

Orientation of Objective Structured Clinical Examination (OSCE) and Simulation

Renu Nagar¹, Balraj Sharma²

¹Principal, S.N. Institute of Nursing Sciences, Nirwan University Jaipur

²Assistant Professor, S.N. Institute of Nursing Sciences, Nirwan University Jaipur

Corresponding Author: Prof. Renu Nagar, Principal, S.N. Institute of Nursing Sciences, Nirwan University Jaipur

E-mail: vp.nursing@nirwanuniversity.ac.in

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Abstract:

Background: An adaptable, all-purpose evaluation tool called the Objective Structured Clinical Examination can be used to rate healthcare practitioners in a clinical context. It evaluates competency through unbiased testing conducted by direct observation. It allows for standardized testing of students for a wide range of clinical abilities because it is precise, impartial, and reproducible. In contrast to a conventional clinical exam, the OSCE could assess competencies most important to a health care professional's performance, like communication skills and the capacity to deal with unpredictable patient behavior.

Keywords: Review; Clinical Skill; OSCE, Clinical; Examination, Healthcare

Objective Structured Clinical Examination (OSCE)

Introduction

The objective structured clinical examination (OSCE), first introduced by Haden and Gleeson as a technique of student evaluation in medical school in 1975, has evolved into a common assessment tool for both undergraduate and graduate students. The OSCE exam was originally described as "a timed examination in which medical students interact with a series of simulated patients in stations that may involve history-taking, physical examination, counseling, or patient management," but its purview has since been greatly expanded, and it has undergone extensive modification to accommodate unusual circumstances. The OSCE is the usual method of evaluating competency, clinical skills, and counseling sessions in the United Kingdom, United States, Canada, and in fact most reputable medical colleges. It complements cognitive knowledge testing in essay writing and objective examination satisfactorily.

OSCE Stands for Objective Structured Clinical Examination.

It is a method to evaluate student proficiency in a variety of areas depending on certain goals or alteration in behaviour.

The aim of OSCE assessments is to evaluate a candidate's skills and knowledge in a particular topic.

Advantages

- The evaluation of a wide range of knowledge and skills that are logically connected to competency
- Input from multiple evaluators
- We can examine/assess multiple individuals at the same time

- Give a trustworthy and accurate evaluation.
- Rapid decision-making and grading

Characteristics

- Same amount of time for everyone
- Pre-determined performance criteria
- Using a pre-set check list to score
- Identical task

Stations

1. Unmanned OSCE Station – Examiner is present throughout
2. Manned OSCE Station – No examiners at the station. Answer submitted on paper either after the station or after the end of all the stations.

Examination Process

- The required number of stations are installed in the skills lab.
- Students move through a number of stations where they complete tasks or respond to questions (oral or in writing) while being monitored.
- Often 10 to 20 stations
- Every student is given the same evaluations.
- Students may perform a skill demonstration, analyse diagnostic data, or react to brief inquiries or case studies.
- Every station has a time constraint (5-10 min)
- An evaluator at each station that requires observation
- The same standards are used to evaluate every student (checklists)
- Through role-playing, students can interact with a standardized patient.

Steps to Prepare an OSCE

- Determine the target competencies.
- Choose a challenge, topic, or action that applies to each competence.
- Create a station layout plan.

Conduction of OSCE – Example Plan

- Number of students : 50
- Number of stations : 10 (6 basic skills + 4 advanced skills) 1 rest station
- Time for each station : 5 min
- Duration of each session : 55 minutes
- Total time for OSCE : $55 \times 10 = 550$ minutes = 9.17 hours
- Number of evaluators : 10
- Moderator : 1

At one OSCE station ...

- Articles and tools required for doing the skill
- A Simulator or standardized patient
- A Checklist
- An Evaluator
- A Student

OSCE Process

Before the OSCE

- Discuss previous practice sessions with the student.
- Inquire if the student is prepared to be evaluated and has any questions regarding the skill.
- This is not coaching; it is orientation.
- Explain the floor plan

During the OSCE

- Examine and evaluate the participant's performance.
- Watch the student do the action from a distance while you can observe without interfering.
- Avoid interfering (Dangerous acts can be discussed with student after the OSCE)
- Remember... Feedback MUST be postponed until all OSCE stations have been completed.

After the OSCE

- Review the student's performance (the student identifies what went well and needs improvement to be improved)
- Give encouraging comments; and make suggestions for development.
- Determine whether the student is capable or needs more practice. shares what she or he did well and what could be improved)

Use Results to Improve

- Give students the opportunity to ask concerns about the procedures and mistakes made.
- Students should be told to practice the techniques they used incorrectly.
- If many students had issues at the same stations, the resources or instructional methods used to accomplish that learning target were unsatisfactory.

Simulation

Simulation is used for teaching theoretical and clinical skills, while focusing on the promotion of the critical thinking of students.



Process of learning

- Simulation is the 4th cell in the circle of learning after knowledge acquisition, skill proficiency, and decision making.
- All others are very individualistic and simulation is a group activity where interdisciplinary teams come together to learn.
- It is a technique, rather than just a technology that promotes experiential and reflective learning.

Advantages

- Students can refine and apply their skills in realistic healthcare situations
- Learning tailored to the educational needs of students
- Allows unlimited creation of situations that might be too dangerous or expensive to perform live
- Allows students repeated practice of procedures to reach proficiency
- Allows adherence to standard guidelines by reinforcement
- Allows evaluation of individual or group performance
- Scenarios can be halted at any time to allow for discussion of management strategies
- No issues of patient safety or confidentiality

Challenges in Clinical Teaching

- There are limited learning exposure
- Student-patient ratio
- Decreased length of stay
- Limited clinical sites
- Faculty shortage
- Patient safety initiatives

Structure of Simulation

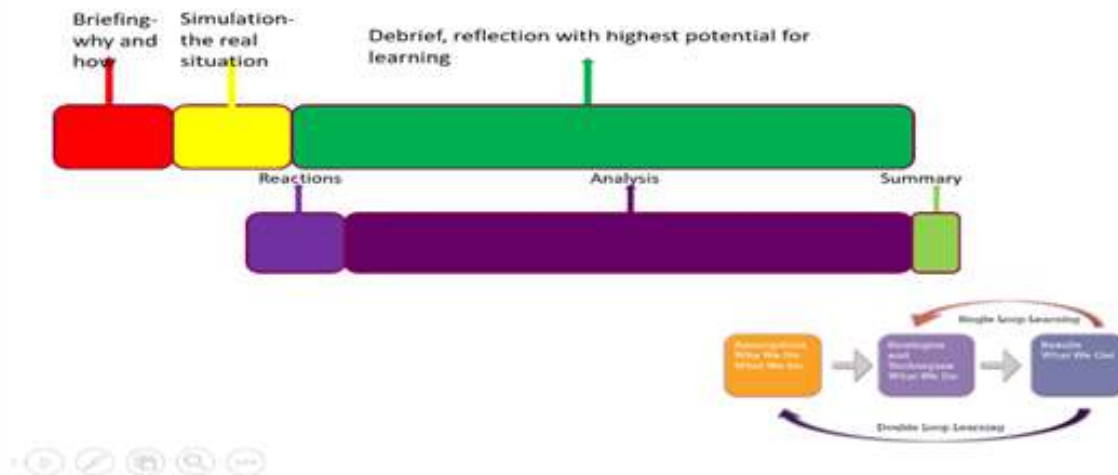
1. Pre-Brief
2. Scenario
3. Debriefing



Pre- Brief

- Introduction of the Scenario
- Assumptions of roles
- Confidentiality will be explained to the group
- Simulators, medical equipment and location of supplies
- Fiction contract
- Learning objectives will be specified to the group
- Role of actors and Simulated patients
- Stem of the Scenario

Scenario: -



Debriefing

- Set the Scene –
- Description –
- Analysis, Reflection and Self-analysis –
- Summarization –



Classification

- Compiler driven - Specific part-task trainers replicating a particular part of the anatomy.
- Standardized patient's/care actors - These are actors trained to reliably role-play history taking, physicals, and test communication skills in a clinical encounter
- Hybrid simulation - Combination of standardised patients and part-task trainers
- Computer-based simulators - Uses mouse-and-keyboard navigation for multiple pharmaco-physiological models

Fidelity

- Fidelity is the common industry term used in simulation to describe the degree of realism and technical complexity of models.
- This is dictated by the needs of the application; more complex is the task, more is the fidelity of the model.
- Low fidelity models can be developed and updated rapidly while high-fidelity models cost more to engineer and maintain but are more flexible when applied to different uses.
- Not everything needs to be taught in a high-fidelity simulation.

Designing the Simulation Scenario

- Learning objectives
- Setting the scene

- Each candidate role
- Brief to candidate
- Staff required to run scenario

Financial Support and Sponsorship: Nil

Conflict of Interest: There are no conflicts of interest

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