

## Perception of Undergraduate Nursing Students Towards Objective Structured Clinical Examination (OSCE)

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**Abstract:** An objective structured clinical examination (OSCE) is a modern type of examination often used in health sciences. It is designed to test clinical skill performance and competence in skills such as communication, clinical examination, medical procedures / prescription, etc. and allows them to understand the key factors that drive the medical decision-making process, and challenges. OSCE reveals the errors in case-handling and provides an open space for improved decision-making, based on evidence-based practice for real-world responsibilities. OSCE is introduced by Indian Nursing Council for the evaluation of students undergoing Nurse Practitioner Critical Care

**Keyword:** OSCE-Objective Structured Clinical Examination, competency

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### I. Introduction

The OSCE is a versatile multipurpose evaluative tool that can be utilized to evaluate health care professionals in a clinical setting. It assesses competency, based on objective testing through direct observation. It is comprised of several "stations" in which examinees are expected to perform a variety of clinical tasks within a specified time period against criteria formulated to the clinical skill, thus demonstrating competency of skills and/or attitudes. It is:-

1. Precise
2. Objective and
3. Reproducible

Unlike the traditional clinical examination, the OSCE could evaluate areas most critical to performance of health care professionals such as communication skills and ability to handle unpredictable patient behavior. Competency-based education has been popular in medical education. It tries to incorporate new models to create medical education objectives.

OSCE was described in 1975. Assessing student clinical skills is also a crucial element in their training. The Objective Structured Clinical Examination (OSCE) is a widely accepted tool to evaluate the clinical competence of medical students. Such as the ability to obtain information from a patient, establish rapport and communicate, and interpret data and solve problems. Although assessment may be part of an institution or course evaluative process, or have other purposes, teachers use assessment for either summative or formative processes. The OSCE involves observing students in simulated encounters and often provides information about students' communication skills as well as their abilities when collecting clinical data.

There are some criticisms on use of OSCE.

- The timing and setting may seem artificial;
- The student feels inhibited by the environment.
- It penalizes those using shortcuts to reach the final decision.
- This method is very expensive and time consuming;
- It requires a minimum of 10 stations which students visit for over 3 to 4 hours in order to achieve a reliability of 0.85 to 0.90.
- The cost is a real problem and a limiting factor for medical schools in developing countries.

**Prociano & Silvera (2009)** suggested that the combination of OSCE with observation of actual patient encounters may provide a more valid measure of clinical performance.

Students were oriented to OSCE during theory classes and at the beginning of their clinical posting. In this study we assessed B.Sc.Nursing IV year student's perception regarding OSCE. The OSCE was conducted at the end of Obstetrics & Gynecological Nursing clinical posting. It was introduced as part of clinical examination

we wanted student to undergo and familiarize with OSCE. The students routinely spent five hours per day in the clinical and regular clinical teaching conferences were organized to complement their learning. At the end of the second week of clinical posting, OSCE was conducted for each batch of ten students.

The OSCE comprised of five work stations and the time allotted to students per station was 5 minutes.

The practical skills included:-

- 1) Abdominal palpation with Pawlick grip
- 2) Evaluation of pre-designed Partograph format
- 3) Pelvis assessment for adequacy
- 4) Burns Marshall technique for Breech presentation delivery
- 5) Episiotomy care

Students performed these skills on antenatal mothers and advanced mannequins .The antenatal mother was changed after palpation by 5 students. Relevant communication skills were assessed whenever indicated. At the end of the assessment at each station, they were asked to document the findings.

All instructions were typed and fixed on the walls or writing desk and written materials were available at each station. The evaluators were present at each station. At the beginning of the OSCE the evaluators were trained on the skills of stations, the checklist and scoring pattern. The evaluators were faculty, tutor and ward -In charges in the unit. Prior to the OSCE, students were oriented to the nature of workstations and timing. At the end of the OSCE ,the students were given a feedback form and this was an OSCE evaluation tool by Pierre et al (2004) .Since this was the first time OSCE was conducted in Obstetrics & gynecology Nursing , we wanted to obtain the feedback in terms of the conduct of OSCE.

The use of checklist as opposed to rating scales ,standardized training of students to maximize the reproducibility of station performances, minimum of 3-4 hrs of testing time. Each student was given 5 minutes at each stations and total of 25 minutes per students was allotted to complete all 5 stations. Since students were undergraduates and appeared for OSCE in batches of ten, owing to availability of faculty and feasibility of examination, we limited timings and stations.

**Objectives of the study:-**Explore the perception

**Hypothesis:-**Students will have some knowledge regarding OSCE.

## II. Method

**Research design-** Retrospective case series design.

**Research setting-**R K D F Medical College Hospital & Research Center, Bhopal

**Population-**B.Sc. Nursing IV Year Students

**Sampling Technique-** Partial Enumeration Sampling Technique.

A sample is a subset of units in a population, selected to represent all units in a population of interest. It is a partial enumeration because it is a count from part of the population.

**Sample Size-** N=80

## III. Tools

The tool was used by Carraccio and Englander (2000) and now modified by the researchers after a thorough review of literature as a part of the study, a well-structured questionnaire was used to gather the required data. The questionnaire consists of the eleven components. The statements were---The exam covered a variety of clinical skills , The assigned tasks reflected what is taught in their courses .Time at each station was adequate , Setting and context at each station felt authentic, Instructions were clear and specified ,Tasks asked to perform were attainable in given time .The stations were laid down sequentially with logic, OSCE exam provided opportunities to learn in virtual setting , OSCE was fair in testing knowledge and skills ,OSCE scores provide true measure of essential clinical skills& Personality and social relations of students do not affect OSCE scores.

We measured it on three point Likert scale i.e. agrees, neutral and disagree.

**Table1:- Distribution of student's responses on evaluation of the quality of performance in OSCE. (N=80)**

S No	Quality of performance of OSCE	Agree		Neutral		Disagree	
		N	%	N	%	N	%
01	The exam covered a variety of clinical skills.	50	62.5	29	36.25	1	1.25
02	The assigned tasks reflected what is taught in their courses.	71	88.75	09	11.25	0	0
03	Time at each station was adequate.	43	53.75	32	40	5	6.25
04	Setting and context at each station felt authentic.	52	62.5	25	31.25	3	3.75

05	Instructions were clear and specified.	60	75	19	23.75	1	1.25
06	Tasks asked to perform were attainable in given time.	42	52.5	33	41.25	5	6.25
07	The stations were laid down sequentially with logic.	58	72.5	22	27.5	0	0
08	OSCE exam provided opportunities to learning virtual setting.	60	75	15	18.75	5	6.25
09	OSCE was fair in testing knowledge and skills.	58	72.5	20	25	2	2.5
10	OSCE scores provide true measure of essential clinical skills.	59	73.75	20	25	1	1.25
11	Personality and social relations of students do not affect OSCE scores.	61	76.25	16	20	3	3.75

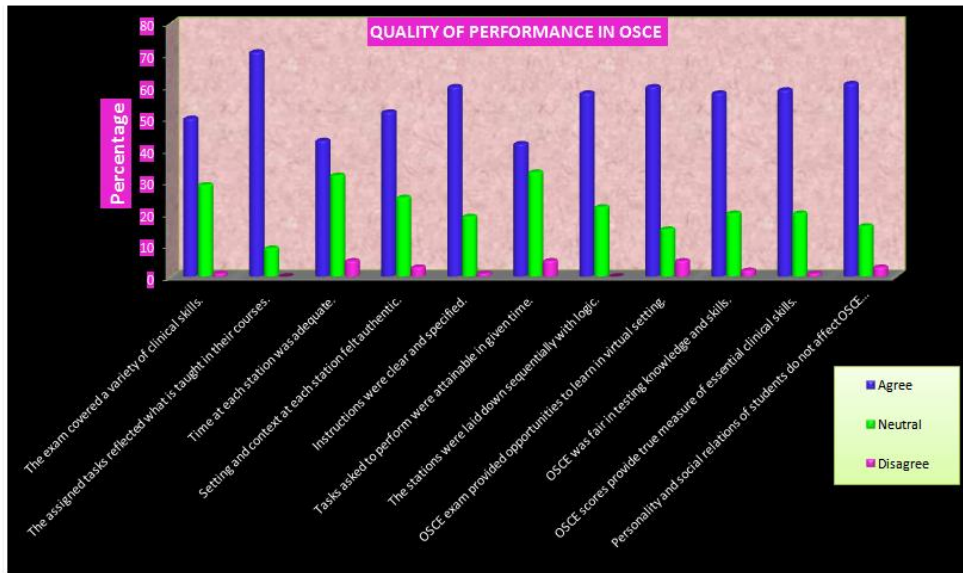


Figure 1:- Bar Diagram showing the distribution of student’s responses on evaluation of the quality of performance in OSCE.

Table 2:- Overall Distribution of student’s perception score accords to quality of performance in OSCE.

(N=80)

Perception score	Average of perception score	Perception regarding OSCE	
		Frequency (n)	Percentage (%)
Agree	81-100%	60	75%
Neutral	40-80%	20	25%
Disagree	<41%	0	0%

Minimum Score-08

Maximum Score-36

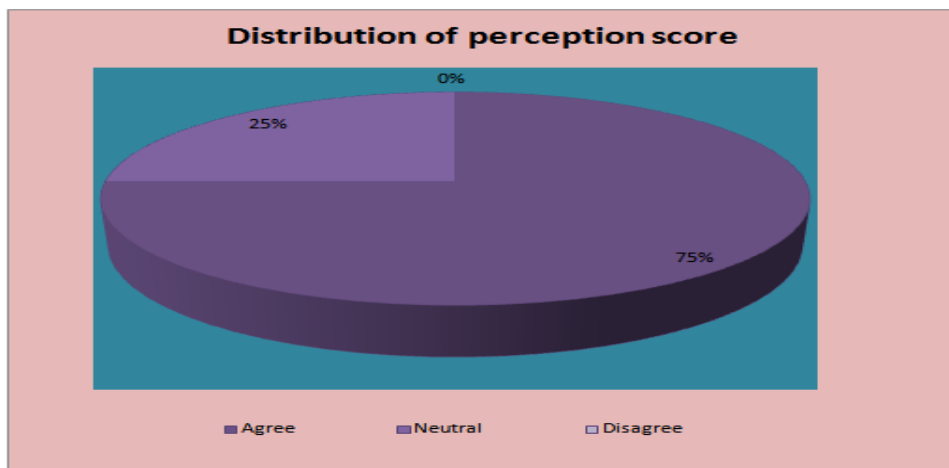


Figure 2:- Pie Diagram showing the Overall Distribution of student’s Perception score according to quality of performance in OSCE.

#### IV. Results

The study was conducted in RKDF College of Nursing, Bhopal in the department of obstetrics and gynecology. The study being a retrospective case series design for the assessment of perception of sample regarding OSCE. The overall study population included 80B.Sc. Nursing IV Year students. This study interpreted on the feedback given by the students on evaluation of the quality of performance in OSCE (Table-1).

- 62.5% students were agreed, 1.25% disagreed and 36.25% students were neutral on the aspect that the exam covered a variety of clinical skills.
- 88.75% students were agreed and 11.25% students were neutral on the aspect that the assigned tasks reflected what is taught in their courses.
- 53.75% students were agreed, 6.25% disagreed and 40 % students were neutral on the aspect that the time at each station was adequate.
- 62.5% students were agreed, 3.75% disagreed and 31.25 % students were neutral on the aspect that the setting and context at each station felt authentic.
- 75% students were agreed, 1.25% disagreed and 23.75 % students were neutral on the aspect that the instructions were clear and specified.
- 52.5% students were agreed, 6.25% disagreed and 41.25 % students were neutral on the aspect that the tasks asked to perform were attainable in given time.
- 72.5% students were agreed and 27.5 % students were neutral on the aspect that the stations were laid down sequentially with logic.
- 75% students were agreed, 6.25% disagreed and 18.75 % students were neutral on the aspect that the OSCE exam provided opportunities to learn in virtual setting.
- 72.5% students were agreed, 2.5% disagreed and 25% students were neutral on the aspect that the OSCE was fair in testing knowledge and skills.
- 73.75% students were agreed, 1.25% disagreed and 25 % students were neutral on the aspect that the OSCE scores provide true measure of essential clinical skills.
- 76.25% students were agreed, 3.75% disagreed and 20% students were neutral on the aspect that the Personality and social relations of students do not affect OSCE scores.

The data also interpreted the overall distribution of students perception score according to quality of performance in OSCE .The overall perception on the quality of performance in OSCE stated that 75% students agreed and 25% students had neutral attributes. (Table-2)

#### V. Discussion

In order to improve nursing education, different teaching methods are adopted to help students to gain knowledge, skills and attitudes relevant for nursing practice more easily. The use of simulation-based learning helps students develop a sense of safety while performing certain tasks. The assessment of clinical skills is very important in nursing education. Therefore, OSCE is seen as a good assessment tool and an objective, valid strategy for assessing nursing students'. The purpose of this paper is to present scientific evidence regarding the use of OSCE in undergraduate nursing students.

#### VI. Conclusion

The students' response to OSCE had helped to ensure that the findings are a valid representation of student's opinion. The feedback from students' perception on OSCE is highly rated, positive and it is encouraging enough for the students to justify its continued use. From our experience and feedback from students, we strongly recommend a minimum number of stations, limited time and specific items to be tested for students.

**Confidentiality of data:** The feedback forms obtained from students are kept confidentially. Only the principal investigator has the access to these documents.

**Limitation of the study:** The study was a retrospective analysis of the feedback provided by students. The feedback was regarding the overall quality of performance of OSCE and did not provide feedback for each station.

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