CR Subscription Agency
Exploring and Distributing Knowledge Globally

International Journal of Clinical Nursing
Volume 1 Issue 1

Pilot Study on Effectiveness of Objective Structured Clinical Examination (OSCE) Versus Traditional Clinical Examination (TCE) Among Undergraduate Nursing Students – A Comparative Approach

***Lilly Christopher*[1*]*, Victor Devasirvadam*[2]**

[1]*Ph.D (Nursing) Scholar, L.N.C.T. University, Bhopal,* [1]*Principal, Kasturba College of Nursing, BHEL Bhopal, Madhya Pradesh*

[2]*Principal, Samarpan Institute of Nursing and Paramedical Sciences, Lucknow, Uttar Pradesh*

***Corresponding Author**

Email: lillychristo@yahoo.com

ABSTRACT

The assessment of clinical competence is an essential requirement of nursing education because nurses need to demonstrate competency and confidence in the performance of clinical skills. Several methods of assessing the clinical competence of nursing students exist. Traditional methods of evaluating have been criticized for lacking in standardization, structure and its poor inter – rater reliability. OSCE has been found to overcome these issues and proved as one of the most preferable means of evaluating and improving the quality of clinical performance of nursing students. The study aims to assess the effectiveness of OSCE versus TCE on Tracheostomy Care among undergraduate nursing students.

Methods: *An experimental approach with "Post-test only control group design" was chosen for the study. Study population consisted of III and IV year BSc Nursing Students.20 samples were selected by Probability simple random sampling technique through lottery method.10 were in the experimental group who received planned teaching and demonstration on Tracheostomy Care. They were also oriented about OSCE and evaluated by OSCE.10 were in the control group who received traditional method of teaching on Tracheostomy Care and evaluated by traditional clinical evaluation (TCE).*

Results: *Average marks for clinical knowledge and skill scored by the students who were evaluated by OSCE was (91.27±4.34&90.00±4.11) respectively were higher as compared to traditional clinical evaluation scoring (51.60±14.55&52.67±14.85) which was statistically significant at 0.05 level of significance. Study further revealed that there was no significant association between sociodemographic variables and level of knowledge and skill in both the groups.*

Conclusion: *It is necessary to ensure the quality of nursing education as a basis for providing better quality care for patients and safe practice. This can be achieved by using OSCE as part of undergraduate nursing education as it has multiple benefits for nursing students. Specifically OSCE helps in assessing knowledge, skills of nursing students in a simulated clinical environment similar to a real clinical setting without compromising patient safety. Hence the study concludes that the use of OSCE is a valuable tool to evaluate the clinical skills of nursing students on Tracheostomy Care.*

Key Words*: OSCE, TCE, Tracheostomy Care, Undergraduate Nursing students.*

INTRODUCTION

Nurses are the largest group of health care professionals and they deal directly with the lives of human beings. This means that they are expected to perform procedures competently. Determining the clinical competency of nursing students before graduation involves many challenges. During their education, undergraduate nursing students should acquire skills necessary for future professional activity. Nursing institutions teach students to perform the necessary skills and test those skills with competency assessments. Using the right method of evaluation plays a significant role in getting the appropriate result and making the right judgment. Clinical examination is a crucial part of nursing training programmes for assessing nursing student competencies which ultimately leads to the delivery of quality nursing care. Two methods of clinical assessment have been identified [Traditional Clinical Examination (TCE) and Objective Structured Clinical Examination (OSCE)] in nursing and allied professions globally. The traditional format of clinical examination usually includes checklists and using for observation of students' performance in the real clinical or the simulated situations.The limitations of the traditional clinical examinations such as the patient and examiner variability are well known. The objective structured clinical examination (OSCE) was designed to overcome these limitations.

Objective Structured Clinical Examination (OSCE) was first introduced by Harden and Gleeson into medical education in Scotland in 1975. In OSCE, clinical skills are tested and then practiced repeatedly until one perfects the skill. Candidates rotate through stations, completing all stations in their circuit. OSCE stations are staffed by either real or standardized patients, where they are required to perform different clinical task. Then the students are observed, and their performance is assessed using structured checklist. It is considered an improvement over traditional examination methods because the stations can be standardized, fairer peer comparison can be done and complex procedures can be assessed without endangering patient's health. Increased number of stations enhances the reliability of the assessment. (Harden, 1990). OSCE may be a powerful 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 nursing (Ross M Carrol, G., Knight, J., & Chamberlain, M. 1988).

The Objective Structured Clinical Examination (OSCE) is often used in undergraduate nursing education as a means to provide standardized and objective evaluation of clinical skills required for nurses' future professional activity. It aims to help students' master different clinical skills and prepare them for an adequate response to specific problems through simulation of various practical scenarios. Students practice clinical skills in a safe and controlled environment under the supervision of a mentor. Since the mid-1970s, OSCE has been used to assess clinical skills of medical students. From then until today, it has been applied in evaluating different profiles of health professionals, of late for nurses as well. Many study outcomes concluded that the OSCE was recommended as a beneficial and effective tool for evaluating nursing students' clinical performance.

PURPOSE OF THE STUDY

OSCE is considered as one of the effective evaluation tool which is a proven tool to critically assess the skill of a nurse or a nursing student while learning to perform various procedures.Particularly this tool can be used to enhance the nurses' skill as well as to ensure patients safety during

situation of high risk procedures, where even small mistakes can lead to patient mortality. Hence the researcher identified one of the prominent or high-risk procedures namely Tracheostomy care. Currently, tracheostomy patients are seen in acute care settings more often. Appropriate care for patients with tracheostomies in hospital settings is an important issue. Insufficient skills and experience of staff caring for tracheostomy patients may lead to suboptimal care and increased morbidity. In many hospitals, patients with tracheostomies were only cared for in the ICUs. As patients with tracheostomies are now being cared for in the general/non-ICU units, nursing students while learning patient care in these areas need to have adequate knowledge, skill and confidence regarding the care of a patient with a tracheostomy. The researcher, having experience in guiding nursing students in medical wards and Intensive Care Units has observed that majority of nursing students have fear and lack of confidence in performing tracheostomy care even after the traditional way of learning the tracheostomy care procedure. Thus, the researcher felt the need of improving the clinical knowledge and skills of undergraduate nursing students on tracheostomy care.

Studies conducted in various field proves that OSCE to be an effective tool for evaluating nursing students' clinical performance/competence and theoretical knowledge. Also, as of now, in the state of Madhya Pradesh, Bhopal OCSE has not been taken up for research / functioning. Therefore, the researcher has chosen this evaluation model to evaluate the nursing student's performance on Tracheostomy care. The researcher strongly feels that the OSCE will enhance the confidence of undergraduate nursing students while taking care of clients with Tracheostomy in health care settings in future or as registered nurses. Also, this will help to determine best preferred method for clinical assessment among nursing students.

STATEMENT OF THE PROBLEM

A comparative study to evaluate the effectiveness of Objective Structured Clinical Examination (OSCE) versus Traditional Clinical Examination (TCE) on clinical knowledge and clinical skill competence regarding Tracheostomy Care among undergraduate Nursing students in selected Nursing institutions at Bhopal.

OBJECTIVES

1) To assess the Post-test level of clinical knowledge and clinical skill competence of undergraduate Nursing students in experimental group.
2) To assess the Post-test level of clinical knowledge and clinical skill competence of undergraduate Nursing students in control group.
3) To evaluate the effectiveness of OSCE in terms of Clinical knowledge and Clinical skill competence regarding tracheostomy care among undergraduate Nursing students.
4) To find out the association between the post-test level of clinical knowledge, clinical skill competence regarding tracheostomy care and selected demographic variables in the experimental group and control group.
5) To find out the relationship between clinical knowledge and clinical skill competence regarding tracheostomy care.
6) To identify the opinion of students regarding OSCE for tracheostomy care .

HYPOTHESIS

H1: There is a significant difference in the post-test level of clinical knowledge among undergraduate Nursing students between the experimental group and the control group.

H2: There is a significant difference in the post-test level of clinical skill among undergraduate Nursing students between the experimental group and the control group.
H3: There is a significant association between the selected demographic variables and the post-test level of clinical knowledge, clinical skill competence at 0.05 level of significance in experimental group.
H4: There is a statistically significant relationship between post – test clinical knowledge and post – test clinical skill competence among under graduate nursing students in experimental group.

REVIEW OF LITERATURE

Miller (1988) noted that to change curricular or instructional methods without changing examination would achieve nothing. The traditional method of assessment has drawn a lot of criticism over the years because of their inability to evaluate the top level in the Miller's pyramid of competence in valid and reliable manner.

Oermann M. H., Yarbrough, S. S., Saewert, K. J., Ard, N. & Charasika, (2009) state that clinical evaluation is vital to practice based profession, such as Nursing is life with problems. Issues of inconsistency and subjectivity can undermine the evaluation in nursing program. In clinical environments are becoming more complex, placements for students are less consistent and unpredictable and the population of the student is also more diverse. All of these factors make it more important for nurse faculty to use range of clinical evaluation strategies, strive for fairness and objectivity in their evaluation.

Moattari M, Abdollah-zargar et al. (2009) in their descriptive evaluative study 37 students performed 10 different skills at 10 different OSCE stations, during which two experienced inspectors evaluated their performance. They concluded their study by mentioning that OSCE is strongly suggested as a reliable and valid means of evaluating nursing students' clinical skills.

Abeer. A, Fatma .H et al., (2012) conducted a study with the aim to test the validity and reliability of the OSCE in undergraduate psychiatric nursing education. The study concluded that OSCE is a reliable and valid method of assessing the students' psychiatric nursing competency skills. It has been shown to have many advantages over traditional methods of assessment and has the ability to objectively assess psychiatric nursing skills.

Dr. Prof. Anitha Rajendrababu & Mrs. Suja J. K (2016) conducted a comparative study to assess the effectiveness of objective structured clinical examination versus traditional method on knowledge and skill regarding cranial nerve assessment among 3rd year B.Sc nursing students. Their study concluded that OSCE method was effective in assessment of clinical competency and theoretical knowledge of nursing students.

Dr. Vijayalakshmi K, Dr. Revathi S (2017) carried out a study to compare the nursing students' performance between Objective Structured Clinical Examination (OSCE) and Traditional Practical Examination (TPE) in psychiatric nursing through comparative approach. The study was conducted among 84 (42 students in each group) III-year B.Sc. Nursing students. Study findings revealed that, students' performance scores were higher in OSCE while comparing to TPE within and between the groups. Hence it was recommended that, OSCE can be effectively used as a part of formative and summative evaluation in Psychiatric Nursing.

RESEARCH METHODOLOGY

The study utilized evaluative – comparative research approach and Quantitative true experimental post-test only control group design. Study population consisted of III - and IV - year BSc Nursing Students who fulfilled the inclusion criteria in selected Nursing College at Bhopal M.P. Probability-Simple Random Sampling Method was used to identify the 20 study subjects. 10 each were allotted into experimental and control group. The study was conducted in Kasturba College of Nursing Bhopal. After taking formal administrative approval from the concerned authority of the college and informed written consent from each subject, the selected subjects were explained about the nature and purpose of the study. After collecting baseline information, planned teaching and demonstration on Tracheostomy care was administered to both the groups. Experimental group students received information about OSCE. After 15 days of intervention, Self-Structured Knowledge Questionnaire was administered for testing the knowledge related to Tracheostomy Care and the skill assessment for experimental students was carried out on the basis of the observational checklist formulated for each OSCE skill station. Control group students were also administered Self-Structured Knowledge Questionnaire for testing the knowledge related to Tracheostomy Care and their skill performance was assessed by the customary or traditional clinical examination (TCE) method using criteria based observational check list. Study samples were observed by the trained faculty members for the study. The tools used for the data collection were structured knowledge questionnaire for testing the knowledge on Tracheostomy care, observational check list for OSCE stations (7stations), criteria based observational check list for TCE and student structured opinionnaire to find out the opinion on OSCE from the experimental students.

ETHICAL CONSIDERATION

The legal & ethical permissions and administrative approval was obtained from the concerned University and Nursing College before the data collection. Anonymity, confidentiality, and informed consent from the sample were also considered.

ANALYSIS AND INTERPRETATION OF FINDINGS

Description of Subjects According to Socio Demographic Variables

Table 1: Frequency and Percentage Distribution Of Demographic Variables Of Subjects In Experimental And Control Group (NO: 20)

Demographic Profile			Group			
			Experimental (n=10)		Control(n=10)	
			f	%	f	%
1.	Age in Yrs	18-20	0	0.00%	0	0.00%
		21-23	10	100.00%	10	100.00%
		24-26	0	0.00%	0	0.00%
2.	Gender	Male	0	0.00%	0	0.00%
		Female	10	100.00%	10	100.00%
3,	Year	III Year BSc Nursing	5	50.00%	5	50.00%
		IV Year BSc Nursing	5	50.00%	5	50.00%

4.	Source of Information	Self- Learning	0	0.00%	0	0.00%
		Class room teaching	10	100.00%	10	100.00%
5.	Academic performance	Distinction and above	1	10.00%	0	0.00%
		First Class/Division	9	90.00%	10	100.00%
		Second Division	0	0.00%	0	0.00%
6.	Previous OSCE knowledge	Yes	0	0.00%	0	0.00%
		No	10	100.00%	10	100.00%

Above table shows that all of them 20 (100%) were in the age group of 21 – 23 years in both the group. Considering gender of the students, all of them were female students 20 (100%) in both the group. In relation to the year of study 10 (50%) students were from III Year BSc Nursing and 10 (50%) of them were IV Year BSc Nursing students. 20 (100%) the students had class room teaching as the source of information on OSCE. About the Academic performance of the students, 1 (10%) student had distinction, 9 (90%) and 10 students (100%) had First Class / Division in experimental group in control group respectively. The table also indicates that none of them had previous knowledge on OSCE.

Table 2: Level of Knowledge Regarding Tracheostomy Care in Experimental and Control Group

Level of Knowledge	**Experiment**		**Control**		**Chi square test**
	f	%	f	%	
In Adequate Knowledge	0	0.00%	0	0.00%	$\chi 2=5.02 p=0.03^*$ DF=2 significant
Moderately Adequate Knowledge	0	0.00%	3	30.00%	
Adequate Knowledge)	10	100.00%	7	70.00%	
Total	10	100.00%	10	100.00%	

DF= Degrees of freedom *p<0.05 significant.

Table 2 portrays the level of knowledge score regarding tracheostomy careamong undergraduate Nursing students. In experimental group all the students 10 (100%) had adequate knowledge and none of them had moderately adequate and inadequate knowledge

Table 3: Comparison of Mean Knowledge Score Regarding Tracheostomy Care between Experimental and Control Group

Experiment (n=10)		**Control (n=10)**		**Mean Difference**	**Student's independent t-test**
Mean	**SD**	**Mean**	**SD**		
90.00	4.11	79.10	14.58	10.90	t=2.28 p=0.03 *** DF= 18, Significant

DF= Degrees of freedom *p≤0.05 significant

Table 3 compares the knowledge score between experimental and control group of undergraduate Nursing students. In experiment group, students are having 90.00% of knowledge score and control group students are having 79.10% of knowledge score, so the mean difference is 10.90 score, this difference is large and it is statistically significant difference.

Table 4: Level of Skill in Experimental Group

Level of skill	Experimental group	
	f	%
Poor Skill	0	0.00%
Average Skill	0	0.00%
Good Skill	10	100.00%
Total	10	100.00%

Table 4 shows the level of skillregarding tracheostomy careamong undergraduate Nursing students. In experiment group, none of them are having poor and average skill level and 100.00% of them are having good skill level.

Table 5: Level of Skill in Control Group

Level of Skill	Control group	
	f	%
Poor Skill	4	40.00%
Average Skill	6	60.00%
Good Skill	0	0.00%
Total	10	100.00%

Table no.5: shows the level of skillregarding tracheostomy careamong undergraduate Nursing students. In control group, 40% of them had poor skill, 60% had average skill and none of them had good skill.

Table 6. Comparison of Competency Score Between Experimental and Control Group

Level of competency	Experiment		Control		Chi square test χ^2
	f	%	f	%	
Inadequate	0	0.00%	3	30.00%	χ^2=20.00 p=0.001*** DF=2 significant
Moderate	0	0.00%	7	70.00%	
Adequate	10	100.00%	0	0.00%	
Total	10	100.00%	10	100.00%	

DF= Degrees of freedom ***p=0.001 very high significant

Table 6 reveals the level of competency score regarding tracheostomy careamong undergraduate Nursing students., none of them had inadequate and moderate level of knowledge and 100 % of them had adequate level of knowledge whereas in the control group 30% of them had inadequate score, 70% of them had moderately adequate knowledge and none of them had adequate knowledge regarding tracheostomy care.

Table 7: Association between the Level of Competence and Demographic Variables in the Experimental Group

Demographic Variables		Competency level						n	Chi square test χ^2
		Inadequate		Moderate		Adequate			
		f	%	f	%	f	%		
Age in Yrs	18-20 years	0	0.00%	0	0.00%	0	0.00%	0	χ^2=0.00

	21-23 years	0	0.00%	0	0.00%	10	100.00%	10	p=1.00 DF=1 (NS)
	24-26 years	0	0.00%	0	0.00%	0	0.00%	0	
Gender	Male	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	Female	0	0.00%	0	0.00%	10	100.00%	10	
Year	III Year BSc Nursing	0	0.00%	0	0.00%	5	100.00%	5	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	IV Year BSc Nursing	0	0.00%	0	0.00%	5	100.00%	5	
Source of Information	Self- Learning	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	Class room teaching	0	0.00%	0	0.00%	10	100.00%	10	
Academic performance	Distinction and above	0	0.00%	0	0.00%	1	100.00%	1	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	First Class / Division	0	0.00%	0	0.00%	9	100.00%	9	
	Second Division	0	0.00%	0	0.00%	0	0.00%	0	
Previous OSCE knowledge	Yes	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	No	0	0.00%	0	0.00%	10	100.00%	10	

The above table revealed that there was no significant association between the level of competence and socio demographic variables among the student nurses in the experimental group.

Table 8: Association between the Level of Competence and Demographic Variables in the Control Group

Demographic variables		**Competency level**						**n**	**Chi square test**
		Inadequate		**Moderate**		**Adequate**			
		f	%	f	%	f	%		
Age in Yrs	18-20 years	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	21-23 years	3	30.00%	7	70.00%	0	0.00%	10	
	24-26 years	0	0.00%	0	0.00%	0	0.00%	0	
Gender	Male	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	Female	3	30.00%	7	70.00%	0	0.00%	10	
Year	III Year BSc Nursing	2	40.00%	3	60.00%	0	0.00%	5	$\chi 2$=0.47 p=0.49 DF=1 (NS)
	IV Year BSc Nursing	1	20.00%	4	80.00%	0	0.00%	5	
Source of Information	Self-Learning	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	Class room teaching	3	30.00%	7	70.00%	0	0.00%	10	
Academic performance	Distinction and above	0	0.00%	1	100.00%	0	0.00%	1	$\chi 2$=0.77 p=0.37 DF=1 (NS)
	First Class / Division	3	33.33%	6	66.67%	0	0.00%	9	

	Second Division	0	0.00%	0	0.00%	0	0.00%	0	
Previous OSCE knowledge	Yes	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	No	3	30.00%	7	70.00%	0	0.00%	10	

The above table portrayed that there was no significant association between the level of competence and sociodemographic variables among the student nurses in the control group.

Table 9: Correlation between Level of Knowledge and Level of Skill in Experimental Group

Correlation between knowledge level Vs Skill level	**Mean gain score mean SD**	**Karl Pearson Correlation coefficients**	**Interpretation**
	91.27±4.34 90.00±4.11	**r= 0.27 P=0.05* (Significant)**	Fair positive correlation

This table indicates thatthere was a significant positive fair correlation between the level of knowledge and skill. It shows that when knowledgeincreases skill also may increase fairly.

Table 10: Correlation between Knowledge Score And Skill Score in the Control Group

Correlation between Knowledge level Vs Skill level	**Mean gain score Mean SD**	**Karl Pearson Correlation coefficients**	**Interpretation**
	51.60±14.55 52.67±14.85	r= 0.197 p=0.22 **(Not significant)**	Poor positive correlation

The above table indicated that there was no significant relationship between the level of knowledge and Skill regarding tracheostomy care among student nurses in the control group.

Table 11: Association between the Post -Test Knowledge Level and Demographic Variables in the Experimental Group

Demographic variables		**Knowledge level**						n	**Chi square test $\chi 2$**
		Inadequate		**Moderate**		**Adequate**			
		f	%	f	%	f	%		
Age in Yrs	18-20 years	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	21-23 years	0	0.00%	0	0.00%	10	100.00%	10	
	24-26 years	0	0.00%	0	0.00%	0	0.00%	0	
Gender	Male	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	Female	0	0.00%	0	0.00%	10	100.00%	10	
Year	III Year BSc Nursing	0	0.00%	0	0.00%	5	100.00%	5	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	IV Year BSc Nursing	0	0.00%	0	0.00%	5	100.00%	5	
Source of Information	Self- Learning	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	Class room teaching	0	0.00%	0	0.00%	10	100.00%	10	
Academic performance	Distinction and above	0	0.00%	0	0.00%	1	100.00%	1	$\chi 2$=0.00 p=1.00

	First Class / Division	0	0.00%	0	0.00%	9	100.00%	9	DF=1 (NS)
	Second Division	0	0.00%	0	0.00%	0	0.00%	0	
Previous OSCE knowledge	Yes	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	No	0	0.00%	0	0.00%	10	100.00%	10	

The above table revealed that there was no significant association between the level of knowledge and socio demographic variables among the student nurses in the experimental group.

Table 12: Association between the Post-test knowledge level and demographic variables in the Control group

Demographic variables		Knowledge level						n	Chi square test $\chi 2$
		Inadequate		Moderate		Adequate			
		f	%	f	%	f	%		
Age in Yrs	18-20 years	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	21-23 years	0	0.00%	3	30.00%	7	70.00%	10	
	24-26 years	0	0.00%	0	0.00%	0	0.00%	0	
Gender	Male	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	Female	0	0.00%	3	30.00%	7	70.00%	10	
Year	III Year BSc Nursing	0	0.00%	3	60.00%	2	40.00%	5	$\chi 2$=1.90 p=0.17 DF=1 (NS)
	IV Year BSc Nursing	0	0.00%	0	0.00%	5	100.00%	5	
Source of Information	Self- Learning	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	Class room teaching	0	0.00%	3	30.00%	7	70.00%	10	
Academic performance	Distinction and above	0	0.00%	0	0.00%	0	0.00%	1	$\chi 2$=0.77 p=0.37 DF=1 (NS)
	First Class / Division	0	0.00%	3	30.00%	7	70.00%	9	
	Second Division	0	0.00%	0	0.00%	0	0.00%	0	
Previous OSCE knowledge	Yes	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.00 p=1.00 DF=1 (NS)
	No	0	0.00%	3	30.00%	7	70.00%	10	

The data presented in the above table shows that there was no significant association between the level of knowledge and socio demographic variables among the student nurses in the control group.

CONCLUSION AND RECOMMENDATIONS

Statistical significant differences were observed with positive fair correlation between knowledge and skill level among students who were evaluated by OSCE compared to those evaluated by TCE method for Tracheostomy care procedure.It is therefore concluded from the results of this study that OSCE method in assessing nursing students' clinical knowledge and skill competency on Tracheostomy care procedure was perceived to be better than Traditional method of evaluation. The study also recommended that OSCE must be used as an integral part of the under graduate nursing students' clinical assessmentforTracheostomy care or any other such sensitive and complex procedures in the health care settings.

REFERENCES

1) Chitra Radhakrishnan (2012). Objective structured clinical examination: an innovative approach to assess clinical competence. Indian Journal Of Continuing Nursing Education, 13 pp. 11 -14
2) Dennis-Rouse, M. D., & Davidson, J. E. (2008). An evidence-based evaluation of tracheostomy care practices. Critical Care Nursing Quarterly, 31(2), 150-160. http://dx.doi.org/10.1097/01.CNQ.0000314475.56754.08.
3) 3. Harden, R., M. Stevenson, W.Downie and G. Wilson, 1975. Assessment of clinical competence using objective structured examination. British Medical Journal, 1(5955): 447-451
4) Justin M. G, Michael SM,Christine BF. Adult outpatient tracheostomy care: Practices and perspectives. Otolaryn head and neck surg 2007 Feb;136(2):301
5) Khin Thandar Aung, Anis Nur Al Basirah binti Zakaria" Nursing Students' Perceptions on Objective Structured Clinical Examination (OSCE)" MRIMS Journal of Health Sciences 2016;4(4) pISSN: 2321-7006, eISSN: 2321-7294 http://www.mrimsjournal.com
6) Ross, M., Carrol, G., Knight, J., & Chamberlain, M. (1988). Using the OSCE To measure clinical skills performance in nursing. J Adv Knurs, (13), 45-56
7) Skillings, K. N., & Curtis, B. L. (2011). Tracheostomy tube care. In D. L. Wiegand (Ed.), AACN procedure manual for critical care (6th ed., pp. 96-104). St. Louis, MO: Elsevier
8) Dr.WajedHatamleh ,Dr. Zeinab Abu Sabeeb "Nursing Students Perceptions of an Objectives Structured Clinical Examination" International Journal of Healthcare Sciences ISSN 2348-5728 (Online) Vol. 2, Issue 2, Month: October 2014 - March 2015, pp: 52-56
9) Zayyan M (2011) Objective structured clinical examination: the assessment of choice. Oman Med J 26: 219-222.