Editorial

Can we improve university clinical examination?

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University final clinical examination identifies students if they have achieved the acceptable clinical skill which should have been experienced and learned by them. This experiencing and learning usually takes place in their bedside clinical teaching classes. Dr. Franciscus de la Boe Sylvius, 17th century professor of medicine at the University of Leyden, Netherland said "my method (is) to lead my students by hand to the practice of medicine, taking them every day to see patients in the public hospital, that they may hear the patients' symptoms and see their physical findings" and this statement emphasizes on the importance of having real patients in clinical teaching.[1] This method of teaching clinical skill to undergraduate students has become the standard method of bedside clinical class in the past and many think it should be continued. To use this unchanged state of the art technique we need real patients having different specific historical information, symptoms, and clinical signs. No doubt larger the number of patient exposure the better is the individual learning opportunity. The best way to have this is one to one clinical attachment, which has very high active learning, mutual feedback and modeling behavior in real life setting. But this teaching method can only be applied if we have small number of students and large number of patients in hospitals. The scenario has changed as the number of students in one batch often more than 150, and is divided in group of 30-40 for their bedside clinical class. This large group and one patient raise the question of ethical issue from patient side, learning by students and evaluation of the learner. Especially in paediatrics it will be unethical to keep a crying child surrounded by 20-40 students and discuss the problem around the bed. It is the time to think should we change the teaching methodology in bedside clinical class and if yes, we should also look for the appropriate method of evaluation in our university final examination.

Long and short case examination as it exists?

Many of us who are university examiners and taking university clinical examination must have realized that in many occasions there is lack of real patients and if there are, the ratio of patient and examinee is 1: 4 or 6 or even 10. During long or short cases the signs can not be elicited because there are no patients with the signs and many times if we ask the students if they have seen common signs the answer is "no". It is also unethical to allot same patient every day twice to be examined by the examinee. Many times by 3rd or 4th day patients or guardian often leave the ward against the medical advice (they are forced to stay for the examination). In this situation the examiner and examinee play the role of actor for the examination section of University. Fifteen to twenty five students are examined in one day. Examination starts some where between 9.30 AM and ends at 5 PM with the lunch hour approximately lasting for 1-2 hours. The total time that is available is 6-7 hours which means 15 minutes for one student. Is it possible to evaluate one examinee for all clinical skills and history taking skill that has been learned during their clinical posting in 15 minutes?

Objective structured clinical examination (OSCE) first introduced in 1979 by Harden and Gleeson are being used now but with modifications.[2] Most of the places, OSCE is carried out as SPOT identification and never assessed with check list for clinical skills. These SPOT stations range from 10-25 in different department. These spots are either an x-ray, picture, instrument or laboratory data. All these spots actually do not assess the clinical competence of physical examination or history taking. Gleeson remodel the OSCE with Objective Structured Long Examination Record (OSLER) for the assessment for the clinical competence because of the cost and time in OSCE.[3] In our setup this also seems to be impractical as we do not evaluate in a standardized check lists.

The present system asks the examiner to evaluate the limited clinical skill in 15 minutes in a patient allotted to examinee on chance basis. The examiner evaluates the clinical skill with the following limitations:

a. Same patient is given to different examinees.
b. Short time.
c. Unavailability of patients with specific signs.
d. History taking skill is not observed.

e. Examinee takes history and performs the examination in the same ward where admitted.
f. Examinee knows the diagnosis beforehand.
g. There are no specific written checklists or format for evaluation.

What can be done?

The objective of these clinical examinations is to asses the clinical competences. Therefore it should be designed to test these essential clinical skills (as identified in the curriculum) by the examinee. During past 40 years there has been gradual increase in awareness in communication (history taking) and to a more person centered approach. The Miller's pyramid of competence consists of simulated patients, objective structured clinical competence and multiple choice questions. Simulated patients may fill up the gap for unavailable patient.

The suggested options for the present situation (replacing the long and short cases) are as follows:

a. Problem based MCQ for the entire essential knowledge component. It should cover all the system that has been identified as essential.

b. OSCE may be done in simulated patient for all system examination. There should be different stations for all system.

c. Two OSCE stations for history taking may be incorporated in neonatal and older children.

d. Specific clinical signs are to be identified in curriculum to test the examinee to demonstrate the skill to elicit either in the photograph/video or real patient or manikins.

e. The VIVA section may be done as discussion on case summaries prepared for common problems from each system.

f. Present SPOT examination may be continued with more stations covering the common x-rays / CT of different system, laboratory reports (haematological, biochemical, bone marrow etc) of common problems from different system.

g. Computer generated programs could be developed and linked to a network with the examination division.

This could be achieved by formulating a full time expert committee comprising of medical educationists (or established medical education department) with the objective of identifying the essential clinical skill and essential knowledge component for different clinical competencies based on the curriculum. This may be followed by making question bank of MCQ's and case summaries.

References

1. J Gordon. ABC of learning and teaching in medicine. One to one teaching and feed back. BMJ. 2003. 326; 543-545.
2. Harden RM, Gleeson FA. Assessment of clinical competence using an objective structured clinical examination (OSCE). Medical Education. 1979. **13:** 39-54.
3. Gleeson F. Defects in postgraduate clinical skills as revealed by objective structured long examination record (OSLER). Irish Medical Journal. 1992; **85:** 11-14.