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A Study to Evaluate the Effectiveness of Planned Teaching Program on Objective Structured Clinical Examination (OSCE) in Terms of Knowledge and Attitude Among U.G Tutors at Selected Nursing Colleges, Moradabad

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Abstract

Background: Objective Structured Clinical Examination is an innovative approach in assessing the clinical competence. A new pattern of practical examination is now an accepted tool in the assessment of practical skills of pre and para clinical subjects. The OSCE is defined as an approach to the assessment of clinical competence in which the components of competence are assessed in a well plan and structured way with attention being paid to objectivity.

Objective: The objectives of study are (1) To assess the level of knowledge and attitude of U.G Nursing Tutors on OSCE, (2) To assess the effectiveness of planned teaching program on knowledge & attitude of U.G Nursing Tutors on OSCE, (3) To find out the relationship between knowledge and attitude of U.G Nursing Tutors on OSCE, (4) To find out the association between pre-test level of knowledge and attitude among U.G Nursing Tutors with their selected demographic variables.

Method: The investigator had prepared Planned Teaching Program on OSCE and was delivered by lecture cum discussion method using power point presentation. The study was conducted in selected nursing colleges of Moradabad, Uttar Pradesh. The sample consisted of 56 UG Nursing Tutors. Data was collected using purposive sampling technique. Pretest was given using Structured Knowledge Questionnaire and 5 Point Likert Scale. Subsequently, PTP was delivered using power point presentation. Following that post-test was done after five days using same tool used for pretest. The collected data was organized in master data sheet and analyzed using descriptive and inferential statistics as per objectives of the study, using SPSS version 20.

Results: Results of the study shows that most of the UG Nursing Tutors that is 64.29% (36) were had inadequate knowledge, 33.93% were had moderately adequate knowledge and only 1.79% (1) had adequate knowledge in pretest but there was significant improvement in post-test score as 50% (28) of UG Nursing Tutors were had adequate knowledge and 50% (28) of UG nursing tutors were had moderately adequate knowledge. Also, the mean post-test knowledge score 19.46 is greater than mean pre-test knowledge score 12.13 and in terms of attitude results shows that in pre-test 76.79% (43) of UG Nursing Tutors were had unfavorable attitude, 23.21% (13) were had moderately favorable attitude and 0% (0) were had favorable attitude but in post-test attitude scores as only 25% (14) were had unfavorable attitude

and 75% (42) were had moderately favorable attitude, weak correlation was found between knowledge and attitude Also, it was found that except age, all demographic variables were not found to have any significant association.

Conclusion: There is significant improvement in post-test knowledge and attitude score and UG Nursing Tutors felt that the OSCE was well-structured and sequential, provided opportunities to learn, and reflected real-life situation.

Keywords: Knowledge, Attitude, Education, Evaluation, Objective Structured Clinical Examination

INTRODUCTION

Background of the study

"Education is a better safeguard of liberty than a standing army"

Edward Everett (1794 - 1865)

Nursing is dynamic by its nature. It evolves, according to the variety of various cultural, political, social and other health dimensions. The word education holds a large connotation. It's very hard to explain and there is not a one objective that can hold the whole word and its various manifestations. The term education was derived from a Latin word "educate" means to "lead out". It indicates that, growth comes from within". Hence the prime meaning of the word education may be given as making manifest, inherent full potentials in a child. Philosophers and thinkers in the past defined it in their own view. As a result of which divergent concepts of the word education explodes and emerged. Basically the concept is just similar to a diamond in which different colors reflects when we see it from different aspects or angles. The transmission of required behavior to fulfill the human life in every aspect is carried out through curriculum implementation at various levels at various settings.

(Queen – 1996)

The term curriculum evaluation must begin with the meaning of evaluation, so looking it from the educational aspect the term evaluation is explained as a systematic and organized process to determine the extent to which the educational or program objectives or goals are achieved.

(K.P Neeraja-2009)

Evaluation includes selection of appropriate methods, techniques, administration & interpretation of results. It must contribute directly to learning improvement. Continuous evaluation is necessary by sampling all the output produced by the student like course work, test, projects and practical related to knowledge, skill and attitude for the final result of the student in a particular course

(Oreman-2009)

Examinations are the integral and indispensable part of nursing and any other education system. Examination for theoretical knowledge is carried out by asking them to write a test and Essay etc. The clinical performance is assessed by conducting a practical examination by using generally demonstration and viva voice. Nursing curriculum goals or objectives mainly defined in the terms of knowledge, skills and attitude. All of these can't be evaluated by only a single and alone test format. These can't be properly assessed by a single test format. So it is a challenging aspect for the nurse educators to go for multiple methods for the examinations with more valid and reliable techniques. Additional amount of care is to be taken to covering a large number of students.

Conducting practical examination to assess the clinical component / competency of nursing students is difficult task for both evaluators and students

(Gerry gormay-2001)

Objective structured clinical examination is a new and modern way in terms of evaluating the clinical capabilities. It is an entirely a new way or pattern and it is widely accepted as a tool to evaluate various clinical skills. The objective structured clinical examination is also called as objective structured practical examination.

Harden defined OSCE as a way or approach to evaluate the clinical abilities or competence of the pupils in which the components of competencies are evaluated in a planned, organized and structured way and the prime focus given to the objectivity.

(Harden 1988)

Objective structured clinical examination is a type of examination in which the students demonstrate and show their clinical skills with holding knowledge usually in simulated condition.

(Fidment, 2012)

Objective structured clinical examination are now widely used in nursing schools and colleges as OSCE holds the ability to assess both the practical as well as theoretical dimension of the students. Objective structured clinical examination has many advantages over the traditional examinations. OSCE shows dominancy in terms of assessing the clinical skills of students as compared by evaluating their clinical skills through traditional method.

Traditional system of assessing the student for clinical practice has been criticized by many evaluators as it shows ineffective evaluation. Traditional methods of evaluating the clinical skills like demonstrations, viva voice Etc. have less effective approach in terms of preparing individuals for their clinical professional life. The responsibility of the nurse educators has got the most influence on innovative techniques not only in teaching even in evaluation aspects. So the nurse educators must be aware of the newer technique. Hence the Nurse researcher targeted the Nurse educators to sensitize them on Objective structured clinical evaluation and its application to midwifery student performance evaluation.

NEED OF THE STUDY

The evaluation of knowledge and skills is a vital aspect in life of student nurses, there is a need of progression to attain a certain clinical skill because they have to demonstrate their competencies and attain confidence in performance of those activities.

(Nursing and Midwifery Council, 2007)

Jogindra, V and karobi, D. (2006) focuses light on nurses and stated that the student nurses are the future nurses to deliver the quality nursing care. Hence, student nurses not only need to attain the theoretical knowledge but also required to gain expected clinical competencies. Evaluators and teachers are there to facilitate their efforts through their effective teaching, supervision and evaluation to develop desired clinical competencies.

Dolly, G. (2007) most of the traditional methods of assessing the skills by using the behavioral objectives and using methods like structured or formal test in the clinical setting or weather in the classroom have been criticized and they are not enough to give an overall assessment of the individual learning.

The teaching – learning objectives of nursing education were designed on the basis of three well-known domains: cognitive (knowledge, comprehension, application, synthesis and evaluation), affective (attitude and appreciation) and psychomotor domains.

(Groundunlor E – 1985)

Evaluation of clinical skills involves all these three domains with varying degree of emphasis, including

written reports, viva voce and prescribed as assignments with preset criteria. Evaluation of all three domains in a short period is not only a complex process but also its nature of course is complicated by four inter-rated systems namely the evaluator, clinical environment, student nurse, and other individuals. **(Emerson -2007, Hand- 2006)**

Undoubtedly, all these domains were not graded accurately. Since there is no flexibility in preset criteria, complex nature of human beings, and also the time constraints of evaluator as they cannot spend much time with each student till the end of evaluation process making the evaluator subjective at times. Subjectivity can undermine clinical evaluation in nursing.

(Oerman 2009)

Mosaley LG, et al, (2005) states that the present day nursing curriculum demands a move away from the conventional academic forms of assessment to more creative and innovative ones. Hence other methods should been implemented to evaluate the student capabilities and knowledge. Now the responsibility lies with the nurse educators to implement the creative approaches to devise a relevant, informative, especially practicable and empirically derived evaluation method, short enough to encourage its required completion. Objective Structured Clinical Examination has gained positive perspective from the nursing faculty of obstetrics and gynecology, medical and surgical nursing, and community, psychiatry, child health nursing as teaching tool as well as an evaluation tool

(William Bot, CA 2012)

Since it is a newer method, teachers of midwifery course are not having much insight into it. Therefore, the investigator decided to conduct a study on this regard.

PROBLEM STATEMENT

A study to evaluate the effectiveness of planned teaching program on Objective Structured Clinical Examination in terms of knowledge and attitude among U.G Nursing Tutors in selected nursing colleges at Moradabad.

PURPOSE OF THE STUDY

The purpose of study is to track down the current status of Knowledge and Attitude among UG Nursing Tutors on OSCE at selected nursing colleges of Moradabad, Uttar Pradesh. Providing Planned Teaching Program can further strengthen the knowledge and will develop a favorable Attitude towards on OSCE and thereby UG Nursing Tutors can convey or pass on the acquired information to others.

OBJECTIVES

- To assess the level of knowledge and attitude of UG Nursing Tutors on OSCE.
- To assess the effectiveness of planned teaching program on knowledge and attitude of UG Nursing Tutors on OSCE.
- To find out the relationship between knowledge and attitude of U.G Nursing Tutors on OSCE.
- To find out the association between pre-test level of knowledge and attitude among UG Nursing Tutors with their selected demographic variables.

HYPOTHESIS

H1: There will be significant improvement in the post test knowledge score of U.G Nursing Tutors on OSCE.

H2: There will be significant improvement in the post test attitude score of U.G Nursing Tutors on OSCE.
H3: There will be significant co-relation between knowledge and attitude of U.G Nursing Tutors on OSCE.
H4: There will be significant association between pre -test level of knowledge & attitude with their selected demographic variables.

ASSUMPTIONS

- UG Nursing Tutors will have limited knowledge regarding OSCE.
- Enhancement of knowledge will influence the development of positive attitude in UG Nursing Tutor toward OSCE.
- Socio-demographic variables contribute to the level of knowledge & attitude of UG Nursing Tutor with regard to OSCE.

DELIMITATIONS

- This study is limited to UG Nursing Tutors only.
- Limited to knowledge and attitude of UG Nursing Tutors regarding OSCE.
- Limited to Pre-Experimental research design.

VARIABLES

Independent variable: Planned Teaching Program
Dependent Variables: Knowledge & Attitude
Background variables:

- Age
- Sex
- Marital status
- Qualification
- Years of experience in teaching
- Sources of information regarding OSCE

REVIEW OF LITERATURE

A literature review is a summary of previously published works on a particular subject. An entire scholarly paper or a portion of a scholarly work such as a book or an article might be referred to by the term.
In this study the literature reviews were divided into two sections
SECTION A – Literature Related to knowledge and attitudes regarding Objective Structured Clinical Examination (OSCE)
SECTION B –Literature related to Objective Structured Clinical Examination (OSCE)
SECTION A - Literature Related to knowledge and attitudes regarding Objective Structured Clinical Examination (OSCE)
Elnora. H. R. et al. (2019) did a study with the goal of assessing OSCE knowledge**,** to evaluate practice on with respect to OSCE, to know the co-relation between the after practice score and knowledge score implies in post-test and to know co-relation between post-test score with their socio-demographic factors. Pre-experimental research design (one group pre & post-test design) was employed

in this study, the first test was administered using a self-created questionnaire that took each student 30 minutes to complete. A practical examination was conducted with three workstations. After 5 days' data was collected. The mean pre-test knowledge score is 10.6 (SD+ 4.11) and post-test knowledge score is 12.6 (SD+3.53). At last the mean score of post-test was found more as compared to the score in pre-test.

Samhitha. J et al. (2018) A study was done to determine the level of knowledge regarding OSCE among basic B.sc student Nurses at selected Nursing Institutes in Nellore, with the goals of determining the level of knowledge regarding OSPE among basic B.sc student Nurses, and determining the relationship between pre-test knowledge scores of B.sc Student Nurses and their selected Background variables. a quantitative analytic approach was adopted through convenience sampling technique, 100 Basic B.Sc. student's nurses were considered as sample of study result findings reveals 18(18%) has A Grade Knowledge, 22 (22%) students was having B+ grade Knowledge and 17% had C grade rest 25% had D grade level of Knowledge .**Jahan, F., et al. (2013)** A study was done to determine the influence of a workshop on nurses, as well as their knowledge and perceptions about OSCE. It was a cross-sectional design was adopetd for this study by using a descriptive approach. An overall Number of 66 samples were tested at the North Batinah Nursing Institutes Sohar Hospital in Oman. Participants were provided reading material and allowed to participate after a pre-test on knowledge evaluation Workshop altered the perception and knowledge of nurse educators toward OSCE, according to the results. The average post-test score is higher than the average pre-test score.and the study found that the workshop altered the perception and knowledge of nurse educators toward OSCE.

Abbas. S (2011) conducted a study on reviewing the view of nursing students toward OSCE. One-step single-group descriptive study was chosen for the study results indicated that view of most of the nursing students shown positive view in terms of OSCE with the frequency of 59.2 %. The study concluded that physical environment, facilities and equipment to conduct or implementation of OSCE is directly proportional to enhance the quality of the test.

A study was conducted by Sundaresan. D et al. (2017) to analyze the attitude toward OSCE among undergraduate nurse students. At a limited number of educational institutions in Chennai, with 150 samples, a quantitative approach was employed and a convenient sampling technique was used. The OSCE examination has already been performed on all of the samples. A self-created questionnaire was used to observe the attitudes of student nurses, and the results show that 85.52 percent of samples had a positive attitude toward OSCE, and that only age is significantly associated with samples' attitudes toward OSCE, with no other variables showing any correlation.

Muthamilselvi. G et al. (2013) A study was conducted to determine the participants' knowledge and attitudes and opinion toward OSCE. Samples were the nursing faculty. Structured questionnaire used to determine knowledge, A five-point likert scale was utilised to assess attitude and unstructured questionnaire used to assess the opinion. Convenient sampling used to select the 30 samples and result shows that 40% of the samples had excellent knowledge, 47% were holding adequate knowledge and 13% with inadequate and 73% have positive attitude toward OSCE. There was a negative co-relation between the knowledge and attitude on OSCE.

Awad. A et al (2019) A Research was carried out on Perception of Undergraduate Nursing Students towards OSCE. Samples were the nursing faculty. Cross sectional survey was held in Minia university, Egypt. A convenient sampling procedure was used to choose 150 samples. A structured questionnaire was utilised to test perception, and the findings revealed that the maximum number of samples was employed (95.4 percent the examination was well organized and appropriately sequenced and majority of students

agree that OSCE was a fair in testing skills as compared to the traditional methods.

Tunde. T et al (2019) A study was carried out on Perception of the nursing students on OSCE in which a descriptive approach was taken and the setting of the study is sawangi meghe wardha. Sample of the study was basic B.sc 3RD year students, the study used purposive sampling and has a sample size of 74 people., results showed that 29.2% of sample had strongly agree perception regarding OSCE, 68.4% were had agree statements about OSCE and only 1.35% were had neutral perception about OSCE.

Azim. M. et al. (2018), a study was conducted to assess the students' and examiners' perceptions on OSCE. Study setting was at the University of the West Indies (Cave Hill). At the end of the OSCE structured knowledge questionnaire were given to students and examiners to collect their views on OSCE, 22 examiners and 52 students were the sample size. The results showed that the majority of samples shows positive views regarding OSCE and similarly, majority of examiners showed satisfaction with the process of OSCE.

Saeed. A et al (2016) A study was conducted to assess people's perceptions and attitudes. of students towards OSCE, the setting of study was saubin abdulazii health sciences university. This study used a cross-sectional survey design as its research method. A total of 78 medical students were chosen as the sample size. self-structured questionnaire was given to all the samples to gather the response of respondants, the result reveals that maximum of respondants rated OSCE as stressful but 56%, state it as less stressful in conclusion the majority of students are in favor that OSCE is better in terms of evaluating students as compared to the traditional method of examination.

SECTION B Literature related to Objective Structured Clinical Examination (OSCE)

Habeeb. S et al (2019) was conducted a study which is comparative in nature to examine the effectiveness of OSCE vs the traditional method of examination regarding knowledge on antenatal examination among student Nurses. Methodology was adopted fot this study was comparative Research, and the samples were b.sc nursing 3rd year students with sample size of 50. Samples were exposed to traditional method then exposed to OSCE. Structured knowledge questionnaire was used to Gather data through traditional method, and OSCE. Through OSCE the researcher Obtained the value 74.22% were strongly agree that OSCE is better as compared to conventional methods.

Rani. V et al. (2018) A Comparative Research was carried out to examine the Nursing students' perceptions of OSCE, and traditional methods of clinical skills as well as their level and a degree of satisfaction with it related to an antenatal examination the research setting was Rufeda college of a nursing, Delhi. Total 68 Student Nurses were considered as a sample through a purposive sampling technique, two groups were made for doing a comparison each group has (n1=32), (n2=34) participants, A checklist for observation and an evaluation form was employed to determine the observations of participants and a satisfaction scale was adopted, the means skills core of OSCE group (56.67) was higher than a traditional group (35.40) with a z Value was (z=39.09, p).

S. Kaur (2017) conducted a comparative experiment to evaluate the conventional approach to the OSCE. on knowledge regarding Aterial blood Gas among the B.sc Student Nurses. Research design was Descriptive and the research Setting was Maharishi Markandeshwar College of nursing Mullana, Ambala. The samples were first introduced to the conventional technique before being exposed to the OSCE. Traditional approaches employed structured knowledge questionnaires, and different stations for OSCE were used to collect data and a rating scale was used to verify satisfaction. Data was analysed using descriptive and inferential statistics. The majority of undergraduates were female, with 62 percent of b.sc nursing students having excellent knowledge of the subject.

Ameh. N et al (2014) a comparative study was conducted to evaluate the traditional method VS OSCE in terms of knowledge regarding ABG among the students at Nigerian medical school. Design was cross sectional survey and, sample was 156, structured questionnaire was implemented to students who are already exposed to the traditional examination method, at it is concluded that showed 74.3% of the samples are in favor of OSCE as compared to the traditional examination.

Shadia. A et al (2013) A quasi-experimental study was conducted to assess the level of satisfaction with OSCE vs. traditional method among clinical students at Cairo University's Maternity Nursing Hospital in Cairo, Egypt. The study's samples were clinical students in the hospital, with a sample size of 190. The findings reported a high statistically significant variation in satisfaction levels. among clinical students regarding OSCE Students agreed that OSCE is a better alternative than the traditional way of examination (30%), and the conclusion revealed that students agree that OSCE is a better option than the traditional method of examination**.**

RESEARCH METHODLOGY

Research Methodology is usually a type of system of guidelines for clearing or solving the different problems with some specific elements like techniques, tool, phases, methods and task. In other word we can say research methodology indicated a common structure of scheduling procedure. The methodology deals with Research Design, Approach, Setting, Population, Sampling, Criteria for selecting sample, Sampling Technique it also includes the Tool Development, Description of Pilot Study, Description of Main Study and plan for collection of data

Current chapter contains methodology approach adopted to evaluate the effectiveness of Planned Teaching Program on Objective Structured Clinical Examination (OSCE) in terms of knowledge and attitude among U.G Nursing Tutors at selected nursing colleges, Moradabad, UP.

RESEARCH APPROACH

The current study was conducted using an evaluative approach with a pre-experimental research design. It helps to measure the effect of independent variable on dependent variable. This study includes no control and randomization. This study aimed to implement Planned Teaching Program and evaluate the effect of it on knowledge and attitude of U.G Nursing Tutors by using selected methods of measurement.

RESEARCH DESIGN

The design of research is basically a plan for how, when, and where data should be collected, as well as how and when it should be analyzed. To evaluate the effectiveness of PTP on OSCE in terms of knowledge and attitude of U.G Nursing Tutors in selected nursing colleges, the current study used a Pre-Experimental Research Design with one group pre-test post-test design.

Table -1 Presentation of Research Design

Pre-Experimental one group pre-test and Post-test Design

Group	Pre Test	Intervention	Post Test
U.G Nursing Tutors of selected Nursing colleges of Moradabad ,U P	O_1	**X**	O_2

KEYS

O1- Pre-test, implementation of Structured Knowledge Questionnaire and 5 Point Likert Scale to UG Nursing Tutors of selected nursing colleges of Moradabad.

X – Administration of Planned Teaching Program

O2 – Post-test to evaluate the effectiveness by using Same Self-Structured Knowledge Questionnaire and 5 Point Likert Scale after 5 days of administration of Plan Teaching Program.

RESEARCH SETTING

Research Setting is an area, location, atmosphere and dimension from where the researcher collects the data for the research. It is a very important step in terms of obtaining successful result of the study. Research setting for the present study was selected nursing colleges of Moradabad, Uttar Pradesh, after taking permission from all the colleges, the studies was conducted on U.G Nursing Tutors.

Pilot study

Pilot study was conducted at ashan college of nursing, Moradabad, Uttar Pradesh

Main study

Setting of the main study was selected college of nursing, Moradabad, Uttar Pradesh

POPULATION

Population is defined as the total number of subject or in simple or general explanation population is defined as the number of people or identities to which later the findings of the study should be generalized. In present study the population was selected for data collection was Nursing Tutors in nursing colleges of Moradabad. U.P

TARGET POPULATION

It is defined as the number of subjects, identities or peoples who fall under the criteria of the researcher or the group with specific phenomena in which the researcher is interested. For the present study U.G Nursing Tutors of nursing colleges was taken as the target population.

ACCESSIBLE POPULATION

Itjisjdefinedjasjthejpopulationjwhich are accessible tojthejresearcher and fall under the researcher criteria. In this study the accessible population was U.G Nursing Tutors in nursing colleges of Moradabad U.P

SAMPLING SIZE

Sample is a proportion or subset of population, or sample is the elements present in the population. The sample size of the study is assessed on the basis of type of the study, accessibility to the sample of sample, feasibility of sample, sampling technique used and statistical test adopted. The sample of this study was **56** U.G Nursing Tutors of selected Nursing Colleges of Moradabad U.P and this sample was extracted by using non probability purposive sampling technique.

Table – 2 Table include number of sample from Different College of Nursing Moradabad

S.no	Nursing Schools and Colleges	Number of U.G Nursing Tutors
1	Teerthanker Mahaveer College of Nursing	17
2	Teerthanker Parashavnath school of Nursing	3
3	Vivekananda College of Nursing	14
4	R.S.D School of Nursing	9
5	Shree Satya College of Nursing	5
6	Gurukul School of Nursing	8
Total		**56**

SAMPLING TECHNIQUE

It is a technique for selecting entities, participants, and samples from a population. The samples in this study were chosen using the Non-Random Purposive Sampling Technique.

SAMPLING CRITERIA

Inclusion Criteria

- All U.G Nursing Tutors working in selected nursing colleges at Moradabad U P.
- All U. G Nursing Tutors those were ready to include in the study.
- Those U.G Nursing Tutors who were available during the study

Exclusion Criteria

- All U.G Nursing Tutors
- Repeater U.G Nursing Tutors.
- U.G Nursing Tutors those were absent during data collection.
- Those who were not interested or ready to be a part of the study.
- Those who have done certified course in OSCE

VARIABLES

Variables are the characteristics, events or responses that present the elements of the research questions in a detectable and measurable way.

Independent variable

In this study independent variable was Planned Teaching Program on OSCE.

Dependent variable

Dependent variable is effect or outcome of research question. In this study knowledge and attitude of U.G Nursing Tutors regarding OSCE is dependent variable in this study.

Demographic variables:

- Age
- Gender
- Marital status
- Qualification
- Years of experience in teaching
- Sources of information regarding OSCE

DESCRIPTION ABOUT DEVELOPMENT OF TOOL

Development of the study tool is most crucial step in any study as it influences directly the validity, reliability and quality of data. Here the aim was to collect the data from U.G Nursing Tutors at selected nursing colleges, Moradabad, UP regarding OSCE. In the process of development tool various previous studies were reviewed, a tool blue print was developed with following reference of various experts

DESCRIPTION OF TOOL

Tool for Data Collection were divided into three sections

Section 1: Demographic Profile

Demographic Profile consists of 6 item Age, Gender, Marital status, Qualification, Years of experience in teaching, SourcesjofjinformationregardingjOSCE

Section 2: Structured Knowledge Questioners

StructuredjKnowledgejQuestioners was prepared on OSCE to assess knowledge among the UG Nursing Tutors with 25 items. The items were developed as to cover the following Dimension of tool.

- 2 questions related to General questions related to Meaning of OSCE
- 2 questions related to Objectives of OSCE
- 6 questions related to Method of OSCE
- 3 questions related to Preparation of OSCE
- 3 questions related to Construction of tool OSCE
- 3 questions related to Administration of OSCE
- 1 questions related to Skills tested in OSCE
- 5 questions related to Advantage of OSCE
- 2 questions related to Limitation of OSCE

For each questionnaire, four option were given and for each correct answer the score assigned was one (1), if answer was wrong, the score assigned was zero (0), the highest score was 25 depends on the marks obtained by the U.G Nursing Tutors in terms of knowledge. The knowledge was evaluated under the following criteria

SCORING PROCEDURE

Structured Knowledge Questioner

Structured Knowledge Questioner was administered by the researcher. The Structured Knowledge Questionnaire consists of 25 questions, Correct answers received a score of one, while incorrect answers received a score of (0), and the total amount of knowledge score was then converted to 100 percent. The knowledge score was putted under the following criteria according their percentage.

Table -3 Interpretation of knowledge score

SL. No	Range of Marks	Category
1	50% & below	Inadequate
2	51- 74 % -	Moderately adequate
3	75% & above	Adequate

Section 3: Five Point Likert Scale

This section consists of 10 statements to assess the attitude of U.G Nursing Tutors Regarding OSCE in

which out of all statements six (6) statements indicate positive attitude and Four (4) statements indicate negative attitude of U.G Nursing Tutors regarding OSCE.
Attitude of U.G Nursing Tutors regarding OSCE was measured under following criteria.

Table -4 Interpretation of scoring of 5 Point Likert Scale

Statements	Positive questions	Negative questions
Strongly agree	4	1
Agree	3	2
Disagree	2	3
Strongly disagree	1	4
Undecided	0	0

Table -5 Interpretation of Attitude score

S.L No	Marks Range	Category
1	50% & below	Unfavorable
2	51- 74 %	Moderately favorable
3	75% & above	Favorable

DATA ANALYSIS AND INTERPRETATION

The analyzed data were presented under the following sections:
SECTION A: Description of frequency and percentage distribution of demographic characteristics.
SECTION B: Assessment of level of knowledge and attitude of U.G nursing tutors on OSCE.
SECTION C: Effectiveness of planned teaching program on knowledge & attitude of U.G nursing tutors on OSCE.
SECTION D: Relationship between variables.
SECTION E: Association between pre-test level of knowledge and attitude among U.G nursing tutors with their selected Socio demographic variables.

SECTION A: Description of frequency and percentage distribution of demographic characteristics

Table – 6: The table shows the percentage and frequency distribution of U.G Nursing Tutors according to their socio demographic variables.

S.no	Demographic variables		Frequency(f)	Percentage (%)
1	Age group	<24 Years	25	44.64
		24-26 Years	21	37.50
		27-30 Years	7	12.50
		> 30 Years	3	5.36
2	Gender	Female	50	89.29
		Male	6	10.7
3	Marital status	Single	33	58.93
		Married	23	41.1
		Divorced	0	0

		Separated	0	0
4	Qualification	Basic B.sc Nursing	42	75
		Post basic B.sc Nursing	14	25
5	Working Experience	< 1 year	14	25
		1-5 year	40	71.4
		> 5 year	2	3.57
6	Source of information	Educational institutions	27	48.21
		Conferences	20	35.71
		Mass media	30	53.57
		Others	6	10.71
		No information	0	0

The study samples consist of 44.64 % (25) at the age < 24 Years age group, 37.50 % (21) in the age group 24-26 Years, 12.50 % (7) in the age group 27-30 Years and 5.36 % (3) of age group > 30 Years of Age, on the basis of Gender study sample consist of 89.29 % (50) females and 10.7 % (6) males, As per Marital Status study sample consist of 58.93 % (33) singles and 41.1 % (23) were married, As per Qualification study sample consist of 75 % (42) having B.sc Nursing degree and 25 % (14) were having Post Basic B.sc Nursing degree, As per working experience study sample were having 25 % (14) more than 1 year of working experience and 71.4 % (40) were having working experience between 1 to 5 years and 3.57 % (2) were having working experience of more than 5 years, As per source of information study 35.71 % (20) of sample acquired knowledge about OSCE from conferences, 53.57 % (30) from educational institute and 10.71% (6) from other sources.

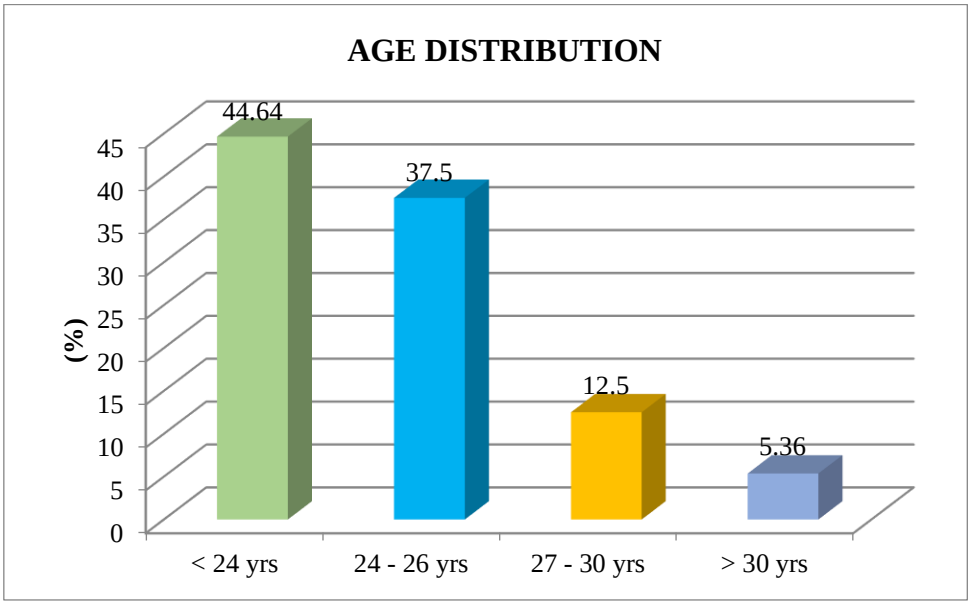

Figure – 1: Bar diagram showing age distribution among UG nursing tutors

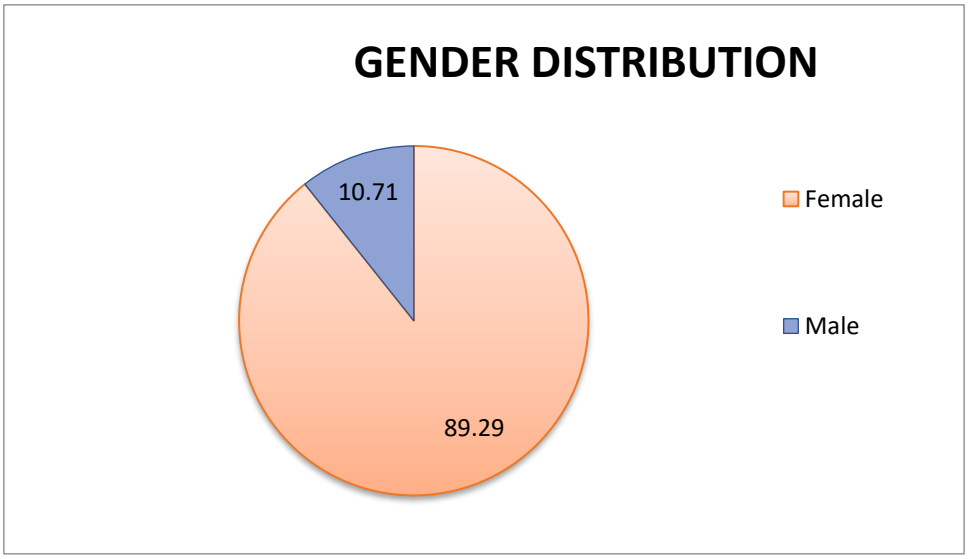

Figure – 2: Pie chart showing gender distribution among UG nursing tutors

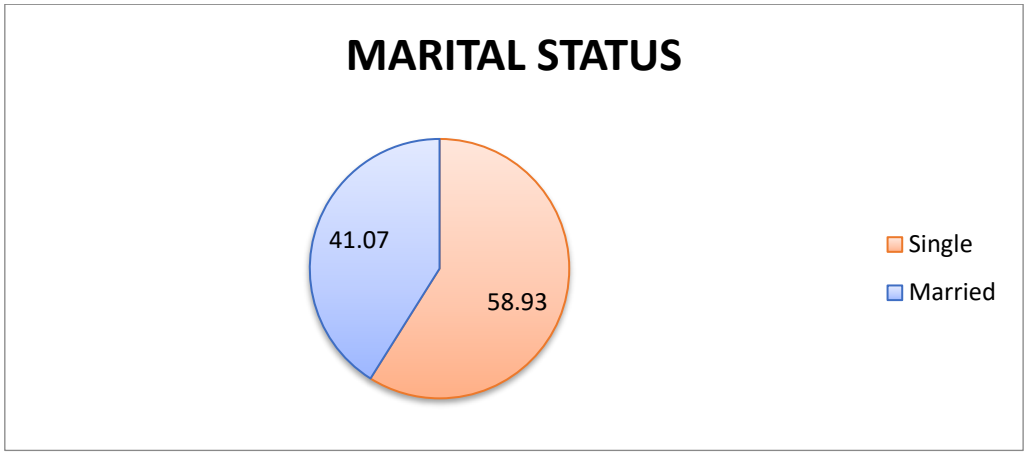

Figure – 3: Pie chart showing marital status distribution among UG nursing tutors

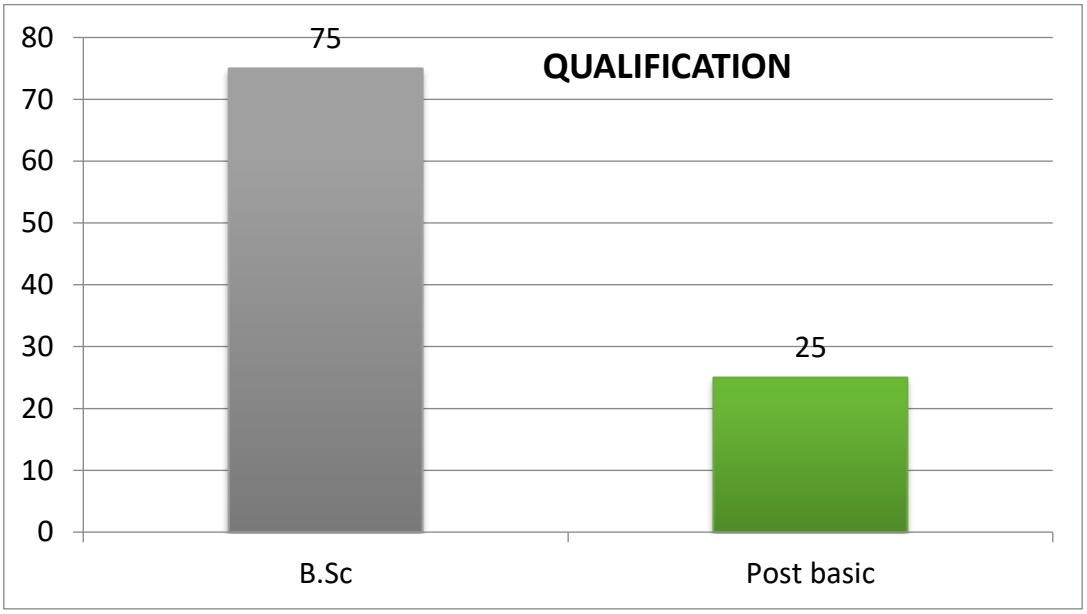

Figure – 4: Bar diagram showing qualification distribution among UG nursing tutors

Figure – 5: Bar diagram showing experiene distribution among UG nursing tutors

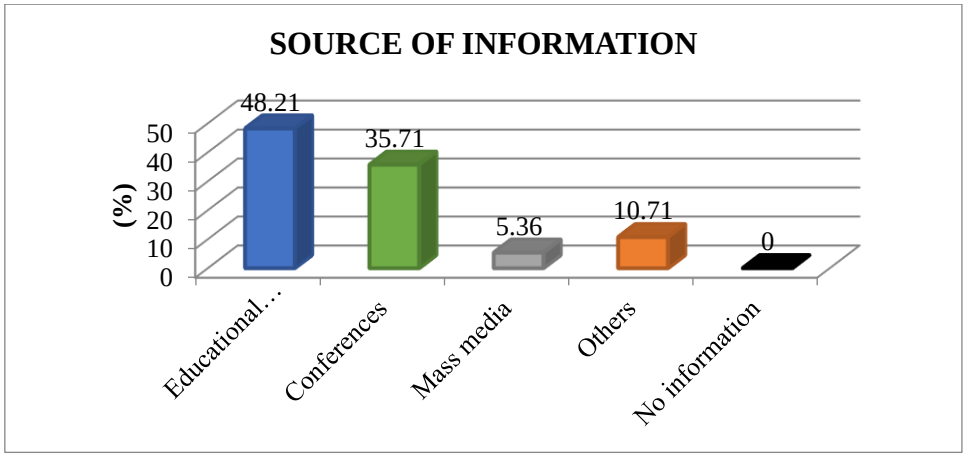

Figure – 6: Bar diagram showing sources of information distribution among UG nursing tutors

SECTION B: Assessment of level of knowledge and attitude among U.G nursing tutors on OSCE

Table – 7: Category wise pre test and post test overall knowdege score among UG Nursing Tutors on OSCE.

S.no	knowledge	Scores	Pre test		Post test		Improvement
			F	%	F	%	
1	Inadequate	50% & below	36	64.29	0	0	0
2	Moderately adequate	51- 74 %	19	33.93	28	50	9(16%)
3	Adequate	75% & above	1	1.79	28	50	27(48%)
Total			N=56	100 %	N=56	N=100	

Table – 7: shows that most of the nursing tutors that is 64.29%(36) were had inadequate knowledge in pretest and only 1.79%(1) were had adequate knowledge in pretest but there was significant improvement in post-test as sample were equally distribute 50%(28) in adequate and moderately adequate knowledge score 50%(28). Hence H_1 hypothesis is accepted because there is significant improvement in post-test knowledge score on OSCE among UG Nursing tutors.

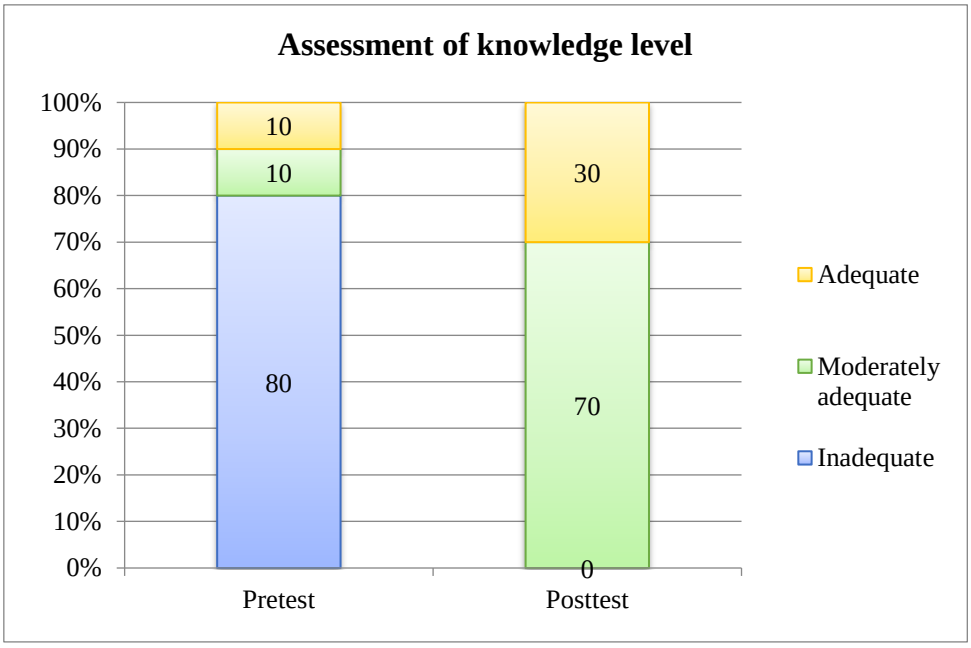

Figure – 7: Bar diagram showing knowledge score among UG Nursing Tutors in pre-test and post-test

Table – 8 : Comparision of mean pre test and mean post test knowledge scores among U.G nursing Tutors

N = 56

Observation	Range	Mean	Mean%	SD
Pretest	7-22	12.13	48.52	2.58
Posttest	14-29	19.46	77.84	2.34

Table – 8: explore that the mean post-test knowledge score is 19.46, which is higher than the mean pre-test knowledge score of 12.13. Hence it shows the effectiveness of planned teaching program on knowledge and attitude regarding OSCE.

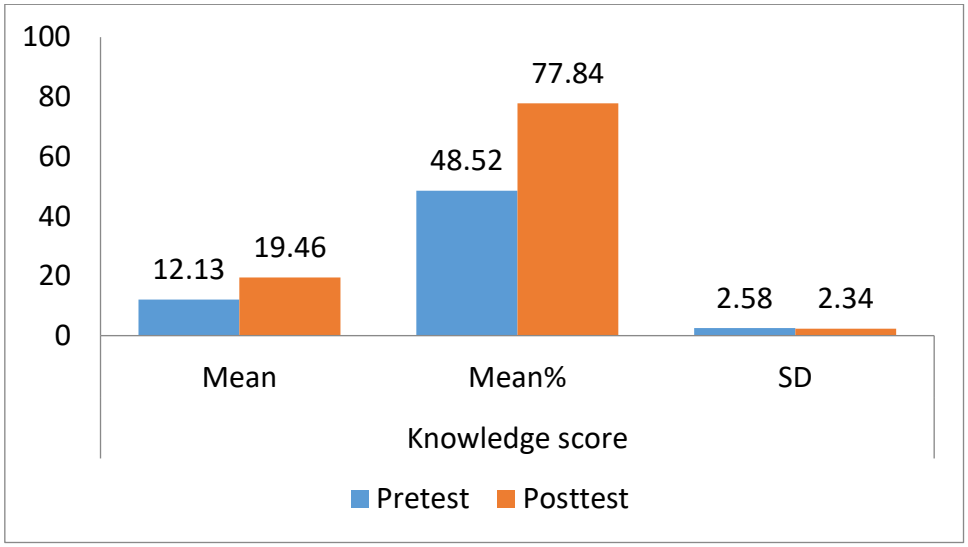

Figure – 8: Bar diagram showing comparision of mean pre test and mean post test knowledge scores among U.G nursing Tutors

Table – 9 : Comparison of mean knowledge score on OSCE by their dimensions before and after intervention.

N = 56

OSCE level by dimensions and overall	NO. of questions	Before intervention		After Intervention	
		Mean	SD	Mean	SD
Meaning	2	1.03	0.97	1.50	0.85
Objectives	2	1.27	0.97	1.63	0.77
Methods	6	2.68	3.03	4.39	2.64
Preparation	3	1.30	1.53	2.47	1.19
Construction	1	0.4	0.49	0.8	0.40
Administration	3	1.4	1.50	2.29	1.28
Skill tested	1	0.4	0.49	0.74	0.43
Advantage	5	2.09	2.48	3.76	2.16
Limitations	2	0.83	0.99	1.61	0.77

Table 9 displays the knowledge score before and after intervention, as well as the mean and standard deviation for each dimension. It shows that in all dimensions, the mean post-test knowledge score was higher than the mean pre-test knowledge score, indicating that the intended teaching program on OSCE knowledge and attitude is effective.

Table – 10 : Category wise pre test and post test overall attitude score among UG Nursing Tutors on OSCE.

N = 56

S.no	Attitude	Scores	Pre test		Post test		Improvement
			F	%	F	%	
1	Unfavourable	50% & below	43	76.79%	14	25%	51.79%
2	Moderately favourable	51- 74 %	13	23.21%	42	75%	29 (51.79%)
3	Favourable	75% & above	0	0%	0	0%	
Total			N=56	100 %	N=56	N=100	

Table:10 - shows that in pre-test 76.79% (43) of UG nursing tutors were had unfavourable attitude, 23.21% (13) were had moderately favourable attitude and 0% (0) were had favorable attitude but there was significant improvement in post-test attitude scores as only 25% (14) were had unfavorable attitude and 75% (42) were had moderately favourable attitude, Hence $H_{1\ hypothesis}$ is accepted because The post-test attitude score on OSCE among UG Nursing tutors has improved significantly.

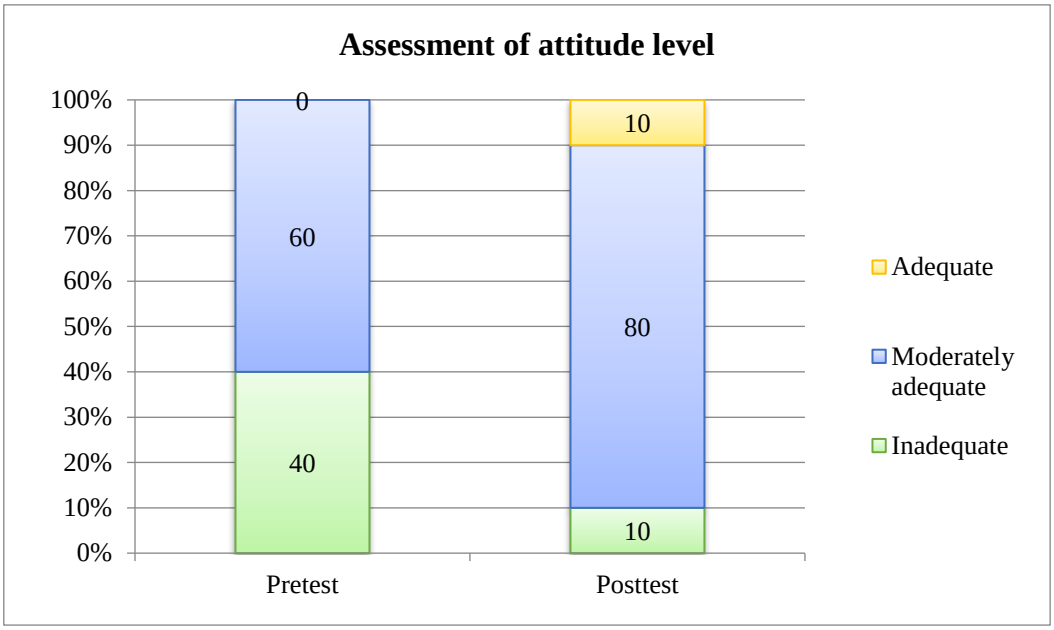

Figure – 9: Bar diagram showing the overall attitude score among UG Nursing Tutors in pre-test and post test

Table – 11 : Comparision of mean pre test and mean post test attitude scores among U.G nursing Tutors

Observation	Min- Max	Mean	Mean%	SD
Pretest	9-27	15.27	38.175	5.02
Posttest	15-28	22.43	56.075	2.89

Table 11- demonstrate that the mean post-test attitude score of 22.43 is higher than the mean pre-test attitude score of 15.27, demonstrating that the planned teaching program had an effect on OSCE knowledge and attitude.

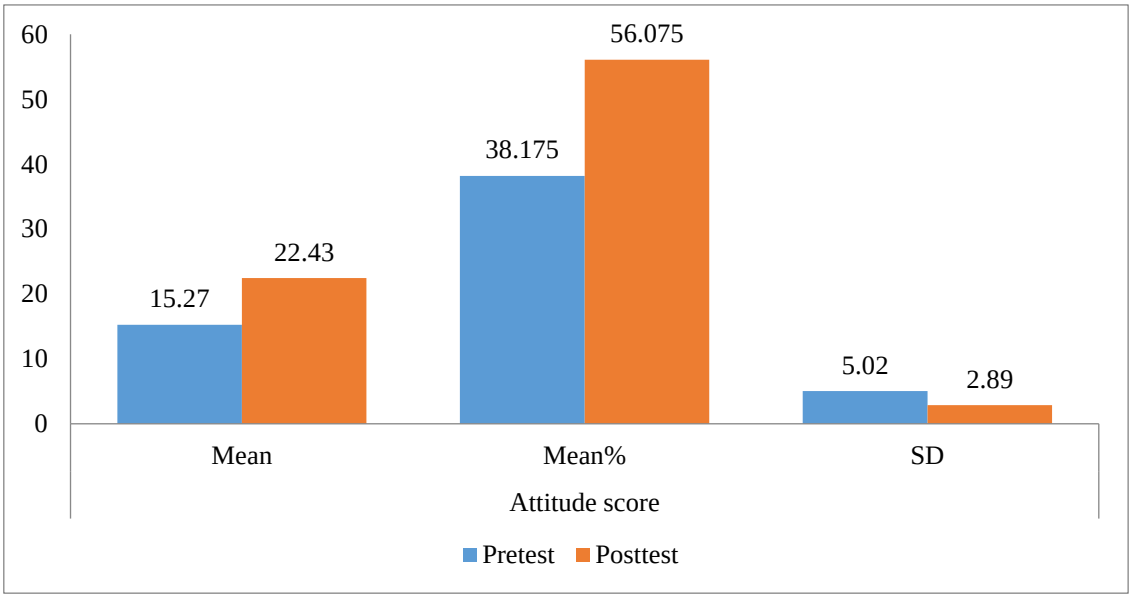

Figure – 10: Bar diagram showing comparision of mean pre test and mean post test attitude scores among U.G nursing Tutors

SECTION C: Effectiveness of planned teaching program on knowledge & attitude of U.G nursing tutors on OSCE

Table – 12 : Comparision of mean pre test and mean post test knowledge scores among U.G nursing Tutors
N = 56

Observation	Mean	SD	Paired 't' value/Critical value	Significance
Pretest	12.13	2.58		
Posttest	19.46	2.34	18.35/4.18	P<0.05

Table – 12 : shows that paired t test shows difference in pretest mean and posttest mean and paired t value/calculated value 18.35 is larger than 1.67 table value which is significant, where as df =55 and p value is 0.05, hence the paired t test shows highly significant results hence the intervention is highly effective.

Table – 13 : Comparision of mean pre test and mean post test attitude scores among U.G nursing Tutors

Observation	Mean	SD	Paired 't' value/Critical value	Significance
Pretest	15.27	5.02		
Posttest	22.43	2.89	9.86/4.18	P<0.05

Table – 13 : shows that paired t test shows difference in pretest mean and posttest mean and paired t value/calculated value 9.86 is larger than 4.18 table value which is significant, where as df =55 and p value is 0.05, hence the paired t test shows highly significant results hence the intervention is highly effective.

SECTION D: **Relationship between variables.**

Table – 14: Reveals the data of co-relation coefficient "r" value of pretest knowledge score and attitude scores

Variable	Mean	SD	Range	"r" value
knowledge score on OSCE	11.6	2.38	15	0.003
Attitude score on OSCE	14.3	4.03	18	

Table – 14: showed the "r" value of group pretest knowledge and attitude is 0. 003.Although technically a positive correlation, the relationship be-tween variables (knowledge and attitude) is weak (nearby. the nearer the value is to zero, assure the weaker the relationship), hence, it shows there is weak co-relation

between both Variables

SECTION E: Association between pre-test level of knowledge and attitude among U.G nursing tutors with their selected Socio demographic variables

Table – 15 : Showing association between pre-test level of knowledge among U.G nursing tutors with their selected Socio demographic variables

Demo variable	Pretest Knowledge Level			Total	DF/Chi square value/Critical value	Significance
Age group	Inadequate (0-13)	Moderately adequate (14-19)	Adequate (20-25)			
< 24 years	18(72%)	7(28%)	0(0%)	25(100%)	4/10.39/9.49	P<0.05 S
24 - 26 years	12(57.14%)	9(42.86%)	0(0%)	21(100%)		
27 - 30 years	5(71.43%)	1(14.29%)	1(14.29%)	7(100%)		
> 30 years	1(33.33%)	2(66.67%)	0(0%)	3(100%)		
Gender						
Female	30(60%)	19(38%)	1(2%)	50(100%)	2/3.73/5.99	P>0.05 NS
Male	6(100%)	0(0%)	0(0%)	6(100%)		
Marital status						
Single	22(66.67%)	11(33.33%)	0(0%)	33(100%)	2/1.51/9.21	P>0.05 NS
Married	14(60.87%)	8(34.78%)	1(4.35%)	23(100%)		
Divorced						
Separated						
Qualification						
B.Sc	26(61.9%)	15(35.71%)	1(2.38%)	42(100%)	2/0.64/5.99	P>0.05 NS
Post basic	10(71.43%)	4(28.57%)	0(0%)	14(100%)		
Experience						
Less than 1 year	13(92.86%)	1(7.14%)	0(0%)	14(100%)	4/6.75/9.49	P>0.05 NS
1-5 Years	22(55%)	17(42.5%)	1(2.5%)	40(100%)		
More than 5 years	1(50%)	1(50%)	0(0%)	2(100%)		

Source of inf						
Educational Institution	18(66.67 %)	8(29.63%)	1(3.7%)	27(100 %)	6/3.10/12.59	P>0.05 NS
Conferences	11(55%)	9(45%)	0(0%)	20(100 %)		
Mass media	2(66.67%)	1(33.33%)	0(0%)	3(100%)		
Others	5(83.33%)	1(16.67%)	0(0%)	6(100%)		
No information						

The knowledge score analysis revealed that statistically only age was significantly associated between pre-test level of knowledge score among U.G nursing tutors.

Table – 16 : Showing association between pre-test level of attitude among U.G nursing tutors with their selected Socio demographic variables

Demo variable / **Age group**	**Pretest attitude Level**			**Total**	**DF/Chi square value/Critical value**	**Significance**
	Inadequate	**Moderately adequate**	**Adequate**			
< 24 yrs	19(76%)	6(24%)	0(0%)	25(100%)	3/1.56/7.82	P>0.05 NS
24 - 26 yrs	15(71.43%)	6(28.57%)	0(0%)	21(100%)		
27 - 30 yrs	6(85.71%)	1(14.29%)	0(0%)	7(100%)		
> 30 yrs	3(100%)	0(0%)	0(0%)	3(100%)		
Gender						
Female	37(74%)	13(26%)	0(0%)	50(100%)	1/2.03/3.84	P>0.05 NS
Male	6(100%)	0(0%)	0(0%)	6(100%)		
Marital status						
Single	25(75.76%)	8(24.24%)	0(0%)	33(100%)	1/0.05/3.84	P>0.05 NS
Married	18(78.26%)	5(21.74%)	0(0%)	23(100%)		
Divorced						
Separated						
Qualification						
B.Sc	32(76.19%)	10(23.81%)	0(0%)	42(100%)	1/0.03/3.84	P>0.05 NS
Post basic	11(78.57%)	3(21.43%)	0(0%)	14(100%)		
Experience						
Less than 1 year	9(64.29%)	5(35.71%)	0(0%)	14(100%)	2/2.06/5.99	P>0.05 NS
1-5 Years	32(80%)	8(20%)	0(0%)	40(100%)		

More than 5 years	2(100%)	0(0%)	0(0%)	2(100%)		
Source of inf						
Educational Institution	19(70.37%)	8(29.63%)	0(0%)	27(100%)	3/2.63/7.82	P>0.05 NS
Conferences	17(85%)	3(15%)	0(0%)	20(100%)		
Mass media	3(100%)	0(0%)	0(0%)	3(100%)		
Others	4(66.67%)	2(33.33%)	0(0%)	6(100%)		

The pre-test level of attitude among U.G nursing tutors and the socio demographic variables they chose were shown to have no significant association, according to the attitude score analysis.

DISCUSSION OF STUDY, CONCLUSION, IMPLICATIONS, LIMITATIONS OF STUDY AND RECOMMENDATION OF STUDY

SECTION A: Demographic variables of study

The majority of UG nursing tutor 44.64 % (25) were in the age < 24 Years age group, 37.50 % (21) was between 24-26 Years, 12.50 % (7) were between 27-30 Years and 5.36 % (3) of age group > 30 Years of Age, on the basis of Gender majority of UG nursing tutor 89.29 % (50) were females and 10.7 % (6) were males, As per Marital Status majority of UG nursing tutor 58.93 % (33) were singles and 41.1 % (23) were married, As per Qualification majority of UG nursing tutor 75 % (42) were having B.sc Nursing degree and 25 % (14) were having Post Basic B.sc Nursing degree, As per working experience 25 % (14) of UG nursing tutor were having more than 1 year of working experience and majority of them 71.4 % (40) were having working experience between 1 to 5 years and 3.57 % (2) were having working experience of more than 5 years, As per source of information majority of UG nursing tutors 53.57 % (30) acquired knowledge about OSCE from educational institute and 35.71 % (20) of UG nursing tutors acquired knowledge about OSCE from conferences, and 10.71% (6) from other sources.

SECTION B: Assessment of level of knowledge and attitude among U.G nursing tutors on OSCE

Knowledge

The present study, shows that most of the UG nursing tutors that is 64.29% (36) were had inadequate knowledge and only 1.79% (1) were had adequate knowledge in pretest but after the implementation of the intervention. The post-test result showed a considerable improvement. as 50% (28) of UG nursing tutors were had adequate knowledge and 50% (28) of UG nursing tutors were had moderately adequate knowledge. Furthermore, the mean post-test knowledge score of 19.46 is greater than the mean pre-test knowledge score of 12.13, demonstrating that the planned teaching programmer influenced knowledge and attitudes about OSCE.

The 9 dimensions of OSCE, namely Meaning, Objectives, Methods, Preparation, Construction, and Administration of OSCE, were also used to assess the knowledge on OSCE. The total understanding of OSCE was assessed by 25 questions, which included skill testing, advantages and limitations. The mean of the knowledge score after the intervention were 1.50, 1.63, 4.39, 2.47, 0.8, 2.29, 0.74, 3.76, 1.61 which is greater than mean of knowledge score before the intervention that is 0.85, 0.77, 2.64, 1.19, 0.40, 1.28, 0.43, 2.16, 0.77 respectively for the meaning, objectives, Methods, Construction, Administration, Skill tested, Advantage and Limitations, as a result, it demonstrates the effectiveness of a planned teaching program on knowledge in each of the OSCE areas.

Attitude

The present study, shows that in pre-test 76.79% (43) of UG nursing tutors were had unfavourable attitude, 23.21% (13) were had moderately favourable attitude and 0% (0) were had favorable attitude but after the implementation of the intervention there was significant improvement in post-test attitude scores as only 25% (14) were had unfavorable attitude and majority of UG nursing tutors 75% (42) were had moderately favourable attitude towards OSCE. Furthermore, the mean post-test attitude score of 22.43 is higher than the mean pre-test attitude score of 15.27, implying that the planned teaching program had an impact on OSCE knowledge and attitude.

SECTION C: Effectiveness of planned teaching program on knowledge & attitude of U.G nursing tutors on OSCE

Knowledge

In this study, the paired t test indicates a difference between the pretest and posttest means, and the paired t value/calculated value 18.35 is greater than 1.67 table value, which is significant, where df =55 and p value is 0.05, indicating that the intervention is highly effective.

Attitude

In the present study, paired t test shows difference in pretest mean and posttest mean and paired t value/calculated value 9.86 is larger than 4.18 table value which is significant, where as df =55 and p value is 0.05, hence the paired t test shows highly significant results hence the intervention is highly effective.

SECTION D: Relationship between variables

The group pretest knowledge and attitude have a “r” value of 0.003 in this study. The resulting “r” value is lower than the table value, indicating a weak co-relation between both variables, namely knowledge and attitude toward OSCE. As a result, H3 is accepted, and it is concluded that Nursing UG tutors' knowledge and attitude toward OSCE are interdependent.

SECTION E: Association between pre-test knowledge and attitude among U.G nursing tutors and selected demographic variables

Knowledge

According to the knowledge score analysis, only age was statistically substantially correlated with pre-test level of knowledge score among U.G nursing tutors.

Attitude

The pre-test attitude of U.G nursing tutors had no statistically significant relationship with their designated socio-demographic variables, according to the attitude score analysis.

CONCLUSION

Following points were concluded from the results of the study

The majority of UG nursing tutor 44.64 % were in the age < 24 Years age group, as per Gender majority of UG nursing tutor 89.29 % were females, as per Marital Status majority of UG nursing tutor 58.93 % were single, as per Qualification majority of UG nursing tutor 75 % were having working experience between 1 to 5 years, as per source of information majority of UG nursing tutors 53.57 % (30) acquired knowledge about OSCE from educational institute.

The post-test score improved significantly, with 50% (28) of UG nursing tutors having adequate knowledge and 50% (28) of UG nursing tutors having moderately adequate knowledge. Also, the mean post-test knowledge score of 19.46 is higher than the mean pre-test knowledge score of 12.13, and post-test attitude ratings have improved significantly, with just 25% (14) having negative attitudes and the

majority of UG nursing tutors (75%) had a moderately favorable attitude toward OSCE. In addition, the mean post-test attitude score is 22.43, which is higher than the mean pre-test attitude score (15.27).
Current study showing weak co-relation between Knowledge and attitude in terms of objective structured clinical examination hence according to result shows knowledge and attitude are interdependent to each other.
Only age was shown to be a significant predictor of pre-test level of knowledge among U.G nursing tutors, and There was no significant correlation between U.G nursing instructors' pre-test attitude and their selected socio-demographic factors.

LIMITATIONS

- This study is limited to UG Nursing Tutors only
- Limited to knowledge and attitude of UG Nursing Tutors regarding OSCE.
- This study is limited to 56 samples
- Data collection time is limited to four weeks

RECOMMENDATIONS

- Studies may be carried out to test the level of competency of students not only for regular nursing courses but also to test the quality of client care with staff nurses.
- Same study may be replicated with large number of students.
- Studies in future may be carried out with large number of samples and involving various specialties
- Future similar study may be conducted in other field of nursing.

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