

## “A Study To Assess The Effectiveness Of Structure Teaching Programme On Knowledge And Attitude Regarding Infertility Among College Students In Selected Commerce And Science College Of Visnagar.”

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### Abstract

**INTRODUCTION:** Infertility defined as not being able to conceive after one year of unprotected sexual intercourse, is a global public health problem that affects more than 10% of the world's population. The risk of infertility increases with advanced age of the female partner (>35 years). Female infertility may present as an ovulation, obstructed fallopian tubes, endometriosis or uterine abnormalities. Male factor in infertility is characterized by diminished production of morphologically normal, motile sperm. Genetic abnormalities, hormonal imbalances and congenital/infectious malformations of the reproductive tract are some of the common causes of male and female infertility. Lifestyle factors such as obesity, diet, smoking and alcohol use along with environmental chemical exposure have been increasingly examined as additional modifiers of fertility. **DESIGN:** A quantitative approach using pre experimental pre-test post-test design with one group. **PARTICIPANTS:** 60 Science and Commerce students were selected using Probability Simple random sampling technique in Science and Commerce College, Visnagar. **INTERVENTIONS:** Structure teaching program was given to the students. **TOOL:** Self Structured Questionnaire was used to assess the level of Knowledge regarding infertility and used Likert's attitude scale to assess attitude regarding infertility. **RESULTS:** In this study, the total 60 sample under the study were 36(60%) samples 20-22 years old, 18 (30%) samples 23-25 years old, 06 (10%) samples 26-28 years old. Distribution of samples by gender is 36(60%) females and 24(40%) samples are male. Equally distributed samples by stream of study Science and Commerce is 30(50%). As regards marital status it was found that maximum samples 41(68.33%) were unmarried and 19(31.67%) samples were married. Distribution of samples by religion is maximum samples 48(80%) were Hindu and 12(20%) samples were Muslim. 39(65%) samples were living in the urban area and 21(35%) samples living in rural area. Before administration of structure teaching program 23.33% samples having good knowledge, 58.33% are having average knowledge and 18.34% are having poor knowledge regarding infertility. While 43.33% had negative attitude and 56.57% had positive attitude toward infertility. After administration of structure teaching program 68.33% having good knowledge, 23.33% having average and 8.34% having poor knowledge. While 18.33% samples had negative attitude and 81.67% had positive attitude toward infertility among students. That data obtained were analyzed and interpreted to using descriptive and inferential statistical in terms of mean, standard deviation, "t" test and chi square test value. The mean post- test knowledge score 20.92 was higher than mean pre- test knowledge score 14.92 with mean difference of 5.94 and the calculated "t" value (6.63) was greater than table value "t" (2.00) among demographic variable qualification. Chi-square test to associate the level of knowledge, attitude with selected demographic variable. **CONCLUSION:** The finding indicates that the structured teaching program was a suitable and effective method of instruction for updating and enhancing the knowledge and attitude among college students.

**Key Words:** Assess, Effectiveness, Structure Teaching Program, Knowledge, Attitude, Infertility.

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## **I. Introduction:-**

**“Of all nature’s gift to the human race, what is sweeter to a man than his children?”**

**-Marcus Tullius Cicero**

Not everyone has the goal of becoming a parent, but for those who do, being unable to conceive a child is an exquisitely painful reality. Many of us spend a portion of our lives attempting to avoid unplanned pregnancies, and assume that once we are ready to conceive, it will happen with little difficulty. Infertility is a common problem, one in every couple hoping to have a baby experiences difficulties achieving or maintaining pregnancy serious enough to seek medical intervention. Infertility is a chronic problem that involves both women and men, has major psychosocial ramifications, and usually requires addressing multiple issues, including medical conditions and lifestyle, all elements of primary care practice. <sup>[1]</sup>

We tend to think that shifting year from preventing pregnancy to planning conception and child birth will proceed in a relatively smooth and orderly fashion. The prevalence of infertility in India is between 10-20%. The Worldwide incidence of infertility is 15%. To maximize the chance of pregnancy, couples should have frequent intercourse for a few days when egg release (ovulation) is most likely-usually in the middle of the menstrual cycle, which is about half way between the first days of two periods. <sup>[2]</sup>

Diagnosis of infertility is varied and may include assessment of sperm quality, hormones and imaging analysis of the uterus/fallopian tubes. Dependent on the diagnosis, infertility may be treated by reproductive surgery, administration of hormones and/or assisted reproductive technologies (ART). ART encompass clinical/laboratory procedures wherein male and female gametes are manipulated for the purposes of reproduction and include In-vitro fertilization (IVF), intra cytoplasmic sperm injection (ICSI), pre implantation genetic diagnosis, embryocryo preservation and gestational surrogacy. <sup>[3]</sup>

### **NEED OF THE STUDY:**

**“Prevention is better than cure”**

A global survey of almost 17,500 people (most of childbearing age) from 10 countries in Europe, Africa, the Middle East and South America revealed that on the whole level of knowledge regarding fertility and biology of reproduction was very poor (World Fertility Awareness Month, 2006).

Scarcely any studies have examined whether people are aware of the main lifestyle (e.g. smoking, alcohol consumption; Roth and Taylor, 2001) and reproductive (e.g. menstrual cycle irregularities; Koff et al., 1990) risk factors for infertility. Research focusing on age (Lansac, 1995; Lampic et al., 2006; Skoog Svanberg et al., 2006) and Sexually Transmitted Infections (STIs) (e.g. increased risk of tubal damage, Mosher and Aral, 1991) also show a lack of general knowledge. <sup>[4]</sup>

A study of 1,909 women in Connecticut found the risk of not conceiving for 12 months was 55% higher for women drinking 1 cup of coffee per day, 100% higher for women drinking one and one-half to three cups, 76% higher for women drinking more than 3 cups of coffee per day.

The fertility rate for India in 2019 was 2.220 births per woman, a 0.89% decline from 2018. The current fertility rate for India in 2020 is 2.200 births per woman, a 0.9% decline from 2019.

### **STATEMENT OF THE PROBLEM:**

**“A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURE TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING INFERTILITY AMONG COLLEGE STUDENTS IN SELECTED COMMERCE AND SCIENCE COLLEGE OF VISNAGAR.”**

### **OBJECTIVES OF THE STUDY:**

1. To assess the knowledge regarding Infertility before and after administration of structure teaching program among college students.
2. To assess the attitude regarding Infertility before and after administration of structure teaching program among college students.
3. To determine the association between pretest knowledge and the selected demographic variable.
4. To determine the association between pretest attitude and the selected demographic variable.
5. To find out correlation between knowledge and attitude.
6. To assess the effectiveness of structure teaching program regarding infertility.

### **HYPOTHESIS:**

**H<sub>0</sub>:** There will be no significant association between pre test and post test knowledge and there will be no correlation between knowledge and attitude.

**H<sub>1</sub>:** The mean post test knowledge score will be significantly higher than their mean pre test knowledge score as evident by a structured knowledge questionnaire after administration of structure teaching programme at 0.05 level of significance.

**H2:** The mean post test attitude score will be significantly higher than their mean pre test attitude score as evident by a Likert’s scale after administration of structure teaching programme at 0.05 level of significance.

**H3:** There will be significant association of pre test knowledge score with the demographic variable at 0.05 level of significant.

**H4:** There will be significant association of pre test attitude score with the demographic variable at 0.05 level of significant.

**H5:** There will be significant correlation between knowledge and attitude at 0.05 level of significant.

## **II. Material And Methods:**

Pre experimental one group pre test post test design approach was used to assess the effectiveness of structure teaching programme on infertility. 60 Science and Commerce students were selected using Probability Simple random sampling technique in Science and Commerce College, Visnagar. Self Structured Questionnaire was used to assess the level of Knowledge regarding infertility and used Likert’s attitude scale to assess attitude regarding infertility.

## **III. Results:**

Demographic data was analyzed using frequency and percentage. Frequencies, percentage, mean, mean percentage and standard deviation was used to determine the knowledge and attitude score. The ‘t’ value was computed to show the effectiveness of structure teaching programme and chi-square test was done to determine the association between the pretest knowledge and attitude with selected demographic variables.

### **Finding related to demographic data:**

In the study data revealed that samples between age group of 20-22 years were 36(60%), 23-25 years were 18(30%), 26-28 years were 06(10%) and above 28 years were 0(0%). 36(60%) samples were female where as 24(40%) were male. From total 60 samples 30 samples is taken from each stream of study. Married samples were 19(31.67%), unmarried were 41(68.33%), 0(0%) were divorced whereas 0(0%) were widow or widower. In terms of religion 48(80%) were Hindu, 12(20%) were Muslim, 0(0%) were Christian and 0(0%) belongs to other religion. In relation to area of residency 39(65%) were living in urban area where as 21(35%) were living in rural area.

### **Finding related to pre and post knowledge score:**

<b>KNOWLEDGE</b>	<b>FREQUENCY</b>	<b>CLASSIFICATION OF SCORE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE (%)</b>
GOOD		21-30	14	23.33
AVERAGE		11-20	35	58.33
POOR		1-20	11	18.34
TOTAL			60	100

So finding shows that from 60 samples, only 23.33% (14 samples) were having good knowledge regarding Infertility. Majority of samples that is 58.33% (35) of samples were having average knowledge regarding Infertility. 18.34% (11) samples were having poor knowledge before administered structure teaching program regarding Infertility.

From 60 samples, only 8.34% (05 samples) were having poor knowledge regarding Infertility after administered the structure teaching program. Majority of samples that is 68.33% (41) of samples were having good knowledge regarding Infertility. 23.33% (14) samples were having average knowledge regarding Infertility. So it shows that very few numbers of samples having poor knowledge compare than before administered structure teaching program. After the administered structure teaching program students good knowledge score increase compare than before knowledge score regarding Infertility.

### **Finding related to pre and post attitude score:**

So from 60 samples before the STP majority of samples (34) were having positive attitude towards Infertility so total 56.67% samples had positives attitude and 43.33% of samples (26 samples) were having negative attitude towards Infertility. After STP, from 60 samples majority of samples (49) were having positive attitude towards Infertility so total 81.67% samples had positives attitude and 18.33% of samples (11samples) were having negative attitude after administered structure teaching program towards Infertility. So it reveals that majority of samples were having improve their positive attitude regarding Infertility after the administered structure teaching program. Hence, assumption of the study to be found right.

**Finding related to effectiveness of structured teaching programme:**

Distribution of subject on paired ‘t’ test between pretest and posttest knowledge score regarding infertility among students. The mean pretest score was 14.98 and the mean posttest score was 20.92 with the mean difference of 5.94. The calculated “t” is 6.63 and the tabulated “t” is 2.00 at 0.005 level of significance. It reveals that mean post test knowledge score was significantly higher than pre test score. The calculated “t” value (6.63) was greater than tabulated “t” value (2.00). Therefore, it reveals that structure teaching program was effective in terms of knowledge among the samples.

**Finding related to association between pretest knowledge score with selected demographic variables:**

Find out association between the Pre test level of Knowledge score and socio demographic Variable. Based on the objectives used to chi –square test to associate the level of knowledge with selected demographic variables at 0.05 level of significance.

Findings of the chi square value are showing the association between knowledge regarding Infertility and demographic variables which were statistically significant at 0.05 levels. It showed that there was association between Age, Gender, Stream of study, Marital Status and Knowledge regarding Infertility whereas there was no association between Area of residency, Religion and Knowledge regarding Infertility

**Finding related to association between pretest attitude score with selected demographic variables:**

Findings of the chi square value are showing the association between attitude regarding Infertility and demographic variables which were statistically significant at 0.05 level. It showed that there was association between Age, Marital Status, Religion and Attitude regarding Infertility whereas there was no association between gender, Area of residency and Attitude regarding Infertility.

**Finding related to correlation between knowledge and attitude:**

	FORMULA	VALUE
KNOWLEDGE ATTITUDE	r (Karl Pearson Correlation coefficient)	0.836
Correlation is significant at the 0.05 level (2-tailed)		

Table Show the value of “r” calculated by Karl Pearson Correlation Coefficient formula to find out correlation between knowledge and attitude at 0.05 level of significance. The value of “r” was 0.836, which was in between 0-1. So it was statistically significant at the 0.05 level of significance.

**IV. Conclusion:**

The present study aims to evaluate the effectiveness of Structure Teaching Programme on infertility. The study was conducted by using Pre experimental one group pre-test post-test research design. Science and commerce college students were selected for conducting the study. The sample size was 60 students using probability simple random sampling method.

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