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RESEARCH ARTICLE

A QUASI EXPERIMENTAL STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE ABOUT INJECTABLE CONTRACEPTIVE UNDER ANTARA PROGRAMME AMONG FERTILE AGE GROUP WOMEN IN RURAL AREA, KANKER (C.G)

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ABSTRACT

A Quasi experimental study to evaluate the effectiveness of video assisted teaching programme on knowledge about injectable contraceptive under Antara [DMPA] Programme among fertile age group women in rural areas of Narharpur. Pre –test and post-test control group research design was used. 60 subjects were selected by using non –probability purposive sampling technique. Data collection was done through structured knowledge questionnaire. The study revealed that in the pre-test 56.67% fertile age group women had average knowledge and 43.33% had poor knowledge in the experimental group. In control group 26.67% fertile age group women had average knowledge and 73.33%had poor knowledge. After video assisted teaching programme in the experimental group 70%had good knowledge and 30% had average knowledge regarding injectable contraceptive and none of them had poor knowledge this indicate that the majority fertile age group women of had good knowledge of injectable contraceptive in post – test and in the control group 56.67% have average knowledge and 43.33% have poor knowledge. There was a significant association between age and lifestyle pattern of fertile age group women with their pre-test knowledge in the experimental group. **Problem statement:** "A quasi experimental study to evaluate the effectiveness of video assisted teaching programme on knowledge about injectable contraceptive under Antara programme among fertile age group women in rural area, Kanker (C.G)".

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INTRODUCTION

India was the first country in the world to launch a Family Planning Programme, as early as 1952, with the main aim of controlling its population. India's population has already reached 1.26 billion and considering the high decadal growth rate of 17.64, the country's population is slated to surpass that of China by 2028 (UNDP). The challenge now has extended beyond population stabilization to addressing sustainable development goals for maternal and child health. The ANTARA-DMPA program is a part of India's initiative to promote the use of Depot Medroxyprogesterone Acetate (DMPA), a trimonthly injectable contraceptive. This program was designed to increase access to and awareness of injectable contraceptives, particularly among women in rural areas. Introduction and widespread provision of new contraceptives can substantially contribute to achieving this goal. Considerable scientific evidence is now available to address key concerns and accommodate injectable contraceptive DMPA in the National Family Planning Program. The growing availability and use of DMPA in the NGO/private sectors, combined with the strengthening of the health system under the National Health Mission (NHM) has resulted in the overall improvement of infrastructure including women when offered with quality counselling and follow-up care. Women who are counselled about side effects are less likely to discontinue their use, more likely to become satisfied users and eventually become its' best promoters as a reversible contraceptive. The decision to add DMPA in the National Family Planning Program thus has opened the way for clients to avail of a safe, effective and hassle free method with full confidentiality.

Problem statement: "A quasi experimental study to evaluate the effectiveness of video assisted teaching programme on knowledge about injectable contraceptive under Antara programme among fertile age group women in rural area, Kanker (C.G)".

OBJECTIVES

- To assess the pre-test and post-test knowledge score of experimental and control group regarding injectable contraceptive under ANTARA programme among women of fertile age group
- To evaluate the effectiveness of video assisted teaching programme regarding injectable contraceptive under ANTARA programme among women of fertile age.
- To compare the post-test knowledge score of experimental group and control regarding injectable contraceptive under ANTARA programme among women of fertile age group
- To find out the association between pre-test knowledge level with selected demographical variable regarding injectable contraceptive under programme among fertile age group women

HYPOTHESIS

H_1- There will be a significant difference between pre-test and post-test knowledge about injectable contraceptive under ANTARA programme among women of fertile age group in experimental group and control group.

H_2- There is a significant difference between post knowledge score of experimental group and control regarding injectable contraceptive under ANTARA programme among women of fertile age group.

H_3- There is an association between the level of pretest knowledge score of experimental group regarding injectable contraceptive under ANTARA programme among women of fertile age group with their selected demographic variable.

Theoretical framework adopted for the present study is developed from J W KENNY open system model

METHODOLOGY

Quantitative approach with Quasi experimental pre-test and post-test control group design was used. For assessment of knowledge regarding injectable contraceptive under Antara programme self-structured questionnaire was used in the present study. In this study the independent variable was video assisted teaching programme on knowledge about injectable contraceptive under Antara programme among fertile age group women and dependent variable is the level of knowledge regarding injectable contraceptive under Antara programme among fertile age group women. By using purposive sampling technique, 60 fertile age group women were selected from Rural area of Narharpur, Chhattisgarh.

Research Tool: The tool consists of two sections.

Section I - It comprised of demographic variables such as age, education, religion, type of family and previous knowledge regarding injectable contraceptive.

Section II- consists of self-structured questionnaire, 30 questions used to assess the knowledge regarding injectable contraceptive under Antara programme. Each item has one correct response and score as 1for correct response, each wrong answer carries **0** mark. The Total score was 30.
Scoring interpretation for knowledge

Poor Knowledge – 1-33%
Average knowledge – 34 – 66%
Good Knowledge – 67-100%

Validity of the tool was given to 10 experts in the field of Obstetric and gynaecological Nursing, statistician, experts in the medicine. According to their suggestions some of the question were modified, and some of the questions has been deleted. The reliability coefficient calculated by using Karl Pearson's formula to determine reliability for self-structured knowledge questionnaire. The obtained 'r' value was 0.80.

METHOD OF DATA COLLECTION

A formal written permission was obtained from concerned authorities before data collection. The written consent was obtained from the subjects.

I Phase: Pre-test was conducted. The investigator gathered information on demographic data and level of knowledge was assessed by using structured questionnaires regarding injectable contraceptive under Antara Programme among fertile age group women in the experimental group and control group.

II Phase: For the experimental group, Video assisted teaching was given to fertile age group women regarding injectable contraceptive under Antara Programme for 45 minutes. There was no intervention for control group.

III Phase: After 7 days, the post-test was conducted with the same structured questionnaires to assess the knowledge regarding injectable contraceptive under Antara Programme among fertile age group women in the experimental group and control group.

RESULTS

Majority of the subjects, 9 (30%) belong to the age group of 26 to 30 years, 8 (26.6%) belong 31 to 35 years, 7 (23.33%) were 36 to 40 years and 6 (20%) were 21 to 25 years of age in the experimental group. In Control Group,16 (53.33%) were 21 to 25 years, 6(20%) were 26 to 30 years, 4 (13%)were 31 to 35 years and 36 to 40 years. Regarding the educational status, 23(76.6%) were graduate, 3 (10%) had higher secondary education and post graduate in the experimental group. In the control group, 11 (36.66%) were graduate, 10 (33.33%) had primary education, 6 (20%) had higher secondary education and 1 (3.33%) was postgraduate. Majority of the subjects in the experimental group,14 (46.67%) were in government job, 6 (20%) of subjects were in private job and doing business and 4 (13.3%) subjects were house wife. In control group, 16 (53.33%) subjects were housewife, 5(16.67%) subjects were in government job and 4(13.33%) subjects were in private job. 16.66% (05) of subject were in business. In the experimental group, 14 (46 .66%) having single child, 12 (40%) of them having 2 children, 2 (6.66%) having 3 children. Whereas in the control group 14 (46.66%) having single child, 11 (36.66%) of the subject were having 2 children, 2 (6.66%) of the subject were having 3 children, 3 (10%) of the subject were having >3 children. Regarding the previous knowledge about the contraceptive method,17 (56.66%) of the subject were having no previous knowledge and 13 (43.33%) of subject having

knowledge in the experimental group. In control group,15 (50%) of the subject were having previous knowledge and 15 (50%) of the subject were not having previous knowledge. Regarding the medical history, 23 (76.66%) of the subject were having no medical history 6 (20%) of the subject were having hypertension, 3.3%(01) of the subject were having diabetes. In control group, 25 (83.33%) of the subject were having no medical history, 3 (10%)of the subject were having diabetes, 2 (6.6%) of the subject were having hypertension.

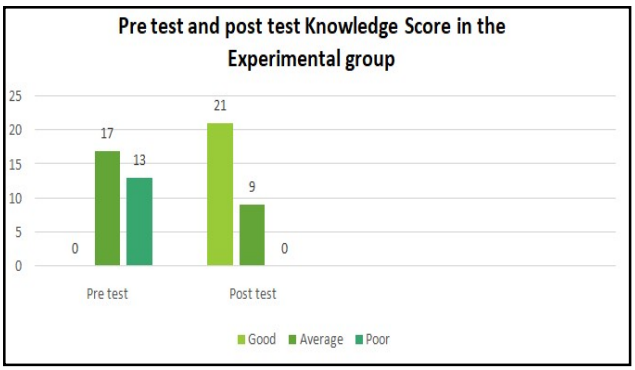

Fig. 1. Frequency distribution of pre-test knowledge score regarding injectable contraceptive among fertile age group women in the experimental group

Fig. 1- Depicts that in the experimental group, among 30 subject, 17 (56.67%) had average knowledge, 13 (43.33%) had poor knowledge in the pre-test. Whereas in the post-test 21 (70%) had good knowledge and 9 (30%) had average knowledge.

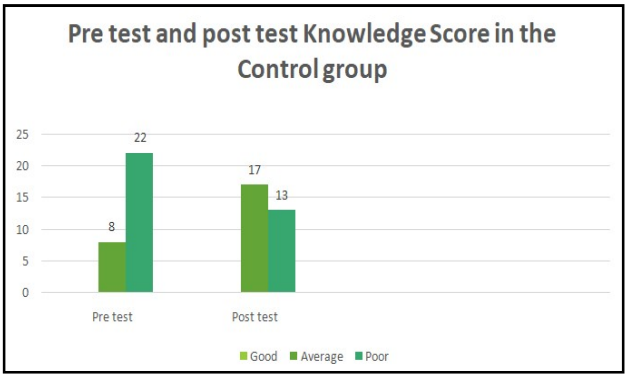

Fig. 2. Frequency distribution of pre-test knowledge score regarding injectable contraceptive among fertile age group women in the Control group

Fig:2- showed that in the control group, among 8 (26.67%) had average knowledge and 22 (73.33%) have poor knowledge in the pretest and in posttest 17 (56.67%) had average knowledge, 13 (43.33%) had poor knowledge and none of them had good knowledge in the pretest and posttest.

Table No 1. Effectiveness of video assisted teaching programme regarding injectable contraceptive among women of fertile age group women in the experimental group

Experimental group	Mean	SD	"t" value	Level of significance
Pre test	11.07	2.57	18.5	P<0.001
Post test	22.40	2.47		

Table No 1 - depict that the pre-test knowledge mean score was 11.07 ± 2.57 and the post -test knowledge mean scorewas 22.40 ± 2.47. The obtained "t" value was 18.5 which very highly significant at <0.001level of significance. The study found that there was a significant increase in the knowledge score between post-test and pre-test in the experimental group.

Table 2. Comparison between the Experimental and control group knowledge score

Post Test	Knowledge		"t" value	Level of significance
	Mean	SD		
Experimental group	22.40	2.47	22.70	at P >0.05 Level
Control group	10.57	1.43		

Table No: 2 Showed that the mean post-test knowledge score was 22.40 ± 2.47 in the experimental group whereas in the control group the mean post-test knowledge score was 10.57 ± 1.43. The obtained "t" value was 22.70 which statistically highly significant at P<0.05 level of significance.

Hence, it was concluded that there was significant difference in the post test mean score of knowledge between experimental group and control group. So the research hypothesis, H_1 was accepted. There was a significant association between age in years, life style and knowledge. The obtained chi square value x^2 were 9.49 (P<0.01), 5.99 at P<0.05 level of significance. There was no significant association between type of family, educational status, occupation, family income, religion, previous knowledge, previous medical history and knowledge regarding injectable contraceptive among women of fertile age group women.

DISCUSSION

Majority of the subjects were belonging to the age group of 9 (30%) were 26 to 30 years, 8 (26.6%) 31 to 35 years, 7 (23.33%) were 36 to 40 years and 6 (20%) were 21 to 25 years of age in the experimental group. In control group, 16 (53.33%) were 21 to 25 years, 6 (20%) were 26 to 30 years, 4 (13%) were 31 to 35 years and 36 to 40 years. In the experimental group, 14 (46 .66%) were having single child, 12 (40%) of them having 2 children, 2 (6.66%) having 3 children. Whereas in the control group, 14 (46.66%) were having single child, 11 (36.66%) of the subject were having 2 children, 2 (6.66%) of the subject were having 3 children, 3 (10%) of the subject were having >3 children.

Regarding the previous knowledge about the contraceptive method, 17 (56.66%) of the subject had no previous knowledge and 13 (43.33%) of subject had previous knowledge in the experimental group. In control group, 15 (50%) of the subject were had previous knowledge and 15 (50%) of the subject were not having previous knowledge. Regarding the medical history, 23 (76.66%) of the subject were having no medical history 6 (20%) of the subject were having hypertension, 3.3%(01) of the subject were having diabetes. In control group, 25 (83.33%) of the subject were having no medical history, 3 (10%) of the subject were having diabetes, 2 (6.6%) of the subject were having hypertension.

The first objective was to assess the pre-test and post-test knowledge score of experimental and control group regarding injectable contraceptive under ANTARA programme among women of fertile age group: In the experimental group,17 (56.67%) had average knowledge and 13 (43.33%) had poor knowledge in the pre-test. 21 (70%) had

good knowledge and 9 (30%) had average knowledge regarding injectable contraceptive. Whereas in control group,8 (26.67%) had average knowledge and 73.33%(22) had poor knowledge in the pre-test. 17(56.67%) had average knowledge and 13 (43.33%) had poor knowledge in the post test.

The second objective was to evaluate the effectiveness of video assisted teaching programme regarding injectable contraceptive under ANTARA programme among women of fertile age: The pre-test knowledge mean score was 11.07 ± 2.57 and the post-test knowledge mean score was 22.40 ± 2.47. The obtained "t" value was 18.5 which very highly significant at <0.001 level of significance. The study found that there was a significant increase in the knowledge score between post-test and pre-test in the experimental group. So researcher accepted the H1 hypothesis.

Above finding was supported by the following literature: Divyanshi Bose., Minu, S.R. (2022) assessed the effectiveness of a video-assisted teaching program on the knowledge regarding injectable contraceptive Antara among women of reproductive age**.**

The study revealed that the ssignificant improvement was observed in mean knowledge score in experimental group ($p<0.001$) but not in control group ($p=0.308$). So, video assisted teaching is effective the importance of injectable contraceptive method.

The third objective was to assess the post-test knowledge score of experimental and control group regarding injectable contraceptive under ANTARA programme among women of fertile age group: In experimental group, among fertile age group women were having mean score is 22.40, standard deviation is 2.5. In control group post-test mean score is 10.57, Standard deviation is 1.43. The T value of 22.7 0 which statistically highly significant at P >0.05 Level. Difference pre-test knowledge score of experimental group and control group was analysed using independent 't' test.

The fourth objective was to find out the association between pre-test knowledge level with selected demographic variable regarding injectable contraceptive under Antara [DMPA] Programme among fertile age group women: The association between pre-test knowledge level of women of fertile age group with their social demographic characteristics, such as age, education, occupation, type of family, number of children, family size, lifestyle pattern, previous knowledge, medical history. The calculated value of Chi Square was significant for age of women was14.17 and life style pattern was 7.85.

NURSING IMPLICATION: The findings of present study have implication for nursing education, nursing practice, nursing administration and nursing research.

NURSING EDUCATION

- Nursing education programs can incorporate video-assisted teaching methods in their curriculum, highlighting how technology can be used to improve patient education and knowledge retention.
- Nursing students will have an increased focus on understanding contraceptive methods, particularly injectable ones like DMPA, and how to educate patients effectively
- Training future nurses on Simulation-Based Learning on contraceptive methods and how to use itand allowing them to practice delivering health messages in rural or low-resource settings.

NURSING PRACTICE

- Nurses in community health settings will be better equipped to provide accurate and comprehensive counseling on injectable contraceptives (DMPA), especially in rural areas where access to reliable information may be limited
- Providing information through videos may improve women's understanding of the Antara program, leading to informed decision-making and greater satisfaction with contraceptive services.
- Nurses will be more aware of the unique cultural and social factors that affect contraceptive use in rural settings, allowing them to offer more personalized and respectful care.

NURSING RESEARCH

- Research can be conducted to evaluate the long-term impact of video-based education on contraceptive use and reproductive health outcomes in rural communities.
- Nursing researchers may explore the use of similar educational interventions for other public health issues in rural or underserved populations.

RECOMMENDATION

On the basis of findings of the study the following recommendations are offered for further research**.**

- This study can be replicated on a large sample to generalize the findings.
- A similar study can be carried out by using other teaching strategies. e.g. instructional module, Computer based learning and structure teaching program.
- Similar study can be conducted in different setting and different target population in urban area.
- The similar study can be done to evaluate the knowledge, attitude and practice regarding injectable contraceptive under ANTARA scheme.
- A descriptive study can be conducted to assess the knowledge about injectable contraceptive under ANTARA scheme among women of reproductive age group.

CONCLUSION

DMPA is the fourth most prevalent contraceptive and is widely used as an effective, safe and which contributes significantly to their contraceptive method mix. The growing availability and use of DMPA in the NGO/private sectors, combined with the strengthening of the health system under the National Health Mission (NHM) has resulted in the overall improvement of infrastructure including women when offered with quality counselling and follow-up care. The study revealed that the

video assisted teaching programme was more effective in improving the knowledge level of fertile age group women.

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