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RESEARCH ARTICLE

A CROSS SECTIONAL STUDY REGARDING STUDENT EVALUATION OF AN OSCE IN COMMUNITY HEALTH NURSING CLINICAL COURSE AT ST. JOHN'S COLLEGE OF NURSING, BANGALORE

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Abstract

Background: The Objective Structured Clinical Exam (OSCE) is a comprehensive, structured and consistent approach for assessing aspects of the student's clinical competence with maintenance of high objectivity.

Aim of the Study: To assess student evaluation of an OSCE in community health nursing clinical course at St. John's College of Nursing.

Materials and Methods: Study Design: A descriptive cross sectional study design was used for the study.

Study Setting: The study was conducted in St. John's College of Nursing.

Sample: A non probability convenient sample of (33) Nursing students who completed their community health nursing OSCE examination was selected for the study.

Tool of Data Collection: A self administered questionnaire (Pierre et al., 2004 OSCE evaluation sheet) was used

It is divided into 4 sections which contain 32 items. Only 25 items of Pierre et al., 2004 questionnaire were used in this study and few items were modified to suit the current setting and to give a clear meaning.

Results: OSCE was considered as a fair examination method by 81.82 percentage of students and 72.73 % of them felt that it provides a true measure of essential clinical skills. (81.82%) of the studied students reported that, OSCE is less stressful than other exams and still (30.30 %) felt that the exam was stressful.

Conclusion: OSCE is a realistic assessment for the community health nursing clinical course. It could assess a wide range of learned materials; it is a fair exam and covered a wide range of knowledge.

Recommendation: The present study recommended that, OSCE should be implemented in Community Health Nursing and continued to be used as a method of evaluating clinical practice when the students are posted in urban and rural posting as a practice before the final practical exam.

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Introduction:-

In the last two decades, a rapid extensive change has occurred in the assessment methods of Nursing education. Many of the introduced assessment methods have been developed and focused mainly on clinical procedural

skills, communication skills and professionalism¹. Objective Structured Clinical Examination. (OSCE) is one of well established practical tests used to assess specific clinical skills. Ronald Harden introduced it for the first time in medical education in 1975, at the University of Dundee to assess skills of clinical performance. Now, it is used in other branches including Nursing, dentistry, and pharmacy².

OSCE exam is more commonly used to test trainees from various disciplines in healthcare. Also, many clinical educational institutions give more attention to it because of high level of objectivity, fairness, content validity, reliability, creditability of the achieved skills, creating learning motivation and in maintaining students 'satisfaction'³.

Traditional clinical nursing examinations are not considered as a standardized tools to assess students' clinical competency, and clinical reasoning skills, in which teachers conduct the assessment of student performance and give summative scores. So, it is a challenge to have an objective assessment tool to assess students' clinical competencies in a comprehensive manner especially with the increased number of students⁴.

The OSCE is designed through creating a multi-station arrangement in which a student perform an assigned skill or conduct assessment using a standardized tool, while being watched by assessor. The students are rotated in between stations that allot equal amount of time. The stations can be ranged from two to more than 20 stations. As the number of stations increased, the validity of the examination is also increases. A ring of a bell and stopwatch are used to control entering and leaving of the station. At the end of the specified time, the student listen the bell sound and leave the station and move to the next one. And so, each student performs the same tasks and will be marked and assessed according to the same assessment criteria on the examiner's mark sheet. The assessor use the checklist or rating scale to rate each student's performance through direct observation. The final mark sheet can be based on a performance checklist- or a combination of checklist and a global score.⁵

OSCE can objectively assess other important aspects of clinical experiences, such as problem-solving abilities, physical examination skills, technical skills, interpersonal skills, decision making abilities and patient treatment skills. Moreover, OSCE is being used worldwide to provide formative and summative evaluation in various disciplines which include ongoing and final assessment.⁶ The possibility of conducting case studies, small scenarios, simulations and standardized patient (SP) is considered a great advantage of OSCE as it integrates theory and practice. It provides a safe environment for the students to improve their own learning abilities. Also, it overcomes the need for large number of clinical instructors requested with a high number of students.⁷

Jones et al. (2010) argue that although consistency of marking is enabled by a structured mark sheet, the examiner has a crucial role in ensuring reliability also and strict preparation of all examiners is therefore essential.⁸ Many OSCE'S have been conducted for various workshops and interviews and an evaluation was also taken from students and staff Nurses from time to time but an evaluation for OSCE was not taken from students in the community Health Nursing Department. Hence the Investigator decided to conduct an OSCE for the Students posted in community and take an evaluation of the students so that it can be applied as an evaluation for other batches posted in the clinical area of Community Health Nursing.

Material and Method:-

Aims and Objectives of the Study:

1. To Evaluate the OSCE attributes
2. To Evaluate the quality of OSCE performance:
3. To Evaluate perception of the student toward validity and reliability of the OSCE scoring and objectivity:
4. To assess the Students' opinion about the usefulness of OSCE as an assessment tool compared to the previous methods.

Inclusion criteria:

All students doing their II Year Pc BSC course at St. John's College of Nursing.

Exclusion criteria:

Students absent for the OSCE will be excluded

Sample Size:

Based on the review of literature the calculated sample size is 30. The researcher wishes to take the sample size of 33 with 80% power and 5% level of significance and a confidence interval of 95%.

Formula

$$N = \frac{z^2(1-a/2)*p(1-p)}{d^2}$$

where

p- expected proportions

d- precision

z(1-a)/2-two sided z value for corresponding

Subject's Age ranged from 18 to 45 years

Methodology:

OSCE is being conducted in all the departments ,but in community Health Nursing Department it is being done for the first time on an experimental basis.

1. It is compared with other forms of assessment through the questionnaire given to the subjects.
2. OSCE will not be compared with other form of assessment by having other assessments for the students during the time of the study but will be compared by the response of the subjects through the questionnaire.
3. There were
4. 11 groups of three and one station was included as rest station.

Ethical Clearance was obtained from IEC

Permission was obtained from the H.O.D of community Health Nursing to conduct OSCE for the students. OSCE was conducted as follows.

1. Each group consisting of 3 members went through 12 stations and there was one rest station.
2. There were 5 observed and 6 unobserved stations.
3. The duration of activity in each station was 5 minutes.
4. When the bell rang again after 5 minutes, they were switched over to the next station.
5. All participants went through all the five stations.
6. The test took 60 minutes (12 station X 5 minutes) for each station.
7. OSCE for 33 candidates was completed approximately in 60 minutes.
8. Total marks allotted was 100, observed station (50) and unobserved station (50)
9. Then the next day a checklist was provided to the students to evaluate the OSCE.

Tool:

Students evaluation about an OSCE is evaluated with modified Pierre et al. (2004) OSCE evaluation questionnaire which consist of 3 sections, first section consists of 13 questions to evaluate an OSCE, second section consist of 8 questions to evaluate quality of performance testing and students perception of validity and reliability was evaluated with 4 questions.

Ethical considerations:

Ethical committee approval was obtained from St. John's Institutional Ethics Committee. Students who had experienced community health nursing examination, were informed about the present study and verbal consent was obtained.

Results:-**OSCE evaluation:**

Thirty three students responded to the questionnaire. Majority of students agreed that the OSCE was fair (81.82%) and covered a wide range of knowledge and clinical skill (100 %). Most of them (78.78%) also agreed that the assessment process with checklist helped to identify weaknesses and gaps in their competencies. (Table1).

Table 1:- OSCE evaluation N=33.

Sl.No	Question	Agree	%	Neutral	%	Disagree	%
1	Exam was fair	27	81.82	6	18.18	0	0
2	Wide knowledge are covered	33	100	2	6.06	0	0
3	Needed more time at stations	18	54.55	3	9.09	12	36.36
4	Exams well administered	23	69.70	7	21.21	3	9.09
5	Exams very stressful	10	30.30	5	15.15	18	54.55
6	Exams well structured and sequenced	22	66.67	6	18.18	5	15.15
7	Exam minimized chance of failing	29	87.88	0	0	4	12.12
8	OSCE less stressful than other exam	27	81.82	4	12.12	2	6.06
9	Exam was fearless	30	90.91	1	3.03	2	6.06
10	Highlighted areas of weakness	26	78.78	3	9.09	4	12.12
11	Student aware about required information	21	63.64	8	24.24	4	12.12
12	Wide range of clinical skills covered	30	90.91	0	0	3	9.09
13	Students performance is evaluated with the checklist	30	90.91	3	9.09	0	0

23 students felt that the exam was well administered, and Majority of them (66.67%) responded that the stations were arranged in well- structured and sequenced order. (63.64 %) were aware about required information at each station, (87.88 %) felt that the examination process minimized their chances of failing.

Students found the OSCE is not stress full (81.82%) and fearless (90.91%) than other assessment formats to which they were previously exposed.. (54.55%) felt that they needed more time to complete the stations.

Quality of performance testing:

Table 2:- Quality of performance testing N= 33.

Sl. No	Question	To great extent	per	Disagree		per	Neutral	per
1	Fully aware of nature of exam	27	81.82	2		6.06	4	12.12
2	Tasks reflected those taught	31	93.94	2		6.06	0	0
3	Time at each station was adequate	16	48.48	11		33.33	6	18.18
4	Setting and context at each station felt real (authentic)	25	75.76	3		9.09	5	15.15
5	Instructions were clear	27	81.82	3		9.09	3	9.09
6	Tasks asked to perform were fair	26	78.79	2		6.06	5	15.15
7	Sequence of stations logical and appropriate	23	69.70	2		6.06	8	24.24
8	Exam provided opportunities to learn	33	100	0		0	0	0

Students about (78.79%) felt that tasks asked to perform were fair and (69.70%) experienced that sequence of OSCE stations logical and appropriate and exam provided opportunities to learn. (81.82%) were clear about the instructions. (75.76%) responded that the content reflected real life situations in community health nursing. (48.48%) found that time at each station was adequate. More than half (81.82 %) were fully aware of nature of exam.

Student perception of validity and reliability:

Table 3:- Student perception of validity and reliability.

SL.No	Question	To great extent	%	Neutral	%	Not at all	%
1	OSCE exam scores provide true measure of essential clinical skills in community	24	72.73	9	27.27	0	0
2	OSCE scores are standardized	25	75.76	7	21.21	1	3.03

3	OSCE practical and useful experience	30	90.91	3	9.09	0	0
4	Personality, ethnicity and gender will not affect OSCE scores	30	90.91	2	6.06	1	3.03

(90.91%) found that OSCE practical is an useful experience and OSCE score will not affect personality, ethnicity and gender and there is no bias. (75.76%) observed that OSCE scores are standardized. (72.73%) felt that OSCE exam scores provide true measure of essential clinical skills in community health nursing practices.

Discussion:-

Students evaluated that OSCE is fair and transparent, valid, fearless, stress less process to assess clinical competencies of nursing students through formative and summative evaluation in community health nursing practices. They expressed that there is minimum chances of failing and the result were a true reflection of their clinical skills.

Innovation in community health nursing practices required skillful competent nurse in order to provide comprehensive care for promotion of health and prevention of illness in the public health sector. The speed innovation in nursing practice is not at a fast enough speed to accommodate the enormous global challenges facing nursing's future. Innovation in evaluation method will improve quality of nursing practices which will be helpful to achieve professional competency.

OSCE may be a powerful innovative tool in the evaluation of clinical competence in nursing and that it may also be an effective facilitator for learning to perform clinical skills in nursing⁵.

In current nursing education system, student- centered approach can be effectively implemented with greater student participation in quality assurance exercises⁶.

This study findings shows that there is students acceptability of an OSCE as an effective tool to assess student's clinical competency level. OSCE will be evaluated as a standardized method clinical skill evaluation which can be used in a combination with traditional (current) method. So that expected competency level of nursing student in community health nursing clinical practice will be achieved. Thus OSCE can be applied in community health Nursing clinical postings.

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