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"A STUDY TO EVALUATE THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING INJECTION MEDROXY PROGESTERONE ACETATE (ANTRA) AS CONTRACEPTIVE METHOD AMONG ELIGIBLE WOMEN IN SELECTED URBAN AREA OF AHMEDABAD CITY."

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ABSTRACT

Background

India was the first country to launch a Family Planning Programme in 1952, shifting its focus from population control to improving maternal and child health. The National Population Policy, revised in 2000 and now part of the RMNCH+A strategy, aims to raise awareness about family planning. Despite progress, India's couple protection rate (40% in 2011) is still below the 60% target, contributing to 17% of global maternal deaths. Expanding contraceptive choices is crucial, as better spacing between pregnancies can reduce maternal and child mortality. Injectable contraceptive DMPA (Antra), with a 99.7% effectiveness rate, has been included in India's public health system to provide a safe, confidential, and free family planning option. While DMPA does not increase cancer or infertility risks, it may delay pregnancy after discontinuation. Proper counseling improves user satisfaction and retention. Strengthening health infrastructure and awareness can boost modern contraceptive use, helping India meet its family planning and sustainable development goals. This study aims to assess the factors influencing DMPA uptake and the barriers to its consistent use in rural areas.

Objectives of the study To assess the effectiveness of planned teaching programme on knowledge regarding

injection DMPA (Antra) as contraceptive method among eligible women in selected urban areas of Ahmedabad city.

Method: Quantitative research approach was used with Pre experimental (one group pre-test post-test) research design. The investigator used Non-probability convenience sampling technique for selecting 30 samples.

Results

Injection Medroxyprogesterone Acetate (Antra) as a Contraceptive Method Among Eligible Women in Selected Urban Areas. The demographic analysis of the study, which involved 30 participants, revealed that the majority (83.3%) belonged to the age group of 25-31 years, followed by 10% in the 18-24 years category and 6.7% in the 32-37 years category. Among them, 96.7% were Hindus, while 3.3% were Christians. Regarding family structure, 53.3% of the participants belonged to nuclear families, while 46.7% were from joint families.

Occupationally, the majority (86.7%) were housewives, followed by 10% private employees and 3.3% laborers. The participants' family income varied, with 66.7% earning between Rs. 10,001 to 15,000, 20% earning Rs. 5,000 to 10,000, and 13.3% earning Rs. 15,001 to 20,000. Information about contraceptive methods was primarily obtained through friends (63.3%), followed by relatives (16.7%), mass media (13.3%), and other sources (6.7%).In terms of childbirth history, 66.7% of participants had one child, 20% had two children, and 13.3% had no children. Knowledge evaluation on DMPA (Antra) as a Contraceptive Method. The study assessed participants' knowledge before and after an educational intervention on Depot Medroxy progesterone Acetate (DMPA).Knowledge Scores.

The mean difference was 10.53,The mean pre-test knowledge score was 8.40, increasing to 18.93 in the post-test.

- Indicating a 35.11% gain.

•The standard deviation for pre-test knowledge was 3.64, while for post - test, it was 2.75

•The t-value was 17.16, which was statistically significant ($p < 0.05$).

Before the intervention, 70% of participants had poor knowledge, while 30% had an average understanding. After the intervention, 73.3% of participants achieved an average level of knowledge, and 26.7% reached a good level.

Knowledge Scores

•The mean pre-test knowledge score was 44.82, increasing to 59.98 in the post-test.
•The mean difference was 15.16
•The standard deviation for pre-test knowledge was 6.64, while for post-test, it was 4.07.
•The t-value was 15.75, which was also statistically significant ($p < 0.05$).

These findings indicate that educational intervention significantly improved knowledge and practice regarding DMPA. Detailed Breakdown of Knowledge Gains in Different Aspects of DMPA These findings highlight significant improvements in participants' understanding of various aspects of DMPA, particularly in post-injection instructions (47.5% gain) and knowledge about the duration of DMPA (42% gain). Association Between Demographic Factors and Knowledge

The study found that:

•Age and educational qualification had a significant association with pre-test knowledge scores ($p < 0.05$).
•Educational qualification was also significantly associated with pre-test scores ($p < 0.05$).
•There was no significant association between knowledge levels and religion, type of family, occupation, income level, source of information, or number of children ($p > 0.05$).

Conclusion

The study demonstrates that a Planned Teaching Programme on Injection Medroxy progesterone Acetate (Antra) as a contraceptive method was effective in improving the knowledge and practice of eligible women regarding this method of contraception.

Introduction

The use of contraceptive methods plays a crucial role in reproductive health, helping individuals and couples to plan and space their pregnancies, thereby contributing to the overall well-being of the population. Among

various contraceptive methods, Injectable Medroxy progesterone Acetate (Antra) is a commonly used hormonal contraceptive, offering a long-term solution with a relatively simple administration. However, the effectiveness of this contraceptive method is heavily dependent on the knowledge and understanding of the women using it. A lack of awareness or misinformation may lead to improper use, resulting in unintended pregnancies. This study aims to evaluate the effectiveness of a planned teaching program on the knowledge of eligible women regarding the use of Medroxy progesterone Acetate (Antra) as a contraceptive method. The study will be conducted in a selected urban area of Ahmedabad City, with a focus on improving the awareness of eligible women about the benefits, risks, and proper use of this contraceptive method .By assessing the impact of the teaching program, the study intends to bridge gaps in knowledge, promote informed decision-making, and encourage proper utilization of injectable contraceptives among women in the selected urban community. The findings will provide valuable insights
into how targeted educational interventions can enhance reproductive health literacy and contraceptive use, thus potentially reducing the incidence of unintended pregnancies in the region.

Objectives of the study were

- To assess the pre-test level of knowledge regarding injection medroxy progesterone acetate (Antra) as contraceptive method among eligible women in selected urban areas of Ahmedabad city .
- To assess the post-test level of knowledge regarding injection medroxy progesterone acetate (Antra) as contraceptive method among eligible women in selected urban areas of Ahmedabad city .
- To assess the effectiveness of planned teaching programme on knowledge regarding injection DMPA (Antra) as contraceptive method among eligble women in selected urban areas of Ahmedabad city.
- To find out association between pre-test level of knowledge regarding injection in elderly progesterone acetate (Aantra) with selected demographic variables among eligible women's in selected urban areas of Ahmedabad city.

Method

A Quantitative research Approach Was used in the study to assess the effectiveness of Planned Teaching Programme on knowledge regarding injection (Antra) as contraceptive method among eligible women in selected urban area of Ahmedabad city. It is an important step in research process. Investigator had chosen the experimental approach. Specifically, the Quantitative research approach method has been used for the research work. Pre experimental approach was used with one group pre-test and post test design. The study was conducted in the selected urban area of Ahmedabad City, Gujarat state. The investigator used Non-probability convenient sampling technique for selecting 30 samples. In view of the nature of the problem and the accomplishment of the objectives of the study, a Plan Teaching Programme on knowledge regarding injection (Antra) as contraceptive method among eligible women was prepared for the sample. A structured Knowledge questionnaire (30) to assess the Knowledge of the samples. Factors associated with these outcomes were identified by using descriptive, inferential statistics, standard deviation.
The self administered questionnaire on knowledge regarding injection (Antra) as contraceptive method among eligible women consisted of 2 sections.
Section 1: Demographic data: It includes information regarding Age in year, Occupation, Type of Family, Religion, Family Income per month, Source of Information, No Of children.

Section 2: Question on phases of Antra(DMPA). It consisted 30 multiple choice questions. The investigator will plan to analyze the data in the following manner.
The collected data was organized, tabulated and analyzed by using descriptive and inferential statistics.

Section1: Demographic Variables will be analyze by using frequency and percentage and will be presented in the form of table.
Section2: The data from the structured knowledge Questionnaire before and after administration of Plan Teaching Programme will be analyze by mean, median and mean percentage.

TABLE 1 : DEMOGRAPHIC VARIABLES

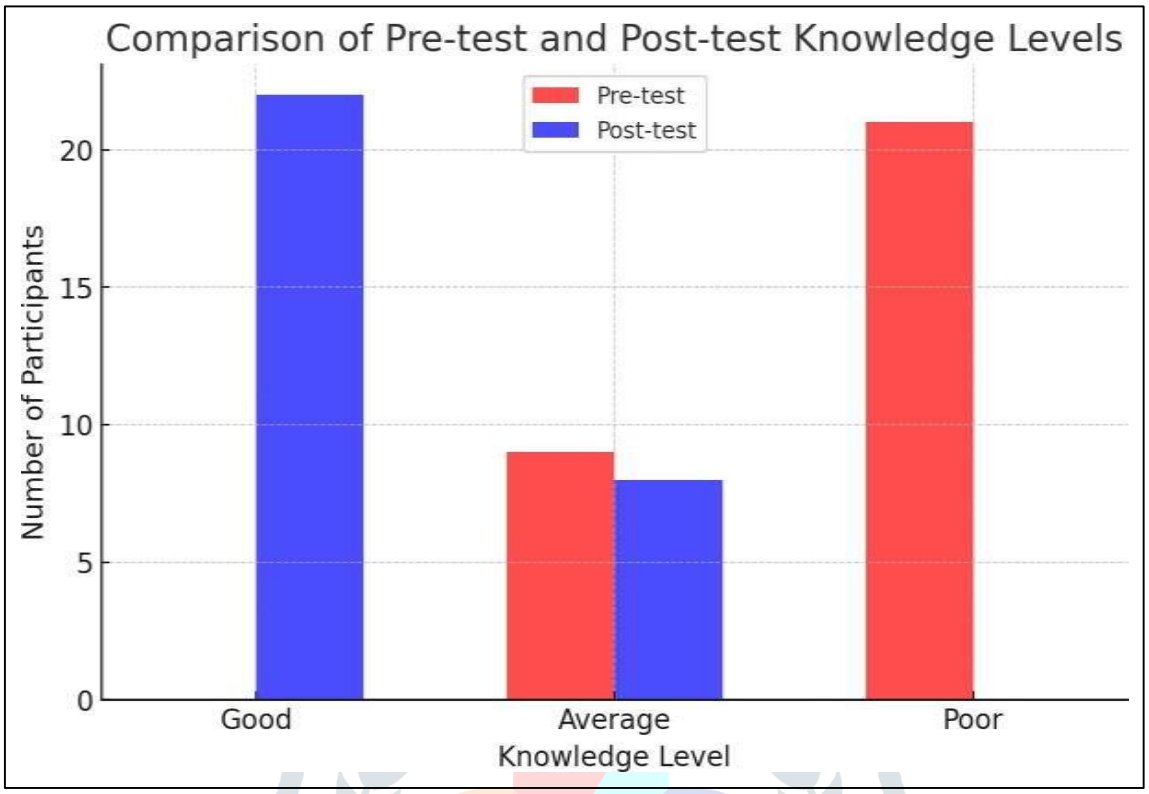
Sr No	Demographic Variables	Frequency	Percentage (%)
	Age in years		
	(a) 18 to 24	3	10
	(b) 31 to 40	25	83.33

1	(c) 41 to 50	2	6.66
	(d) 51 to 60	0	0
2	**Religion**		
	(a) Hindu	29	96.66
	(b) Muslim	0	0
	(c) Christian	1	3.33
	(d) Other	0	0
3	**Type of family**		
	(a) Nuclear	16	53.33
	(b) Joint	14	46.66
	(c)Separate/Divorce	0	0
	(d) Other	0	0
4	**Occupation**		
	(a) Housewife	26	86.66
	(b) Labourer	1	3.33
	(c) Private Employee	3	10
	(d) Gov. Employee	0	0
5	**Family income per month (in rupees)**		
	(a)₹5000 to₹10,000	6	20
	(b)₹10,001 to ₹15,000	20	66.66
	(c)₹15,001 to ₹20,000	4	13.33
	(d) ₹20,000 and above	0	0
6	**Sources of information**		
	(a)mass media	4	13.33
	(b)friend	18	60
	(c)relatives	6	20
	(d)others	2	6.66
7	**Number of children**		
	(a)0	4	13.33
	(b)1	20	66.66
	(c)2	6	20
	(d)more than 3	0	0

TABLE 2: FREQUENCY DISTRIBUTION LEVEL OF KNOWLEDGE AMONG ELIGIBLE WOMEN IN PRE AND POST TEST

LEVEL OF KNOWLEDGE	PRE TEST		POST TEST	
	F	%	F	%
GOOD	**0**	**0**	**8**	**26.7**
AVERAGE	**9**	**30.0**	**22**	**73.3**
POOR	**21**	**70.0**	**0**	**0**

Fig. 1: Pyramid diagram showing the level of knowledge Of the Eligible women

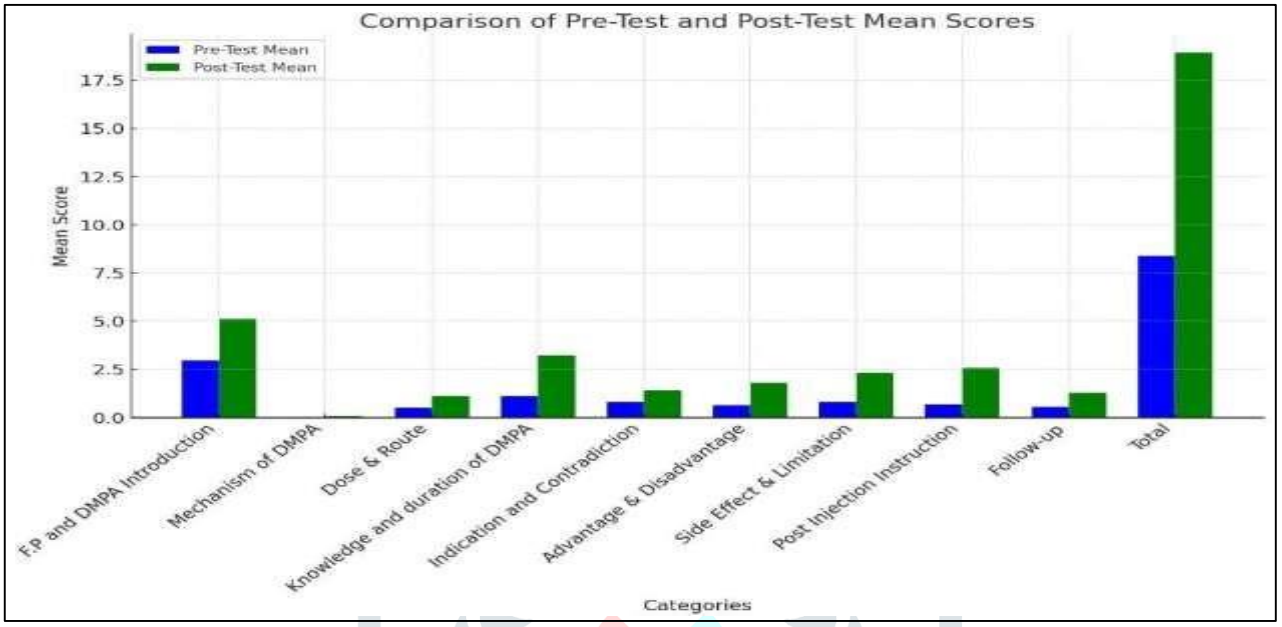


The findings of the Pre-test and Post-test knowledge is to know the effectiveness of structured teaching programme on knowledge regarding injection (Antra) as contraceptive method among eligible women. It is inferred that, in the pre-test,**70.00%** have demonstrated poor knowledge and **30.00%** Eligible women have average knowledge regarding injection Antra (DMPA). In the post test, **26.7%** have Good knowledge, **73.3%** were Average regarding their knowledge regarding injection Antra (DMPA).

TABLE 3: Area wise Mean, Mean Percentage and Percentage Gain of Pre-test and Post-test knowledge score using Structured Knowledge Questionnaire regarding DMPA

SR NO	Area of content	Maxscor e	Pre test			Post test			Mean difference	Gain(%)
			Mean score	SD	Mean(%)	Mean score	SD	Mean%		
1	Family planning and DMPA introduction	7	2.97	1.27	42.38	5.10	0.88	72.86	2.13	30.48
2	Mechanism of DMPA	1	0.03	0.18	3.33	0.10	0.31	10.00	0.07	6.67
3	Dose & route	2	0.53	0.51	26.67	1.13	0.43	56.67	0.60	30.00
4	Knowledge & duration of DMPA	5	1.10	0.92	22.00	3.20	0.71	64.00	2.10	42.00
5	Indication & contraindication	2	0.83	0.75	41.67	1.40	0.56	70.00	0.57	28.33
6	Advantage & disadvantage	3	0.63	0.61	21.11	1.80	0.66	60.00	1.17	38.89
7	Side effect & limitation	4	0.63	0.75	20.83	2.33	0.80	58.33	1.50	37.50
8	Post injection instruction	4	0.67	0.66	16.67	2.57	0.90	64.17	1.90	47.50
9	Follow up	2	0.57	0.68	28.33	1.27	0.74	63.33	0.70	35.00
TOTAL		**30**	**8.40**	**3.64**	**28**	**18.93**	**2.75**	**63.11**	**10.53**	**35.11**

Figure – 2 Bar graph showing area wise comparison of mean pre – test and Mean post-test knowledge score of eligible women

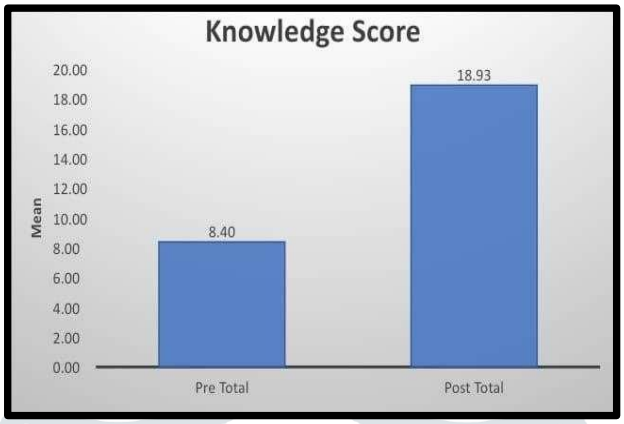


The mean and mean percentage of pre-test knowledge score of samples as per area Family planning and DMPA introduction **2.97(42.38%)** and standard deviation **1.27**, Mechanism of DMPA **0.03(3.33%)** and standard deviation **0.18,** Dose & route **0.53(26.67%)** and standard deviation **0.51,** Knowledge & duration of DMPA **1.10(22.00%)** and standard deviation **0.92,** Indication & contraindication **0.83(41.67%)** and standard deviation **0.75,** Advantage & disadvantage **0.63(21.11%)** and standard deviation **0.61,** Side effect & limitation **0.83(20.83%)** and standard deviation **0.75,** Post injection instruction **0.67(16.67%)** and standard deviation **0.66,** follow up **0.57(28.33%)** and standard deviation **0.68.**The mean and mean percentage of post-test knowledge score of samples as per area was Family planning and DMPA introduction **5.10(72.86%)** and standard deviation **0.88 ,** Mechanism of DMPA **0.10(10.00%)** and standard deviation **0.31,** Dose & route **1.13(56.67%)** and standard deviation **0.43,** Knowledge & duration of DMPA **3.20(64.00%)** and standard deviation **0.71,** Indication & contraindication **1.40(70.00%)** and standard deviation **0.56,** Advantage & disadvantage **1.80(60.00%)** and standard deviation **0.66,** Side effect & limitation **2.33(58.33%)** and standard deviation **0.80,** Post injection instruction **2.57(64.17%)** and standard deviation **0.90** and follow up **1.27(63.33%)** and standard deviation **0.74.**

TABLE 4:Mean, Mean Difference, Standard Deviation (SD) and t Test Value of Pre- test and Post-test knowledge score of eligible women:

knowledge	mean	Mean difference	SD	Calculated „T‟ value	DF	Table “T” value	S/NS
Pre-test	8.40	10.53	3.64	17.16	29	2.04	S
Post-test	18.93		2.75				

Figure – 3 Bar graph showing comparison of mean pre-test and mean post- test knowledge score of eligible women



Conclusion:

The study demonstrates that a Planned Teaching Programme on Injection Medroxy progesterone Acetate (Antra) as a contraceptive method was effective in improving the knowledge and practice of eligible women regarding this method of contraception.

Conflict of interest:

The authors declare that they have no competing interests.

Ethics declarations:

Ethics approval and consent to participate JG College of Nursing, Institute Ethics Committee reviewed this study and granted ethical approval. Electronic consents has been obtained from participants.

Consent for publication:

Written consent for publication was obtained from each participant.

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