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Effectiveness of OSCE in assessment of clinical competencies and perception of OSCE among nursing students

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ABSTRACT

INTRODUCTION: Evaluation Techniques have an important role in evaluating students' learning outcomes and their mastery of a subject. Objective structured clinical examination (OSCE) is one of the best evaluation techniques, which can accurately evaluate basic care giving skills of nursing students. This article explores the use of the objective structured clinical examination (OSCE) in undergraduate nursing education.

OBJECTIVES: To determine the effectiveness of OSCE in appraisal of clinical skills in Pediatric Nursing among III yr B Sc Nursing students. To explore and describe the perception of students regarding OSCE as a method of clinical evaluation

METHODOLOGY: A cross sectional descriptive survey design was adopted for the study and 34 third year BSc Nursing students were selected by convenience sampling technique. The study was conducted at R L Jalappa Hospital and Research Centre, Parent Hospital of Sri Devaraj Urs College of Nursing, Kolar. OSCE evaluation questionnaire developed by Pierre et al (2004), was adopted in this study.

RESULTS: Majority of students agreed exams are well administered and covered wide area of knowledge. With regard to valuation of assessment of Quality of OSCE performance testing, majority of students agreed to a great extent that Instructions were clear and unambiguous Regarding Assessment of student perception of validity & reliability of OSCE, majority believed that OSCE scores provided true measure of essential clinical skills.

CONCLUSION: The findings indicated that, as an assessment tool, the objective of overall nursing students' perception about OSCE was positive; The OSCE was found to be a useful and acceptable method for evaluating nursing students' clinical competence in the area of Pediatric Nursing.

KEY WORDS: OSCE, clinical competencies, Nursing students

INTRODUCTION

Evaluation Techniques have an important role in evaluating students' learning outcomes and their mastery of a subject. Objective structured clinical examination (OSCE) is one of the best evaluation techniques, which can accurately evaluate basic

care giving skills of nursing students.

Objective structured clinical examination (OSCE) introduced for the first time in 1975 by Dr. Ronald Harden.¹ Harden and Glason believed that OSCE provides a chance to evaluate different skills in

different situations in clinical areas. Several dental schools have incorporated the OSCE in their curricula since 1994 and it has been evaluated since then.²⁻⁴

Now a days, OSCE is one of the best examination techniques, which can easily evaluate basic and professional skills of students and also determine goals of education in different fields, including recognition, sentimentalization, and psychodynamic aspects, by showing students' abilities in different stations, eliminating the effects of intermediate variables.⁵⁻⁶ Over the years, OSCE has been used with real patients to evaluate clinical skills of students before and after graduation.

OBJECTIVES

- To determine the effectiveness of OSCE in appraisal of clinical skills in Pediatric Nursing among III yr B Sc Nursing students
- To explore and describe the perception of students regarding OSCE as a method of clinical evaluation

METHODOLOGY

A cross sectional descriptive survey design was adopted for the study to determine the effectiveness of OSCE in appraisal of clinical skills in Pediatric Nursing among III yr B Sc Nursing students and explore and describe the perception of students

regarding OSCE as a method of clinical evaluation. A convenience sampling technique of 34 III yr BSc Nursing students were selected. The study was conducted at R L Jalappa Hospital and Research Centre, Parent Hospital of Sri Devaraj Urs College of Nursing, Kolar. OSCE evaluation questionnaire developed by Pierre et al (2004), was adopted in this study. The questionnaire consisted of 30 items. Six stations were made and clear instructions were given to students. Five minutes was allotted for each station. Each station was assessed with check list. After assessing their clinical performance, questionnaire was given to the students to assess their opinion regarding OSCE evaluation, quality of performance testing through OSCE and their perception of Validity and Reliability of OSCE. Data was analyzed by using descriptive statistics and presented as frequency and percentage.

RESULTS

I. Clinical Performance of Pediatric skills at different stations

As depicted in table 1 the students demonstrated higher level of competency in the area of Pediatric Nursing skills like health education, assessing Degree of Mal-Nutrition and Drug calculation (9.94%), nursing care plan (9.05%) and procedure demonstration (8.58%) compared to nursing diagnosis (7.94%), growth and development (6.26%) and history collection (2.67%).

Table 1: Clinical performance of Pediatric skills at different stations

Station	Task	Mean Range	Mean Score	Mean Percentage	Rank Order
I	History collection	1-2	0.91	2.67	6
II	Growth and Development	1-3	2.13	6.26	5
III	Nursing Diagnosis	1-5	2.70	7.94	4
IV	Nursing Care Plan	1-5	3.08	9.05	2
V	Procedure Demonstration	1-4	2.92	8.58	3
VI	Health Education, Degree of Malnutrition and Drug Calculation	1-6	3.38	9.94	1

II. OSCE EVALUATION

As depicted in table 2 with regard to evaluation of OSCE attributes, majority of students agreed exams are well administered (94.1) and covered wide area of knowledge (91.1). They also felt exam was fair (85.3) and well structured and sequenced (88.2). Nearly half of students also stated exam is very stressful (44.1) and also less stressful than other exams (55.8%). Nearly 70.5% of students stated OSCE highlighted areas of weaknesses and covered wide range of clinical skills.

With regard to valuation of assessment of Quality of OSCE performance testing, majority of students agreed to a great extent that Instructions were clear and unambiguous (91.1), Exam provided opportunities to learn (82.3), Sequence of stations logical and appropriate (85.3) and very few students agreed to a great extent that the time at each station was adequate (11.8) and fully aware of nature of exam (32.3). 26.4 of students reported not at all to time at each station was adequate.

Table 2: Frequency and percent distribution of students according to their evaluation of OSCE attributes

A. OSCE EVALUATION

Question	Agree		Neutral		Disagree	
	f	%	f	%	f	%
Exam was fair	29	85.3	5	14.7	-	-
Wide knowledge area covered	31	91.1	3	8.9	-	-
Needed more time at stations	20	58.8	14	41.2	-	-
Exams well administered	32	94.1	2	5.9	-	-
Exams very stressful	15	44.1	11	32.3	8	23.5
Exams well structured & sequenced	30	88.2	4	11.8	-	-
Exam minimized chance of failing	21	61.7	12	35.2	1	2.9
OSCE less stressful than other exams	19	55.8	9	26.4	6	17.6
Allowed student to compensate in some areas	17	50	17	50	-	-
Highlighted areas of weaknesses	24	70.5	9	26.4	1	2.9
Exam intimidating	17	50	16	47.05	1	2.9
Student aware of level of information needed	25	73.5	9	26.5	-	-
Wide range of clinical skills covered	24	70.5	10	29.5	-	-

Regarding Assessment of student perception of validity & reliability, majority believed that OSCE scores provided true measure of essential clinical skills (91.17), useful experience (88.23) and OSCE scores are standardized (79.4). Half of the students stated Personality and social relations will not affect OSCE scores.

DISCUSSION

The assessment of clinical competence is an important issue in nursing education and the utilization of objective structured clinical evaluation for that purpose was considered to be very important in this study. Evaluation of assessment of Quality of OSCE performance, majority of students reported that Instructions were clear (91.1) and well administered (94.1). A similar report by Small, L.F11 et al indicated that large number of the students, namely 65% felt that they had received sufficient information from their lecturers in preparation for their OSCE examinations. Few students also stated exam is very stressful (44.1). A similar finding was also

B. QUALITY OF PERFORMANCE TESTING

Quality of performance	Not at all		Neutral		To great extent	
	f	%	f	%	f	%
Fully aware of the nature of the exam	-	-	23	67.6	11	32.3
Tasks reflected those thoughts	-	-	16	47.05	18	52.94
Time at each station was adequate	9	26.4	21	61.7	4	11.8
Setting and context at each station felt authentic	-	-	12	35.2	22	64.7
Instructions were clear and unambiguous	-	-	3	8.9	31	91.1
Tasks asked to perform were fair	-	-	12	35.2	22	64.7
Sequence of stations logical and appropriate	-	-	6	17.6	28	82.3
Exam provided opportunities to learn	-	-	5	14.7	29	85.3

C. VALIDITY AND RELIABILITY OF OSCE

Student perception of validity & reliability	Not at all		Neutral		To great extent	
	F	%	F	%	F	%
OSCE scores provide true measure of essential clinical skills	1	2.9	2	5.88	31	91.17
OSCE scores are standardized	4	11.76	3	8.9	27	79.4
OSCE practical and useful experience	-	-	4	11.76	30	88.23
Personality and social relations will not affect OSCE scores	17	50	11	32.4	6	17.6

reported by Small, L.F11 et al whereas other study by Hatamleh W12 et al reported 78 % perceived OSCE to be stressful.

Overall nursing students' perception about OSCE was positive. The findings are supported by the findings of other research studies by Saeed AM13 et al, Amina MR14 et al and Hatamleh W13 et al where the students preferred OSCE compared to other traditional method. As most of the studies reports similar finding the OSCE evaluation tool could be considered as per the students need.

CONCLUSION

The OSCE is considered as one of the best means to provide standardized and objective evaluation of clinical skills of nursing students to help them to master different clinical skills. To assess its effectiveness and students opinion regarding the

OSCE, this study was taken up. The findings revealed that it is one of the best method to assess the clinical competency of students in pediatric nursing. Overall nursing students' perception about OSCE was positive and preferred OSCE as a method of evaluation, and all students recommended to adopt in all other specialties. One of the practical examinations can be assessed by OSCE method for undergraduate nursing curriculum to identify their performance of psychomotor skills, including application of knowledge and understanding.

CONFLICT OF INTEREST: None

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Effectiveness of Planned Teaching Programme on Side Effects of Radiation Therapy Among Oral Cancer Patients

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ABSTRACT

Introduction: Oral cancer is among the top three types of cancers in India and it occurs due to severe alcoholism, use of tobacco in the form of cigarettes, chewing betel nut, human papilloma virus (HPV), poor dental care and poor diet². The side effects of radiation therapy can interfere with the patient quality of life and day to day functioning.

Aim: To evaluate the effectiveness of Planned Teaching Programme on Knowledge regarding Self-care management on side effects of radiation therapy among oral cancer patients.

Methodology: A quasi experimental two group pretestposttest design was selected. Purposive sampling technique was used to select 60 oral cancer patients out of which 30 were assigned to experimental and 30 were assigned to control group. Both the groups were assessed for their knowledge on self-care management on side effects of radiation therapy using interview schedule. A planned teaching program was administered only to the experimental group but not to control group. After a month, posttest was conducted using same tool from both groups. Results: The mean pretest knowledge score of experimental group was 13.5 with SD of 4.1, where as in control group the mean pretest knowledge score was 12.7 with the SD of 3.6 and the t value of pretest knowledge score was 0.130 and the mean posttest knowledge score was 27.1 with SD 2.2, where as in control group the mean post test knowledge score was 12.9 with standard deviation 3.2 and the t value of post test knowledge was 0.00 and the difference was found in experimental group was 14.2.

Conclusion: Radiation therapy plays a significant role in cancer therapy. As a result, various changes are induced in oral tissues. The resulting sequelae cause substantial problems and may affect the patient's quality of life. Larger prospective trials that include the prevention and treatment of radiation-induced damage to oral tissues are needed to improve management in side effects to enhance better prognosis.

Key words: Oral cancer patient; self-care management; side effects; radiation therapy.

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