

**Title:** Refining undergraduate performance assessment through competency based integrated practical examination

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**What problem was addressed?** This project was introduced to refine the undergraduate performance assessment by integrating various competencies through Competency Based Integrated Practical Examination (IPE). In traditional subject based medical curriculum practical examination revolves around isolated tasks with limited or no clinical relevance and the student remains unaware of the clinical importance of the practical. We at Shifa College of Medicine switched to system based integrated modular curriculum in 2008. A need for integrated assessment was felt for better learning. Integrated Practical Examination was devised to add clinical relevance to practical examination incorporating pre identified competencies (Performance skills, communication skills, reasoning skills, and humanistic qualities/professionalism).

**What was tried:** Our curriculum comprises of spiral 1 (anatomy, physiology and biochemistry), Spiral 2 (pathology, pharmacology, forensic medicine) and clinical clerkships in the last 2 years. Each spiral constitutes Blocks which include 2-3 modules. We administered integrated practical examination at the end of Block II of 2<sup>nd</sup> Spiral, which included 3 modules, gastrointestinal tract (GIT), endocrinology, metabolism, reproduction (EMR), kidney ureter bladder (KUB).

The modular teams identified performance related objectives to develop a blueprint. IPE was constructed by the faculty members from various disciplines. Pre identified competencies based on Can Meds were incorporated. Performance skills, communication skills, reasoning skills, humanistic qualities and professionalism were assessed at various stations. Each IPE station was reviewed extensively by the faculty members. IPE included 15 stations. A clinical case scenario was given at each station, and the candidate was asked to perform 2-3 relevant tasks. Time allowed at each station was 4 minutes. Simulated patients were used for assessing clinical skills. An observer was present at each of the performance stations to evaluate student's performance.

**What lessons were learned:** 95 candidates appeared for the IPE. 80 students (84%) secured 50% or above marks. Reliability of IPE was statistically analyzed; Cronbach's Alpha was 0.643. Faculty and student feedback on IPE was determined by administering questionnaires.

*Student Feedback:*

62% of the students agreed that various competencies were addressed in IPE. 63% thought it reflected integration of various disciplines, 67-68% thought IPE was well

administered, well structured and sequenced. 62% believed that IPE encouraged critical thinking and application of knowledge. 61% agreed that clinical cases and instructions at work station were appropriate, and 57% thought tasks reflected learning objectives as practiced in the module. 51% believed that it helped relate basic science learning with clinical practice, and 58% found time at the stations enough for various tasks. However 63% of the students found going through IPE stressful.

*Faculty Feedback:*

100% of the faculty involved in IPE agreed that it promotes integrated learning and reflects application of laboratory skills in clinical situations. 82% believed that it promotes faculty proficiency in aligning assessment methods with the learning objectives. 94% agreed that IPE helped them appreciate the importance of applying basic science concepts in clinical context to improve contextual learning process.

This evaluation suggests that competency based IPE can be successfully implemented to match an integrated medical curriculum.