Perception of Nursing Students towards OSCE Method of Evaluation

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ABSTRACT

Background: OSCE is a form of multi-station examination of clinical subjects. It is a modern type of examination often used in health sciences to assess clinical skills such as communication, clinical examination, Medical, and Nursing procedures/ prescriptions, exercise prescription, and Interpretation of results. Clinical assessment is a crucial part of Nursing. It helps in assessing nursing students; ensures competencies that are acts in the delivery of quality Nursing care. The objective of the study was to assess the level of perception toward OSCE among B.Sc Nursing students in Puducherry. Methodology: A descriptive cross-sectional design was adopted for the study. 300 samples were selected using the cluster sampling technique from the Colleges of Nursing in Puducherry. Data was collected from the samples through Modified Nkeiruka Ameh’s 5-point Likert scale and were analyzed. Results: The study results showed that the mean perception score was 97.08 and 96.22 for the 3rd year and 4th year B.Sc Nursing Students respectively. Among 3rd-year students, none of the demographic variables had shown a statistically significant association with the level of perception of the OSCE method of evaluation. Among the demographic variable of gender (x2=6.323, p=0.042) had shown statistically significant association with the level of perception of OSCE method of evaluation at p<0.05 level among 4th-year B.Sc Nursing Students. It also revealed that there was no significant difference in the level of perception of the evaluation method of OSCE between 3rd year and 4th year B.Sc. Nursing students. Conclusion: The study concluded that the majority of the students had an adequate perception of the OSCE method of evaluation.
I. INTRODUCTION

Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups, and communities, sick or well, and in all settings. It includes the promotion of health, prevention of illness, and the care of ill, disabled, and dying people [1].

Nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations [2].

Assessment is an essential part of a health care profession. Clinical examination skills act as a juncture between the patient’s history and the examinations needed to arrive at a diagnosis an adjunct to careful technology [3].

Clinical Evaluation is defined as an integral form of evaluation seeking to combine knowledge, understanding, problem solving, technical skills, attitudes, and ethics in evaluation. There are many clinical evaluation methods such as Nursing Rounds, Nursing Case studies, Nursing conferences, and Nursing Clinics. One such clinical evaluation method is the Objective Structured Clinical Examination (OSCE). In these types of clinical evaluations, students can acquire adequate knowledge and skills [4].

OSCE is a form of multi-station examination of the clinical subject. It is a modern type of examination often used in health sciences to assess clinical skills such as communication, clinical examination, medical and nursing procedures or prescription, exercise prescription, and interpretation of results [5].

OSCE was first used in the 1970s, as an assessment of competence carried out in a well-planned, structured, and objective way [6]. It is well established within medicine and is used increasingly in nursing education [7]. The assessment of knowledge and skills play an important part in student nurses’ progression through the Pre-registration program because they need to demonstrate competency and confidence in the performance of clinical skills [8].

The pandemic of COVID–19 has spread throughout the world causing many issues/challenges to human life. Due to this crisis situation, the day to day activities of human life have been affected to a greater extent and the living style of people has also been changed. The lockdown imposed

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by the Government to prevent the spread of Covid infection had made people suffer a lot in all walks of life. In the field of education, the educational institutions are closed and the students are taught through online mode. The same holds good for Nursing education too.

OSCE is a newer advancement in technology that makes the students learn their skills and improve competencies. Knowledge and perception of OSCE will lead to better performance and that will help students to develop an interest in learning procedures with accuracy, leading to patient safety. This will be useful for improving the professional knowledge and positive perception regarding the learning of Nursing Procedures which will reflect on the deliverance of quality nursing care.

The researcher herself being a nursing professional undergoing post-graduate education was interested to assess the perception among B.sc Nursing students. So, the researcher was interested to assess the perception regarding the OSCE method of evaluation among B.Sc Nursing students. This study is a maiden venture in Puducherry in assessing the level of perception towards OSCE among B.Sc Nursing students.

PROBLEM STATEMENT

A descriptive study to assess the perception of the OSCE method of evaluation among B.Sc Nursing students in selected Nursing Colleges, Puducherry.

OBJECTIVES

1. To assess the level of Perception of the OSCE method of evaluation among B.Sc Nursing Students.

2. To compare the level of Perception of the OSCE method of evaluation between B.Sc Nursing 3rd Year and 4th Year B.Sc Students.

3. To associate the level of Perception with selected demographic variables among 3rd-year B.Sc Nursing Students.

4. To associate the level of Perception with selected demographic variables among 4th-year B.Sc Nursing Students.

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II. MATERIALS AND METHODS

RESEARCH DESIGN

A quantitative research approach and descriptive cross-sectional design were selected for this study.

TARGET POPULATION AND SAMPLING

All the B.Sc Nursing Students studying in the Nursing colleges in Puducherry. B.Sc Nursing students studying in Nursing Colleges in Puducherry who fulfilled the inclusion criteria and were available during the period of data collection. A total of 300 students were selected by cluster sampling technique using population proportion the samples were selected from each nursing college where 21% fulfills the inclusion criteria such as B.Sc Nursing students both male and female, those who know read English.

DATA COLLECTION

Prior Permission was obtained from the college authorities. The period of data collection was from 01.03.2021 to 31.03.2021. The data was collected using the cluster sampling technique. The researcher selected the samples according to the proportion of samples which was calculated based on the annual intake of students in each College of Nursing and then the lottery method was used to select samples from each college. A total of 300 samples were selected from 10 nursing colleges for the present study. A separate classroom was arranged and the researcher introduced herself to the participants and explained the purpose, objectives, and importance of the study. Obtained the written consent from the samples individually. The questionnaire was distributed to the subjects. The general instruction was given to the subjects and instructed them to fill out the questionnaire. They took 30 minutes to fill out the questionnaire.

DATA ANALYSIS

The collected data were analyzed by using descriptive and inferential statistics. The collected data was organized in the master sheet and proceeded for analysis. Descriptive statistics like frequency distribution, percentage, mean and standard deviation were used to assess the level of perception among B.Sc Nursing towards OSCE method of evaluation. Inferential statistics like
the Chi-square test were used to the association of level of perception of OSCE with selected demographic variables.

**ETHICAL REVIEW**

Approval and ethical clearance from the dissertation committee of Mother Theresa Post Graduate and Research Institute of Health Sciences, Puducherry was obtained before conducting the main study. Before the collection of data, formal permission was obtained from the respective College Principal. Informed consent was obtained from the students in all Nursing Colleges. The selection of the sample was based on inclusion criteria. The samples were given the freedom to withdraw from the study at any time.

**III. RESULTS**

The tool used in this study was Modified Nkeiruka Ameh’s 5-point Likert scale.

**SECTION – A:** It consists of the demographic profile of the students including Age, Sex, Year of studying, and Name of the College.

**SECTION – B:** It consists of Nkeiruka Ameh’s modified tool to assess the student’s perception of OSCE with 25 items. The 25 items were constructed under these three components including Student evaluation of OSCE, Students evaluation of the quality of performance testing of OSCE, and Students’ perception of validity and reliability of OSCE. The 25 Perception statements were given scores of 5 to 1 like strongly agree – 5, Agree – 4, Neutral – 3, Disagree – 2, and Strongly disagree – 1.
Table 1: Frequency and percentage distribution of demographic variables of 3rd year and 4th-year B.Sc. Nursing Students based on Age and sex

N = 300(149+151)

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>3rd Year</th>
<th>4th year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 – 19</td>
<td>32</td>
<td>21.5</td>
</tr>
<tr>
<td>20 – 21</td>
<td>110</td>
<td>73.8</td>
</tr>
<tr>
<td>&gt;21</td>
<td>7</td>
<td>4.7</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>27</td>
<td>18.1</td>
</tr>
<tr>
<td>Female</td>
<td>122</td>
<td>81.9</td>
</tr>
</tbody>
</table>

Table 2: Frequency and percentage distribution of level of perception of OSCE Method of evaluation among 3rd-year B.Sc. Nursing Students.

N= 149

<table>
<thead>
<tr>
<th>Level of Perception</th>
<th>Inadequate (≤50%)</th>
<th>Average (51 – 75%)</th>
<th>Adequate (&gt;75%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Student evaluation of OSCE</td>
<td>0</td>
<td>0</td>
<td>57</td>
</tr>
<tr>
<td>Students evaluation of quality of performance testing of OSCE</td>
<td>0</td>
<td>0</td>
<td>57</td>
</tr>
<tr>
<td>Students perception of validity and reliability of OSCE</td>
<td>3</td>
<td>2.01</td>
<td>47</td>
</tr>
<tr>
<td>Overall</td>
<td>0</td>
<td>0</td>
<td>49</td>
</tr>
</tbody>
</table>
Table 3: Frequency and percentage distribution of level of perception of OSCE Method of evaluation among 4th year B.Sc. Nursing Students.

N = 300

<table>
<thead>
<tr>
<th>Level of Perception</th>
<th>Inadequate (≤50%)</th>
<th>Average (51 – 75%)</th>
<th>Adequate (&gt;75%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Student evaluation of OSCE</td>
<td>0</td>
<td>0</td>
<td>68</td>
</tr>
<tr>
<td>Students' evaluation of quality of performance testing of OSCE</td>
<td>2</td>
<td>1.32</td>
<td>59</td>
</tr>
<tr>
<td>Students perception of validity and reliability of OSCE</td>
<td>8</td>
<td>5.30</td>
<td>57</td>
</tr>
<tr>
<td>Overall</td>
<td>1</td>
<td>0.66</td>
<td>63</td>
</tr>
</tbody>
</table>

The above table 1 shows that with regard to the age of the 3rd year B.Sc. Nursing Students, the majority of the samples 110(73.8%) were aged between 20 – 21 years, 32(21.5%) samples were aged between 18 – 19 years and 7(4.7%) were aged >21years whereas, in the 4th year, majority of the samples 103(68.2%) were aged between 20 – 21 years and 48(31.8%) were aged >21 years and Regarding gender of the 3rd year B.Sc. Of nursing students, most of the students 122(81.9%) were female and 27(18.1%) students were male. Whereas in the 4th year, most of the students 118(78.1%) were female and 33(21.9%) students were male.

The above table 2 portrays that with regard to student evaluation of OSCE among 3rd year B.Sc. Nursing majority of the students 92 (61.74%) had an adequate level of perception and 57 (38.26%) students had an average level of perception towards student evaluation of OSCE.

The above table 3 portrays that with regard to student evaluation of OSCE among 4th year B.Sc. Nursing majority of the students 83 (54.97%) had an adequate level of perception and in a few samples,68(45.03%) had an average level of perception towards student evaluation of OSCE.

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IV. DISCUSSION

The first objective of the study was to assess the level of perception towards the OSCE method of evaluation among B.Sc Nursing students.

On the whole, the level of perception revealed that the majority of the samples, 100 (67.11%) had an adequate level of perception and some of the samples, 49 (32.89%) had an average level of perception of the OSCE method of evaluation among 3rd-year B.Sc. Nursing Students.

These results were supported by the study by Eswi A, Badawy AS, Shaliabe H (2013)[9] in which the results showed that with regard to the quality of performance, the majority of the students agreed that the OSCE exam was fair (95%), covered a wide range of knowledge (90%) and it was well administered (96.3).

The second objective of the study was to compare the level of perception between 3rd year and 4th year nursing students

The overall level of evaluation method of OSCE revealed that the mean score among 3rd-year B.Sc students was 97.08±8.94 and the mean score among 4th-year B.Sc. Nursing students were 96.22±11.89. The calculated independent test value of t = 0.710 was not found to be statistically significant.

Thus, there was no significant difference in the level of perception of the evaluation method of OSCE between 3rd year and 4th-year B.Sc. Nursing students. This result was supported by the study conducted by Ahmed E S, Mohamed A, Magedda M (2015)[10] in which the results showed that there was no significant difference between 1st and 4th Year Nursing students, regarding the level of perception.

The third objective of the study was to associate the level of perception with selected demographic variables among 3rd-year B.Sc Nursing students

It showed that none of the demographic variables like age and sex had shown any statistically significant association with the level of perception of the OSCE method of evaluation among 3rd-year B.Sc. Nursing Students.
These results were supported by the study conducted by Aung KT, Zakaria ANABB (2016)[11] the results showed that there was no significant association between socio-demographics and the year of the study.

The fourth objective of the study was to associate the level of perception with selected demographic variables among 4th-year B.Sc Nursing students

The demographic variable sex had a statistically significant association at (p= 0.042) with perception towards OSCE method of evaluation at p< 0.05 level.

With regard to age, the 20 – 21 years of age group had adequate perception towards OSCE method of evaluation among 4th Year B.sc Nursing students.

Other demographic variable age had not shown any statistically significant association with the level of perception of OSCE method of evaluation among 4th Year B.sc Nursing student.

V. CONCLUSION

The study result showed that the majority of the subjects had an adequate perception of the OSCE method of evaluation. The OSCE method of evaluation should be recommended for the students with the incorporation of clinical skills to update their knowledge.

VI. RECOMMENDATIONS

❖ Mixed method studies can be carried out with the same problem statement.

❖ Replication of the study can be done with a larger sample to validate and generalize the findings.

❖ Similar studies can be conducted with nursing tutors.

❖ A similar study can be undertaken with Paramedical students.

❖ A comparative study can be done on both Nursing students and Paramedical students.

❖ A similar study can be done as an observational study by using a skill station.

❖ A similar study can be replicated by using an experimental study.
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