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"A Study to Assess the Effectiveness of Structured Teaching Program on Knowledge Regarding Infertility Among College Students in Selected Commerce and Art Colleges of Meerut, (U.P.)"

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ABSTRACT

With view to a study to assess the effectiveness of structured teaching program on knowledge regarding infertility among college students in selected commerce and art colleges of Meerut, (U.P.)". A quantitative evaluative research approach, pre-experimental one group pre-test and post-test research design was used. The data was collected from 60 students through the non-probability convenient sample technique. Study reveals that pre-existing level of knowledge was 100% students had poor knowledge, and after intervention post test there was significant improvement in the level of knowledge 1.67% had poor knowledge, 65% had average knowledge and 33.33% had good knowledge. The mean and standard deviation of the student's knowledge was 20.52 and ±2.37.

INTRODUCTION

Infertility is a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse. Infertility may occur due to male, female or unexplained factors. Some causes of infertility are preventable. Treatment of infertility often involves In-vitro fertilization (IVF) and other types of medically assisted reproduction.[1]

Infertility is a widespread issue that impacts both men and women. In the United States, about 1 in every 5 women aged 15 to 49 experience primary infertility, while roughly 1 in 20 women face challenges with secondary infertility. Globally, an estimated 48 million couples are affected by infertility.[2,]
Infertility is a medical condition that can cause psychological, physical, mental, spiritual, and medical detriments to the patient. The unique quality of this medical condition involves affecting both the patient and the patient's partner as a couple.[4]

Infertility can result from factors that affect either one partner or both. Several risk factors have been identified that may contribute to difficulties in conceiving.[5] One of the most significant factors is age; fertility in women typically declines in the late 30s and 40s, while in men, fertility may begin to decline around the age of 50.[6] Eating disorders, such as anorexia nervosa and bulimia, can disrupt normal hormonal function and interfere with ovulation or sperm production.[7] Lifestyle choices also play a role—excessive alcohol intake, smoking, and substance abuse can negatively impact reproductive health. In fact, tobacco use is associated with 13% to 15% of infertility cases. Environmental exposures, such as contact with toxic substances like pesticides, lead, or industrial chemicals, may also harm reproductive organs or alter hormone levels. Over-exercising or engaging in intense physical activity can affect hormone balance, particularly in women.[8,9] Treatments such as radiation therapy or chemotherapy may damage reproductive tissues and affect fertility in both men and women.[10] Infections, especially sexually transmitted infections (STIs), can lead to complications like pelvic inflammatory disease or scarring in the reproductive tract. Weight extremes, including obesity and being underweight, are also known to disrupt hormonal regulation and impair reproductive function.[11] Additionally, abnormalities in the brain's hormone-regulating canters—such as the hypothalamus or pituitary gland—can interfere with signals needed for normal ovulation or sperm development. Chronic illnesses and long-term medical conditions can further complicate fertility by affecting hormonal balance or reproductive organ function.[12]

OBJECTIVES:

- Assess the existing knowledge regarding infertility among Commerce and art college students.
- Evaluate the effectiveness of structured teaching programme regarding infertility among Commerce and art college students.
- Find out association between post-test knowledge level with their selected demographic variables.

HYPOTHESIS

Hypothesis will be tested at 0.05 level of significance.

- There will be significant improvement in the knowledge score regarding infertility among college students after receiving a STP compared to their pre- program score.
- There will be significant association between the pre-test level of knowledge with selected demographic variables.

MATERIAL AND METHODOLOGY

A Quantitative research approach was used to carry out the study. The study population comprised of commerce and Art students of school of arts and humanities, IIMT university, Meerut. The sample size was 60

Non-probability convenient sample technique was used for selecting the sample of the study. The tools used for study was self-structured Questionnaire.

The data was collected through self- administered questionnaire. Analysis of data was done using descriptive and inferential statistics.

RESULT:

The result of post-test reveals that there was significant improvement in the level of knowledge among 60 sample 1.67% had poor knowledge, 65% had average knowledge and 33.33% had good knowledge.

Table 1- Frequency and percentage distribution of selected personnel variables of study participants N=60

Sl. No.	Demographic variables	Background information	frequency	Percentage
1	Age	17-21 years	30	50
		22-26 years	25	41.66
		More than 27 years	5	8.33
2	Gender	Male	15	25
		Female	45	75
3	Religion	Hindu	37	61.66
		Muslim	23	38.33
		others	0	0
4	Residence	Urban	12	20
		Semiurban	9	15
		Rural	39	65
5	Marital status	Unmarried	56	93.33
		Married	4	6.66
		Widowed/ Divorced	0	0
6	Education	Undergraduate	35	58.33
		Postgraduate	25	41.66
7	Monthly family income	Below 15000 Rs/-	2	3.33
		15001Rs/- to 20000 Rs/-	38	63.33
		Above 20001Rs/-	20	33.33
8	Source of information	Family	0	0
		Friends	22	36.66
		Mass media	38	63.33
		Health workers	0	0

TABLE 2:- Comparison of pre and post-test knowledge N=60

Knowledge score	Range(min-max)	Mean	SD	Mean difference	Median	t value	p value
Pretest	4 – 14	9.27	1.75	11.25	9	29.54	< .001
Post test	14 – 26	20.52	2.37		20		

Table 3: Association between post-test knowledge level with their selected demographic variables

Demographic variables	Background information	Poor	Average	Good	DF	χ^2	P value
Age	17-21 years	1	21	8	4	**3.11***	2.78
	22-26 years	0	16	9			
	More than 27 years	0	2	3			
Gender	Male	1	9	5	2	3.08^{NS}	4.30
	Female	0	30	15			
Religion	Hindu	1	25	11	2	1.09^{NS}	4.30
	Muslim	0	14	9			
	Others	0	0	0			
Residence	Urban	0	7	5	4	2.16^{NS}	2.78
	Semiurban	0	5	4			
	Rural	1	27	11			
Marital status	Unmarried	1	37	18	2	0.58^{NS}	4.30
	Married	0	2	2			
	Widowed/ Divorced	0	0	0			
Education	Undergraduate	1	24	10	2	1.43^{NS}	4.30
	Postgraduate	0	15	10			
Monthly family income	Below 15000 Rs/-	0	1	1	4	1.45^{NS}	2.78
	15001Rs/- to 20000 Rs/-	1	26	11			
	20001Rs/- to 25000 Rs/-	0	12	8			
	Above 25001 Rs/-	0	0	0			
Source of information	Family	0	0	0	4	**3.12 ***	2.78
	Friends	1	16	5			
	Mass media	0	23	15			
	Health workers	0	0	0			

(* Significant at < 0.05 level, NS- Not significant)

Table 3 shows that there was significant association between level of knowledge with selected demographic variables such as Age group of students, Source of information, and No significant association between Gender, Religion, Residence, Marital status, Education, Monthly family income.

Table 4: Comparison of Pretest and Post-test level of knowledge among college students

Level of knowledge	Frequency		Percentage	
	Pre-test	Post-test	Pre-test	Post-test
Poor	60	1	100%	1.67%
Average	0	39	0%	65%
Good	0	20	0%	33.33%

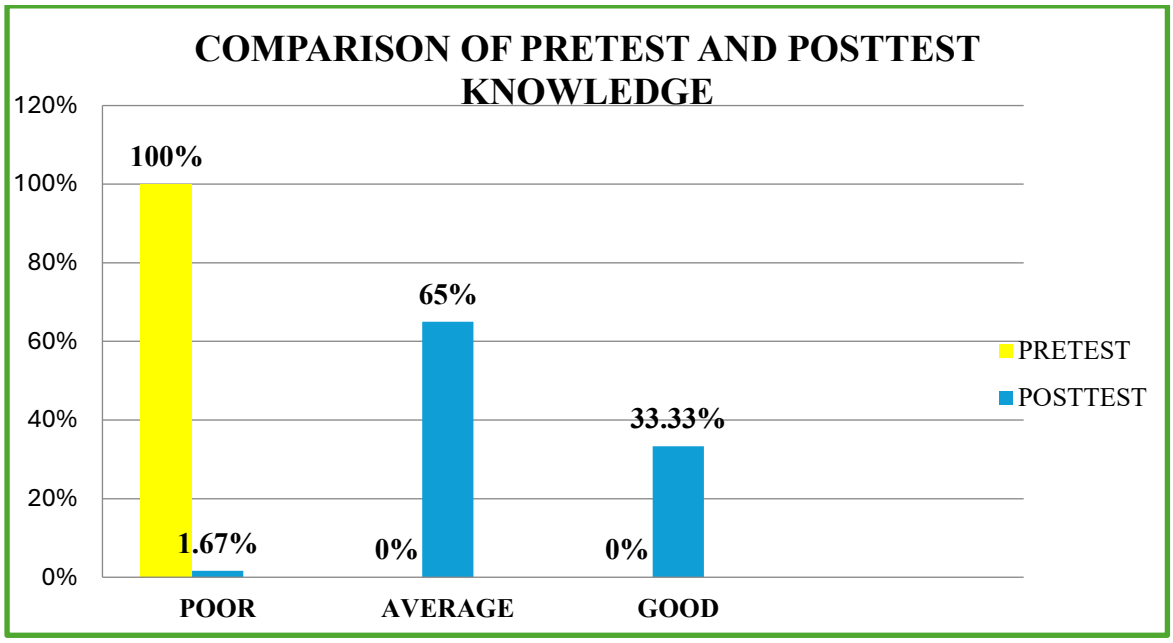

Figure 1: Depict of the pretest post-test knowledge of the students

The findings of the present study present the baseline characteristics and selected variables of the participants.

- Description of college students according to their age depicts that 30 out of 60 students (50%) belongs to 17-21 year age, 25 out of 60 students (41.66%) belong to 22-26 year age, 5 out of 60 students (8.33%) belong to more than 27 year age.
- With regard to gender, 15 out 60 students (25%) were male, 45 out of 60 students (75%) were female.
- With regard to Religion, 37 out of 60 students (61.66%) were Hindu, 23 out of 60 students (38.33%) were Muslim, 0 out 60 students (0%) were Christian, 0 out 60 students (0%) belongs to others religion.
- In the Residence, 12 out 60 students (20%) belongs to Urban area, 9 out 60 students (15%) belongs to Semiurban area, 39 out 60 students (65%) belongs to Rural area.
- With regards to Marital status, 56 out 60 students (93.33%) were Unmarried, 4 out 60 students (6.66%) were married, 0 out 60 students (0%) were Widowed/ Divorced.
- In the Education of the students, 35 out 60 students (58.33%) were Undergraduate, 25 out 60 students (41.66%) were Postgraduate.
- With regard to monthly family income, 2 out 60 students (3.33%) were having monthly family income was below 15000 Rs/-,38 out 60 students (63.33%) were having monthly family income was 15001 Rs/- to 20000 Rs/-, 20 out 60 students (33.33%) were having monthly family income was 20001 Rs/- to 25000 Rs/-, 0 out 60 students (0%) were having monthly family income was above 25001 Rs/-.
- With regard to Source of information, 0 out of 60 students (0%) have information from Family, 22 out of 60 students (36.66%) have information from friends, 38 out of 60 students (63.33%) have information from Mass media, 0 out of 60 students (0%) have information from Health workers.
- Out of 60 students, 60 (100%) had poor knowledge, 0 (0%) had average knowledge, 0 (0%) had good knowledge, in pre-test.
- The result of post-test reveals that there was an improvement in the level of knowledge among 60 students, 1 (1.67%) had poor knowledge, 39 (65%) had average knowledge, and 20 (33.33%) had good knowledge.

Finding association between post-test knowledge level with their selected demographic variables

Chi square test was used to find out the association between post-test knowledge level with their selected demographic variables

The finding reveals that there is a significant association between the level of knowledge regarding Infertility for the demographic variables (Age group and Source of information, and no significant association between the level of knowledge regarding Infertility for the demographic variables (Gender, Religion, Residence, Marital status, Education, Monthly family income).

RESULT:
The result of post-test reveals that there was significant improvement in the level of knowledge among 60 sample 1.67% had poor knowledge, 65% had average knowledge and 33.33% had good knowledge.

CONCLUSION:
The result showed that college students had less knowledge regarding infertility. The structured teaching programme was found to be effective in improving the knowledge of study subjects. These finding suggest that targeted education program can enhance knowledge and understanding of infertility.

CONFLICTS OF INTEREST: Nil
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ETHICAL CLEARANCE: Prior permission was obtained Principal, Medical College Meerut.

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