Clinical evaluation in nursing education is an important activity with implications for students, teachers and the recipients of nursing care. Testing, measurement and evaluation play an important role in all educational institutions. Evaluation tools have far reaching consequences for students in their success or failure. Evaluation is defined as a systematic and meticulous application of scientific method to assess the design, implementation and outcome of programmes.

Dissatisfaction with the conventional methods of clinical assessment on the part of teachers and students led assessors to search for alternatives and in 1975, Harden and his colleagues introduced Objective Structural Clinical Examination (OSCE). OSCE is defined as “an approach to the assessment of clinical competence in which components of competence are assessed in a well-planned or structured way with attention being paid to objectivity”. OSCE is a widely adopted tool to assess the student’s competencies in a range of subjects. It is a formal assessment of student’s clinical procedural skills, usually performed on simulated patients, to assess Knowledge, Motor skills, Attitude and Structure.

As a method of evaluation in nursing education, conventional method consists of either assigning a procedure or a patient to a student for identifying the needs on priority basis for giving care depending upon student’s ability and availability of the patient for a particular procedure (Marzieh et al, 2013). The comparison between OSCE and conventional method gives evidence of significant difference in knowledge score. OSCE is suitable for assessing clinical, technical and practical skills which may not be adequately assessed through conventional/traditional assessment methods as they possess the ability to improve the validity and reliability of assessment. By conventional method, we can only assess overall performance of students and the final conclusion is not arrived at accurately.

The objectives of the study were to:

- Evaluate the clinical performance of nursing students on vital signs procedure by (a) Objective Structural Clinical Examination (OSCE), and (b) conventional method.
- Compare the clinical performance of nursing students on vital signs procedure evaluated by conventional method and OSCE.

Review of Literature

Mishiri et al, (2013) in a comparing conventional versus OSCE, found a significant difference in the marks obtained with one of the clinical examination. The study brought into focus the importance of OSCE in revealing certain lacunae in the students’ understanding of a clinical examination implying that this method of assessment should be advocated in medical colleges along with the conventional method.

Marzieh et al (2013) in a cross-sectional study on MBBS students of 9th semester at Medical Education Research Centre, Tabriz University of Medical Sciences, Tabriz, Iran, 52 students who appeared for OSCE on first day and 42 from them turned up for conventional examination on next day noticed a significant difference. The study showed that students fared better in OSCE than in conventional method. The authors concluded that OSCE is better evaluation tool as compared to conventional examination.

Patricia Katowa-Mukwato, Lonja Mwape, Marjorie Kablinga-Makukula, Prudencia Mweemba, Margaret C. Maimbolwa (2013) conducted a similar study. They described the implementation of OSCE in the Department of Nursing Sciences; University of Zambia for assessment of nursing students’ clinical competencies. They took the sample of 104 nursing student of 4th year for conducting OSCE; 7 stations were...
arranged, 4 of 7 were marker stations and 3 were observer stations. Each student was scored by 3 examiners on the 3 observer stations. They used DOPS (Direct Observation of Procedural Skills) for assessing students’ clinical competencies for both formative and summative purposes.

Checklists were developed and pre-test for OSCE was conducted. The implementation process followed 8-step approach from which several lessons were drawn and implications were generated. Major lessons included the need for adequate preparation of faculty and students, which is a fundamental ingredient to ensure reliability of the examination, and in minimising stress and anxiety. Following the implementation, they found that OSCE is suitable for testing clinical, technical and practical skills which may not be adequately assessed through traditional assessment methods.

**Material and Methods**

The present study was conducted to compare OSCE versus Conventional method of evaluation for clinical performance of nursing students on vital signs procedure in Institute of Nursing Education, Guru Teg Bahadur Sahib (C) Hospital, Ludhiana (Punjab). A quantitative approach and non-experimental comparative research design was used in the present study. Self-structured checklist and proforma were prepared and pre-tested for validity and reliability. Pilot study was conducted to check feasibility of study. The target population was students of BSc Nursing 2nd year and GNM 2nd year; 100 students were selected by using Stratified random sampling technique. Data was collected by self-structured tools. Data was analysed by descriptive and inferential statistics and presented through tables and figures.

**Data analysis**

Objective 1: To evaluate the skills of nursing students on vital signs by objective structured clinical examination (OSCE). Table 1 depicts frequency distribution and mean of skill score on vital signs by OSCE method among BSc and GNM (N) 2nd year students. It shows that majority of students were in unsatisfactory level of skill performance; 65 (65%) and 35 (35%) have basic level of skill performance. Students in basic level of skill performance have maximum mean skill score (84.85), and students in unsatisfactory level of skill performance have minimum mean skill score (74.76).

Objective 2: To evaluate the skills of nursing students on vital signs by conventional method. Table 2 depicts frequency distribution of skill score on vital signs by conventional method among BSc & GNM (N) 2nd year students. It shows that all 100 (100%) nursing students in conventional method have unsatisfactory level of skill performance. Students in unsatisfactory group have mean skill score of 65.16.

Objective 3: To compare the skill score of OSCE (objective structured clinical examination) with that of Conventional method. Table 3 depicts the comparison of skill score of vital signs by OSCE and conventional method among BSc & GNM (N) 2nd year students. It was found that OSCE mean skill score (78.3) were higher as compared to conventional method mean skill score (65.15).

Based on ‘t’ test the difference in mean skill scores of OSCE and conventional method among students was found statistically significant at p< 0.05 level. Hence it can be concluded that there is significant difference between skill score of OSCE method and conventional method.

**Results**

Majority of students (65%) were in unsatisfactory level of skill performance, with mean skill score of 74.76. All (100%) students were in unsatisfactory level of skill performance with mean skill score of 65.15. On comparing skill score of vital signs by

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### Table 1: Frequency distribution and mean of skill score on vital signs by objective structured clinical examination (OSCE) method among nursing students (n=100)

<table>
<thead>
<tr>
<th>Levels of skill performance</th>
<th>Score</th>
<th>f</th>
<th>Mean score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficient</td>
<td>≥97</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Basic</td>
<td>82-96</td>
<td>35</td>
<td>84.85</td>
<td>±2.73</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>≤81</td>
<td>65</td>
<td>74.76</td>
<td>±4.78</td>
</tr>
</tbody>
</table>

Maximum=108; Minimum=0

### Table 2: Frequency distribution and mean of skill score on vital signs by conventional method among nursing students (n=100)

<table>
<thead>
<tr>
<th>Levels of skill performance</th>
<th>Score</th>
<th>f</th>
<th>Mean score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficient</td>
<td>≥97</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Basic</td>
<td>82-96</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>≤81</td>
<td>100</td>
<td>65.15</td>
<td>±9.74</td>
</tr>
</tbody>
</table>

Maximum=108; Minimum=0

### Table 3: Comparison of mean skill score of objective structured clinical examination (OSCE) with that of conventional method

<table>
<thead>
<tr>
<th>Method of evaluation</th>
<th>Skill score</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean score</td>
<td>SD</td>
</tr>
<tr>
<td>OSCE</td>
<td>100</td>
<td>78.3</td>
<td>±6.41</td>
</tr>
<tr>
<td>Conventional</td>
<td>100</td>
<td>65.15</td>
<td>±7.97</td>
</tr>
</tbody>
</table>

Minimum score=0; Maximum score =108; *Significant at p<0.05 level
OSCE and conventional method among students, it was found that OSCE skill scores (78.3) were higher as compared to conventional method with mean skill score (65.15) and the difference was found to be statistically significant at p<0.05 level.

**Discussion**

In the present study on comparing skill score of vital signs by OSCE and conventional method among students, it was found that OSCE skill score of 78.3 and mean percentage of 72.5 percent were higher as compared to conventional method with mean skill score of 65.15 and mean percentage 60.32 percent and the difference was found to be statistically significant at p< 0.01 level. Similar findings were reported by Mishiri et al (2013) who conducted a comparative study of the two evaluation methods i.e. conventional versus objective structured clinical examination (OSCE). The study was conducted in the Department of Physiology, LTMMC Sion, on 98 first year medical students who were asked to perform two clinical examinations. They were assessed simultaneously by conventional method of examination as well as OSCE by two different teachers. A significant difference in the marks obtained was seen with one of the clinical examination. The study brought out the importance of OSCE in revealing certain lacunae in the students’ understanding of clinical examination and therefore this method of assessment should be promoted in medical colleges along with the conventional method.

**Conclusion**

It was concluded that OSCE is better than conventional method for evaluation of clinical performance. The skill score of OSCE method was higher than conventional method.

**References**


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- Duration: 2 Years
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