria. It is a valid, feasible and reliable method of assessment in real clinical settings.

The behavioural attributes & procedural skills can be assessed in a DOPS includes the understanding of relevant anatomy, pre-procedure preparations, aseptic precautions, demonstrating the correct technique, communication skills, obtaining written informed consent, technical ability, appropriate sample collections in medicolegal cases, seeking help where needed, overall ability to perform procedure, professionalism, respecting patient's rights.

##### **b. Discussion of clinical cases**

##### **1. Case-based discussion (CbD)**

The CbD is a structured, in-depth discussion on actual case about decision-making & application of medical knowledge in real clinical settings between the expert and the trainee followed by constructive positive feedback. It enables exploration of professional judgment of trainee. It explores how the case is managed, what was exactly done, why and how such decisions taken with reasons for actions by the trainee. It enables medicolegal & ethical discussion at clinical practice. Assessor can evaluate the quality of record maintenance and case presentation. Knowledge, skills, attitudes and behavioral domains judged based on focused questions relevant to these domains.

Assessment generally completed in 15-20 minutes with an immediate feedback in five minutes. Various context of cases presented keeping balance on overall academic curriculum objectives. CbD is superior to objective structured clinical examination (OSCE), as it assesses the physician performance in real clinical settings rather than hypothetical test conditions. Hence, CbD has more face and content validity. CbD explores holistic, justifiable and balanced decisions in complex situations, deciding appropriate course of action, reasons for such decisions, and reflections on end results.

**c. Multisource feedback (360° assessment):**

In Multi-source feedback, a feedback from person's subordinates, co-workers, superiors as well as a self-evaluation gathered. It is a questionnaire-based feedback in which the performance is evaluated by peers, coworkers, patients (customers) & educational experts. Multisource feedback objectively assesses key competencies like interpersonal skills, communications skills, professional expertise, collegiality and the ability to progress in the medical practice. It may lead to gradual enhancements in professional competence.

**1. Mini-peer assessment tool (mPAT)**

mPAT consists of a confidential feedback from different peers on trainee's performance evaluating various aspects of domains such as appropriate diagnosis, application of available investigative tools, medico-legal management, time management, effective communication, stress management and knowledge of self limitations. The data on specific feedback from peers, colleagues and patients can further used to implement modifications in clinical forensic practices.

**2. Team assessment of behaviors (TAB)**

TAB is a one of the forms of multisource feedback assessment for the new doctors assessing professional behavioral domains such as developing professional relationship, maintaining rapport with the patient, effective verbal communications, team work, timely accessibility & availability, leadership qualities, decision making abilities. TAB can be used for summative & formative assessment. It enables improvement in performance.

**3. Patient satisfaction questionnaire (PSQ)**

PSQ includes a formative structured feedback from patient and reflecting on such feedback leading to learners' improvement and professional development of doctor.

**Conclusion:**

WPBA involves assessment of field performance and provide constructive feedback to learner in their routine clinical settings enabling valuable academic insight to learner, assessor with future opportunities to evidence-based interventional and experimental educational models leading significant impact in competency based medical education in Clinical Forensic Medicine.

Faculty needs to be trained in objective evaluations and providing effective constructive feedback for appropriate functionality of this assessment tool creating self directed learning environment in Clinical Forensic Medicine. Institutional or University level introductory seminars, sensitization and training programme on WPBA needed for professional development.

**References:**

1. Medical Council of India-Competency Based Undergraduate Curriculum for The Indian Medical Graduate 2018. Available from: <https://www.mciindia.org/CMS/information-desk/for-colleges/ug-curriculum> (Accessed on 01st December 2019).
2. Deokar R B, Patil S S. Competency based Medical Education curriculum for Undergraduates- Forensic Medicine Perspectives. *J For Med Sci Law* 2019;28(2):1-2.
3. Miller GE. The assessment of clinical skills/ competence/ performance. *Acad Med.* 1990;65:S63-67. [[PubMed](#)] [[Google Scholar](#)]
4. Deokar R B, Patil S S. Competency based Medical Education: a brief overview. *J For Med Sci Law* 2018;27(1):32-33.
5. Miller A, Archer J. Impact of workplace based assessment on doctors' education and performance: a systematic review. *BMJ.* 2010;341: c5064. doi: [10.1136/bmj.c5064](https://doi.org/10.1136/bmj.c5064).
6. Singh T, Modi JN. Workplace-based assessment: A step to promote competency based postgraduate training. *Indian Pediatr.* 2013;50(6):553-559.
7. Norcini J, Burch V. Workplace-based assessment as an educational tool: AMEE Guide No. 31. *Med Teach.* 2007;29(9-10):855-871. doi: [10.1080/01421590701775453](https://doi.org/10.1080/01421590701775453).