OSCE VS CONVENTIONAL SKILL ASSESSMENT ON EVALUATION OF PROCEDURES AMONG STUDENTS STUDYING AT SELECTED COLLEGE OF NURSING, THIRUVALLUR DISTRICT, TAMILNADU, INDIA

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Abstract

The OSCE is becoming more prevalent with in assessing, skills, and underpinning knowledge required for practice. This study assess OSCE VS Conventional Skill Assessment to evaluate the selected nursing procedures among students studying at selected College of Nursing among 1st Year B.Sc Nursing Student studying at selected College of Nursing, Thiruvallur District, Tamilnadu, India. The objectives are 1) To assess the level of practice on Conventional Skill test 2) To assess the level of practice on OSCE method 3) To Correlate the level of practice between OSCE and Conventional Skill assessment 4) To associate the selected demographic variables with OSCE and Conventional Skill assessment. The study results reveals: OSCE cumulative scores in assessing Temp was 74%, PULSE 72%, B.P 69% and Respiration 68%. In Conventional Skill the cumulative scores obtained by students were Temp 60%, PULSE 62%, B.P 58% and Respiration was 54%. OSCE Method of conducting examination showed high level of performance comparing with Conventional Skill assessment of conducting practical examination. OSCE mean was 69.469 and standard deviation was 13.2. Conventional Skill assessment mean was 57.89 and standard deviation was 11.1. There is moderately positive correlation between conventional skill assessment and OSCE method of examination with r value of 0.919. The Chi-square test showed medium of teaching had significant association with OSCE with p at 000*** level.

Introduction

OSCE (Objective Structured Clinical Examination) is a useful way to assess competence at Under Graduate and Postgraduate levels of students. Students and faculties should be well prepared to make the best use of the method. The OSCE is used increasingly in nursing education, to assess clinical skill proficiency at pre-registration and postgraduate level. Good preparation for an OSCE is very vital for those running the assessments and for students. If used effectively, OSCE can help students gain confidence to use their skills in their clinical work.
Back Ground of the Study

Practical clinical skills lie at the heart of nurses’ professional practice; therefore, the mastery of fundamental clinical skills is an important component of course leading to registration. Since nursing is a discipline based on practice, there needs to be a curriculum of education that offers students the opportunity to develop their clinical skills, particularly the patient care skills. OSCE is one of the ways used to increase the nursing students’ professional competence.

In Conventional Skill assessment students are given the exact procedures, formats for writing and scoring in testing. Additionally, Conventional Skill assessment tools require learners to display their knowledge in a predetermined way. Joong Hiong Sim (2015) conducted study among Malaya Nursing Students’ performance in the different clinical skills assessed in OSCE: and what it reveals? Mean for the six Clinical skills assessed across 16 stations was computed and compared. Retrospective analysis of data was conducted using SPSS. Results showed Mean for history taking, physical examination, communication skills, clinical reasoning skills (CRSs), procedural skills (PSs), and professionalism were 6.25±1.29, 6.39±1.36, 6.34±0.98, 5.86±0.99, 6.59±1.08, and 6.28±1.02, respectively. Repeated measures ANOVA showed there was a significant difference in the means of the six clinical skills assessed \[F(2.980, 548.332)=20.253, p<0.001\]. Pairwise multiple comparisons revealed significant differences between the mean of the eight pairs of Clinical skills assessed, at \(p<0.05\). Clinical reasoning skills appeared to be the weakest while procedural skills were the strongest, among the six Clinical Skills assessed. Students had unsatisfactory performance in clinical reasoning skills.

Parul Jindal and Gurjeet Khurana (2016) conducted a cross-sectional comparative study to evaluate the effectiveness of OSCE as compared to conventional examination as formative assessment tool in anaesthesiology on the opinion of post graduate students on objective structured clinical examination in Anaesthesiology in Kolkata. Results showed a positive perception of the objective structured physical examination (OSCE) as well as structured 9 (25.7%), fair 19 (54.2%) and unbiased 13 (37.1%) with more standardized scoring 9 (25.7%). The students perceived OSCE to be less stressful than other examination. Thirty-one (88.5%) students agreed that OSCE was easier to pass than conventional method and 29 (82.5%) commented that the degree of emotional stress was less in OSCE than traditional methods. OSCE was better evaluation tool when compared to conventional examination.
PRIYADHARSAN MISHRA (2015) conducted comparative study in Mumbai on OSCE vs Conventional method of examination. The study was undertaken with the objective of comparing the scores obtained by conventional method of examination with OSCE. The study was conducted in the department of Physiology, L.T.M.M.C., Sion, on 98 first year medical students who were asked to perform two clinical examinations and were assessed simultaneously by conventional method of examination and OSCE by two different teachers. A significant difference in the marks obtained was seen with one of the clinical examination. The study brought into focus the importance of OSCE in revealing certain lacunae in the student’s understanding of clinical examination and therefore this method of assessment could be advocated in medical colleges along with the conventional method of assessment.

Assessment is one of the crucial components of the instruction. People within the educational community, i.e. policymakers, educators, students, parents, administrators, have different ideas regarding the implementation of assessment strategies, while some believe in Conventional Skill assessment methods others prefer alternative assessments like OSCE, to assess higher-order thinking skills of the learner. Students have the opportunity to demonstrate each minimal skill what they have learned. This type of assessment tools focus on the growth and the performance of the student. That is, if a learner fails to perform a given task at a particular time, s/he still has the opportunity to demonstrate his/her ability at a different time and different situation. Since alternative assessment developed in context and over time, the teacher has a chance to measure the strengths and weaknesses of the student in a variety of areas and situations. Hence the researcher felt the need for the study. A comparative study on OSCE vs Conventional Skill Assessment to evaluate the selected nursing procedures among students studying at selected College of Nursing, Thiruvalur District, Tamilnadu, India.

METHOD:

Objective Structured Clinical Examination is a method to evaluate students clinical skills like assessing Temperature, Pulse, Respiration and Blood Pressure, at different stations. Conventional Skill Is is a method to evaluate student’s Clinical Skills in predetermined way by following formats like history collection, physical examination and nursing process. One procedure will be demonstrated by each student according to the need of the patient followed by viva voce about 5 hours was given for the performance. OSCE evaluation was arranged with ten stations and evaluators. Strict privacy and confidentiality was maintained in each
station. Temperature, Pulse, Respiration and Blood pressure was assessed for skill, 10 minutes duration was given for each student to perform. Check list was given to the evaluators with dichotomous score. A strict vigil was kept for each skill performance. The objectives of the study were 1)To assess the level of practice on Conventional Skill assessment of conducting practical examination among 1st year B.Sc nursing student. 2)To assess the level of practice on OSCE method of conducting practical examination among 1st year B.Sc nursing student.3) To correlate the level of practice between OSCE and Conventional Skill Assessment method of conducting practical examination. 4)To associate the selected demographic variables with level of practice in OSCE and Conventional Skill assessment method. Hypothesis: There is a significant difference in the scores of OSCE when compared with that of conventional method skill assessment.

METHODOLOGY:

The study design applied for the present study was quantitative. The research approach was comparative evaluative approach with post test only design. The study was conducted at Indira College of Nursing, Pandur, Thiruvallur District, Tamilnadu, India. There are totally 248 students studying in this college with DGNM, B.Sc and M.Sc programs. Target population is all nursing students studying at selected College Of Nursing, Accessible population was 1st year B.Sc nursing and DGNM students with a sample size of 50, who met the inclusion criteria. Purposive sampling technique was used for this study. Inclusion criteria was students willing to participate Students with mild illness, aches and pain were excluded from the study.

Ethical Consideration: The researcher’s obtained formal permission from Research Advisory Committee and Ethical Clearance Committee of the College.

DESCRIPTION OF THE TOOL: PART 1: SELECTED DEMOGRAPHIC DATA consists of baseline data which includes Age, Sex, place of residence, Medium of instruction, languages known, Religion, Monthly family income.

DATA COLLECTION PROCEDURE: Conventional Skill assessment and OSCE method examination was conducted on different days. Marks were evaluated for both the exams. Marks of each student was used as data for comparative study analysis.

RESULTS: OSCE method of conducting examination showed high level of performance comparing with Conventional Skill assessment of conducting practical examination. In OSCE the cumulative scores in assessing Temperature was 74%, PULSE was 72%, B.P 69%
and Respiration was 68%. In Conventional Skill the cumulative scores are Temperature was 60%, PULSE was 62% ,B.P 58% and Respiration was 54%. OSCE mean was 69.469 and standard deviation was 13.2. Conventional Skill assessment mean was 57.89 and standard deviation was 11.1. Comparative study showed there was moderately positive correlation between Conventional Skill assessment and OSCE method of examination with r value as 0.919. The Chi-square test revealed one variable had significant association with p at 000*** for Medium of teaching. Tamil medium students showed high level of performance in OSCE with average score of 70%.

TABLE 1 CUMULATIVE PERCENTAGE OF COMPARATIVE ANALYSIS

<table>
<thead>
<tr>
<th>Assessment</th>
<th>TEMPERATURE</th>
<th>PULSE</th>
<th>RESPIRATION</th>
<th>BLOOD PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSCE Method</td>
<td>74%</td>
<td>72%</td>
<td>69%</td>
<td>68%</td>
</tr>
<tr>
<td>Conventional method</td>
<td>60%</td>
<td>62%</td>
<td>58%</td>
<td>54%</td>
</tr>
</tbody>
</table>

FIG: 1 CUMULATIVE PERCENTAGE OF COMPARATIVE ANALYSIS

Table: 2 Mean and Standard deviation of OSCE method and Conventional Skill method

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>OSCE Method</th>
<th>Conventional Skill method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>69.469</td>
<td>57.89</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>13.2</td>
<td>11.1</td>
</tr>
</tbody>
</table>
RESULTS: The first objective in the study was “To assess the level of practice on Conventional Skill assessment of conducting practical examination among 1st year B.Sc nursing student studying in selected College of Nursing.” The Conventional Skill assessment practice showed mean 57.89 and standard deviation was 11.1 which shows low performance of students in this method comparing to OSCE Method. The second objective in the study was “To assess the level of practice on OSCE method of conducting practical examination. The OSCE method practice showed mean was 69.469 and standard deviation was 13.2 which showed high performance of students in this method comparing to conventional method. The third objective in the study was “To Correlate the level of practice between Conventional Skill assessment and OSCE method of conducting practical examination. In OSCE the cumulative scores in assessing Temperature was 74%, PULSE was 72%, B.P 69% and Respiration was 68%. In Conventional Skill method the cumulative scores are Temperature 60%, PULSE 62%, B.P 58% and Respiration was 54%. Comparative study shows there is moderately positive correlation between Conventional Skill assessment and OSCE method of examination by getting r value = 0.919. The fourth objective in the study was to correlate the level of practice between Conventional Skill assessment and OSCE method of conducting practical examination. The Chi-square test revealed there was one variable had significant association p at 000*** was Medium of instruction. Tamil medium students showed high level of performance in OSCE.
CONCLUSION:

This comparative study revealed that OSCE method of conducting practical exam showed improved level of performance among students while comparing with Conventional Skill assessment method.

REFERENCES: