IMPACT: International Journal of Research in Humanities, Arts and Literature (IMPACT: IJRHAL)
ISSN (P): 2347–4564; ISSN (E): 2321–8878
Vol. 9, Issue 9, Sep 2021, 95–102

OSCE/OSPE: A COMPETENCY TOOL

Arkierupaia Shadap

PhD. Scholar, Assistant Professor, Sikkim Manipal College of Nursing, Sikkim Manipal University, Sikkim, India

Received: 24 Sep 2021 **Accepted:** 27 Sep 2021 **Published:** 29 Sep 2021

ABSTRACT

Objective structured clinical / practical assessment (OSCE / OSPE) is a performance-based assessment to assess a candidate's competency. It is used continuously in nursing practice to measure the professionalism of baccalaureate and graduate students. Systematic, step-wise and organized method of the testing process is very important. Especially in the current situation, it may be realistic to expect its inclusion in the testing program of any medical universities and in the daily examination of the student.

KEYWORDS: *Objective Structured Clinical/Practical Examination, Assessment, Evaluation and Competence*

INTRODUCTION

Traditional tests/evaluation method in the medical training programs have been through faculty subjective tests or selected questions. The traditional test provides a global competency test rather than an individual capability that makes the final answer pointless. Clinical uniformity and clinical reliability and practical application of medical students remain desirable.

OSCE / OSPE is a performance-based assessment to identify the clinical / practitioner's competence. It was originally proposed by Professor Harden & Gleeson, at the University of Dundee, Scotland 1979. 15 years later in 1995, clinical trials were clearly based on written tests. The reason for the change is due to the focus on the response to the demonstrations and the performance of various performance tests. It also improves the balance of qualities/quality measurement.

Objective structured clinical / practical assessment (OSCE / OSPE) are a systematic or systematic approach with a specific focus on skills. It is a method by which students are tested in clinical skills in a series of simulated channels that may include history collection, physical examination, laboratory tests and treatment.

OSCE/OSPE FEATURES

Channels or Stations

Multiple cubicles / channel 5-10 (Figure 1).

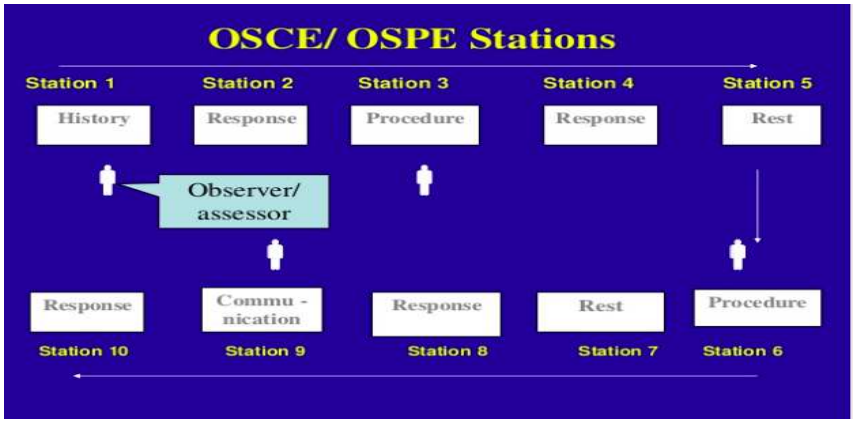

Figure 1: Multiple Cubicles / Channels.

Focused

Channels sample many skills such as:

- Taking history (e.g. taking chest history)
- Physical examination (eg breast examination)
- Practical / technical skills (e.g. rehabilitation of infants in Fig. 2)
- Communication and interpretation skills
- Visual acuity (e.g. patient pulse rate during the procedure)
- Clinical thinking skills (eg interpreting clinical information and determining intravenous fluids).

Figure 2: Focus on a Specific Skill.

Time

Each channel can sit for 5-20 minutes and be:

- Can be a 'real patient' with 'real' clinical symptoms (eg a patient with a heart complaint)
- A character or impersonated patient (eg a character trained to give a limited amount heart history)
- Manikin (e.g. resuscitation manikin for basic life support).

Pre-Determined Criteria

Content verification and terms from expert (Figure 3)

Figure 3: Focus on a Particular Skill.

Higher Level of Knowledge

Can assess a higher level of learner comprehension (Figure 4)

Figure 4: Focused on a High Level of Knowledge.

Doing/Hands-On

Emphasis on what they do; rather than what they know (Figure 5)

Figure 5: Emphasis on Hands-On.

In a Controlled Environment

Clinical activities / time / checklist developed (Figure 6)

Figure 6: Controlled Environment.

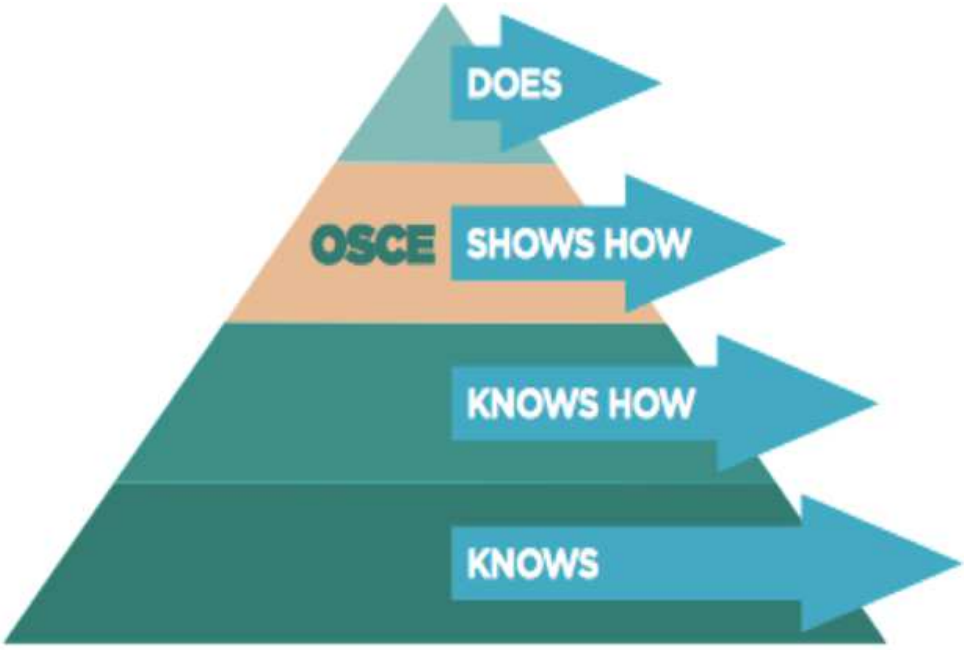

Figure 7: Miller Describes a 'Pyramid' Model of Concept for different Types of Clinical Skills.

According to Miller (Figure 7), students not only need to show that they 'know' the facts that support clinical practice but also 'know' how to apply these facts. In a critical way they also need to 'demonstrate' that they can perform clinical tasks and apply what they have learned in the real workplace. The 'show how' the triangle is important for clinical practice and learning. This aspect of clinical ability has more behavior than just cognitive knowledge. The OSCE is a common way of examining the 'shows how' layer of Miller's triangle.

OSCE/OSPE TEST CHECKLIST

- Channels
- Materials - Articles / Bed / Seats / X-ray / Other Items
- Staff:
  - Examiners
  - Patients in need of motivation
  - Imitation patients who need training
  - Assistants
- Test/Score Sheets
- Learners/Students Sheet
- Timekeepers with buzzer

Student Preparation before the Process

To increase students' confidence in the performance of skills, the preparation of OSCE / OSPE is very important. The constructive or mock about the OSCE also increases self-confidence, competence and strength.

Students preparing for the OSCE must:

- Psychologically prepared
- Be familiar with how machines work
- Practice skills
- Know the OSCE time
- Have skill development
- Check date, time, location.

OSCE Process / Format

- Examiners, candidates / students and patients will be notified before the date, time and place of the OSCE.
- On the day of the OSCE testers, examiners will find out briefly about the OSCE and specific channel instructions.
- Imitated patients/simulated patients also receive an information session
- Students are informed of the OSCE format and what is expected of them.
- Learners are arranged in sequence in front of each channel / cubicle.
- With the sound of a bell students can enter the station to do the task.

- Inspectors/examiners monitor students doing the activity and mark their performance using a standard mark sheet.
- Examiners are expected to take a neutral role and are encouraged not to inform students in any way unless indicated in their instructions.
- Once the subjects have completed the task/procedures, they must remain inside the station until the next bell sounds.
- Only the callers' sound - switch to the next station.
- All learners /students will have the opportunity to relax in the living room.

Strengths of OSCE/OSPE

- Variety keeps interest
- A large number of students can be tested in a short time
- The use of a real-life environment

Weaknesses of OSCE/OSPE

- It involves many planning:
  - Screening skills / knowledge to be tested
  - Preparing checklists for small skills
  - Repair of station response keys
- It is often distinguished by the skills of tested skills, rather than testing the whole range of skills in one setting.
- It takes time and effort on the part of the examiners (especially to assess senior students)
- It is expensive
- It requires careful planning
- Murphy Index

The OSCE / OSPE Summary is

- Have a clear set of goals
- Identify the practical aspects of the objectives in terms of the tasks which the students must be able to do if the objectives is to be attained
- Of the tasks, select the TASK for assessment in the current examination
- Break the task down into SUB-TASKS
- Assign SCORES for each sub-task, the total marks and the TIME required from the task

- Set up STATIONS ensuring that each station is complete in all respects:
  - Instruction
  - Materials
  - Patient/Simulated patient
  - Assessor
    - ✓ An assessor, if the station is a procedure, history, communication station, then the EXAMINER must be the assessor, since direct observation must be done.
    - ✓ But in response stations, there is generally no need for an EXAMINER. Assistant will be there clarification if needed.

CONCLUSIONS

OSCE/OSPE can identify students who are weak in performing clinical skills. Any change must first be thoroughly evaluated before it can uproot a well-defined and time-tested assessment methodology. In the current situation, it may be realistic to expect its inclusion in the evaluation schedule of universities and in day-to-day assessment of baccalaureate and postgraduate students to improve their clinical competence.

ACKNOWLEDGEMENT

The author would like to thank SMCON, SMU Research Unit and the researchers/authors of cited articles.

CONFLICT OF INTEREST: None

REFERENCES

1. *Muthusami.A; Mohsina.S; Kumar.S.S; Anandhi.A; Elamurugan.T.P; Srinivasan.K; Mahalakshmy.T; Kate.V. Efficacy and Feasibility of Objective Structured Clinical Examination in the Internal Assessment for Surgery Postgraduates. Journal of Surgical Education. 2017; 74(3): 398-405*
2. *Jelly P, Sharma R. OSCE vs. TEM: Different approaches to assess clinical skills of nursing students. Iranian J Nursing Midwifery Res. 2017; 22:78-80*
3. *Radhika G, Dara A K, Varalaxmi K P, Bhavani C. Perceptions of the introduction of objective structured practical examination (OSPE)/ objective structured clinical examination (OSCE): A pilot study carried out in Government Medical College, Ananthapuramu, Andhra Pradesh, India. JNTR Univ Health Sci. 2015; 4: 145-9*
4. *Miller G. The assessment of clinical skills/competence/performance. Academic Medicine. 1990; 65(9): 63-67*
5. *Harden R.M., Stevenson M., Downie W.W., Wilson. G.M. Assessment of Clinical Competence using Objective Structured Examination. British Medical Journal. 1975; 1: 447-451*
6. *Beckham N. Objective Structured Clinical evaluation effectiveness in clinical evaluation for family nurse practitioner students. Clinical Simulation in Nursing. 2013; 9 (10): e453-e459*
7. *Sharma. S.K., Sharma R. Communication and Educational Technology.2012. First edition, 385-388*

8. *Basheer. S.P. Text book of nursing education. 1st Edition.*
9. *Liddle. C. Nursing Times.2014; 110 Online issue. www.nursingtimes.net*
10. *Street P, Hamilton L. Preparing to take objective structured clinical examinations. Nursing Standard. 2010; 24: 34, 35-39*
11. *Alinier G. Nursing students' and lecturers' perspectives of objective structured clinical examination incorporating simulation. Nurse Education Today. 2003; 23(6): 419-426.*

EVALUATION/EXAMINER'S SHEET

Procedure: Measuring of Radial Pulse Rate

Skill Station No.:

Title: Measuring of radial pulse rate

Instruction: Observe if the student's is performing the following steps correctly. Score 1'' for each point conducted correctly or mark '0' if the task is incorrectly done and calculate the score.

Table 1: Sample of OSCE/OSPE Checklist

S/N	Step/Task	Marks	Students' Registration no.				
1	Inform the client about the procedure	1					
2	Check that the patient's arm is resting comfortably	2					
3	Locate the radial pulse and applies the appropriate amount of pressure to feel the pulse	2					
4	Count pulse for 60 seconds, using a watch with a second hand	2					
5	Inform patient of pulse rate and explains whether it is within the normal range	1					
6	Records pulse rate on vital signs chart	2					
	Total Marks	10					

Comments (If Any)

Signature of Evaluator

Date