

# Effectiveness of Video Assisted Planned Teaching Programme on the Knowledge and Attitude Regarding In Vitro Fertilization Among Infertile Couple Attending Gynaecology OPD.

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## Abstract-

**Introduction:** Reproduction is the phenomenon that has evolved for the survival of living by producing continuous stream of new generation of same species. Production of new human beings begins with fertilization. Failure to this process results in infertility. Most of the cases (85%-90%) are treated with medications or surgery. Improvement in fertility treatment has made it possible for many women to conceive whose male partner is infertile. These new and advanced technologies include In vitro Fertilization, Intra Cytoplasmic Sperm Injection, and other similar procedures. **Objective:** The main objective of the study was to assess the effectiveness of video assisted planned teaching programme on the knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD. **Approach & Design:** In this study, quantitative research approach and pre-experimental one group pretest posttest research design was used. **Samples and sampling criteria:** The knowledge and attitude were assessed among 60 infertile couple attending Gynaecology OPD, at selected hospital, Lucknow, U.P. The written consent was obtained from samples. Subjects were selected using non probability purposive sampling technique. The data was collected using self-administered self-structured questionnaire for assessing knowledge and rating scale for assessing attitude. The descriptive and inferential statistics was used to analyze data based on objectives and hypotheses. **Results:** The result- In pre-test of knowledge, 73.3% had average and 16.7% had poor knowledge. In post-test, 75% had good and 25% had average knowledge. In pre-test of attitude, 63.3% had negative and 36.7% had positive attitude. In post-test, 90% had positive and 10% had negative attitude. There was a highly significant increase in knowledge ( $t=-24.27$ ) and attitude ( $t=13.7$ ) and video assisted planned teaching programme was highly effective. Significant association between area of residence, duration of marriage with pretest knowledge (20.4, 13.69) and educational status of couple with pretest attitude (16.87, 14.89) at 0.05% level of significance was observed. There was a significant positive relationship between the pre and posttest knowledge and attitude (0.59, 0.7) of infertile couple regarding invitro fertilization. **Conclusion-** The study concluded that video assisted planned teaching programme was effective in increasing knowledge and improving attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.

**Keywords—** Effectiveness, Video assisted planned teaching programme, Knowledge, Attitude, In Vitro Fertilization, Infertile couple, Gynaecology OPD.

## INTRODUCTION

The failure of a spouse to conceive following a year of frequent unguarded sexual encounters is referred to as infertility<sup>1-4</sup> or owing to a person's inability to procreate, either individually or with his or her spouse<sup>5</sup>. The issues surrounding infertility and its alarming incidence are escalating worldwide<sup>6</sup>. Predominantly infertility has been documented in a variety of societies in Africa, and it is usually related to tubal blockage. Over 50% of the cases of infertility in low-income countries are reported in gynecological clinics.<sup>7</sup>

Globally, about 10–15% of reproductive-age females are unable to naturally get pregnant within a year of unguarded sexual intercourse<sup>8</sup>, and the phenomenon of infertility effect is between 60 and 168 million people worldwide [4], accounting for about 13 to 15% of couples<sup>9</sup>. Also, a study reported that infertility accounts for about one-third of the population in the sub-Saharan African region<sup>10</sup>. Female infertility cases account for about 55%, while the male factor accounts for around 30 to 40% of the total<sup>11</sup>. Due to the result of the rising global population, and the advanced age of marriage in India, the number of childless couples is also on the rise, though the prevalence of couple infertility is unique in diverse countries<sup>12</sup>.

For the last few years, the use of arts services has grown manifolds and is now available as an alternative means for infertile couples in low- and high-income nations. Paradoxically, the decision for one to undertake an IVF procedure is only for privileged couples, indicating that many people will be unable to pay for IVF treatment. The financial barrier has prevented many people from utilizing IVF technology. It is; therefore, evidence that higher-income households will be able to pay for the services of IVF while families with lower incomes cannot afford them<sup>13</sup>.

## Objectives:

1. To assess the pre and posttest knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.
2. To assess the effectiveness of video assisted planned teaching programme on the knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.

3. To find out the association between the pre-test knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD with their selected socio-demographic variable.
4. To assess the co-relation between knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.

### Hypotheses:

The hypotheses will be tested at the 0.05 level of significance.

1. H<sub>1</sub>: There will be significant difference between pre and post-test knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.
2. H<sub>2</sub>: There will be significant association between pre-test knowledge and attitude with selected socio-demographic variables regarding invitro fertilization among infertile couple attending Gynaecology OPD.
3. H<sub>3</sub>: There will be significant co-relation between knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.

### Research Methodology:

**Research Approach:** Quantitative Research Approach

**Research Design:** Pre experimental one group pre-test post-test research design

**Population:** Population for this study were infertile couple attending Gynaecology OPD in Lucknow Hospital Lucknow.

**Sampling Technique:** Purposive Sampling Technique

**Sample Size:** 60 infertile couple

**Setting:** The study was conducted in Lucknow Hospital, Lucknow.

### Data Collection Procedure:

First of all, ethical permission was obtained from the ethical committee. After ethical clearance, formal permission was taken from the department head. The data collection was done between 1<sup>st</sup> July 2024 to 31<sup>st</sup> July 2024. The sample were taken by purposive sampling technique and all participants matching the inclusion and exclusion criteria. After that benefit of this study was explained to the participant and informed consent was taken. Questions were explained to participants if any of the participants was not able to understand and data was collected.

## RESULT

### SECTION-I

This section describes sample subject distribution according to their demographic variables. Demographic variables were age of wife and husband in years, duration of marriage, family monthly income/month, area of residence, education of wife and husband, type of family, religion, source of information and treatment of infertility taken previously regarding in vitro fertilization among infertile couple.

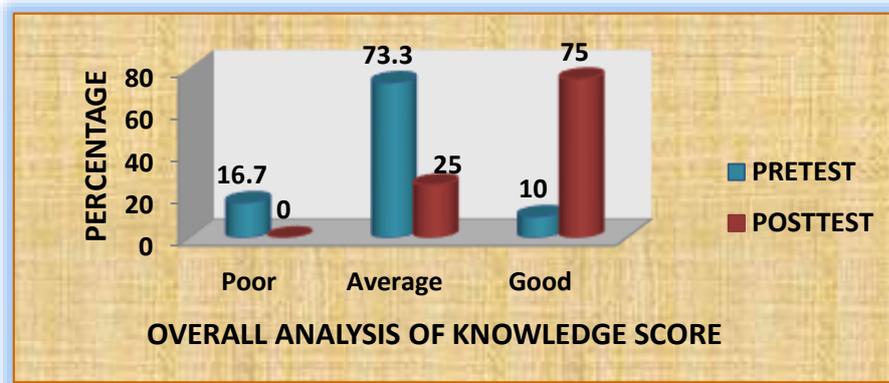
**Table No- 1: Frequency and Percentage distribution of infertile couple according to their demographic variables**

S.NO.	SOCIO DEMOGRAPHIC VARIABLES		FREQUENCY	%
1	Age of wife in years	25-30	8	13.3
		30-35	38	63.3
		35-40	9	15
		More than 40	5	8.3
2	Age of husband in years	25-30	6	10
		30-35	12	20
		35-40	32	53.6
		More than 40	10	16.3
3	Duration of marriage	1-5	52	86.6
		5-10	8	13.3
		10-15	0	0
		15-20	0	0
4	Family Income/Month	20,000-40,000	13	21.6

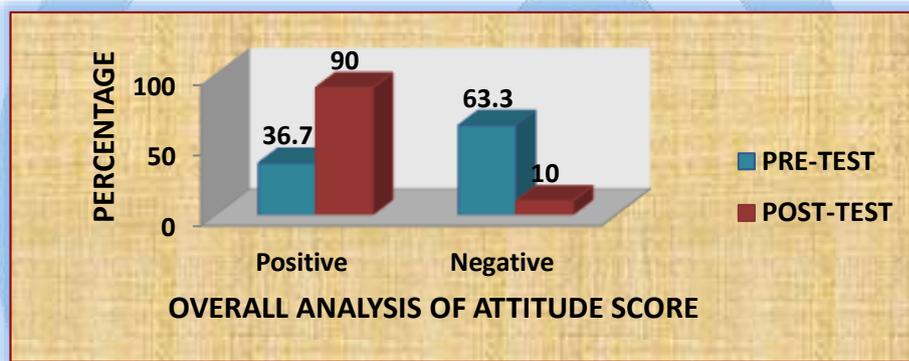
		40,001-60,000	19	31.6
		60,001-80,000	13	21.6
		More Than 80,001	15	25
5	Education Level of Wife	Primary School	0	0
		Higher Secondary	12	20
		Graduate	22	36.6
		Post Graduate	26	43.3
6	Education Level of Husband	Primary School	0	0
		Higher Secondary	6	10
		Graduate	24	40
		Post Graduate	30	50
7	Area of Residence	Rural	6	10
		Urban	54	90
8	Type Of Family	Nuclear	22	36.6
		Joint	37	61.6
		Extended	1	1.6
9	Religion	Hindu	48	80
		Muslim	5	8.3
		Christian	6	10
		Other	1	1.6
10	Knowledge about IVF	Media	38	63.3
		Friends	2	3.3
		Family	4	6.6
		Health Personnel	16	26.6
11	Previously taken treatment for infertility	Yes	10	16.6
		No	50	83.3
12	Type of treatment (N=10)	Medicine	8	80
		Surgery	0	0
		Exercise, Yoga	1	10
		Any Other Procedure	1	10

## SECTION 2

This section describes the frequency percentage distribution of sample subjects according to knowledge and attitude score regarding invitro fertilization among infertile couple.



**Fig 1 Column graph representing percentage distribution of sample subjects according to the knowledge score** regarding invitro fertilization. 44 (73.3%) participants having average knowledge, 10 (16.7%) participants having poor knowledge and 6 (10%) participants having good knowledge in pre-post where as in post-test 45 (75%) participants having good knowledge, 15 (25%) participants having average knowledge.



**Fig 2 Bar graph representing percentage distribution of sample subjects according to the attitude score** regarding IVF. 38 (63.3%) participants having negative attitude and 22 (36.7%) participants having positive attitude in pre-test where as in post-test 54 (90%) participants having positive attitude and 6 (10%) participants having negative attitude.

**SECTION 3**

This section deals with the effectiveness of video assisted planned teaching programme on the knowledge and attitude regarding invitro fertilization among infertile couple.

**Table 2 Effectiveness of video assisted planned teaching programme on knowledge and attitude**

	Mean	Mean diff.	SD	't' value	Critical value	Df Value	Inference
Pre-test knowledge	21.85	15.05	5.65	24.27	2.00	59	Highly significant at p<0.05
Post-test knowledge	36.9		2.07				
Pre-test attitude	55.31	10.59	7.4	13.7	2.00	59	Highly significant at p<0.05
Post-test attitude	65.9		4.54				

This table reveals that the video assisted planned teaching programme was highly effective in increasing the knowledge as the calculated 't' value i.e. 24.27 is greater than the table value (2.00) at 5% level of confidence. Also, in improving the attitude as the calculated 't' value i.e. 13.7 is greater than the table value (2.00) at 5% level of confidence. Hence hypothesis H1 that there will be significant difference between pre and post-test knowledge and attitude regarding invitro fertilization among infertile couple is accepted.

## SECTION 4

This section deals with the association of pre-test knowledge and attitude regarding invitro fertilization among infertile couple with selected socio-demographic variables.

There is significant association between area of residence and duration of marriage with pretest knowledge at 0.05% level of significance as the calculated chi square value is 20.4 and 13.69 which is higher than the tabulated value 5.99 and 12.59 at degree of freedom (2) and (6). Similarly, there is also significant association between educational status of couple with attitude at 0.05% level of significance as the calculated chi square value is 16.87 and 14.89 which is higher than the tabulated value 12.598 at the degree of freedom (6). Hence hypothesis H<sub>2</sub> that there will be significant association between pre-test knowledge and attitude with selected socio-demographic variables regarding invitro fertilization among infertile couple is accepted.

## SECTION 5

The section describes the correlation between pre-test knowledge and attitude and post-test knowledge and attitude regarding invitro fertilization.

**Table 3 Co-relation between knowledge and attitude regarding invitro fertilization among infertile couple**

Area	Mean	SD	R
Pretest Knowledge	21.85	5.65	0.59
Pretest Attitude	55.31	7.44	
Posttest Knowledge	36.9	2.07	0.70
Posttest Attitude	65.9	4.54	

The r values 0.59 and 0.70 represent positive co-relation at 0.05 level of significance between pre-test knowledge and attitude and post-test knowledge and attitude regarding invitro fertilization. Hence hypothesis H<sub>3</sub> that there will be significant co-relation between knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD is accepted.

## DISCUSSION

This study was conducted with the aim of assessing the effectiveness of video assisted planned teaching programme on knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.

1. The first objective was to assess the pre and posttest knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.

In this study 73.3% participants having average knowledge, 16.7% participants having poor knowledge and 10% participants having good knowledge in pre-post where as in post-test 75% participants having good knowledge, 25% participants having average knowledge. Similarly, 63.3% participants having negative attitude and 36.7% participants having positive attitude in pre-test where as in post-test 90% participants having positive attitude and 10% participants having negative attitude.

While comparing the study findings of the other published researches, findings of this study were also consistent with study conducted by **Pallabi Das (2022)** which states that majority of study samples 48.6% had moderate knowledge level, 30.3 % had inadequate knowledge level and 21.1% had adequate knowledge. Majority 52.1% had moderately favorable attitude, 24.6% had unfavorable attitude and 23.2% had favorable attitude<sup>14</sup>.

2. The second objective was to assess the effectiveness of video assisted planned teaching programme on the knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.

The video assisted planned teaching programme was highly effective in increasing the knowledge and improving the attitude as the calculated 't' value i.e. 24.27 and 13.7 are greater than the table value (2.00) at 5% level of confidence. This result is contradicted by similar findings through a study by **Abhilasha V (2023)** in which she found that computed 't' value of knowledge and attitude as 23.462 and 13.1 representing significant gain in knowledge and change in attitude in experimental group through structured teaching programme (STP)<sup>15</sup>.

3. To third objective was to find out the association between the pre-test knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD with their selected socio-demographic variable.

In this study there is significant association between area of residence, duration of marriage with pretest knowledge as the calculated chi square value is 20.4, 13.69 and educational status of couple with pretest attitude as the calculated chi square value is 16.87 and 14.89 at 0.05% level of significance which is higher than the tabulated value. In a similar study conducted by **SA Sasikala (2022)** pretest level of knowledge have significant association with religion and educational

status, and the posttest level of knowledge had shown statistically significant with gender and educational status with chi-square value of  $p < 0.05$  level. The Pre-test level of attitude has no significance, and post-test level of attitude regarding Assisted Reproductive Technology (IVF) among couples showed highly significant with religion and income<sup>16</sup>.

- To assess the co-relation between knowledge and attitude regarding invitro fertilization among infertile couple attending Gynaecology OPD.

The  $r$  values 0.59 and 0.70 represent positive co-relation at 0.05 level of significance between pre-test knowledge and attitude and post-test knowledge and attitude regarding invitro fertilization. **Samira Awny Mohammed Eladle (2019)** shows that there was negligible relationship ( $R=0.074$ ,  $P=0.403$ ) between knowledge and attitude scores in a similar study<sup>17</sup>.

## CONCLUSION

The study concludes that early detection, prevention and treatment are necessary in reducing the chances of infertility and education about assisted reproductive technology through various methods of teaching help in changing knowledge and attitude of infertile couple regarding invitro fertilization.

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