



ORIGINAL RESEARCH PAPER

Healthcare

EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON NON STRESS TEST AND ITS INTERPRETATION AMONG STAFF NURSES WORKING

KEY WORDS:

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STATEMENT OF THE PROBLEM

A Study to Assess the Effectiveness of Video Assisted Teaching on Non Stress Test and its Interpretation among Staff Nurses Working in a Selected Hospital, Kolar.

INTRODUCTION

Mother is the person who gave birth to the child and then looks after it, guide to grow and help to become the perfect person in this world. Behind every healthy child is a healthy mother. We care for the mother in pregnancy, during birth and post birth so that she can nurture,¹ bond and celebrate her instinctual love for her baby. A healthy mother and child will be an asset for a nation². Technology and science have become prominent components of obstetrical care. Technology can provide useful information about the status of pregnancy and condition of the fetus; however it is imperative to balance technologic capabilities with responsiveness to the human needs of the woman and her family³.

Nurses responsibilities for these assessment procedures include seeing that a signed consent form has been obtained as needed ,scheduling the procedure, explaining the procedure to the women and her support person, preparing the women physically and psychologically, providing support during the procedure ,assessing both fetal and maternal responses to the procedure ,providing any necessary follow up care and managing equipments.³ The nurses should have adequate knowledge regarding these electronic fetal monitoring in order to prevent fetal complications.

OBJECTIVES OF THE STUDY

1. To assess the knowledge of staff nurses on Non stress test and its interpretation by using structured knowledge questionnaire.
2. To determine the effectiveness of Video Assisted Teaching on Non stress test and its interpretation among staff nurses by comparing the pre and post test score.
3. To determine the association between knowledge of staff nurses regarding Non stress test with selected demographic variables like age, education, years of experience, present area of working and exposure to similar training programme.

HYPOTHESES

H1-There will be a significant difference in the knowledge level of staff nurses regarding Non stress test and its interpretation after receiving Video Assisted Teaching.

H2-There will be significant association between knowledge regarding Non stress test and its interpretation and selected demographic variables like age, education, years of experience, present area of work, and exposure to similar training programme.

ASSUMPTIONS

1. The staff nurses will have some knowledge regarding Non stress test and its interpretation.
2. The video assisted teaching will help to improve the staff nurses knowledge regarding Non stress test and its interpretation.

RESEARCH METHODOLOGY

Evaluative approach was used and was found suitable for

assessing the effectiveness of video assisted teaching.

RESEARCH DESIGN

The research design selected was pre-experimental one group pre-test, posttest design.

Schematic Representation of Study Design

O1 Pre-test	X Intervention	O2 Posttest
Day-1 O1	Day-1 X	Day-8 O2
Y̅ Assessment of demographic variables Y̅ Assessment of knowledge using a structured knowledge questionnaire regarding Non stress test and	Y̅ Conducting video assisted teaching on Non stress test and its interpretation.	Y̅ Assessment of post interventional knowledge using the Same questionnaire.

VARIABLES

Independent variable

Independent variable refers to Video Assisted Teaching regarding Non stress test and its interpretation.

Dependent variable

It refers to the knowledge of staff nurses regarding Non stress test and its interpretation

Extraneous variables

It refers to the selected variables like age, education, years of experience, present area of work and previous exposure to CNE on Non stress test.

SETTING OF THE STUDY

The study was conducted at maternity wards, which is a multispecialty hospital with the bed capacity of 1350.

POPULATION

Refers to all the staff nurses working in maternity wards

SAMPLE AND SAMPLE SIZE

The sample size consists of 30 staff nurses working in the maternity wards.

SAMPLING TECHNIQUE

Non probability sampling technique i.e. Purposive sampling technique was adopted to select the sample for the present study.

SAMPLING CRITERIA

Inclusion criteria

Staff nurses who are:

- Working in the maternity wards.
- Who are willing to participate.
- Who are qualified GNM or BSc nursing

Exclusion criteria

Staff nurses who are:

- Not present at the time of data collection.

SELECTION AND DEVELOPMENT OF TOOL

Based on the objective of the study, a self administered structured knowledge questionnaire was prepared, as it was considered the most best and appropriate instrument to elicit the response from literate subjects.

Development of criteria rating scale

Criteria rating scale for validation of tool was developed. It comprised of demographic data and structured self administered questionnaire on Non stress test and its interpretations, which had options like very relevant, needs modification, not relevant and remarks of experts.

Description of the tool

Based on the objectives of the study the following tool was developed to collect the data.

Structured knowledge questionnaire which includes the following sections:

Section-A: socio demographic data: It includes age, education, years of experience, present area of work and exposure to similar training programme.

Section-B: structured knowledge questionnaire on Non stress test and its interpretation.

This section consists of 25 items on selected aspects of Non stress test and its

METHOD OF DATA COLLECTION

The data was collected by using the following steps:-

Step-1: Ethical clearance was obtained from the institutional ethical committee.

Step -2: The permission was obtained from Medical Superintendent of Hospital.

Step-3: The sample was selected by using purposive sampling technique and based on inclusion criteria.

Step-4: Informed written consent was obtained from selected study participants

Step-5: Pre test was conducted for the staff nurses by using self administered structured knowledge questionnaire on Non stress test and its interpretation. The staff nurses were taken approximately 20 minutes to answer the demographic data and to fill the knowledge questionnaire.

Step-6: Video assisted teaching regarding Non stress test and its interpretation was administered for staff nurses with duration of 30 minutes.

Step-7: Post test was conducted 8thday by using the same self administered structured knowledge questionnaire on Non stress test and its interpretation.

FINDINGS OF THE STUDY**The study findings are analyzed as in the below mentioned sections**

Section -I : Distribution of demographic characteristics of staff nurses

Section -II : Knowledge on Non stress test and its interpretations among staff nurses

Section -III : Association of knowledge and selected socio-demographic variables.

SECTION-I: DISTRIBUTION OF DEMOGRAPHIC CHARACTERISTICS OF STAFF NURSES

Age : Majority of staff nurses 76.67%(23) were in the age group of 21 -30years, 20 %(6) were in the age group of 31-40 years and 3.33%(1) were in the age group of 41-50years.

Education: Regarding education, majority of staff nurses 86.67% (26) had GNM qualification and remaining13.33 %(4) had BSc Nursing qualification.

Years of experience: Majority of staff nurses 53.33%(16) had 1-3yrs of experience, 20% (6) had 4-6yrs of experience, and 26.67%(8) of them had more than 9yrs of experience.

Area of working: Regarding the area of work, majority of staff nurses 40%(12) were working in postnatal wards, 30%(9) were working in labour room, 16.67%(5) were working in antenatal wards and remaining 13.33%(4) were working in the OBG OT.

Previous exposure to CNE on Non stress test: It is observed that majority of staff nurses 83.33% (25) had no previous exposure to continuing nursing education on Non stress test and remaining 16.67 %(5) of them had previous exposure to continuing nursing education regarding Non stress test.

SECTION- II: ASSESSMENT OF KNOWLEDGE ON NON STRESS TEST AND ITS INTERPRETATIONS AMONG STAFF NURSES

The study findings revealed that majority 86.67 %(26) of the staff nurses had inadequate knowledge regarding Non stress test and its interpretations, 13.33 % (4)had moderate knowledge and none of them had adequate knowledge in the pretest.

There was enhancement of knowledge scores in the posttest ie.40% (12) of the staff nurses had adequate knowledge, 60%(18) had moderate knowledge and none of them had inadequate knowledge. It indicated that there was enhancement of overall knowledge scores of staff nurses regarding Nonstress test and its interpretation

Distribution of area wise knowledge scores of staff nurses regarding Non stress test and its interpretation

Area wise knowledge scores showed that during pre test, 6.67% (2) of staff nurses had adequate knowledge, 33.33% (10) had moderate knowledge and 60% (18) had inadequate knowledge, where as in post test 36.67% (11) had adequate knowledge, 56.67% (17) had moderate knowledge and 6.66% (2) had inadequate knowledge regarding general information's of NST. Regarding indications, in the pre test 3.33% (1) had adequate knowledge, 13.33% (4) had moderate knowledge and 83.34% (25) had inadequate knowledge, where as in post test, 30% (9) had adequate knowledge, 50% (15) had moderate knowledge and only 20% (6) had inadequate knowledge. With regards to the procedure of NST, in pre test only 3.33% (1) had adequate knowledge, 43.33% (13) had moderate knowledge and 53.34% (16) had inadequate knowledge, whereas in post test 76.67% (23) had adequate knowledge, 23.33% (7) had moderate knowledge and none of them had inadequate knowledge. Regarding interpretations of NST, in pre test none of them had adequate knowledge, 13.33% (4) had moderate knowledge and 86.67% (26) had inadequate knowledge, where as in post test, 30% (9) had adequate knowledge, 43.33% (13) had moderate knowledge and 26.67% (8) had inadequate knowledge. There was enhancement of knowledge scores in all areas of Non stress test and its interpretation.

Distribution of overall mean and SD knowledge scores of staff nurses regarding Non stress test and its interpretation

The findings showed that subjects had overall pre-test mean of 9.87 with SD of 2.345 And mean percentage was 39.48% which indicate inadequate knowledge. The overall post test score revealed the subjects had a mean of 17.50with standard deviation of 2.474 and mean percentage 70%. The mean difference in knowledge was 7.63. It indicated that there was enhancement of overall knowledge scores regarding Nonstress test and its

interpretation

Distribution of area wise mean and SD knowledge scores of staff nurses regarding Non stress test and its interpretation

In the area of general information, the pre test knowledge score was 3.23 with a SD of 1.357 and post test knowledge score was 5.00 with a SD of 1.145. Regarding indications, the pretest knowledge score was 1.67 with a SD of 1.028 and post test knowledge score was 3.13 with a SD of 0.9. In the area of procedure of NST the pre test score was 3.53 with a SD of 1.196 and post test score was 6.33 with a SD of 0.994. Regarding interpretation of NST, the pre test score was 1.43 with a SD of 0.898 and post test score was 3.03 with a SD of 0.890. Hence there was enhancement of knowledge scores of staff nurses in all areas of NST and its interpretation.

Comparison of pre test and post test knowledge scores of staff nurses regarding Non stress test and its interpretations

Mean knowledge scores of 9.87 with SD 2.345 in the pretest, whereas in posttest the mean score was 17.50 with SD of 2.474 and the calculated t value was 19.099 indicating highly significant. Hence there was difference between pre-test and posttest knowledge scores, the research hypothesis H1 is accepted.

SECTION-3: ASSOCIATION BETWEEN PRE TEST KNOWLEDGE OF STAFF NURSES REGARDING NON STRESS TEST AND ITS INTERPRETATION WITH SELECTED SOCIO-DEMOGRAPHIC VARIABLES.

Age: The obtained χ^2 value 0.008 which is less than the table value 3.841 at 0.05 level of significance. So there was no significant association between the age and pre-test knowledge score, hence the research hypothesis is rejected.

Education: The obtained χ^2 value 0.036 which is less than the table value 3.841 at 0.05 level of significance. So there was no significant association between the education and pre-test knowledge score, hence the research hypothesis is rejected.

Years of experience: The obtained χ^2 value 1.093 which is less than the table value 3.841 at 0.05 level of significance. So there was no significant association between the years of experience and pre-test knowledge score, hence the research hypothesis is rejected.

Area of working: The obtained χ^2 value 2.54 which is less than the table value 7.814 at 0.05 level of significance. So there was no significant association between the area of working and pre-test knowledge score, hence the research hypothesis is rejected.

Previous exposure to CNE on Non stress test: The obtained χ^2 value 0.05 which is less than the table value 3.841 at 0.05 level of significance. So there was no significant association between the previous exposure to CNE on Non stress test and pre-test knowledge score, hence the research hypothesis is rejected.

Discussion

1. Effectiveness of video assisted teaching regarding Non stress test and its interpretation

The findings of the study revealed that the pretest mean percentage of knowledge scores obtained by staff nurses working in maternity wards regarding Non stress test and its interpretation was 39.48% which is found to be inadequate knowledge, where as post test knowledge score were 70% which is higher than pretest scores which indicated adequate knowledge. Thus the findings of the study revealed that there was statistically significant difference between the pre test and post test knowledge scores at 0.05 level. Hence the research hypothesis is accepted. The study findings indicated that the Video Assisted Teaching on Non stress test and its interpretation was effective. The present study findings are supported by an experimental study conducted to evaluate the effectiveness of computer assisted teaching programme for intrapartum fetal monitoring using cardiotography among 117 midwifery and obstetric staff. The results showed that the mean knowledge score was improved from 50.8 % (pre teaching) to

70.2 % (post teaching). The study showed that the teaching programme was effective in improving the knowledge level of staff nurse regarding cardiotocography.⁴

CONCLUSION

The findings of the study revealed that the difference between the pre test and post test knowledge scores was statistically significant at 0.05 level. There was no statistically significant association between the post test knowledge scores of staff nurses with selected demographic variables such as age, education, years of experience, present area of working and previous exposure to CNE on Non stress test and its interpretation. Hence the Video Assisted Teaching on Non stress test and its interpretation was effective.

BIBLIOGRAPHY

1. Birthing the future. <http://www.suzannearms.com/OurStore/bookmarks>.
2. Healthy mother. <http://healthy-mother.com>.
3. Littleton LY, Engebretson. Maternity Nursing Care. Canada. Thomson Publication. 2009; 426.
4. Beckley S, Stenhouse E, Green K. Computer assisted teaching programme for intrapartum fetal monitoring using cardiotocography. British journal of obstetrics and gynaecology. 2005 aug;107(9);1138-44.