



Improving Clinical Competence – The OSCE way

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Assessment of clinical competence is an essential requirement of nursing education because nurses need to demonstrate competency and confidence in the performance of clinical skills. The main aim of a valid assessment of clinical competence is to test what the clinical student actually does in the workplace. Assessment of student's clinical competence is of paramount importance for optimally improving clinical performance. Determining the clinical competency of nursing students before graduation involves many challenges. During their education, undergraduate nursing students should acquire skills necessary for future professional activity. Nursing institutions teach students to perform the necessary skills and test those skills with competency assessments. Using the right method of evaluation plays a significant role in getting the appropriate result and making the right judgment (Čukljek, S., Sestrinstvo, Znanje I., Izvrnost. 2010).

Evaluating students' clinical performance is one of the most challenging responsibilities of a nursing instructor. Effective and accurate clinical evaluation should be of their concern. There is a reasonable expectation for evaluation to be objective, fair, specific, and documented. Traditional tools for assessment (e.g. essay type questions etc) had a drawback of being more subjective than objective. One type of assessment which meets these criteria is a performance-based assessment. An example of a performance-based assessment is the "OSCE" (Objective Structured

Clinical Examination) (Ahmad, C., N. Ahmad, & Abu Baker R. 2009).

Newer objective methods of assessment like OSCE assess the students in a better way for their clinical skills thus leading to enhanced clinical skills training, better student's performance and improved teaching methodologies following faculty feedback by students by proper assessment of their cognitive domain (Ozuah, PO., Curtis, J., Dinkevich, E. 2001). The Objective Structured Clinical Examination (OSCE) has been in use in the assessment of medical students for over 20 years. In the last 10 years, there has been increasing interest in this form of assessment in other health professional disciplines, such as nursing and physiotherapy (Walters and Adams, 2002).

Studies conducted in various field proves that OSCE to be an effective tool for evaluating nursing students' clinical performance/competence and theoretical knowledge. The objective of OSCE is to reduce the chances of examiner bias and assess the students' skills. The concept of OSCE was developed and introduced by Ronald Harden more than thirty-five years ago which is being extensively used in the developed nations, as a tool for assessing professional standards be it for training, selection or for career enhancement purposes, especially in the Nursing profession. However, it is a matter of concern that OSCE is not being adequately put into practice or implemented in Nursing institutions in India. This article aims at highlighting the need and importance of OSCE for enhancing proficiency in clinical

practice and performance of Nursing professionals in particular.

What is OSCE?

Since the original OSCE, many definitions of this assessment technique have been proposed; Harden (1988) defined it as; “An approach to the assessment of clinical competence in which the components are assessed in a planned or structured way with attention being paid to the objectivity of the examination”.

Byrne and Smyth (2008) described OSCE for short is as an approach to students’ assessment in which aspects of clinical competence are evaluated in a comprehensive, consistent and structured manner, with close attention to the objectivity of the process.

Based on various descriptions of OSCE in the literature K. Z. Khan et al. (2013) proposed a consolidated definition of the OSCE; “An assessment tool based on the principles of objectivity and standardisation, in which the candidates move through a series of time-limited stations in a circuit for the purposes of assessment of professional performance in a simulated environment. At each station candidates are assessed and marked against standardised scoring rubrics by trained assessors”.

Since its introduction as a mode of students’ assessment in medical school in 1975, by Harden and Gleeson, the Objective Structured Clinical Examination (OSCE) has become a standard method of assessment in both undergraduate and postgraduate students. 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, counselling or patient management. OSCE which is later extended to OSPE - Objective Structured Practical Examination (Harden, R.M., Gleeson, F.A. 1979).

OSCE – A historical perspective:

The development and use of OSCE in clinical education can be traced back to the 1960s in the United Kingdom. OSCEs were first employed in medical schools to address the growing dissatisfaction with traditional oral and written examinations. Specifically, there was concern about the validity of these evaluations and whether the

learning transferred into clinical practice (Agarwal, A et al., 2010).

OSCE was originally conceptualized by Harden and Gleeson at the University of Dundee in 1975 as a solution to the difficulties of adequate sampling and standardization common with traditional assessment methods (Wass et al., 2001)

In their study on OSCEs, Harden et al., (1975) recommended OSCE as an alternative to traditional clinical testing methods due to its objectivity, reliability and ability to test multiple competencies in a controlled standardized manner, thus eliminating non-candidate variance in results (Marwaha, 2011). Although OSCE evolved from medical education, it has been used extensively in nursing worldwide. It allows for testing of a wide range of knowledge, skills and attitudes and can accommodate large numbers of examinees in one examination session (Shadia et al., 2010).

OSCEs have been reported to be beneficial as they enhance skill acquisition through hands on approach and affords students to practice in a safe controlled environment. Despite its positive attributes the cost of implementing OSCE is high in terms of personnel, facilities, finances, time for examinees, Standardized Patients and faculty (Evans 2008).

Need and Importance of OSCE:

Nurses are trained with specific clinical skills. Many studies have proved that Objective Structured Clinical Examination (OSCE) could be a better approach to assess clinical skills of nursing students. Determining the quality of students learning is an ongoing challenge to all nursing students as well as for the educators due to limited sites for clinical placements, varying clinical hours, and no consistent assessment of practice tools (Crookes, PA et al., 2010). Besides, the students’ clinical experiences are not equivalent because of varying exposure to different patients making it difficult to measure individual and program outcomes (Rentschler, DD 2007).

Studies conducted in various field proves that OSCE to be an effective tool for evaluating nursing students' clinical performance/competence and theoretical knowledge. OSCE will enhance the confidence of undergraduate nursing students while taking care of clients in health care settings in future

or as registered nurses. OSCE can be coupled with TCE in both formative and summative assessments to ensure a comprehensive evaluation of nursing students' clinical skill competencies.

The importance of using OSCEs as an assessment method in nursing education has been described by numerous authors. According to Oranye et al., (2012) OSCE is a necessary assessment tool that should be continuously applied in nursing education, regardless of the mode of the education program, the student's years of experience or his/her clinical placement. The Objective Structured Clinical Examination (OSCE) is an established tool in the repertoire of clinical assessment methods in nurse education. The use of OSCEs facilitates the assessment of psychomotor skills as well as knowledge and attitudes. Identified benefits of the OSCE assessment include development of students' confidence in their clinical skills and preparation for clinical practice, as noted by Meskell, P. et al., (2015).

A well-designed and implemented OSCE can provide students with opportunities to demonstrate interpersonal and interview skills, problem-solving abilities, teaching, assessment skills, and application of basic clinical knowledge, as quoted by McWilliam, PL. & Botwinski, CA (2012).⁷⁹

How is the OSCE procedure performed?

An OSCE is organised around an OSCE circuit. An OSCE circuit is a set of OSCE stations (may range from 6 – 20) that candidates rotate around. Each candidate starts on a different station and will complete all stations in the circuit.

Students move from one OSCE station to the next under guidance from staff members. Each OSCE station is time-limited (varies between 5 – 10 minutes) usually a timer or buzzer is used to signal the start and end of each station.

Each station has different examiner / observer who assesses the students' performance against a standardised scoring sheet. OSCE stations can involve mannequins or simulated patients. The OSCE is conducted under examination conditions.

What Does the OSCE Assess?

The tasks to be assessed should be of different types and of varying difficulties to provide a mixed assessment circuit. The tasks in OSCE depend on the level of students training.

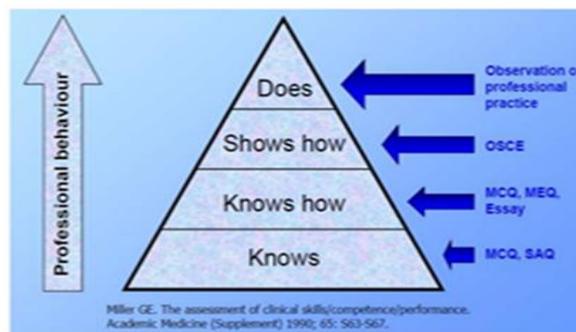


Figure 1: The OSCE in relation to the Miller's pyramid

According to Miller (1990), the assessment of the performance of clinical skills should be designed in such a way that students are tested in terms that are related to their future professional function. Miller (1990) developed a framework for the development of clinical competence which outlines four levels at which a learner can be assessed: knows, knows how, shows how and does (see Figure 1). Hamdy, H (2006) noted that the OSCE conforms to the third 'shows how' level of Miller's pyramid which focuses on assessment of performance of specific skills in a controlled setting.

OSCE marking scheme:

The marking scheme for the OSCE is decided and objectively designed. It must be concise, well focused and unambiguous aiming to reward actions that discriminate good performance from poor one. The marking scheme must take cognizance of all possible performances and provide scores according to the level of the student's performance. (Barrows HS, Abrahamson S 1964).

Preparation of OSCE Skill Lab:

- Adequate number of stations as per the examination objectives to be created.
- Enough space to be maintained between each skill station with privacy so that the students will not be distracted / disturbed by the other students 'during the examination.
- Each skill station to be equipped with needed articles/ mannequins to perform the expected procedure.

- Each station should have an observer with the observational check list designed for the particular station.
- Each station should have the clear directions and instructions to be followed by the students

Preparation of Students:

- To be prepared psychologically to undergo OSCE
- To be aware of purpose of the examination and OSCE rules
- To be familiar with the work stations, articles and its function
- To revise the theory related to the procedures to be tested under OSCE
- To practice the skills
- To be familiar with the check lists and marking systems

Advantages of OSCE assessment:

- More objective and Less complexity
- Test not only skills and knowledge but attitudes also
- Test the student's ability to integrate knowledge, clinical skills and communication with the patient
- Can be used with large number of students
- Safe practice no danger or harm of injury to the patients
- Can be used as summative and formative assessment as on its own or with other form of assessment.

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- Gaining confidence in preparation for the career in Nursing
- Improvement of teaching and opportunity for self-learning

Disadvantages of OSCE assessment:

- High ongoing costs in Organizing and conducting OSCEs
- Controversy in validity and reliability
- Lack of a holistic nursing evaluation mechanism
- Student stress
- Risk of student and examiner fatigue

Conclusion:

OSCEs are suitable for testing clinical, technical and practical skills which may not be adequately assessed through traditional assessment methods, and it possesses the ability to improve the validity and reliability of assessments of many aspects of clinical competence. It should therefore be used as a method for assessing nursing students' clinical competences. However, careful consideration should be taken to avoid relying solely on OSCE as the only means of assessing clinical competence. Hence, the use of other assessment methods that are best suited for various other aspects of clinical competence may be given equal importance in complementing OSCE. This article concludes that OSCE is generally acceptable as an examination system in the nursing programs that will definitely prepare young professionals for the real-world work scenario.

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