

## OSCE in Maternity and Community Health Nursing: Saudi Nursing Student's Perspective

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### Abstract

Objective structured clinical examination (OSCE) has been increasingly used in medical and nursing education to provide a valid assessment of the clinical competencies for the students.

**Aim:** aim of the current study was to assess the Saudi nursing student's perception and feedback about OSCE examination **Methods:** A descriptive exploratory research design was

utilized for the study as it suits its nature; the study was conducted in an institute of Nursing in Riyadh city, Saudi Arabia, A 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. A self-administered structured questionnaire was utilized to gather relevant data regarding perception and feedback of the students about the validity, reliability, fairness, and quality of OSCE as a test tool. Pierre OSCE evaluation questionnaire was used as a valid and reliable tool for collecting the study data. **Results:**

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%) . **Conclusion:** OSCE is a realistic assessment for the nursing practical courses. It could assess a wide range of learned materials. , the majority of the students agreed that OSCE exam was fair, covered a wide range of knowledge

**Key words:** OSCE, Maternity Nursing, Community Health Nursing, Student's Perspective

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## Introduction

**Objective structured clinical examination (OSCE)** was first introduced in medical education by Harden in Scotland in 1975 [1] 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].

During the OSCE, students rotate around a circuit of stations on a timed based station [5] At the ring of a bell, each student enters the station assess a different clinical competency such as history taking, interpretation or more clinical task or solving a problem [6].

OSCE has been increasingly used to provide formative and summative assessment in various medical disciplines worldwide [7] In addition to assessing the competence and performance of the examinee, OSCE has many advantages over traditional methods of evaluation such as conventional bedside long and short case examinations. As an evaluation tool, it eliminates the luck of the draw, reduces variations in marking standards from examiner to examiner and can accurately reflect the real-life tasks of the doctor) [8].

Evaluation of OSCE experience by students and faculty helps to enhance its acceptance as a relatively new assessment tool and refine some of the deficiencies observed in the preparation and conduct of the process [9].

OSCE stations may be interactive or non interactive, a student in an interactive station is observed and evaluated by a trained examiner using prepared checklist. Non interactive stations involve written answers to specific tasks or problems that do not require a direct observation, and are usually marked after the exam [10].

OSCE has been widely used and increasingly used since it was developed. Researches have shown that it is an effective evaluation tool to assess practical skills, in many instances

the OSCE process has been adapted to test the trainees from different healthcare related discipline. In nursing education principles of OSCE can also be used in a formative way to enhance acquisition through simulation [11].

It was concluded that OSCE can be used most effectively in nursing undergraduate curricula to assess safe practice in terms of performance of psychomotor skills, as well as the declarative and schematic knowledge associated with their application, OSCEs should be integrated within a curriculum in conjunction with other relevant student evaluation methods[12].

Feedback from nursing students suggests that OSCE is an objective tool for evaluating clinical skills. Students perceived OSCE scores as a true measure for the essential clinical skills being evaluated, standardized, and not affected by the student's personality or social relations. The objectivity of OSCE was indicated in the literature by many authors [13, 14].

OSCE generated a considerable uncertainty among students regarding aspects of OSCE attributes, performance, scoring and objectivity. Student's uncertainty about whether the process would minimize their chances of failing or that the results were a true reflection of their clinical skills [9].

OSCE is now an established part of the repertoire of clinical assessment skills in many nursing schools around the world. Nursing faculties in Saudi Arabia use a range of assessment techniques that are appropriate for testing students' outcome. However, in Saudi Arabia, there is no available evidence for using OSCE in nursing education. The only evidences that were found were in medical education. OSCE is a new issue that needs evaluation to be applied in all nursing colleges in Saudi Arabia.

Two of the obligatory nursing courses that are provided for the third year nursing students in Faculty of Nursing, King Saud University are the community health nursing and maternity nursing. OSCE examination is utilized for assessing the student's competencies. OSCE was first introduced in the Faculty since two academic years. It was used to assess nursing students' clinical performance in community health nursing and maternity nursing as well. Students and faculty staff were exposed for the first time to a new assessment tool which assesses a variety of students' knowledge and skills in an objective and structured way [9]. The successful outcome of this application demonstrated the value of OSCE in assessing

nursing students' clinical performance. Therefore, students' experience and feedback about the use of this new assessment method deserves to be investigated. The main aim of this study was to assess the nursing students' experience and feedback about the OSCE as an assessment tool for their clinical skills in both maternity and community health nursing. The current study will contribute to an effective use of OSCE as an assessment tool in all nursing specialties.

### **Aim of the study**

Aim of the current study was to assess the Saudi nursing student's perspective about OSCE in maternity and community health nursing

### **Materials and Methods**

**Deign:** A descriptive exploratory design was used for the study; this design suited the aim of the study.

**Setting:** The study was conducted in Faculty of Nursing, King Saud University in Riyadh city, Saudi Arabia.

**Sample:** A non probability convenience sample of 80 nursing students who completed their community health nursing as well as maternity nursing OSCE examination, who were willingness to participate in the study were recruited for the study. A written consent was obtained from the eligible students who agreed to participate in the study. Students were informed about the nature and objectives of the study and that all information is confidential. Confidentiality and anonymity were reassured.

### **Measurements**

Data was collected with the use of a self administered questionnaire. The questionnaire was distributed to the students after completion of their maternity and community health nursing OSCE. Questions assessed the perception and feedback of the students about the validity, reliability, fairness, quality of OSCE as a test tool. Pierre et al. (2004) [9] OSCE evaluation questionnaire was used as an instrument for collecting the study data. The questionnaire consists of 32 items grouped into 4 sections. Questionnaire that was used the current study consists of 4 main sections 'evaluation of OSCE attributes that includes 12 items such as the fairness of the exam, area of knowledge covered, time of each station and the organization and administration of OSCE; evaluation of the Quality of OSCE

Performance, it comprises 7 items involving student's awareness of the nature of the exam, tasks of the exam, structure of the exam and the adequacy of the time at each station ; evaluation of the OSCE Scoring and Objectivity; Students perception of validity & reliability of OSCE and finally student's rating of the assessments formats. A modified translated Arabic version of the questionnaire was distributed among the students to facilitate better understandings of the questions. Content validity for the Arabic version of the questionnaire was obtained by the five panels of experts in the field. Cronbach's Alpha revealed high reliability which is .831.

### **OSCE Design**

OSCE exam was carried out in the nursing skills lab. The community health nursing OSCE composed of 7 skills stations and one station for documentation. Stations included measuring weight and length of school age child with the use of the (manikin) , preparation of DTP vaccine , injection of hepatitis vaccine Hib, history taken for elderly patient and performing growth measures for the baby.

The maternity nursing OSCE composed of 7 practical skills and one station for documentation, these included; Fundal assessment after birth, breast assessment, application of cardio-Tocography( CTG) cord cut and care, assessing neonatal head and chest circumferences, assessing neonatal reflexes and genital organs as well. As for documentations, it included estimation of the neonate's Apgar score of the neonate and recording fundal assessment findings.

### **Ethical Considerations**

Students were informed about the nature of the study and that their participation is voluntary and they can withdraw from the study at any time. A Written consent was obtained from the eligible students who agreed to participate in the study. Confidentiality and anonymity of the collected data were assured. Those who were willing to participate in the study were required to sign a consent form, fill in the questionnaire and then return it to the investigators. An approval to conduct the study was obtained from Dean of the college of nursing and head of nursing department to conduct the study.

## Data management and analysis and Results

Data were coded and analyzed using SPSS version 20. Descriptive analyses were conducted to determine the frequency distributions of the study variables. Pearson's Product Moment correlation coefficients were calculated to assess the relationship among the study variables. Differences between groups were tested using the  $\chi$  and Student t – test.

Socio-demographic characteristics	Nursing Students (n= 80 )	
	No	%
<b>Age</b>		
23-	29	36.3
24-	23	28.8
25-	23	28.8
26-	5	6.3
<b>Marital Status</b>		
Single	38	47.5
Married	37	46.3
Divorced	3	3.8
Widow	2	2.5
<b>Types of course</b>		
Community	40	50
Maternatiy	40	50

**Table 1: General characterization of nursing students**

Table 1 shows the general characteristics of the nursing students. It revealed that less than half of the nursing students aged 23 years old and more (36.3%), currently single (47.5%). regards the types of course, it can be noticed that (50% ) of the nursing students enrolled in Community course as compared to Maternity course.

Table 2 (A) represents the student's feedback about the attributes of OSCE and quality of OSCE performance, 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 (assess what they have learned, It could assess a wide range of learned materials (95%) The questions asked were of appropriate level (93.8%) , The time for each question was adequate (97.5%). More than half of the students indicated that OSCE was not stressful than the other assessment situation (68.8%), wide range of clinical skills covered (80%), OSCE motivated them for further learning (90%).

**Table (2) A Descriptive Statistics of the student's perception and feedback about OSCE**

OSCE questionnaire factors	No comment		Neutral		disagree		agree	
	No	%	No	%	No	%	No	%
<b>Evaluation of OSCE</b>								
It was a realistic assessment for the course (assess what I've learned)	1	1.3	2	2.5	1	1.3	76	<b>95</b>
It could assess a wide range of learned materials	-	-	3	3.8	1	1.3	76	<b>95</b>
The questions asked were of appropriate level	1	1.3	3	3.8	1	1.3	75	<b>93.8</b>
The time for each question was adequate	1	1.3	1	1.3	-	-	78	<b>97.5</b>
It was not stressful than the other assessment situation	3	3.8	11	13.8	11	13.8	55	<b>68.8</b>
Wide range of clinical skills covered	-	-	7	8.8	9	11.3	64	<b>80</b>
It could assess my ability on problem solving and clinical decision making	6	7.5	7	8.8	3	3.8	64	<b>80</b>
It motivated me for further learning	2	2.5	4	5	2	2.5	72	<b>90</b>
<b>Quality of OSCE performance</b>								
Exam was fair	3	3.8	1	1.3	-	-	76	<b>95</b>
Wide knowledge area covered	-	-	6	7.5	2	2.5	72	<b>90</b>
Needed more time at station	2	2.5	12	15	34	42.5	32	40
Exams well administered	-	-	2	2.5	1	1.3	77	<b>96.3</b>
Exams very stressful	1	1.3	8	10	55	68.8	16	20
Exams well structured & sequence	1	1.3	2	2.5	4	5	73	<b>91.3</b>
Exam minimized chance of failing	2	2.5	9	11.3	5	6.3	64	<b>80</b>
OSCE less stressful than other exams	1	1.3	6	7.5	12	15	61	<b>76.3</b>
Allowed student to compensate in some areas	1	1.3	5	6.3	4	5	70	<b>87.5</b>
Highlighted of weaknesses	6	7.5	10	12.5	15	18.8	49	<b>81.3</b>
Exam intimidating	-	-	8	10	62	77.5	10	12.5
Student aware of level of information needed	2	2.5	4	5	5	6.3	69	<b>88.3</b>

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%), well structured and sequence (91.3%), minimized chance of failing (80%), allowed student to compensate in some areas (87.5%), (88.3%) of the students also agreed that they were aware of the level of information .Sixty eight point eight percent of the students disagreed that OSCE was very stressful while (20%) found OSCE is a very stressful, (77.7%) disagreed that OSCE was intimidating while minority (12.5%) found that OSCE was intimidating.

Table 2 (B) presents the student's evaluation of quality of performance test and validity and reliability of the test. Results of the study indicated that (81.3%) reported that they were fully aware of the nature of the exam to a great extent, (70%), reported that tasks reflected those taught to a great extent , (85%) time at each station was adequate to a great extent, (80%) instructions were clear and unambiguous to a great extent, (88.8 %) Tasks asked to perform were fair to a great extent, (83.8%) Sequences of stations were logical and appropriate and (75%) reported that exam provided opportunities to learn.

As regard to the student's perception of validity and reliability, results of the study indicated that (76.3%) found OSCE scores provide true measure of essential clinical skills to a great extent, (81.3%) found OSCE scores as standardized, (72.5%) found OSCE as practical and useful experience and (73.8%) found Personality and social relations will not affect OSCE scores.

**Table 2 (B) Student's evaluation of quality of performance test and validity and reliability of the test**

OSCE questionnaire factors	Not at All		Neutral		To a great extent	
	No	%	No	%	No	%
<b>Evaluation of the quality of performance testing</b>						
Fully aware of the nature of the exam	5	6.3	9	11.3	65	<b>81.3</b>
Tasks reflected those taught	10	12.5	14	17.5	56	<b>70</b>
Time at each station was adequate	8	10	4	5	68	<b>85</b>
Instructions were clear and unambiguous	6	7.5	10	12.5	64	<b>80</b>



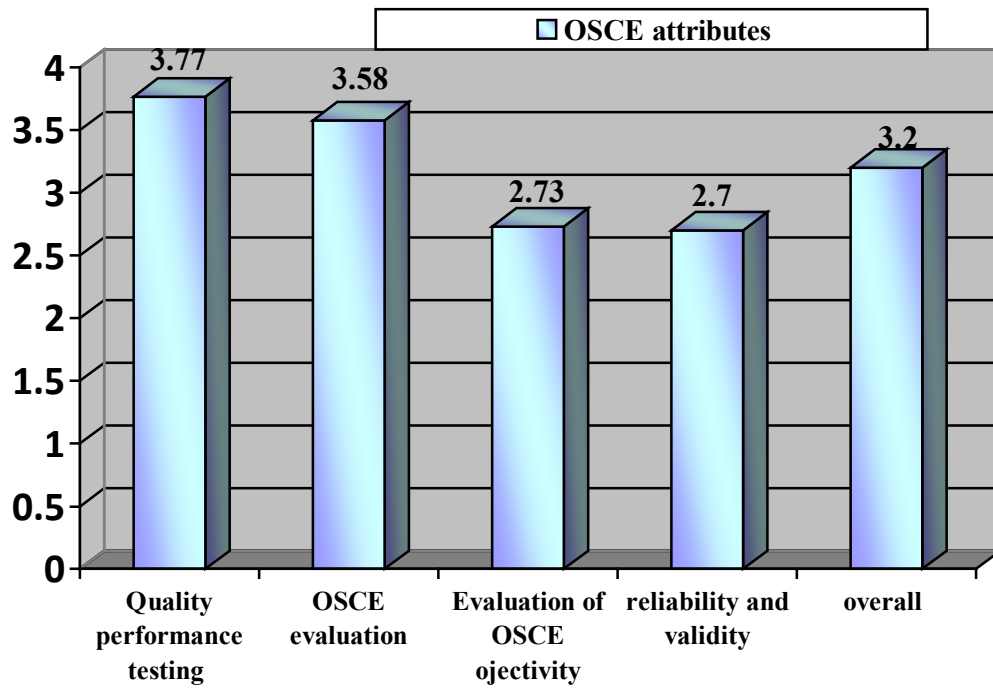
Tasks asked to perform were fair	4	5	5	6.3	71	<b>88.8</b>
Sequence of stations logical and appropriate	6	7.5	7	8.8	67	<b>83.8</b>
Exam provided opportunities to learn	4	5	16	20	60	<b>75</b>
<b>Students perception of validity &amp; reliability</b>						
OSCE scores provide true measure of essential clinical skills	2	2.5	17	21.3	61	<b>76.3</b>
OSCE scores are standardized	2	2.5	13	16.3	65	<b>81.3</b>
OSCE practical and useful experience	6	7.5	16	20	58	<b>72.5</b>
Personality and social relations will not affect OSCE scores	9	11.3	12	15	59	<b>73.8</b>

**Table 3** illustrates the overall mean of OSCE attributes. It was noticed that the overall OSCE attributes mean score ranged from 2.37 to 3.46 with a mean of  $3.20 \pm 0.26$ . Regarding, quality performance testing attribute, it was perceived as being the higher mean scores among nursing students ( $3.77 \pm 0.30$ ) followed by OSCE evaluation ( $3.58 \pm 0.26$ ), while students perception of validity & reliability was perceived as the lowest influencing OSCE attributes among nursing students ( $2.70 \pm 0.40$ ).

**Table 3: Overall mean of OSCE attributes**

OSCE attributes	Nursing Students (n =80)		
	Min	Max	X±SD
Quality performance testing	2.63	4.00	$3.77 \pm 0.30$
OSCE evaluation	2.42	4.00	$3.58 \pm 0.26$
Evaluation of OSCE objectivity	1.00	3.00	$2.73 \pm 0.44$
Students perception of validity & reliability	1.00	3.00	$2.70 \pm 0.40$
Overall OSCE attributes	2.37	3.46	$3.20 \pm 0.26$

Figure 1: Perceptions of nursing students for OSCE attributes

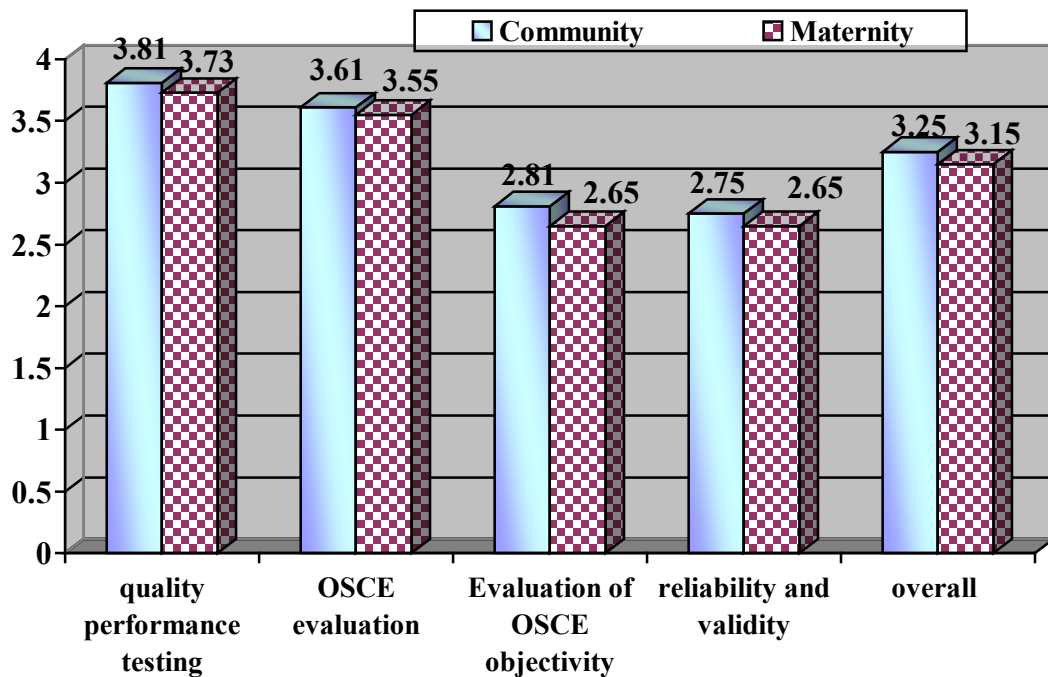


**Table 4** presents nursing students' perception of OSCE attributes according to their types of courses. The table highlighted that the mean score of overall OSCE attributes for nursing students who enrolled Community course ( $3.25 \pm 0.22$ ) was significantly more than those for who enrolled Maternity course ( $3.15 \pm 0.26$ ). Moreover, it was indicated that quality performance testing attribute recorded significantly higher mean scores among students who enrolled Community course ( $3.81 \pm 0.29$ ) as compared to those who enrolled Maternity course ( $3.73 \pm 0.32$ ). Also, there was no statistically significant relationship was found between OSCE attributes and perception of nursing students of their courses types.

**Table 4. Nursing students' perception of OSCE attributes according to their types of courses**

OSCE attributes	Types of course		t- value	p
	Maternity (n=40)	Community (n = 40)		
	X±SD	X±SD		
Quality performance testing	3.73±0.32	3.81±0.29	-1.20	0.23
OSCE evaluation	3.55±0.22	3.61±0.29	-0.94	0.35
Evaluation of OSCE objectivity	2.65±0.50	2.81±0.35	-1.63	0.12
Students perception of validity & reliability	2.65±0.43	2.75±0.36	-1.13	0.26
Overall OSCE attributes	3.15±0.26	3.25±0.22	-1.81	0.07

**Figure 2. Nursing students’ perception of OSCE attributes according to their types of courses**



**Table 5** represents the correlation coefficient values for the relationship between OSCE attributes as perceived by nursing students. Generally, the table indicates that nursing students’ perception for overall OSCE attributes was positively correlated and most of them representing strong correlation with other factors. Noticeably that, all other factors ranged between weak and strong correlation

**Table 5: correlation coefficient values for the relationship between OSCE attributes as perceived by nursing students**

OSCE questionnaire factors	r	Quality performance testing	OSCE evaluation	Evaluation of OSCE objectivity	Students perception of validity & reliability
Quality performance testing	r	1.000	0.373**	0.268*	0.299**
	p	.	0.001	0.016	0.007
OSCE evaluation	r	0.373**	1.000	0.318**	0.211
	p	0.001	.	0.004	0.060
Evaluation of OSCE objectivity	r	0.268*	0.318**	1.000	0.412**
	p	0.016	0.004	.	0.000
Students perception of validity & reliability	r	0.299**	0.211	0.412**	1.000
	p	0.007	0.060	0.000	.
Overall OSCE attributes	r	0.640**	0.581**	0.736**	0.716**
	p	0.000	0.000	0.000	0.000

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 6 Student's rating of assessment formats**

Student's rating of assessment formats	MCQ		Essay		OSCE		X <sup>2</sup>	p
	No	%	No	%	No	%		
1. Which of the following formats is easiest?	38	<b>47.5</b>	9	11.3	33	<b>41.3</b>	18.025	0.00
2. Which of the following formats is the fairest?	23	28.8	14	17.5	43	<b>53.8</b>	16.525	0.00
3. Which of the following formats do you learn most?	20	<b>25</b>	22	27.5	38	<b>47.5</b>	7.300	0.026
4. Which of the following formats should be used more often in the clinical examination?	15	18.8	5	6.3	60	<b>75</b>	64.375	0.00

\*  $P \leq 0.05$  at 5% interval level denotes a significance difference

Regarding to the students rating of assessment formats, results indicated that (47.5%) of the students reported that MCQ are the easiest formates, while (41.3%) reported that OSCE is the easiest. Fifty three point eight percent of the students reported that OSCE is the fairest compared to (28.2%) students indicated that MCQ is the fairest. Forty seven point five percent students reported that OSCE formates is that they learnet most versus (25%) who considered MCQ is the formates they learnet most. Seventy five percent of the students reported that OSCE formats should be used more in clincal examination. A significance statistical difference was found between the students rating of OSCE formats as the easiest, as the fairest and the OSCE as the formats that should be used often in clinical examination  $P < 0.05$ .

**Table 7: correlation coefficient values for the relationship between OSCE attributes and student's rating of assessment formats as perceived by nursing students**

OSCE attributes	r	Student's rating of assessment formats		
		MCQ	Essay	OSCE
Quality performance testing	r	0.098	0.119	0.119
	p	0.388	0.293	0.292
OSCE evaluation	r	0.049	0.151	0.187
	p	0.665	0.180	0.096
Evaluation of OSCE objectivity	r	0.313**	0.044	0.399**
	p	0.005	0.699	0.000
Students perception of validity & reliability	r	0.236*	0.131	0.463**
	p	0.035	0.246	0.000
Overall OSCE attributes	r	0.277*	0.148	0.449**
	p	0.013	0.189	0.000

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

A moderate correlation was found between the students evaluation of OSCE objectivity, perception of validity and reliability and overall OSCE attributes and the students rating of OSCE as an assessment formats \* r .399 , \* .463 , \* .449 respectively.

As regard to the student's suggestion for improvement, (60%) of the students suggested that OSCE should be applied in all nursing clinical examination not only maternity nursing and community nursing, (28.75%) ensuring clear instructions and (11.25%) have revision related to all competencies and training for OSCE just before the examination .

## Discussion

The objective structured clinical skills examination (OSCE) has over the years emerged as a method of evaluating clinical skills in most medical and allied professions. Although its validity and objectivity has evoked so much debate in the literature, little has been written about its application in non-traditional education systems such as in distance learning. Objective structured clinical examinations (OSCEs) are an effective assessment strategy for assessing clinical skills [15, 16] and for highlighting curriculum problem areas [17]. Their popularity has increased among nurse educators over the last decade [18].

The aim of the present study was to assess the Saudi nursing student's perspective about OSCE in maternity and community health nursing. The results of this study indicated that the student's feedback about the attributes of OSCE and quality was positive in maternity nursing course and community health nursing as well, (95%) agreed. This is supported by other research findings [19, 2, 3]. The results suggested that OSCE was a realistic assessment for the nursing practical courses. It could assess a wide range of learned materials (95%). The questions asked were of appropriate level (93.8%), the time for each question was adequate (97.5%). We found that in congruent with [20, 21] who they found that the OSCE was useful and acceptable tool for evaluating students' performance of clinical skills. This finding was not in agreement with [4] who reported that more than two thirds of the students (70%) considered OSCE process is difficult in time management and attributed higher grades to the degree of emotional stress elicited by the examination. The difficulties on the part of the students in managing time during OSCE stations might be related to different factors including student's immaturity and lack of training in time management [22]. According to the present study, More than half of the students indicated that OSCE was not stressful than the other assessment situation (68.8%) , wide range of clinical skills covered (80%) , OSCE motivated them for further learning ( 90%) which is similar to the research work reported by [4] who mentioned the main advantages of OSCE, is putting the students in a real situation also [23] reported that the main advantage of OSCE is providing greater objectivity for assessment particularly for junior student. However, most students viewed OSCE as a fair assessment tool (95%), which covered a broad area of knowledge allowed them to compensate in some areas and minimized their chances of failing. Majority of the student's agreed with the level of information (88.3%). The fairness of OSCE was also reported by other studies [15, 3]. In a study conducted to assess the validity, reliability and feasibility of team OSCE, the majority of students felt that they had been marked fairly. Most students provided positive feedback about the quality of OSCE performance in terms of the clarity of the instructions of the exam, the sequence of OSCE stations, the reflection of the tasks taught and the time at each station. These findings also are consistent with [19, 20] study results. Feedback from nursing students suggests that OSCE is an objective tool for evaluating clinical skills. Students perceived OSCE scores as a true measure for essential clinical skills being evaluated, standardized, and not affected by student's personality or social relations. OSCE was seen as a positive and a useful practical experience by most students. Also this results congruent with [24, 4] study results in which nursing students perceived OSCE as a

favorable experience that should be repeated regularly. On the other hand this finding was against that reported by [21] who they found that a number of students felt that OSCE was not less stressful than other methods of examination, and some of them considered it even more stressful, especially those who waited for long time before they entered the exam in the last batch. In some Studies, [18, 20, 24] it was documented that OSCE can be a strong anxiety-producing experience, and that the level of anxiety changes little as student's progress through the examination [13].

The students were uncertain if their results in OSCE would minimize their chances of failing. Since this was their first exposure to this method of assessment, their uncertainty is quite understandable [25]. The present study revealed that more than half of the students 68.8% disagreed that OSCE was not stressful assessment situation while (20%) found OSCE is a very stressful, (77.7%) disagreed that OSCE was intimidating while minority (12.5%) found that OSCE was intimidating. This finding is in the same direction with [3] in studying the Egyptian nursing student's perceptive view about an Objective Structured Clinical Examination (OSCE majority of their studied sample reported that OSCE was less stressful than other exams (G1 87.4%, G2 67.9%), still a considerable percentage of students felt that the exam was very stressful (G1 18.4%, G2 27.5%) and intimidating. On the other hand [20] reported that the majority of the students (90%) of the nurse students in his survey perceived OSCE as a stressful method and they agreed that there were sufficiently prepared for the format and content of examination. Also, [26]) reported that OSCE as a stressful method than other methods of assessment is not clearly defined because OSCE is not well established in nursing education. Nursing students' stressful experience with OSCE was also reported in other studies (9, 27, 28). Similarly, (3) related students' stress and anxiety to the new experience with OSCE. Hence, it was a new experience for all nursing students which made them feel anxious about it. According to the type of course for nursing students who enrolled in Community course was significantly more than those for who enrolled Maternity course. Moreover, it was indicated that quality performance testing attribute recorded significantly higher mean scores among students who enrolled in Community course, no significant relationship between OSCE attributes and perception of nursing students of their courses types.

The results of the present study show that the correlation significant was found between the student's evaluation of OSCE objectivity, perception of validity and reliability and overall



OSCE attributes and the students rating of OSCE as an assessment formats. This finding agrees with the study of [19, 26] in our study students need more time at station, The insufficient time at OSCE stations was among (42.5%) of students' complaints. This was also reported in other studies which investigated students' perspective of OSCE [9, 25, 21]. This agree with [ 21 , 28] who reported that more than two thirds of the students (70%) considered OSCE process is difficult in time management and attributed higher grades to the degree of emotional stress elicited by the examination. The difficulties on the part of the students in managing time during OSCE stations might be related to different factors including student's immaturity and lack of training in time management [29].

OSCE generated a considerable uncertainty among students regarding aspects of OSCE attributes, performance, scoring and objectivity. The evaluation of OSCE by nursing students highlighted some areas that need to be enhanced in future, such as the inadequate time of some of the stations, and the limited period of orientation about OSCE.

The present results indicated important information about the student's suggestion, the student suggested that OSCE should be applied in all nursing clinical examination not only maternity nursing and community nursing but in all nursing specialties, ensuring clear instructions and have revision related to all competencies and training for OSCE just before the examination, this finding is in accord with [ 9] as the students in their study suggested that the duration of OSCE stations should be increased , ensuring clear instructions , having more realistic expectations of students for the expected tasks and a few students wished to have more training with the OSCE and suggested that the examination should be videotaped to increase objectivity and permit review.

### **Limitations of the study**

The study was conducted in one setting with small sample size that makes it difficult to generalize the findings to all Saudi nursing students.

### **Conclusion and recommendations**

OSCE is a realistic assessment for the nursing practical courses. It could assess a wide range of learned materials. , the majority of the students agreed that OSCE exam was fair, covered a wide range of knowledge. OSCE scores provide true measure of essential clinical skills to a great extent, OSCE scores are standardized, practical and useful experience,

Personality and social relations did not affect OSCE scores. Based on the study findings; OSCE should be applied in all nursing clinical examination not only maternity nursing and community nursing.

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