

OBJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE) AS A TOOL OF CONDUCTING EXAMINATION

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ABSTRACT

Objective Structured Clinical Examination (OSCE) concept was given by R.M Harden initially and it is a superior tool of examination to conventional system in terms of reliability and validity. It is now implemented in many medical schools across the world and has become the examination of choice. It consists of timed stations on which different clinical skills of a candidate is evaluated. OSCE consists of static, interactive and rest stations, their number depend on the strength of the examinees. On static station, various academic material as mentioned in syllabus is displayed which includes Chest X-rays, CT scans, data interpretation, spot diagnosis, clinical scenarios, instruments identification etc and it does not need any examiner. Interactive stations can have either real or simulated patient and examiners are provided with an answer key checklist or global rating scale for marking. It is a very demanding way of examination in terms of time, energy and expenses. Despite limitations, it is a worthy, fairer and unbiased examination system.

Key Words: Clinical Competence, Patient Simulation, Physical Examination.

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Objective Structured Clinical Examination (OSCE) is a method of evaluation that is based on objective rather than subjective way of evaluation and direct observation of candidate clinical skills during different stations¹. It was first introduced by R.M Harden in seventies in which examiners expect examinees to show specific clinical skills in specified time period allotted to different stations². The examination of a student is completed once he or she is rotated through all the planned standardized stations^{3,4}. The stations may include various elements of clinical competence such as history taking, examination, scenario, spot diagnosis, counselling, data interpretation, chest x-rays, CT scans, communication skill etc.

The old traditional examination system has many drawbacks in terms of validity and reliability^{5,6}. Different studies also support this new examination method of assessment and its becoming the choice of examination in many medical specialities⁷. OSCE excludes the component of luck, alienates marking variation among

examiners and it accurately imitate the real and daily life events of a doctor^{8,9}.

Due to these advantages of OSCE has compelled the Department of Medicine of Khyber Teaching Hospital, Peshawar to adopt it as an apparatus of assessment. Apart from this, OSCE was also an obligation from examination department of Khyber Medical University, Peshawar. It allows checking vast clinical abilities of candidates. It alleviates the exam-iner bias and it fulfils the objectives of the medical curriculum as well. The Department of Medicine has implemented this new tool of examination since 2010. We now have seven years' experience of arranging this examination and we are in process of refining and improving the material of examination. This format of clinical examination assesses different areas of a candidate like physical examination, identifying physical signs, differential diagnosis, communication skills, clinical judgment and patient welfare. Each clinical competence is assessed through a checklist or global rating scale provided to the examiner. The candidate rotates through timed stations. The time duration can vary from 4 to 6 minutes depending on the level of examination. A warning bell is rung 1 minute before the final time so that a candidate can finalise his/her answer and write it down. The number of stations usually varies from 18-20 depending on the strength of the students.

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At each station, different clinical material that is needed to be tested is displayed. At interactive stations, real and simulated patients are used and an examiner is present and he is provided with answer key checklist or global rating scale. At static stations, examiners are not present and questions are displayed at each station about Chest X-ray, CT scan, data interpretation, scenario, electrocardiography, picture spot diagnosis. The candidate answers the questions at each station and drops the response sheet in the boxes provided at each station and moves on to next station. Rest stations are usually positioned between interactive stations so that examinees can have time of relaxation. We provide drinking water on these rest stations as well. Rest stations vary in number depending on the number of students.

Every examination has some limitations and short-coming, so is the case with OSCE. It does not assess the broad understanding of the student and the skill to manage the patient as a whole is not judged. By this aspect, the conventional way of clinical examination is superior to this new system¹⁰. The OSCE is much more exhausting for both examiners and patients. Examiners repetitively and nonstop, throughout the examination, observe the students taking the history or performing a skill. Similarly it is very challenging to both the real and simulated patients, who have to undergo through the repeated and continuous examination to a number of the examinees^{9,11}. That is why simulated patients perform better than real ones. OSCE requires preplanning and preparation weeks before the day of examination along with standard setting and logistic support. Therefore, it is more demanding in terms of time, energy and expenses. The needs of examiners are also increased as compared to conventional examination system¹⁰. Despite all the downsides of OSCE, it is still a better,

fairer, unbiased and worthy examination system and it will need more improvement and perfection.

REFERENCES

1. Edelstein DR, Ruder HJ. Assessment of clinical skills using video tapes of the complete medical interview and physical examination. *Med Teach* 1990; 12: 155-62.
2. Davis MH. OSCE: the Dundee experience. *Med Teach* 2003; 25(3): 255-61.
3. Dijcks R, Prince KJ, van der Vleuten CP, Scherpbier AJ. Validity of objective tests towards peer-rated competence by students. *Med Teach* 2003; 25(3): 273-76.
4. Hodges B. Validity and the OSCE. *Med Teach* 2003; 25 (3): 250-54.
5. Harden RM, Gleeson FA. Assessment of clinical competence using an objective structured clinical examination (OSCE). *Med Educ* 1979; 13: 41-54.
6. Stillman PL, Brown DR, Redfield DL, Sabors DL. Construct validation of the Arizona clinical interview rating scale. *Education and Psychological Measurement* 1977; 37: 1031-38.
7. Newbie DI. The observed long case in clinical assessment. *Med Educ* 1991; 25: 369-73.
8. Verhoeven BH, Hamers JG, Scherpbier AJ, Hoogenboom RJ, van der Vleuten CP. The effect on reliability of adding a separate written assessment component to an objective structured clinical examination. *Medical Education*, 2000; 34: 525-29.
9. Matsell DG, Wolfish NM, Hsu E: Reliability and validity of the objective structured clinical examinations in pediatrics. *Medical Education*, 1991; 25: 293-99.
10. Elfaki EA, Badrek AH, Jastaniah SA. Objective Structured Clinical Examination (OSCE) Seven Years' Experience From Department Of Surgery, Faculty of Medicine, Umm-Alqura, Makkah, Saudi Arabia. *Sudan JMS* 2008; 3:185.
11. Wilson GM, Lever R, Harden RM, Robertson JIS M, Ritchie J. Examination of clinical examiners *Lancet*, 1978; 2: 37.

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Following authors have made substantial contributions to the manuscript as under:

- Khan M:** Drafting and Literature Review.
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Humayun M: Proof Reading.
Khan A: Bibliography.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.