

STUDYING THE EFFECT OF VIDEO ASSISTED TEACHING VERSUS LECTURE CUM DEMONSTRATION ON KNOWLEDGE AND SKILLS REGARDING ANTENATAL ABDOMINAL EXAMINATION, AMONG NURSING STUDENTS

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ABSTRACT

A comparative study was conducted to assess the effect of video assisted teaching and lecture cum demonstration on knowledge and skills regarding antenatal abdominal examination, among nursing students. The objectives of the study were to assess the knowledge regarding antenatal abdominal examination among nursing students; to assess the effect of video assisted teaching and lecture cum demonstration on knowledge and skills; to compare the effect of video assisted teaching and lecture cum demonstration; to find out the association between pre-test knowledge scores and selected socio- demographic variables. Conceptual framework was based on Ludwig von Bertalanffy General System model (1968). True experimental pre-test post-test comparative design was used and 60 students were assigned to control group (30) and experimental group (30) by simple random sampling technique using random table. The tools used were structured knowledge questionnaire and observational checklist 4 point rating scale. Video assisted teaching was given to experimental group and lecture cum demonstration was given to control group. Paired 't' test was used to compare the pre-test and post-test levels of knowledge scores and unpaired 't' test was used to compare the experimental group and control group levels of knowledge and skills. Control group mean difference 8.56 (SD=3.10) was lower than the experimental group mean difference at 11.30 (SD=3.19) with a difference in mean difference of 2.74. The calculated 't' value 3.341 was greater than the table value 2.00 with degree of freedom 58 at $p < 0.05$ level of significance. Hence we can conclude that video assisted teaching was more effective than lecture cum demonstration in increasing knowledge and skills of nursing students regarding antenatal abdominal examination of pregnant women.

Keywords: Effect; Video assisted teaching; Lecture cum Demonstration; Nursing students.

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INTRODUCTION

Pregnancy is creative and productive period in the life of a woman. It is one of the vital events, which needs special care from conception to postnatal period. Every mother wants to enjoy the nine month period with the baby inside her but the joyful experience of pregnancy is not always joyful.¹

Prenatal care, also known as antenatal care, is a type of preventive healthcare which aims to provide regular check-ups that allow doctors or midwives to treat and prevent potential health problems throughout the course of pregnancy and to promote healthy lifestyles that benefit both mother and the child. The availability of routine prenatal care, including prenatal screening and diagnosis can play an important part in reducing the frequency of maternal death, miscarriages, birth defects, low birth weight, neonatal infections and other preventable health problems.²

Although the health status of women has improved over the years due to concentrated efforts of Government of India, it is still not at par with the International benchmark and is unacceptably high.³

BACKGROUND OF THE PROBLEM

India's maternal mortality rate contributes to 19% of the global burden of maternal deaths. Most of the maternal deaths are preventable by access to quality antenatal health care, skilled assistance at delivery and postnatal care. Infant mortality rate is also high. The Infant mortality rate in India is 40 per 1000 live births as per 2013 statistics, which means that an estimated 1.068 million children of age one year and below die in the country annually.⁴

Good care during pregnancy is important for the health of the mother and the development of the unborn baby. Pregnancy is a crucial time to promote healthy behaviours and parenting skills. Good antenatal care links the woman and her family with the formal healthcare system, increases the chance of using a skilled attendant at birth and contributes to good health through the life cycle. Inadequate care during this time breaks a critical link in the continuum of care, and affects both women and babies.⁵

NEED AND SIGNIFICANCE OF THE STUDY

Making motherhood safer is critical to saving newborns. Research shows that a significant number of stillbirths and neonatal deaths could be prevented if all women were adequately nourished and if they received good quality care during pregnancy, delivery, and the postpartum period.⁶

Since nurses are the backbone of healthcare delivery system, training of nursing students is important in order to acquire the necessary knowledge and attitude to provide quality obstetric care which will consequently contribute in reduction of maternal deaths. Thus future nurses' knowledge and attitudes towards antenatal examination is important to research and understand, especially in a country with a high prevalence of maternal deaths.⁷

STATEMENT OF THE PROBLEM

'A comparative study to assess the effect of video-assisted teaching and lecture cum demonstration on development of knowledge and skills regarding antenatal abdominal examination among nursing students in a selected college at Alappuzha district of Kerala.'

OBJECTIVES

The objectives of the study are —

1. To assess the pre-test and post-test knowledge scores regarding antenatal abdominal examination among nursing students in both experimental and control group.
2. To assess the post-test skill scores regarding antenatal abdominal examination among nursing students in both experimental and control group.
3. To compare the effect of video assisted teaching and lecture cum demonstration on enhancement of knowledge and skills regarding antenatal abdominal examination among nursing students.

4. To find out the association between pre-test knowledge scores of nursing students regarding antenatal abdominal examination and selected socio- demographic variables.

HYPOTHESES

- H₁: There is a significant increase in mean post-test knowledge score regarding antenatal abdominal examination after lecture cum demonstration.
- H₂: There is a significant increase in mean post-test knowledge score regarding antenatal abdominal examination after video assisted teaching.
- H₃: There is a significant difference between the post-test knowledge scores regarding antenatal abdominal examination of women among experimental and control groups of nursing students.
- H₄: There is a significant difference between the post-test skill scores regarding antenatal abdominal examination of women among experimental and control groups of nursing students.
- H₅: There is a significant association between the pre-test knowledge score and selected socio-demographic variables.

ASSUMPTIONS

1. Teaching methods influence learning
2. Use of audio visual aids helps in learning the methods in a better way
3. Educational video combines sight and sound and thus makes the experience real, concrete and immediate.

VARIABLES

Demographic variables

In this study socio-demographic variables were age, religion, type of family, place of residence, father's educational status, mother's educational status, father's occupation, mother's occupation, family monthly income, dietary pattern, sources of information.

Dependent variable

Knowledge and Skills on antenatal abdominal examination

Independent variable

Video assisted teaching and Lecture cum demonstration.

METHODOLOGY

Research approach: Quantitative research approach.

Research design: True experimental pre-test — post-test comparative design

Settings: Josco College of Nursing, Alappuzha

Population

Target population: B.Sc. nursing students

Accessible population: 4th year B.Sc. nursing students studying in selected nursing college.

Sample size: 60

Sampling technique: Simple random sampling technique

Tools and technique

TOOL 1: Socio-demographic pro-forma

Technique: Self-administered structured questionnaire.

TOOL 2: Structured knowledge questionnaire on antenatal abdominal examination

Technique: Self-administered knowledge questionnaire

TOOL 3: Observational checklist 4 point numerical rating scale

Technique: Direct non participatory structured observation method.

Reliability of Tool:

The reliability was then estimated by split half method. The 'r' value was calculated and had been found to be 0.70. This indicates that the tool was significant.

Conceptual framework: Ludwig von Bertalanffy - General System Model 1968

Inclusion criteria

Fourth year B.Sc. nursing students; those who were —

- Willing to participate in the study

- Present at the time of data collection.

Exclusion criteria

Fourth year B.Sc. nursing students; those who were —

- Not present during the time of data collection.

Data collection process

Step 1: Permission was obtained from the Principal, Josco College of Nursing, Alappuzha.

Step 2: The purpose of the study was explained to the students. Informed consent was obtained. The samples who met the inclusion criteria were randomised by random number table in which the first selected number was assigned to control group and second to experimental group and so on till 60 samples were collected. Pre-test was conducted for all students by using structured knowledge questionnaire on day 1.

Step 3: Teaching on antenatal abdominal examination was given to control group students using lecture cum demonstration for duration of 1 hour on day 2.

Step 4: Teaching on antenatal abdominal examination was given to experimental group using video assisted teaching for duration of 1 hour on the same day.

Step 5: After 7 days, post-test was conducted for all students in both the groups using the structured knowledge questionnaire.

Step 6: From day 10 to day 21, post-test skill assessment was conducted for students per day for 60 students.

DATA ANALYSIS

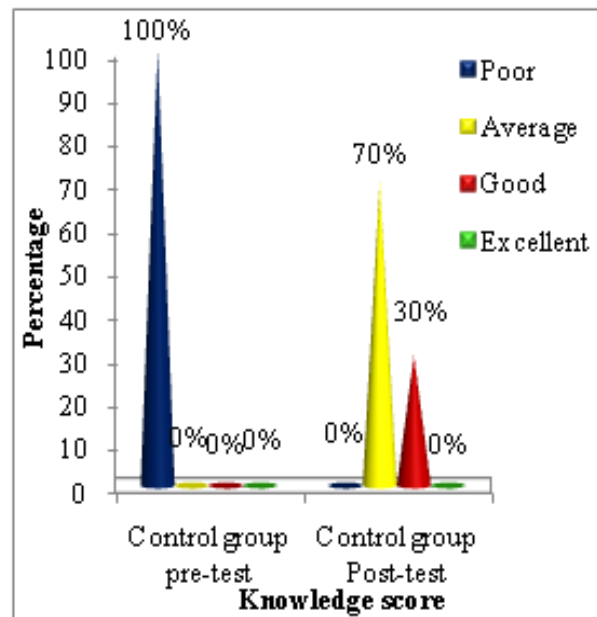
Descriptive: Frequency, Percentage distribution, Mean Percentage and Standard Deviation.

Inferential: Paired 't', Unpaired 't', Chi-square test.

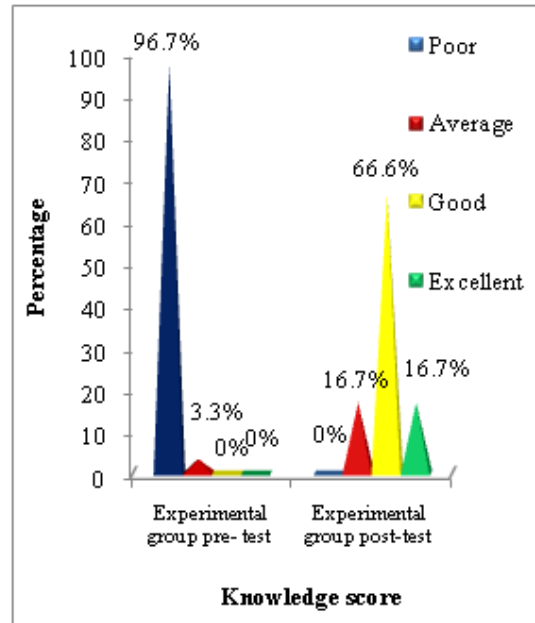
Section I: Distribution of subjects according to socio demographic variables

- In control group, 70% of the samples and in experimental group 66.7% of the samples were in the age group of 21 years.
- In control group, 66.7% of samples and in experimental group 73.3% of the samples were Christians.
- In control group, 90% of samples and in experimental group 93.3% of the samples belonged to nuclear families.
- In control group, 80% of samples and in experimental group 83.3% of samples were residing in Panchayat areas.
- In control group 43.3% of the samples had their fathers having educational status of higher secondary and in experimental group 40% of samples had their fathers with higher secondary and secondary education status.
- In control group, 36.7% of the samples had their mothers having educational status of a diploma holder and in the experimental group, 40% of the samples had their mothers educated up to secondary level.
- In control group, more than one third (36.7%) of the samples and in experimental group less than half (46.7%) of samples had their fathers' occupation as private employees.
- In control group, 76.7% of the samples and in experimental group 70% of samples had their mothers' occupational status as housewives.
- In control group, 33.3% of the samples had a family monthly of `10,001-`15000 and in experimental group, 36.7% had family monthly income of `5001 - `10000.
- In control group and experimental group, 100% the samples were non vegetarian eaters.
- In control group, 90% and in experimental group 80% had source of information from other.

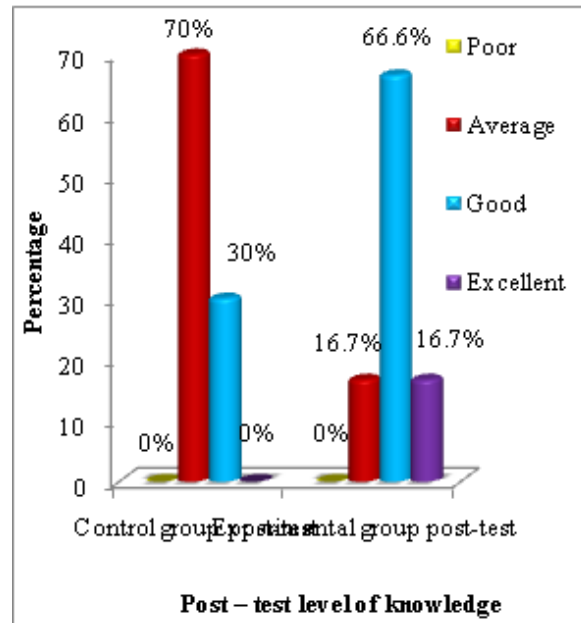
Section II: Assessment of samples based on pre-test and post-test levels of knowledge and skills regarding antenatal abdominal examination in control group and the experimental group.



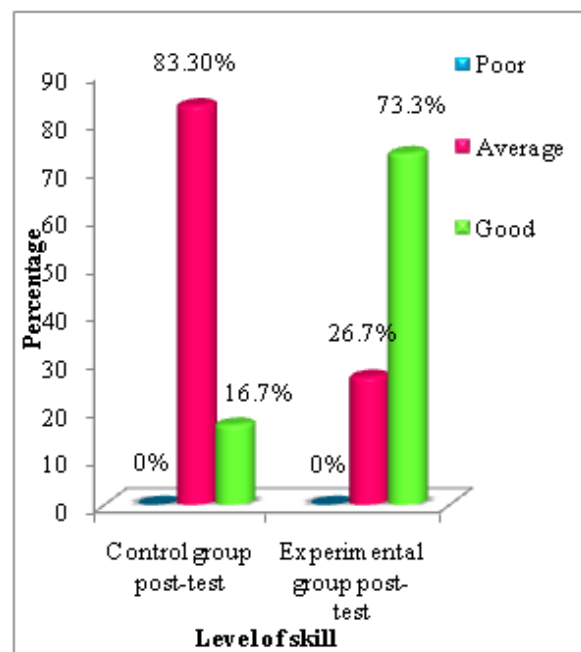
Cone diagram showing percentage distribution of pre-test and post-test knowledge level scores in control group.



Pyramidal diagram showing percentage distribution of pre-test and post-test levels of knowledge scores in the experimental group.



Cylindrical diagram showing percentage distribution of samples based on post-test level of knowledge scores in control group and experimental group.



Cylindrical diagram showing percentage distribution of samples based on post-test level of skill scores in control group and experimental group.

Section III: Effect of video assisted teaching and lecture cum demonstration on knowledge and skills of nursing students in control group and the experimental group.

Mean SD and 't' value to compare the pre-test and post-test levels of knowledge in control group.

Control group	Mean	S.D	Mean difference	df	't'
Pre test	9.4	2.85	8.56	29	14.8
Post test	18.0	1.58			

* Significance $p < 0.05$ Table value – 2.05

Mean SD and 't' value to compare the pre-test and post-test levels of knowledge in experimental group.

Experimental group	Mean	S.D	Mean difference	df	't'
Pre test	10.0	1.25	11.30	29	19.0
Post test	21.3	2.70			

* Significance $p < 0.05$ Table value – 2.05

Mean, SD and 't' value to compare the post-test levels of knowledge in control group and experimental group.

Group	Mean	S.D	Mean difference	df	't'
Control group	18.0	2.85	3.30	58	4.54
Experimental group	21.3	2.76			

Significance $p < 0.05$ Table value – 2.00

Mean, SD and 't' value to compare the post-test levels of skill in control group and experimental groups.

Group	Mean	S.D	Mean difference	df	't'
Control group	36.63	5.98	8.50	58	4.17
Experimental group	45.13	7.85			

Significance $p < 0.05$ Table value – 2.00

Mean, SD and 't' value to compare the difference in mean difference of pre-test and post-test levels of knowledge in control group and the experimental group.

Group	Mean	S.D	Difference in Mean difference	df	't'
Control group	8.56	3.10	2.74	58	3.41
Experimental group	11.30	3.19			

Significance $p < 0.05$ Table value – 2.00

Section IV: Association between pre-test knowledge score and selected socio demographic variables.

There was no association between socio age, religion, type of family, place of residence, father's educational status, mother's educational status, father's occupational status, mother's occupational status, family monthly income,

dietary pattern, sources of information with pre-test knowledge score. Hence null hypothesis H_{05} was accepted and research hypothesis H_5 was rejected.

RECOMMENDATIONS

- A similar study can be conducted with larger sample.
- A study can be replicated on ANM and, GNM and staff nurses.
- A comparative study can be conducted between GNM and BSc nursing students.

CONCLUSION

The present study revealed that video assisted teaching was more effective than lecture cum demonstration in developing knowledge and skills regarding antenatal abdominal examination among nursing students.

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