

Perception of OSCE by Nursing Students

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Abstract: *The Objective Structured Clinical Examination (OSCE) is a form of assessment in, which the student demonstrates clinical skills, and underpinning knowledge, usually in simulated conditions (Fidment, 2012). Method: A descriptive Approach & survey design used in study setting of study SRMMCON Sawangi Meghe Wardha. Population of UG Nursing Students Sample Basic B.Sc. 3rd year nursing students Sample size 74 students Sampling technique- Purposive Sampling technique. Result: Assessment of perception of nursing students on the process of OSCE that 22(29.73%) of the students had “Strongly Agree” perception about OSCE validity and reliability, 68.92% of them had “Agree” and only 1.35% of them had “Neutral” perception about OSCE validity and reliability. That General assessment with perception about OSCE validity and reliability score 24(32.43%) of the students had “Strongly Agree” perception and 67.57% of them had “Agree” perception score. The minimum perception score was 42 and the maximum score was 64.*

Keywords: OSCE, Perception, Undergraduate Nursing, Students

1. Introduction

The OSCE is defined as “an approach to the assessment of clinical competence in which the components of competence are assessed in a well planned or structured way with attention being paid to objectivity” (Harden 1988, p. 19). [1] **Objective structured clinical examination (OSCE)** was first introduced in medical education by Harden in Scotland in 1975 It is now emerged in other disciplines including nursing, pharmacy, and dentistry to test clinical skill performance. OSCEs are now used Within schools of Nursing and Midwifery as they can potentially assess both the theoretical and practical aspects of student’s. The OSCE as an assessment method, which was mainly performance-based, had numerous advantages and had proven a useful complement to the traditional paper-based or computer-based assessment methods. Very importantly, the method not only assessed knowledge but also skills which were demonstrated by doing. ‘OSCE demonstrate particular advantages over traditional forms of testing such as multiple choice tests, in assessing communication and interpersonal skills, professional judgment and moral/ethical reasoning [2, 3, 4].

The OSCE examination tests a wide range of skills thus greatly reducing the sampling error. This very significantly improves the reliability of the examination” Harden, 1988. Assessment of clinical skills has a central role in medical education and the selection of suitable methods has been a matter of permanent concern for clinical teachers, course directors and medical educators. The objective structured clinical examination is now established as one of the most valid, reliable and effective tests for the assessment of clinical skills. In a typical OSCE, examiners rotate through a number of stations staffed by either real or standardized patients, where they are required to perform different clinical tasks. The examiners are observed and their performance is assessed using structured checklists.

2. Background of the Study

The Objective Structured Clinical Examination (OSCE) is a form of assessment in, which the student demonstrates

clinical skills, and underpinning knowledge, usually in simulated conditions (Fidment, 2012). [5] The OSCE is becoming more prevalent within healthcare education programmes, because it is regarded as a useful method for assessing, skills, and underpinning knowledge required for practice (Merriman and Westcott, 2010). [6] Using the OSCE, as assessment tool for student nurses’ clinical competence has been an integral part of the overall assessment strategy since formal nursing assessment began. The objective structured clinical examination (OSCE) has been in use in the assessment of medical students for over 20years. 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). [7] Moreover, the important of feedback from nursing students and faculty has been useful in effecting improvements to the process and greater emphasis has been placed on the teaching and evaluation of history taking, communication, and technical competencies.

During the OSCE examination, students rotate around a circuit of stations on a timed basis. At the ring of a bell, each student enters the station and performs the predefined timed task. Each station assesses a different clinical competency such as history taking, interpretation of clinical data, performing one or more clinical tasks, or solving a problem (Ahmad *et al.*, 2009). [8] The number of OSCE stations is normally from 15 to 20, and the number of students in each OSCE session is determined by the number of stations. Increased number of the stations enhances the reliability of the assessment (Harden, 1990). [9] By the end of the OSCE stations, all the students will have gone through each station and been marked according to a standardized marking system (El-Nemer and Kandeel, 2009). [10] Learning in the clinical environment provides the real world context for nursing students to develop the knowledge, skills, attitudes, and values of a registered nurse (Levett-Jones *et al.*, 2007). [11]

3. Need of the Study

The traditional format of examination that included long and short cases with oral examinations was preserved until recent changes in the Nursing Department at Prince Khalid

Bin Sultan college curriculum. In response to recommendations to improve the validity and fairness of the examination through adoption of proven reliable methods and approaches in assessment and evaluation in nursing education, the Department of Nursing, Prince Khalid Bin Sultan College initiated the OSCE as a formal method of assessment for the final examinations in the nursing clinical courses for third year students in December 2013. Students and faculty were exposed for the first time to a relatively new assessment method in which all major areas of competence were assessed in a structured, formal manner.

OSCE is designed to overcome deficiencies in conventional clinical examination OSCE ensures evaluation of predetermined clinical competencies. In OSCE method of assessment is more objective as small components like history, general and systemic exam vital signs etc are assessed Marks allotted according to predetermined list.

The need of this study was to assess undergraduate nursing students' perceptions and acceptance of OSCE as a new method of clinical competency assessment in undergraduate nursing curriculum and to determine student acceptability of the process and provide feedback to enhance further development of the assessment.

Many general practitioners are very much aware of the need of a more realistic method of assessing the skills and abilities of students. General practitioner recognizes this need and is currently investigating the feasibility, reliability and validity of introducing such an alternative as an integral part of the examination.

4. Review of Literature

Review of literature related to Perception of OSCE:

- 1) In Feb 2015 Medical & Dental College (Bahria University Islamabad) was conducted the study on Students' Perception Regarding Objective Structured Clinical Examination (OSCE) this prospective cross sectional study was conducted on final year MBBS at Islamabad Medical and Dental College. Results: Among 100 participants, 80(80%) considered OSCE as fair mode of examination, 85(85%) said it covered a wide range of skills, clinical and theoretical knowledge. Regarding the advantages of OSCE, 78 (78%) said it is a type of examination that is easy to pass as compared to viva exam as multiple tasks give more chance to pass, 82(82%) consider OSCE a better than simple viva examination as in OSCE they appear in both static and interactive stations while in viva their verbal skills count in passing the examination. However 69% found OSCE exhausting and lengthy and 88(88%) found it to be more stressful. [12]
- 2) In 2013 A descriptive exploratory research was conducted in an institute of Nursing in Riyadh city, Saudi Arabia non probability convenience sample of 80 nursing students who completed their community health nursing as well as maternity nursing OSCE examination were recruited for the study, Results of the study revealed that the majority of the students in both courses provided positive feedback about the OSCE attributes as (95%) agreed that the OSCE was a realistic assessment for the

course. In regards to the quality of OSCE performance, the majority of the students agreed that OSCE exam was fair (95%), covered a wide range of knowledge (90%) ,it was well administrated (96.3%) .[13]

- 3) In October 2015 Dr. Wajed Hatamleh1, Dr. Zeinab Abu Sabeeb2 "Nursing Students Perceptions of an Objectives Structured Clinical Examination" The results revealed that the majority of the students (67.3%) reported that they prefer OSCE over the traditional evaluation methods. Furthermore, 43.6% of the students considered OSCE fairer and 50.9% students believed that OSCE is the easiest method of assessment as compared to the other formats.[14]
- 4) The study was qualitative, which adopted hermeneutic phenomenology for interpreting student lived experiences of the OSCE process Byrne and Smyth (2008) concluded that students already exposed to an OSCE described feeling less anxious and better prepared for their subsequent clinical placements. Data was collected through semi-structured interviews with students. Analysis revealed three main themes: (1) anxiety about the OSCE, (2) preparation was a seen as a coping strategy and (3) simulation was a further cause of anxiety. This study found similar experiences among the students interviewed. The OSCE had caused feelings of anxiety, yet students felt that the assessment was ultimately beneficial to them.[15]
- 5) A review of the nursing literature was conducted through an initial search of the computerized databases of CINAHL, Pub Med, Google Scholar and Medline with full text. The initial search identified 351 papers. The selected search criteria included English language articles written between 2005 and 2013. Sixteen studies (13 quantitative and 3 qualitative) were included for the review. The major findings reveal that OSCE is an effective tool for evaluation from faculty and student perspectives in all the studies. The key issues recognized include the complexity of the exam, time consumption, accelerated stress perception of the students and high cost in the conduction of the exam. [16]
- 6) This was a one-step single-group descriptive study which was conducted through a researcher-made questionnaire for Reviewing the nursing students' views toward OSCE test The sample size included 50 freshman nursing students The study environment was the Clinical Skills Laboratory of School of Nursing and Midwifery in Isfahan University of Medical Sciences Results indicated that the view of most of the students in OSCE test has been good in terms of equipment and facilities with relative frequency of 59.2 percent, conditions of holding the examination with relative frequency of 50.9% and total test with relative frequency of 55.1%; in terms of physical environment, students' view was moderate with relative frequency of 46.9%.[17]

Problem Definition

"Perception of OSCE by nursing students".

Aims of Study: The aim of this study was to investigate the student's perception of The OSCE as part of an evaluation of clinical skills.

Objectives of the Study:

To assess the perception of nursing students on the process of OSCE.

5. Material and Methods

- a) **Research Approach:** A descriptive study design was used to fit nature of the study
- b) **Research design:** Survey method used for this study.
- c) **Setting of study:** SRMMCON Sawangi Meghe Wardha.
- d) **Population:** Undergraduates Nursing Student who had been assessed by an OSCE during Midterm examination Dec 2013.
- e) **Sample:** Basic B.Sc. 3rd year nursing students at SRMM College of nursing Sawangi Meghe Wardha.
- f) **Sample size:** Sample size 74 nursing students.
- g) **Sampling technique:** Purposive Sampling technique

Inclusion Criteria

- Only Basic B.Sc. 3rd year Nursing Students
- Present and available at the time of study.
- Students physically healthy

Exclusion Criteria

Repeater students.

Description of the Tool:

The structured questionnaire consisted of 2 sections

- 1) Likert scale for perception of OSCE attributes
- 2) Likert scale for perception of validity and reliability OSCE

Scoring: Strongly Agree -5, Agree-4, Neutral-3, Disagree-2, Strongly Disagree-1

6. Observations and Result

Analysis and interpretation of the data collected from 74 samples that were third year B.B.Sc. Nursing students from SRMMCON, Sawangi (Meghe), Wardha. The present study has been taken up to assess the perception of nursing students on the process of OSCE. Analysis and interpretation is based on the objectives of the study.

A structured questionnaire to collect knowledge was used for data collection. The analysis was done with the help of inferential and descriptive statistics.

The Objectives of the Study Were

To assess the perception of nursing students on the process of OSCE.

Organization of Findings

The analysis and interpretation of the observations are given in the following section:

Section A: Assessment of perception of nursing students on the process of OSCE.

Section B: General assessment with perception about OSCE validity and reliability score.

Section A

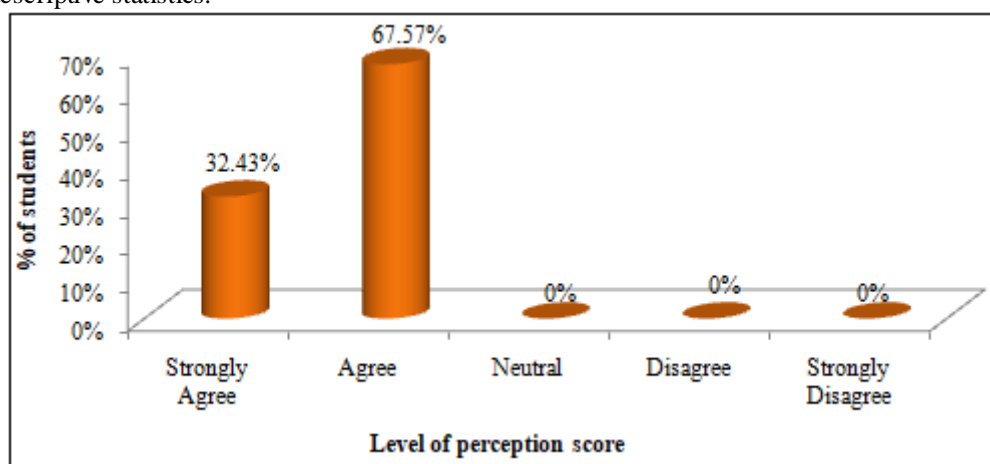
Assessment of Perception of Nursing Students on the Process of OSCE Among Third Year Nursing Students of Srmcon, Sawangi (M), Wardha

This section deals with the assessment of perception of nursing students on the process of OSCE among third year B.B.Sc. nursing students of SRMMCON, Sawangi (Meghe), Wardha. The level of knowledge is divided under following heading strongly agree, agree, neutral, disagree and strongly disagree.

Table 1: Assessment of perception of nursing students on the process of OSCE, n=74

Level of patient perception score	Percentage score	Perception about OSCE	
		Frequency	Percentage
Strongly Agree	81-100%	24	32.43
Agree	61-80%	50	67.57
Neutral	41-60%	0	0.00
Disagree	21-40%	0	0.00
Strongly Disagree	0-20%	0	0.00
Minimum score		42	
Maximum score		64	
Mean score		50.85 ± 4.48	
Mean %		78.22 ± 6.90	

The above table shows that 24(32.43%) of the students had “Strongly Agree” perception and 67.57% of them had “Agree” perception score. The minimum perception score was 42 and the maximum score was 64, the mean perception score was 50.85 ± 4.48 with a percentage score of 78.22 ± 6.90.



Graph 1: Assessment of perception of nursing students on the process of OSCE.

Section B

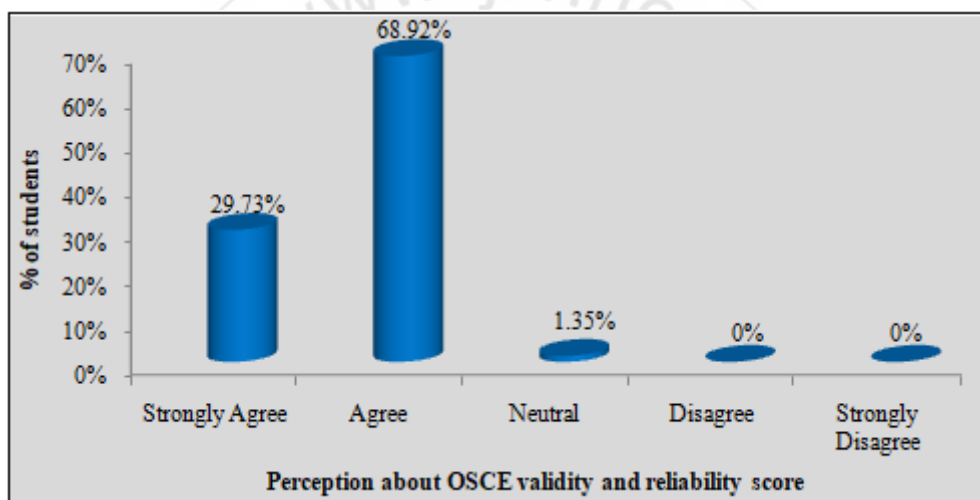
Assessment of Perception about OSCE Validity and Reliability of Nursing Students on the Process Of OSCE Among Third Year Nursing Students of Srmcon, Sawangi(M), Wardha

This section deals with the assessment of perception about validity and reliability of nursing students on the process of OSCE among third year B.B.Sc. nursing students of SRMMCON, Sawangi (Meghe), Wardha. The level of knowledge is divided under following heading strongly agree, agree, neutral, disagree and strongly disagree.

Table 2: General assessment with perception about OSCE validity and reliability score, n=74

Level of patient perception score	Percentage score	Perception about OSCE validity and reliability	
		Frequency	Percentage
Strongly Agree	81-100%	22	29.73
Agree	61-80%	51	68.92
Neutral	41-60%	1	1.35
Disagree	21-40%	0	0.00
Strongly Disagree	0-20%	0	0.00
Minimum score		12	
Maximum score		20	
Mean score		16.10 ± 1.80	
Mean %		80.54 ± 9.01	

The above table shows that 22(29.73%) of the students had “Strongly Agree” perception about OSCE validity and reliability,68.92% of them had “ Agree” and only 1.35% of them had “Neutral” perception about OSCE validity and reliability. The minimum perception score was 12 and the maximum score was 20, the mean perception score was 16.10 ± 1.80 with a percentage score of 80.54 ± 9.01.



Graph 2: General assessment with perception about OSCE validity and reliability score

Summary, Discussion, Conclusion, Implication and Recommendations

In the present study assess the perception of nursing students on the process of OSCE among third year B.B.Sc. nursing students of SRMMCON, Sawangi (Meghe), Wardha. The level of knowledge is divided under following heading strongly agree, agree, neutral, disagree and strongly disagree. That 24(32.43%) of the students had “Strongly Agree” perception and 67.57% of them had “Agree” perception score. The minimum perception score was 42 and the maximum score was 64, the mean perception score was 50.85 ± 4.48 with a percentage score of 78.22 ± 6.90.

Title of the Study

“Perception of OSCE by nursing students”.

Objectives of the Study

To assess the perception of nursing students on the process of OSCE.

Major Findings of the Study and Discussion

The following are the major findings of the study.

Assessment perception of OSCE attributes General with perception score

The above table shows that 22(29.73%) of the students had “Strongly Agree” perception about OSCE validity and reliability,68.92% of them had “ Agree” and only 1.35% of them had “Neutral” perception about OSCE validity and reliability. The minimum perception score was 12 and the maximum score was 20, the mean perception score was 16.10 ± 1.80 with a percentage score of 80.54 ± 9.01

Assessment with perception about OSCE validity and reliability score

That 24(32.43%) of the students had “Strongly Agree” perception and 67.57% of them had “Agree” perception score. The minimum perception score was 42 and the maximum score was 64, the mean perception score was 50.85 ± 4.48 with a percentage score of 78.22 ± 6.90.

7. Discussion

The finding of the study was discussed with reference to the objectives stated and with the findings of the other studies in this section. The present study was undertaken “perception about OSCE by nursing students strongly agree and agree about Perception of OSCE validity & reliability

Medical & Dental College (Bahria University Islamabad) was conducted the study on Students’ Perception Regarding Objective Structured Clinical Examination (OSCE) this prospective cross sectional study was conducted on final year MBBS at Islamabad Medical and Dental College. Among 100 participants, 80(80%) considered OSCE as fair mode of examination, 85(85%) said it covered a wide range of skills, clinical and theoretical knowledge. Regarding the advantages of OSCE, 78 (78%) said it is a type of examination that is easy to pass as compared to viva.

We also found OSCE to fair and objective in nature from all the reviewed studies. It is also emphasized in the article by Rushforth, 2007, that “In an OSCE, all students are assessed using exactly the same stations with the same marking scheme to make the assessment of clinical skills more objective rather than subjective”. However, assessing students during a practicum can be highly variable in terms of the opportunities for assessment and the skills of the examiners.[18]

This means some students face more stringent examinations than other students which raises questions of the equity of in-situ exams. These observations would indeed support the suggestion that a multi-method approach to assess the different domains of competence is indicated. Many authors agreed that OSCE is a valid, reliable and objective method of assessing clinical competence in various setting (Kurz, 2009; Mitchell et [19]

Students’ perceptions and acceptance of the new method of assessment were positive. Although the implementation of OSCE in the Prince Khalid College, Nursing Department has been challenging due to lack of facilities and experiences; it was viewed as an accepted tool for clinical evaluation. This appears in student feedback which confirmed their acceptance of OSCE, so as to fairness and easiest to cover a wide range of knowledge base proving as an excellent tool for assessment.[20]

8. Conclusion

After the detailed analysis, this study leads to the following conclusion:

The nursing students had “Strongly Agree” and “Agree” about perception about OSCE score and about OSCE validity and reliability nursing student score. Accordingly, skill based assessment methods are placed at the most top level of the pyramid. One of these methods is objective structured clinical examination (OSCE). OSCE is a new form of evaluation which first was designed and implemented by Dundee in the mid-1970s in Scotland. OSCE method can easily evaluate learners’ basic and fundamental skills in cognitive, emotional and psychomotor

domains and it can eliminate the effect of confounding variables by representing students’ skills in different stations. At the same time, this method is completely reliable, stable and practical. In OSCE, one or more assessment tools are used during a few separate stations, during which the test subjects encounter the patient or simulated patient (Standardized Patient; SP); each station usually takes 10-15 minutes to be completed. The entire test subjects move from one station to another with a specific order based on a predetermined program. In recent years, willingness to use this method has been created in evaluation of nursing students. In conducted surveys on nursing students in a university in the U.S., they believe OSCE was useful and must be replaced with other clinical assessments.[21]

Generally, OSCE is the most appropriate method to evaluate clinical skills that is able to evaluate many skills which are not assessable through other conventional tests. This method is utilized in most of the American Medical Schools and also many assistance programs of this country and other countries. In addition, OSCE has been used more than eight years for License of Examination Board of Canada. Totally, it can be said that thank to this method, evaluation of clinical skills can be directly conducted with a standard, reliable and valid method.

9. Implications

The findings of this study have implications for nursing practice, nursing education, nursing administration and nursing research.

Nursing Practice

It is the primary responsibility of the nurses to assess feedback of student regarding OSCE & evaluation of clinical skills can be directly conducted with a standard, reliable and valid evaluation method for nursing student and remove fear and anxiety of nursing student during examination

Nursing Education

The awareness on OSCE and add this method in assessment of nursing student during exam. The nursing faculty should have to update their knowledge about this method.

Nursing Administration

The nursing administration can take part in developing protocols, standing orders related to designing the education assessment strategies for nursing student on OSCE. The nurse administrators should explore their potentials and encourage innovative ideas in the preparation of an appropriate teaching material.

Nursing Research

In India, only few research studies have been done on assessment the perception of nursing student about. All nursing personnel must join hands to provide scientifically tested material to evolve a time bound plan for the assessment of OSCE.

10. Recommendations

- On the basis of the findings of the study, Recommendations for future OSCE assessments include the following:
- A similar study may be conducted on a larger group of student for generalization of findings.
- Research is needed on the psychometric properties of the objective structured clinical evaluation tools presently in use in nursing education and on the correlation between this and other evaluative methods currently used to evaluate nursing clinical competence.
- Cost effective strategies to run OSCE should be ventured.

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