RESEARCH ARTICLE

EFFECTIVENESS OF VIDEO-TEACHING V/S LECTURE-CUM-DEMONSTRATION ON ANTENATAL EXAMINATION AMONG B.SC. NURSING STUDENTS

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ABSTRACT

INTRODUCTION: The antenatal examination and check-ups are most important for pregnant women for detecting risk pregnancies and nursing staff should have proper knowledge about it. This is only possible, if the nursing students are taught properly about the antenatal examination. The most effective media for teaching the students are the video-teaching method which helps students to learn quickly, efficiently and in an interesting way.

AIM: The aim of the study is to assess the effectiveness of video-teaching versus lecture-cum-demonstration on antenatal examination among b.sc. Nursing students.

MATERIAL AND METHODS: The pre-experimental research design was adopted and a sample of 60 B.Sc. Nursing 3rd year students was selected by using convenience sampling technique. A structured knowledge questionnaire regarding antenatal examination was prepared to assess the knowledge of B.Sc. Nursing students.

RESULTS: The post test mean knowledge score of B.Sc. Nursing 3rd year students who had attended video-teaching was significantly higher than the post test mean knowledge score of B.Sc. Nursing 3rd year students who had attended lecture-cum-demonstration on antenatal examination at $p < 0.05$ level. This indicates that video-teaching was more effective than lecture-cum-demonstration. There was no statistically significant effect of age, residential area and previous exposure of teaching method regarding antenatal examination but there was statistically significant effect of duration of posting in OBG department and source of information regarding antenatal examination on knowledge score of B.Sc. Nursing 3rd year students.

CONCLUSION: It was concluded that Video-teaching can improve knowledge and practice on antenatal examination among the nursing students and it should be used further.

KEY WORDS: Antenatal Examination, Video-teaching, Lecture-cum-demonstration.

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INTRODUCTION & BACKGROUND OF THE STUDY

Phenomenal changes are characteristics of our times, the fund of human knowledge has continued and is continuing to virtually explode, technologies are multiplying the productivity of man a hundredfold, advances in communication media and transportation have caused the world to shrivel before our eyes. However these advances are also beginning to be reflected in educational institutions. Education has been slow to meet the changing demands of the modern world, but the expanding knowledge in many fields with its modifying effect on the curriculum and the advancing technologies with their effect on the instructional process leave no choice to education but to review its practices and to make the major changes necessary for today's world.[2]

Nursing education has persistently resisted change. This fact can be documented easily in the nursing literature. There have been 6 major studies of nursing and nursing education in the United States of America within the past 40 years, each reiterating essentially the same recommendations, and yet many of these recommendations have yet to be implemented. Some important changes have been taken place in nursing education but not enough in the words of the Surgeon General's Consultant Group on Nursing.[2]

In nursing education, to promote active learning in nursing many creative teaching strategies have been developed in recent years. In most educational settings teacher centered instructions involve traditional lecture in which the teacher presents information to a group of students who in turn listen, memorize and recall the information.[3]

Advancement in the means of communication and that of technology, educators coined new terms. More specifically media refers to films, filmstrips, recordings etc. Video-teaching is one of new method of teaching. Video-teaching can be given with the help of CD installed in computers and laptops and displayed the content on the big screen with the help of projector attached with it. This helps the students in better learning process by acting as

antidote to the disease of verbal instruction and thus this play an important role in improving the knowledge and learning skills.[4]

OBJECTIVES OF THE STUDY

1. To assess the effectiveness of Video-teaching programme regarding knowledge of Antenatal Examination among B.Sc. Nursing students.
2. To assess the effectiveness of Lecture-cum-demonstration regarding knowledge of Antenatal Examination among B.Sc. Nursing students.
3. To compare the effectiveness between Lecture-cum-demonstration and Video-teaching programme on Antenatal Examination among B.Sc. Nursing students.
4. To find relationship between knowledge scores of B.Sc. Nursing students regarding Antenatal examination with selected variables.

MATERIALS AND METHODS

Research approach & design: A quantitative research approach with pre-experimental design was adopted to accomplish the objectives of the study to assess the effectiveness of video teaching versus lecture-cum- demonstration on antenatal examination among B.Sc. Nursing students of selected Nursing colleges at Jalandhar. The experimental design (One group pretest posttest design) was best suited.

Diagrammatical representation

$O_1 \quad X_1 \quad O_2 \quad - \quad O_3 \quad X_2 \quad O_4$

O_1 , O_3 = Pre-test $\qquad$ O_2, O_4 = Post-test

X_1 = Lecture- cum-demonstration $\qquad$ X_2= Video-teaching

Sample & Sampling Technique: A sample of 60 B.Sc. Nursing 3rd year students was selected, 30 for video-teaching programme and 30 for lecture-cum-demonstration by using convenience sampling technique.

Description of Tool : The tool was divided into four parts:-

Part A: Socio - demographic data sheet comprised of 5 items dealing with demographic profile of subjects as per need of study

Part B: Self Structured Knowledge questionnaire to obtain information about the knowledge of the students regarding antenatal examination.This part comprised of total 36 multiple choice questions to obtain information about the knowledge of the students regarding antenatal examination.

Criterion Measure

Maximum score=36 Minimum score=0

Area of knowledge	Percentage (%)	Score
Excellent	≥69-100	≥25-36
Good	≥36-67	≥13-24
Average	0-33	0-12

Part C: This part consisted of lecture- cum- demonstration on antenatal examination which included description about definition, purposes, objectives, antenatal visits, articles, steps of the procedure regarding antenatal examination. This was of 45 minutes. This part was not included in the scoring system.

Part D: This part consisted of video-teaching on antenatal examination. This was of 18-20 minutes. This part was not included in the scoring system.

ETHICAL CONSIDERATIONS

With the view of ethical consideration the researcher discussed the type and purpose of the study with the Principals of both the colleges and written permissions were obtained thereafter. Also the students were explained about the purpose of the study and written and verbal consent was taken from the subjects for their participation in the study before gathering information and they were assured that their responses would be kept confidential and used for research purpose only.

RESULTS

Table 1

Frequency and Percentage Distribution of Sample Characteristics

N=60

S. No.	Demographic Variables	Frequency (n)	Percentage (%)
1.	**Age (in years)**		
	a. 19	05	08.33
	b. 20	25	41.67
	c. 21	30	50.00
	d. >21	00	00.00
2.	**Residential Area**		
	a) Rural	42	70.00
	b) Urban	18	30.00
3.	**Duration of posting in OBG department**		
	a) One week	12	20.00
	b) Two weeks	04	06.67
	c) Three weeks	00	00.00
	d) Four weeks	00	00.00
	e) None	44	73.33
4.	**Previous exposure to teaching method regarding antenatal examination**		
	a) Lecture	40	66.67
	b) Demonstration	18	30.00
	c) Video	00	00.00
	d) Power point	00	00.00
	e) None	02	03.33
5.	**Source of information regarding antenatal examination**		
	a) T.V.	11	18.33
	b) Radio	00	00.00
	c) Magazines / Newspaper /Journals	12	20.00
	d) Internet	00	00.00
	e) None	37	61.67

Table 1 reveals that according to age, majority of the respondents i.e. 50.00% belongs to age group of 21 years. Majority of the respondents i.e. 70.00% belongs to rural area and 30.00% of respondents belongs to urban area respectively.

According to Duration of posting in OBG department, majority of the respondents i.e. 73.33% are not posted in OBG department, 20.00% are having One week posting in OBG department, 06.67% are having Two week posting in OBG department and no student had 3 and 4 week posting in OBG department respectively.

According to Previous exposure to teaching method regarding antenatal examination, majority of the respondents 66.67% had previous exposure to lecture method of teaching regarding antenatal examination, 30.00% had previous exposure to demonstration method of teaching regarding antenatal examination, 03.33% had no previous exposure to any method of teaching regarding antenatal examination and no respondent had previous exposure to video and PowerPoint method of teaching regarding antenatal examination respectively.

According to Source of information regarding antenatal examination, majority of the respondents 61.67% did not come to know anything regarding antenatal examination from any source, 20.00% read from newspaper/magazines/journals regarding antenatal examination,18.33% seen and listened from T.V. regarding antenatal examination and no respondent had never heard from radio and internet regarding antenatal examination respectively. Thus, it is concluded that out of 60 subjects, highest were in age group of 21 years and belongs to rural area, highest were never posted in OBG department, highest subjects were having previous exposure to lecture method of teaching regarding antenatal examination, highest number of subjects did not come to know anything regarding antenatal examination from any source.

Table 2

Findings related to comparison of pretest and posttest mean knowledge score of Video-teaching

N=60

Group		Mean Knowledge Score				
		Pre-Test		Post-Test		
Video-Teaching	**n**	**Mean**	**S.D.**	**Mean**	**S.D.**	**'t'**
	30	20.13	04.179	33.830	02.42	4.91*

Maximum score = 36
Minimum score = 0

*Significant at p< 0.05 level

Table 2 shows the findings related to comparison of pretest and posttest mean knowledge score of Video-teaching and it was found that it increased significantly.

Table 3

Findings related to comparison of pretest and posttest mean knowledge score of Lecture-cum-demonstration

N=60

Group		Mean Knowledge Score				
		Pre-Test		Post-Test		
Lecture-cum-demonstration	**n**	**Mean**	**S.D.**	**Mean**	**S.D.**	**'t'**
	30	21.467	04.279	25.400	02.550	4.32*

Maximum score = 36
Minimum score = 0

*Significant at p< 0.05 level

Table 3 shows the findings related to comparison of pretest and posttest mean knowledge score of lecture cum demonstration method of teaching and it was found that it increased significantly.

Table 4 (a)

Comparison of Video-teaching and Lecture- cum-demonstration on Knowledge with both posttest knowledge scores

N=60

Group	Mean Knowledge Score			
	Post-Test			
	n	**Mean**	**S.D.**	**'t'**
Lecture-Cum-Demonstration	30	25.40	02.55	13.61*
Video-Teaching	30	33.83	01.57	

Maximum score = 36
Minimum score = 0

*Significant at p< 0.05 level

Table 4 (b)
Frequency and Percentage Distribution of Pretest and Posttest knowledge score of Video-teaching and Lecture- cum-demonstration According to Levels of knowledge

N=60

			Mean Knowledge Score							
			Lecture-cum-demonstration				Video-teaching			
Level of Knowledge	%	Score	Pre-Test		Post-Test		Pre-Test		Post-Test	
			n	%	n	%	n	%	n	%
Excellent	≥69-100	≥ 25-36	00	00	05	17	00	00	30	100
Good	≥ 36-67	≥ 13-24	28	93	24	80	23	77	00	00
Average	00-33	00-12	02	07	01	03	07	23	00	00
Total	**100**	**36**	**30**	**100**	**30**	**100**	**30**	**100**	**30**	**100**

Maximum Score = 36
Minimum Score = 0

Table 4 (a) and 4 (b) shows the findings related to comparison of posttest mean knowledge score of lecture cum demonstration method and video teaching method of teaching and it was found that there was a significant difference between both of teaching method.

DISCUSSION

According to present study it was found that mean posttest knowledge score among B.Sc. Nursing 3rd year students regarding antenatal examination, who are attending video-teaching on antenatal examination was higher 33.83 as compared to mean pretest knowledge score 20.13 among B.Sc. Nursing 3rd year students. This difference was statistically significant at $p< 0.05$ level of significance. The arithmetic mean of post-test is 60%, more than the pretest knowledge of students due to video-teaching; it shows that video-teaching has helped to increase the knowledge of students about antenatal examination.[11]

Similarly, another study on "Simulation technology: visual learning for undergraduate medical students." reported that the availability of simulator technology at the University of Toronto provided the opportunity to assess the efficacy of video-assisted learning. After ethics approval from the University of Toronto, all final-year medical students were invited to participate in the current randomized trial assessing the efficacy of video-based learning. One hundred forty-four medical students participated in the study. There was a significant improvement in posttest scores over pretest scores in all scenarios. Video types of faculty-facilitated education offer a valuable learning experience. Future work is needed that addresses the long-term effects of video-assisted learning in the retention of knowledge and acquired skills.[12]

Similarly, a researcher conducted[13] "A quantitative, descriptive x healing/201303/dr-herbert-benson-s-relaxation-response.

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3. Murpury S ,Naber J Perlow M 2010, 'Stress level and stress management skills of admitted baccalaureate nursing students, viewed 25th September 2018 <http://www.ncbi.nlm.nnih.gov/pubmed/20458881>. different colleges within the Midwest region. The results of the two-tailed t-test found four statistically significant findings between generation X and Y students and their preferred teaching methods including: lecture, listening to the professor lecture versus video method of teaching. The results of analysis found statistically significant findings between levels of students and preferred teaching methods. However, both the teaching method increase the knowledge level of students but video method of teaching was found to be more effective and more preferred method of teaching by the faculty and as well as by the students. [13]

CONCLUSION

The posttest knowledge score of B.Sc. Nursing 3rd year students who were attending video-teaching was significantly more than the posttest knowledge score of B.Sc. Nursing 3rd year students who were attending lecture-cum-demonstration on Antenatal Examination at $p< 0.05$ level. Hence alternative hypothesis was

accepted. Thus video-teaching was significantly more effective than lecture-cum-demonstration in raising the knowledge level of B.Sc. Nursing 3rd year students regarding antenatal examination.

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