

A study to assess the effectiveness of objective structured clinical examination versus traditional clinical examination on antenatal assessment among nursing students at selected nursing college, Villupuram, Tamil Nadu

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Abstract

Background: Preparation of healthcare students for clinical practice experiences has long been an important yet challenging area of nursing education programmes. A range of teaching and assessment strategies have been used to assist with this aspect of curricula. Steady increase in number of students enrolled nursing faculties might increase the chances of malpractice that compromise patient's conditions. In addition to limited resources from clinical sites that might hinder the opportunity of student to practice on patients.¹

Aim: To assess the effectiveness of objective structured clinical examination versus traditional clinical examination on antenatal assessment among Nursing Students.

Objectives: (i) To assess the scores of antenatal assessment by objective structured clinical examination and by traditional clinical examination among nursing students before and after intervention. (ii) To assess the effectiveness of objective structured clinical examination versus traditional clinical examination on antenatal assessment (after intervention) among nursing students.

(iii) To associate the scores of antenatal assessment by objective structured clinical examination among nursing students with their selected demographic variables. (iv) To associate the scores of student satisfaction on objective structured clinical examination among nursing students with their selected demographic variables.

Methodology: A quasi experimental design with one group pre and posttest with repeated measures. The samples were selected by Probability simple random sampling technique through lottery method.

Results: The majority of samples 26 (87%) had good satisfaction on OSCE method of evaluation.

Conclusion: the study concludes that the objective structured clinical examination was effective method to evaluate the skills of nursing students' on antenatal assessment.

Keywords: objective structured clinical examination, effectiveness, traditional clinical examination

Introduction

“Using the right method of evaluation plays a considerable role in getting the appropriate result and making the right judgment”

Clinical skills and practice play the main roles in training different groups; the success of trainees of these fields depends on what they memorize to some extent (Casey *et al.* 2009). Effective and accurate clinical evaluation should be of concern to all nursing faculties and clinical instructors [2]. There is a reasonable expectation for

evaluation to be objective, fair, specific, and documented. In addition, students need to know, very clearly delineated, the specific objectives by which they are being evaluated. One type of assessment which meets these criteria is a performance based assessment. An example of a performance-based assessment is the OSCE. OSCE has been widely and increasingly used since it was developed [3].

The use of OSCEs in undergraduate examinations was pioneered by the Royal London and St. Bar- Tholomew's Hospitals and now occurs in every London medical college. Many colleges across the UK have now adapted their examinations to include OSCE components [4]. Studies have shown that it is an effective evaluation tool to assess practical skills. In many instances the OSCE process has been adapted to test trainees from different healthcare related disciplines. Also this method has attracted considerable attention because of high level of reliability, creditability and objectivity, content validity of the achieved skills,

Fairness, creating motivation for learning, instructors and students satisfaction [5].

Need for the Study

Preparation of healthcare students for clinical practice experiences has long been an important yet challenging area of nursing education programmes. A range of teaching and assessment strategies have been used to assist with this aspect of curricula. Steady increase in number of students enrolled nursing faculties might increase the chances of malpractice that compromise patient's conditions, In addition to limited resources from clinical sites that might hinder the opportunity of student to practice on patient [6].

Statement of the Problem

A study to assess the effectiveness of objective structured clinical examination versus traditional clinical examination on Antenatal assessment among nursing students at selected Nursing college, Villupuram, Tamil Nadu.

Objectives of the Study

1. To assess the scores of antenatal assessment by objective structured clinical examination and by traditional clinical examination among nursing students before and after intervention
2. To assess the effectiveness of objective structured clinical examination (after intervention) among nursing students.
3. To associate the scores of antenatal assessment by objective structured clinical examination among nursing students with their selected demographic variables.
4. To associate the scores of student satisfaction on objective structured clinical examination among nursing students with their selected demographic variables.

Hypothesis

- H₁: There will be significant difference between the scores of Antenatal assessment before and after objective structured clinical examination.
- H₂: There will be significant association between post test scores on Antenatal assessment and their selected demographic variables.
- H₃: There will be a significant association between the scores of student satisfaction on objective structured clinical examination and their selected demographic variables.

Methodology

Research Approach: Quantitative Research Approach.

Group	Pre-Test		Intervention		Post-test	
One group	O ₁	O ₂	X ₁	X ₂	O ₃	O ₄

Research design: Pre-experimental, one group pretest-posttest design.

Setting of the Study: The study was carried out at E.S.College of Nursing, Villupuram.

Population

Target Population

The target population of the study includes all the students who are studying III year GNM.S

Accessible Population

The accessible population of the study includes all the students who are studying III year DGNM in E.S.College of Nursing, Villupuram district.

Sample

The sample for this study included students studying III year GNM who fulfilled inclusion criteria in E.S.College of Nursing, Villupuram.

Sample Size

The sample size of this study consisted of 30 nursing students of III year GNM

Sampling Technique

Sampling technique adopted for this study was Probability simple random sampling technique through lottery method

Development and Description of the Tool Section

A: Assessment of demographic variables

Demographic variable consists of age, sex, educational status of father, educational status of mother, occupation of father, occupation of mother, residence, academic performance in last year.

Section B: OSCE Checklist for Antenatal assessment:

It consists of checklist for various procedures in various stations like calculating EDD, Name the instruments and writing its use in ANC and Antenatal abdominal palpation.

Section C: Evaluation form for traditional clinical examination:

It consists of evaluation form to evaluate the students by traditional method.

Section D: Checklist for student satisfaction:

It consists of checklist to assess the effectiveness of objective structured clinical examination on antenatal assessment by student satisfaction.

Results and Discussion

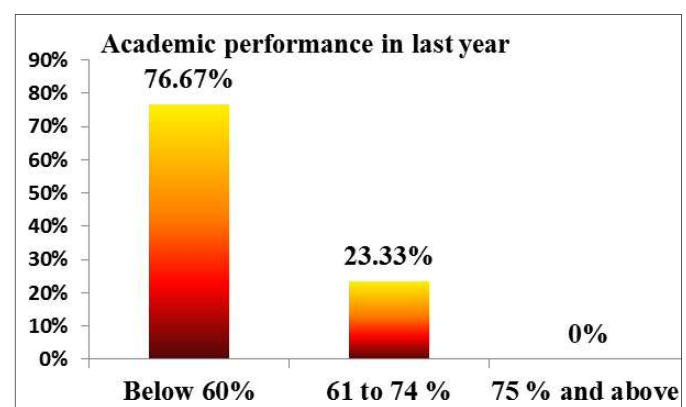


Fig 1: Frequency and percentage distribution of academic performance of students last year

Table 1: Frequency and percentage distribution of comparison of pre-test and post-test scores of antenatal assessment among nursing students by traditional clinical examination and OSCE. (N=30)

Intervention		Adequate		Moderately Adequate		Inadequate	
		(f)	(%)	(f)	(%)	(f)	(%)
TCE	Pre-Test	-	-	-	-	30	100
	Post-Test	22	73	8	27	-	-
OSCE	Pre-Test	-	-	19	63	11	37
	Post-Test	25	83	5	17	-	-

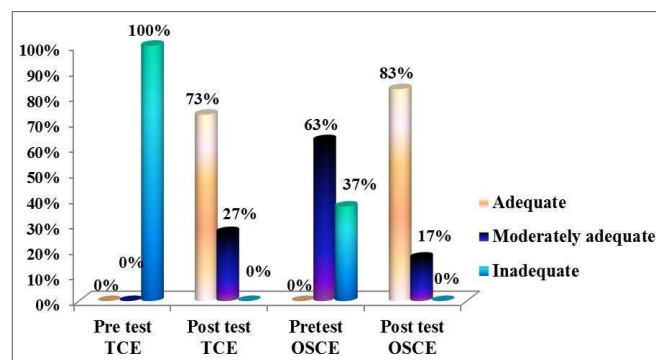


Fig 2: Comparison of pre-test and post-test scores of antenatal assessment among nursing students by traditional clinical examination and OSCE

Table 2: Effectiveness of objective structured clinical examination among nursing students. (N=30)

Level of satisfaction	Frequency	Percentage	Mean	SD
Good	26	87	12	18.7
Moderate	4	13		
Poor	-	-		

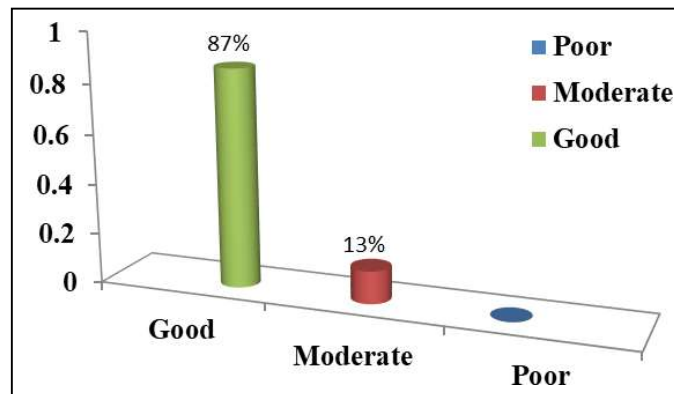


Fig 3: Frequency and percentage distribution of scores of student satisfaction on OSCE

Major findings of the study

- Majority 23(76.67%) had an academic performance below 60% in last year.
- In pre-test of antenatal assessment by traditional clinical evaluation, none of them had adequate skills or moderately adequate skills on antenatal assessment. But all of them, 30 (100%) had inadequate skills. In post-test, 22(73%) had adequate skills and 8 (27%) had moderately adequate skills on antenatal assessment.
- In pre-test of antenatal assessment by OSCE, none of them had adequate skills on antenatal assessment, whereas majority 19 (63%) had moderately adequate skills and 11(37%) had an inadequate skills. In post-test, 25(83%) had adequate skills, 5(17%) had moderately adequate skills on antenatal assessment.

- The pretest mean score of antenatal assessment by TCE was 22.9 with SD =3.73 and posttest mean was 36.3 with SD=4.3, with the mean difference of 13.4. Hence there is a significant difference between pre-test and post-test score of antenatal assessment by traditional clinical examination before and after the intervention. Hence, the post test score of OSCE was higher than TCE, H₁: There will be significant difference between the scores of Antenatal assessment before and after objective structured clinical examination, was accepted.
- Regarding of students about OSCE, majority of samples 26 (87%) had good satisfaction, 4(13%) had moderate satisfaction and none of them had poor satisfaction.
- Hence the stated hypothesis “H₂ - There will be significant association between post test scores of OSCE on Antenatal assessment and their selected demographic variables”. Was accepted.
- Hence the state hypothesis “H₃ - There will be a significant association between the scores of student satisfaction on objective structured clinical examination and their selected demographic variables.” was rejected.
- There was no association between the scores of student satisfaction with the demographic variables such as age, sex, Educational status of the father, Educational status of the mother, Occupation of the father, Occupation of the mother, residence and academic performance in last year.

Conclusion

The findings of the study showed that the majority of samples, 26 (87%) had good satisfaction, 4(13%) had moderate satisfaction and none of them had poor satisfaction on OSCE method of evaluation. Hence the objective structured clinical examination is the effective method in assessing the skills of antenatal assessment among nursing students is proved. And the calculated Paired "t" value is 27.11, which is significant at P<0.05 level. This indicated that intervention on objective structured clinical examination was effective in improving the skills of antenatal assessment among nursing students.

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