

OSCE Finest Practice Guidelines – Pertinency for Nursing Simulations

Dipankar Maiti^{1*}, Victoria Sarvand²

¹Nursing Tutor, Sushrutha College of Nursing, Rajiv Gandhi University of Health Sciences, Karnataka, India, ²Professor & HOD, Department of Obstetrics & Gynecological Nursing, Adichunchanagiri College of Nursing, Adichunchanagiri University, B.G. Nagara, Mandya, Karnataka, India

How to cite this article: Maiti D, Sarvand V. OSCE Finest Practice Guidelines – Pertinency for Nursing Simulations. 2022;14(4):26-31.

ABSTRACT

OSCEs are a form of simulation and are often collective but may be determinative. This educational tactic requires robust design based on sound pedagogy to assure practice and evaluation of holistic nursing care. The OSCE, first used in the 1970s, is an assessment of capability carried out in a well-planned, arranged and objective way. Summative OSCEs are often used at the end of courses or programmes or on accomplishment of a module to test students in contradiction of set objectives and learning consequences. OSCE is used in different areas like history taking skills, interpersonal and communication skills, Mental Health Assessment, clinical diagnosis making, clinical problem-solving skills etc. Preparation is vital and increases students' self-confidence in performing skills during the OSCE and in clinical areas. The OSCE examination entails of about 10-15 stations, each of which requires about 4-5 minutes. The number of stations and time consumed on each station may vary based on needs of evaluation. Thus, using 15 stations of 4 minutes separately, 15 students can complete the examination within 1 hour. The OSCE style of clinical evaluation, given its obvious advantages, specifically in terms of objectivity, standardization and resourcefulness of clinical scenarios that can be measured, shows superiority over so called clinical assessment methods especially in medical fields majorly in nursing practices.

Keywords: Response Stations, Assessment, Procedure Stations, Simulations, BLS, Peak Expiratory Flow Rate.

BACKGROUND

OSCE have been used for many years within healthcare programmes as a degree of students' and clinicians' clinical performance. OSCEs are a form of simulation and are often collective but may be determinative. This educational tactic requires robust design based on sound pedagogy to assure practice and evaluation of holistic nursing care. As part of a project testing seven OSCE including

BPGs across three sites, the BPGs were applied to an existing simulation activity. The aim of this study was to determine the pertinency and value of the OSCE including BPGs in an existing influential simulation.¹

INTRODUCTION

OSCE is a modern type of examination often used in health science (e.g. medicine, dentistry, nursing, pharmacy and

Corresponding author: Dipankar Maiti, Nursing Tutor, Sushrutha College of Nursing, Rajiv Gandhi University of Health Sciences, Karnataka, India

Email: dipankarmaiti2015@gmail.com

physiotherapy) to assess clinical skill performance and competence in skills such as communication, clinical examination, medical and nursing procedures or prescription, exercise prescription, joint mobilization or manipulation techniques and interpretation of results.

As per **Harden** the OSCE is an approach to the assessment of clinical competence in which the components of competence are assessed in a planned or structured way with attention being paid to the objectivity of the examination.

METHODOLOGY

We performed a PubMed, Google Scholar, Cochrane quest in May 2022 by using the phrases OSCE, Modern Clinical Evaluation techniques, Nursing Evaluation Techniques etc. The search borne almost 49 papers, including reviews, case reports, case series, and clinical studies. After excluding the 15 non-English reports without an English abstract, we encompassed the remaining 34, irrespective of publication date.

HISTORY

The OSCE, first used in the 1970s, is an assessment of capability carried out in a well-planned, arranged and objective way (Harden and Gleeson, 1979). It is well established within medicine and is used progressively in nurse education (Nulty et al, 2011).

The valuation of knowledge and skills plays an important part in student nurses' evolution though pre-registration programmes because they need to demonstrate competency and self-confidence in the performance of clinical skills (Nursing and Midwifery Council, 2007).

OSCEs are used to analyse, clinical skills in both pre-registration and postgraduate programmes (Rushforth, 2007; Major, 2005). The NMC has published essential skills clusters in response to the poor acquisition of clinical skills within nursing, and suggested using OSCEs for evaluating student nurses for medicines supervision in particular in 2007.²

EVIDENCE FOR OSCE

The pyramid of capability (Miller, 1990) is a framework that classifies the stages of skills students should achieve. In continuing up the pyramid to "shows how", students reveal their knowledge and understanding by carrying out in a simulated setting such as an OSCE.

OSCEs may be used as a collective or determinative assessment and on their own or with another form of evaluation. Summative OSCEs are often used at the end of courses or programmes or on accomplishment of a module to test students in contradiction of set objectives and learning consequences. Where they are used as a formative assessment, the feedback provided helps students to advancement (Taras, 2005; Alinier, 2003). Formative OSCEs also help to concoct students for placements, inspire them to engage with their learning and help them to accomplish their learning outcomes (Nulty et al, 2011).

The NMC (2010) says programme providers for pre-registration nurse education must confirm "the outcomes, capabilities and aptitudes of the approved programme are tested using valid and unswerving assessment methods". OSCEs assess students' psychomotor, cognitive and affective skills in a simulated environment and various tools score their performance.²

PURPOSES

According to Boursicot, Ware and Hazlet(2011)-

- Measures clinical skills
- Match assessment to intended constructs
- Promote planned interaction between student and examiner
- Make structured marking scheme possible
- Present all candidates with the similar test
- Promote objectivity

USES OF OSCE

- ✓ History taking skills
- ✓ Interpersonal and communication skills

- ✓ Mental Health Assessment
- ✓ Clinical diagnosis making
- ✓ Clinical problem-solving skills
- ✓ Patient education
- ✓ Health promotion
- ✓ Acting securely and appropriately in a crucial clinical situation
- ✓ Basic and advanced nursing care procedures practices

STEPS IN IMPLEMENTING OSCE

- ❖ Have set of clear objectives
- ❖ Identify the practical aspects
- ❖ Select the task
- ❖ Set up situations
- ❖ Assign scores for each sub tasks
- ❖ Set up situations
- ❖ Conduct after orienting students and examiners
- ❖ Make notes of the process and review
- ❖ Analyse the results and use the same for student assessment

OSCE INVOLVES

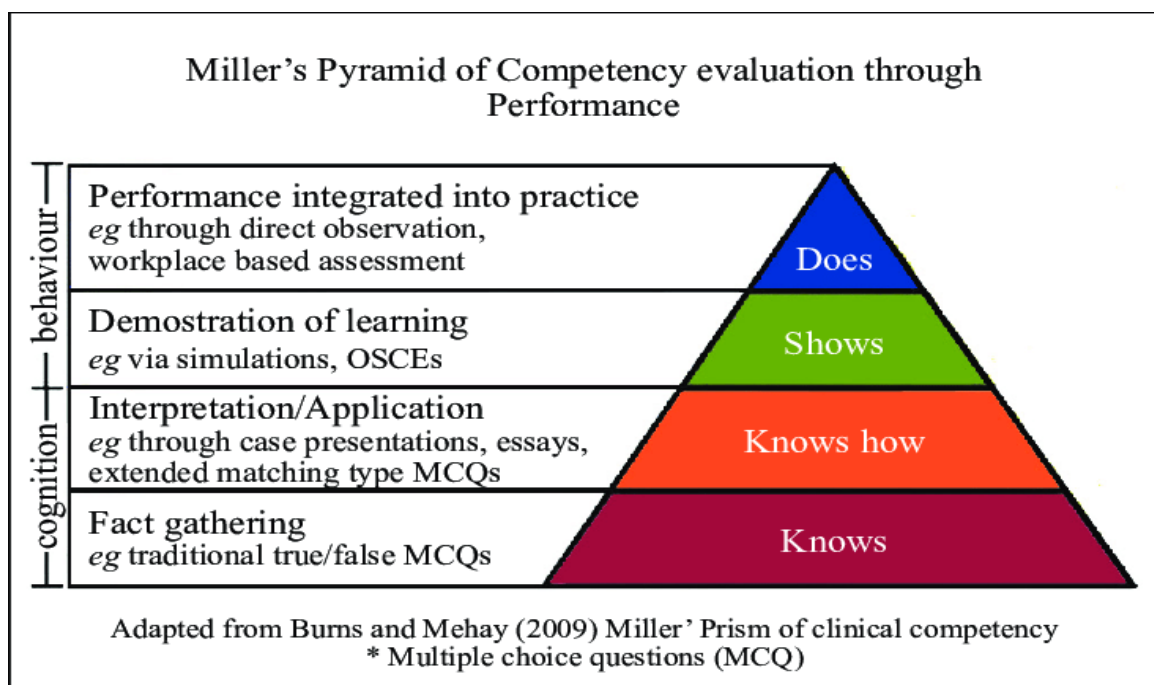
The OSCE is made up of six distinct stations using replicated patients in a clinical setting.

Four stations are considered to test the candidate's knowledge and understanding of assessment, planning, implementation and evaluation of care. The remaining two stations test clinical skills. Typical skills which we could be tested on, within a nursing scenario comprise but are not limited to:

- ❖ Vital Signs
- ❖ Peak Expiratory Flow Rate
- ❖ Wound care
- ❖ Safe Disposal of Sharps
- ❖ Medication Administration
- ❖ Urinary Catheterisation
- ❖ Hand Hygiene
- ❖ Calculating Drug Dosages
- ❖ Intramuscular and Subcutaneous Injections
- ❖ BLS

COMPONENTS OF OSCE

- ❖ The examination coordinating committee
- ❖ The examiners examination site
- ❖ The examination coordinator
- ❖ Lists of skills, behaviours and attitudes to be assessed
- ❖ Criteria for scoring the assessment



- ❖ Examination stations
 - Time and time allocation between stations
 - Anatomic models for repetitive examinations
 - Couplet station
 - Examination questions
 - Examination station circuit
 - Patient(real/simulated)
 - Time keeper/Time clock and time signal
 - Contingency plans
 - Environment of exam station
 - Assessment of the performance of the OSCE
 - Viva-Voce or Oral examination

FREQUENCY OF OSCE

We can take a supreme of three OSCE attempts as part of our NMC application. We will need to wait at least 10 days between to each sitting.

If we're not able to pass our OSCE on the third attempt but the application will close and the contestant will need to start a new application. But the contestant needs to wait at least six months before you can sit the OSCE again.³

STUDENT GROUNDWORK FOR OSCE

Preparation is vital and increases students' self-confidence in performing skills during the OSCE and in clinical areas (Street and Hamilton, 2010). Determinative or mock OSCEs also increase poise and competence (Alinier, 2003). Students concocting for an OSCE should:

- Be emotionally prepared,
- Be conversant with how equipment works,
- Develop skills on clinical placement,
- Revise the underpinning theory of skills,
- Be accustomed with checklist/design criteria,
- Rehearse skills,

- Know the timing of the OSCE,
- Use response from mock or formative OSCEs,
- Know which procedures or guidelines are to be used in the OSCE,
- Use obtainable resources such as guided study, quizzes and videos,
- Check whether the candidates should wear uniforms,
- Confirm the date, time, venue and allow enough time to get there,
- Practise responding questions verbally.

STUDENT THROUGHOUT OSCE

- ❖ Pay attention to verbal and written directions and clarify any queries with the assessor before the student starts
- ❖ Should check all the equipment we will need is present at the station
- ❖ Should stay tranquil and attentive
- ❖ Inform the assessor if we forget to do something, as we may still have time to do it
- ❖ Should keep an eye on the time
- ❖ Communicate with the patient
- ❖ On accomplishment, take a moment to run through in the mind what the examinee were asked to do and check that the examinee have completed the task or not.²

SAMPLE OF OSCE EVALUATION IN NURSING

Marking Criteria	Score
Pain Assessment	()/4
Vital signs Assessment	()/4
Abdominal Assessment	()/4
Cardiac Assessment	()/4
Respiratory Assessment	()/4
History inquires	()/4
Data recording with marking the abnormal signs	()/4
Explanation for the potential causes for abnormal signs	()/4
Reasonable and correct information used and clear explanation	()/4

ORGANIZATION OF THE OSCE

- ❖ The OSCE examination entails of about 10-15 stations, each of which requires about 4-5 minutes. The number of stations and time consumed on each station may vary based on needs of evaluation.
- ❖ All stations should be proficient of being completed in the same time.
- ❖ The students are rotated through all stations and have to move to the next station at the signal.
- ❖ As the stations are generally sovereign, students can start at any procedure stations and complete the cycle.
- ❖ Thus, using 15 stations of 4 minutes individually, 15 students can complete the examination within 1 hour.
- ❖ At some stations called procedure stations, students are given tasks to accomplish on patients or simulators. At all such stations there are onlookers with agreed upon checklists or rating scales to score the student's performance.
- ❖ At other stations called response stations, students answer to questions of the objective type or interpret data or record their findings of the preceding procedure stations.⁴

POSITIVE ASPECTS OF OSCE IN NURSING

- SIMULATED OSCE STATIONS
 - ✓ They are meticulous and safe
 - ✓ Feedback from modern sophisticated simulators can be attained
 - ✓ Simulators are readily available when mandatory
 - ✓ Scenarios that are worrying to real patients can be simulated.
 - ✓ In simulated stations, the patient adjustable in examination is uniform across trainees.
 - ✓ Simulated stations can be custom-made to the level of skill to be assessed

➤ REAL LIFE OBSE STATIONS

- ✓ It provides actual competence of a person on performance because flawless 'textbook' scenarios may not mimic real-life situations
- ✓ OSCEs allow valuation of complex skills which may not be possible at simulated stations.
- ✓ Real-life circumstances may be more cost-effective.⁵

CHALLENGES CORRELATED TO OSCE IN NURSING

- Lack of feasibility due to time obliges
- Lack of training for use of OSCE
- Shortage of observers or examiners
- Lack of attention in examiners
- Lack of obligatory guidelines for practical examination by universities⁶

ADVANTAGES OF OSCE

- Uniform scenarios for all runners
- Obtainability
- Safety, no peril of injury to patients
- Stations can be tailored to level of skills to be evaluated
- Allows for teaching audit
- No risk of litigations
- Feedback from actors(simulators)
- Allows for reminiscence
- Allows for demonstrations of emergency skills

DISADVANTAGES OF OSCE

- ❖ Expensive
- ❖ Takes long time to paradigm a case and a scoring checklist
- ❖ Technical limitations
- ❖ Shortage of examiners
- ❖ Might be quite distressing to the students⁶

CONCLUSION

The OSCE style of clinical evaluation, given its obvious advantages, specifically in

terms of objectivity, standardization and resourcefulness of clinical scenarios that can be measured, shows superiority over so called clinical assessment methods. It permits evaluation of clinical students at variable levels of training within a relatively short period, over an extensive range of skills and issues. OSCE eliminates prejudice in examining students and allows all to go through the same scope and criteria for assessment. This has ended it a worthwhile method in medical practice.

LIST OF ABBREVIATIONS

- OSCE : Objective Structured Clinical Examination
- BPGs : Best Practice Guidelines
- NMC : National Medical Commission
- BLS : Basic Life Support

SOURCE OF FUNDING

Self(review aticle), No financial support was provided relevant to this article.

CONFLICT OF INTEREST: Have no conflict of interest relevant to this article

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

ETHICAL CLEARANCE: Not required

BIBLIOGRAPHY

1. Kelly MA, Mitchell ML, Henderson A, Jeffrey CA, Groves M, Nulty DD, et al. OSCE best practice guidelines—applicability for nursing simulations. *Advances in Simulation* 2016 1:1 [Internet]. 2016 Apr 2 [cited 2022 May 3];1(1):1-10. Available from: <https://advancesinsimulation.biomedcentral.com/articles/10.1186/s41077-016-0014-1>
2. The objective structured clinical examination | *Nursing Times* [Internet]. [cited 2022 May 3]. Available from: <https://www.nursingtimes.net/roles/nurse-educators/the-objective-structured-clinical-examination-22-08-2014/>
3. OSCE for Oversea Nurses | *Global Nurse Force* [Internet]. [cited 2022 May 3]. Available from: <https://globalnurseforce.com/blogs/everything-you-need-to-know-about-nmcs-osce-for-overseas-nurses/>
4. Abdalla A, Mohammed K. The Objective Structured Clinical Exam (OSCE): A Qualitative Study evaluating Nursing Student’s Experience. *International Journal of Science and Research* [Internet]. 2013 [cited 2022 May 8];5:2319-7064. Available from: www.ijsr.net
5. Majumder MAA, Kumar A, Krishnamurthy K, Ojeh N, Adams OP, Sa B. <p>An evaluative study of objective structured clinical examination (OSCE): students and examiners perspectives</p>. *Advances in Medical Education and Practice* [Internet]. 2019 Jun 5 [cited 2022 May 8];10:387-97. Available from: <https://www.dovepress.com/an-evaluative-study-of-objective-structured-clinical-examination-osce--peer-reviewed-fulltext-article-AMEP>
6. Ataro G, Worku S, Asaminew T. Experience and Challenges of Objective Structured Clinical Examination (OSCE): Perspective of Students and Examiners in a Clinical Department of Ethiopian University. *Ethiopian Journal of Health Sciences* [Internet]. 2020 May 1 [cited 2022 May 8];30(3):417. Available from: [/pmc/articles/PMC7445939/](https://pubmed.ncbi.nlm.nih.gov/3445939/)
7. Zayyan M. Objective Structured Clinical Examination: The Assessment of Choice. *Oman Medical Journal* [Internet]. 2011 Jul [cited 2022 May 8];26(4):219. Available from: [/pmc/articles/PMC3191703/](https://pubmed.ncbi.nlm.nih.gov/2191703/)