

A Study to Assess Effectiveness of STP on Knowledge and Expressed-Practice regarding OSCE among Nursing-Tutors of Selected Colleges of Gujarat

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ABSTRACT

Background and Objectives: OSCE has been widely and increasingly used now-a-days. The OSCE is comprised of several stations; examinees are expected to perform a variety of clinical tasks within a specified time period. Performing a variety of clinical skills, in the laboratory there by evaluating competency of skills is possible. Investigator had conducted this study to assess the knowledge and expressed practice of nursing tutors before and after administration of Structured Teaching Programme on OSCE. And to find out the correlation between post-test knowledge and post-test expressed practice score on OSCE among nursing tutors of selected self-finance nursing colleges. **Methods:** A pre-experimental research design was used for this study. For data collection, structured tools were prepared which consists of three parts, first part deals with demographic data, second and third part includes structured quantitative questionnaire. Simple random sampling technique was used to select potential participants. Total 50 participants were selected with chit and lottery method for this study. **Results:** The study revealed that mean post-test knowledge score (14.1) was higher than mean pre-test knowledge score (7.52). The mean post-test expressed practice score (8.1) was higher than mean pre-test expressed practice score (3.56). There is an existence of a positive correlation ($r = 0.66$) between knowledge and expressed Practice. **Conclusion:** The participants gained knowledge after delivering structured teaching about OSCE. There is positive co-relation between knowledge and expressed practice. So, it proves that structured teaching program is effective in imparting knowledge of OSCE.

Keywords: Structured Teaching Program, Objective Structured Clinical Examination, OSCE, STP

INTRODUCTION

Examinations are the vital and integral part of nursing field. The clinical performance is assessed by conducting a practical examination by using rating scales and observational checklist.

Potentiality of Objective Structured Clinical Examination to test the wide range of

skill, and safe practice in terms of psychomotor skill assessment as well as declarative and schematic knowledge associated with its application. At the same time, it provides the technique appropriate to use for many students. To organize the examination in a laboratory setting, like the natural setting, evaluating the student's competence by OSCE may be an appropriate alternative.

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BASHIR A., TAHIR S., NASIM A., AND KHAN J.S.^[1] stated in a phenomenological qualitative study that the assessments are an integral part of student's evaluation. The way these assessments are carried out is important because a substandard, unstructured assessment can put a question mark on the face of assessment in terms of validity, reliability, acceptability and educational impact. In their study the main concern of participant was to further improve the construction of Objective Structured Practical Examination (OSPE) station by making more clinical skill-oriented stations and to increase the OSPE bank to avoid repetition of questions. Moreover, it is costly and time-consuming job for which faculty should be properly paid, made trained and refrained from involving into administrative work. In this study OSPE was favoured as a method that should be continued as an assessment method.

STATEMENT:

A Study to Assess Effectiveness of STP on Knowledge and Expressed-Practice regarding OSCE among Nursing-Tutors of Selected Colleges of Gujarat

OBJECTIVES OF THE STUDY

1. To assess the knowledge of nursing tutors before and after administration of Structured Teaching Programme on OSCE in selected self-finance nursing colleges of Ahmedabad city
2. To assess the expressed practice of nursing tutors before and after administration of Structured Teaching Programme on OSCE in selected self-finance nursing colleges of Ahmedabad city
3. To find out the correlation between post-test knowledge and post-test expressed practice on OSCE among nursing tutors of selected self-finance nursing colleges of Ahmedabad city

HYPOTHESIS OF THE STUDY

H1 The mean post-test knowledge score of participants after administration

of Structured Teaching Programme on OSCE will be significantly higher than their mean pre-test knowledge score as determined by structured knowledge questionnaire at 0.05 level of significance

H2 The mean post-test Expressed Practice score of participants after administration of Structured Teaching Programme on OSCE will be significantly higher than their mean pre-test expressed practice score as determined by structured expressed practice questionnaire at 0.05 level of significance

H3 There will be significant correlation between post-test Knowledge and post-test Expressed Practice of participants after Administration of Structured Teaching Programme on Objective OSCE

MATERIAL AND METHOD:

In present study researcher performed pre-experimental pre-test post-test design research in selected self-finance nursing colleges of Ahmedabad city. Researcher conducted study on 50 representative participants through simple random sampling method. In this study, tool had 3 sections named section-1 (5-demographic variables) section-II (20-structured knowledge questionnaire) and section-III (10-structured expressed practice questionnaire). Tool was validated by 8 experts comprising of 7 Nurse Educators (7 Master of science in Nursing) and 1 Ph.D. in Education. Ethical committee approval was obtained. Investigator adopted probability sampling technique to select the Samples, in that simple random sampling method was used. For the Sample selection, first investigator divided the Ahmedabad city in five zones. Nursing colleges were selected from each zone by lottery method. Participants who were willing to take part and available at the time of data collection had signed written consent. Confidentiality of the participants was maintained.

Due authority from all the related head of Institutions was obtained. Pre-test was conducted in selected nursing colleges of Ahmedabad city and structured teaching was administered by researcher. After 7 days researcher took post-test for the study. 7days gap between administration of structured teaching program and post-test was there to assess retained knowledge of participants regarding Objective Structured Clinical Examination. Descriptive and inferential statistics were used to analyse the demographic data, structured knowledge questionnaire and structured expressed practice Questionnaire. Paired t-test was used to analyse effectiveness of structured teaching program, Karl Pearson formula is used to find correlation. The study was delimited to selected self-finance nursing colleges of Ahmedabad city.

FINDINGS

Statistical analysis was executed on IBM SPSS 25 and Microsoft Excel-2016. In descriptive statistics, frequency and percentage were calculated. In inferential statistics, Paired T-test was used to find out the difference between knowledge of expressed practice. Karl-pearson test was used to find correlation between knowledge and expressed practice.

ANALYSIS OF DATA

After collecting the data, the information was organised and presented under the following sections:

Section-I: Analysis related to the demographic variables of the participants in frequency and percentage distribution

Section-II: Analysis related to the pre-test and post-test knowledge score.

Section-III: Analysis related to the pre-test and post-test expressed practice score.

Section-IV: Analysis related to correlation between post-test knowledge and post-test expressed practice score.

SECTION-I

Analysis related to the demographic variables of the participants in frequency and percentage distribution

Table-1 depicts percentage and frequency wise distribution of participants demographic data.

Table1 shows Frequency, Percentage wise Distribution of the participants based on Demographic data

(N=50)

Sr. No.	Demographic Variables	Frequency (f)	Percentage (%)
1	Age Group		
	22 – 30 years	45	90%
	31 – 40 years	01	02%
	41 – 50 years	00	00%
	51 years and above	04	08%
2	Gender		
	Female	46	92%
	Male	04	08%
3	Professional Qualification	44	88%
	B. Sc. Nursing	06	12%
	P. B. B.Sc. Nursing	00	00%
	M.Sc. Nursing	00	00%
	Others		
4	Total Teaching Experience	35	70%
	0 - 1 years	10	20%
	2 - 5 years	3	06%
	6 - 10 years	2	04%
	Above 10 years		
5	Attended any Training, Conference, Workshop, In Service Educational Program related to OSCE		
	Yes	00	00%
	No	50	100%

Section-II

Analysis related to the pre test and post test knowledge score.

Table-2 depicts Among 50 participants, Pre-Test Knowledge Score was 376 and Mean Pre-Test Knowledge Score was 7.52 (37.6%) Whereas Post Test Knowledge Score was 705 and Mean Post Test Knowledge Score was 14.1 (70.5%). Mean Difference between Pre Test Knowledge and Post Test Knowledge was 6.58 and 32.9% Mean Percentage Gain of the participants on OSCE.

Table-3 Among 50 participants, in Pre Test 24(48%) had poor Knowledge Score, 26(52%) had average Knowledge Score and no one had good Knowledge Score. Whereas in Post

Test 32(64%) were average Knowledge Score, 18(36%) were good knowledge score and no one had poor Knowledge Score regarding OSCE.

Table-4 depicts that calculated "t" value ($t=15.3$ at 49 degrees of freedom with 0.05 level of significance) was greater than tabulated "t" value ($t=2$) which was statistically proved. The Structured Teaching Programme was effective and null hypothesis was rejected and research hypothesis H1 was accepted.

Section-III

Analysis related to the pre-test and post-test expressed practice score.

Table-5 depicts that among 50 participants, Pre-Test Expressed Practice Score was 178

Table2 : Obtained Score, Mean Score, Mean Percentage, Mean Difference, Mean Percentage Gain of Pre-Test and Post Test Knowledge of the participants regarding OSCE.

Knowledge	Max Score	Obtained score	Mean Score	Mean Percentage (%)	Mean Difference	Mean Percentage Gain (%)
Pre-Test knowledge score	20	376	7.52	37.6	6.58	32.9
Post Test knowledge score		705	14.1	70.5		

Table 3: Frequency and Percentage wise distribution of the participants based on Knowledge score regarding OSCE

Knowledge Score	Level	Pre-Test		Post Test	
		Frequency	Percentage	Frequency	Percentage
		(f)	(%)	(f)	(%)
0 - 7	Poor	24	48	00	00
8 - 14	Average	26	52	32	64
15 - 20	Good	00	00	18	36
Total		50	100	50	100

Table 4: Mean, Mean Difference, Standard Deviation, Standard Error and 't' Value of Pre-Test and Post Test Knowledge Score of the participants.

Knowledge	Mean	Mean Difference	SD	SE	Calculated 't' Value	Tabulated 't' Value*
Pre-Test	7.52	6.58	1.47	0.44	15.30	2.0096
Post Test	14.1		2.74			

and Mean Pre-Test Expressed Practice Score was 3.56(35.6%) Whereas Post Test Expressed Practice Score was 405 and Mean Post Test Expressed Practice Score was 8.1(81%). Mean Difference between Pre-Test Expressed Practice and Post Test Expressed Practice was 4.54 and 45.4% Mean Percentage Gain of the participants.

Table-6 depicts that among 50 participants in Pre-Test 23(46%) had poor Expressed Practice Score, 25(50%) had average Expressed Practice Score, 02(04%) had good Expressed Practice Score Whereas in Post Test 50(100%) were had good Expressed Practice Score and no one had poor and average Expressed Practice Score.

Table 7 shows Mean, Mean Difference, Stan

Table-7 Table depicts calculated "t"

value ($t = 19.382$) was greater than tabulated "t" value ($t = 2.0096$) which was statistically proved. Hence the Structured Teaching Programme was effective and null hypothesis was rejected and research hypothesis H2 was accepted.

Section-IV

Analysis related to correlation between post-test knowledge and post-test expressed practice score.

Table-8 depicts Correlation between Post Test Knowledge and Expressed Practice score of samples regarding OSCE. The Correlation Coefficient obtained by using Karl Pearson's formula which is $r=0.66$. It suggests a Positive Correlation between the Post Test Knowledge and Post Test Expressed Practice Scores of participants.

Table 5: Obtained Score, Mean Score, Mean Percentage, Mean Difference, Mean Percentage Gain of Pre-Test, and Post Test Expressed Practice of the participants on OSCE.

	Max Score	Obtained score	Mean Score	Mean Percentage (%)	Mean Difference	Mean Percentage Gain (%)
Pre-Test expressed practice score	10	178	3.56	35.6	4.54	45.4
Post Test expressed practice score		405	8.1	81		

Table 6: Frequency and percentage wise distribution of the Samples based on Expressed Practice score regarding OSCE.

Expressed Practice	Mean	Mean Difference	SD	SE	Calculated 't' Value	Tabulated 't' Value*
Pre-Test	3.56	4.54	1.52	0.23	19.38	2.0096
Post Test	8.1		1.01			

Table 7: Mean, Standrd Deviation, Standard Error and 't' Value of Pre-Test and Post Test Expressed Practice Score of the participants.

Expressed Practice	Mean	Mean Difference	SD	SE	Calculated 't' Value	Tabulated 't' Value*
Pre-Test	3.56	4.54	1.52	0.23	19.38	2.0096
Post Test	8.1		1.01			

Table 8: Correlation between Post Test Knowledge Score and Post Test Expressed Practice Score of the participants.

Karl Person's Correlation Coefficient (r)				
Post Test Knowledge mean score (x)	Post Test Expressed Practice mean score (y)	Number of participants	Correlation coefficient (r)	Inference
14.1	8.1	50	0.66	Significant positive correlation at 0.05 level of significant

Hence, Hypothesis H3 was accepted.

It is Significant that if the Knowledge of the participants increases then the Expressed Practice of participants is tending to increase.

DISCUSSION:

In this study investigator had assessed the effectiveness of Structured Teaching Program in terms of Knowledge and Expressed Practice regarding OSCE.

The research approach used for the study was Pre-Experimental with Pre-Test Post Test design. Present study was undertaking at selected self-finance nursing colleges of Ahmedabad city. Structured Teaching Programme was developed by reviewing literature on OSCE in terms of Knowledge and Expressed Practice. The study comprised total 50 participants. The tool use for gathering necessary data were a structured knowledge questionnaire to assess knowledge, structured expressed practice questionnaire to assess expressed practice regarding Objective Structured Clinical Examination. The investigator collected the data by establishing the report with the subject and confidentiality of their response was assured.

Descriptive and inferential statistics methods were used to analyse the data. Knowledge and Expressed Practice deficit in all the area of Objective Structured Clinical Examination among participants.

A similar study was conducted by Mary Brosnan William Evans, Eileen Brosnan and Gary Brown^[4] in Ireland in the year 2005. This study was conducted to evaluate the process and outcomes of OSCE from the perspective of the major stakeholder groups: first- and second-year nursing students, lecturers, clinical placement coordinators and assessors. The Objective Structured Clinical Examination process was found to have a positive impact on all stakeholders. OSCEs were perceived to be a meaningful and fair form of assessment. Students identified that they felt more prepared for and more confident about forthcoming placements. Researcher also added that objective structured clinical examination perceived to be a stressful experience and requires considerable preparation effort by students and academic staff. So, it is useful and reliable method of evaluation but on other hand it requires more preparation and accuracy.

CONCLUSION

Based on the analysis of this study, investigator found out that the Structured Teaching Programme was effective in increasing Knowledge and Expressed Practice regarding

1. A similar study can be conducted on large scale.
2. A comparative study can be conducted to compare the knowledge and practice regarding Objective Structured Clinical Examination among nursing tutors in Government and private Nursing colleges.

3. A descriptive study can be conducted to assess the Knowledge and Expressed Practice of Nursing Tutors regarding Objective Structured Clinical Examination.

CONFLICT OF INTEREST: No

SOURCE OF FUNDING: Self

ETHICAL CLEARANCE: Obtained from Gujarat Institute of Nursing Education and Research, Ahmedabad IEC.

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