

# Effectiveness of Self Instructional Module (SIM) on Level of Knowledge Regarding Recent Advancements in Infertility Treatment among the Staff Nurses Working in Obstetrics and Gynecological Departments

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## ABSTRACT

### Background

Fertility is the natural capability to produce offspring. A lack of fertility is infertility while a lack of fecundity would be called sterility. The term infertility is defined as the inability to conceive despite regular and unprotected intercourse for 2 years. However, risk factors such as the woman's age, abnormal menstrual periods, history of pelvic inflammatory disease and whether there has been previous abdominal or pelvic surgery, history of undescended testicles may warrant earlier investigations and treatment of infertility. Couples should be aware that 80% will conceive within a year and 90% within two years if they don't use contraception and have regular intercourse.<sup>1</sup>

### Materials and Methods:

A pre-experimental has provided comparison between a group of subjects before and after the experimental treatment used for this study. The sample consisted 60 staff nurses those were working in obstetrics and gynecology department in selected hospital Haridwar . They were selected by Convenient non – probability Sampling Technique. Data was collected by using a structured knowledge questionnaire regarding recent advancement in infertility treatment. Data analysis is done by using descriptive & inferential method.

### Results:

Findings suggest that the pre-test knowledge score was  $15.45 \pm 3.88$  which has increased to post test knowledge score  $30.11 \pm 3.4$ . Independent sample "t" test was calculated to find the significant difference between means of pretest and post test knowledge scores. The calculated t value was -23.036 (df=59 at  $p < 0.05$ ). This significant improvement in the knowledge can be attributed to the intervention.

### Conclusion:

Based on the findings of the study after the implementation of self instructional module, there is a significant increase in knowledge of staff nurses regarding the recent advancement in infertility treatment.

**KEYWORDS:** Assess, self instructional module, Knowledge, staff nurses, recent advancement in infertility treatment

## INTRODUCTION

In the males, the somniferous tubular epithelium can be destroyed by a number of diseases. For instance, bilateral orchitis of the testes resulting from mumps causes sterility in some affected males. Also, many male infants are born with degenerate tubular epithelia as a result of strictures in the genital ducts or other abnormalities. Finally, another cause of sterility, usually temporary, is excessive temperature of the testes.

The Human Fertilization and Embryology Authority (HFEA) Code of Practice identifies three types of compulsory counseling for clients undergoing In-Vitro Fertilization (IVF): Implication counseling to educate them on the implications of their treatment option; support counseling to assist them during the period of emotional stress; and therapeutic counseling to help them cope with the consequences of treatment and adjust their expectations and acceptance of

their situation. This supports the rationale for suggesting that counseling for In-Vitro Fertilization clients should be provided by specialist doctors, because these women are seeking clarification of their problems more than just emotional support.<sup>2</sup>

Infertility strikes many couple today. At a rate of five million couples annually coping with infertility issues of those only twenty percent will get definitive treatment. The reason for this many health insurance companies do not cover infertility treatment.<sup>3</sup>

One of the reasons for infertility is age. Many couples are waiting to get married till much later in life compared with a few decades ago. People used to get married right out of high school, but now with women having their own careers that requires more education. Many couple are waiting to get married so they can get their education out of the way and establish a career path for themselves.<sup>4</sup>

Nurses are the vital members for the fertility healthcare team and often assume responsibility for health assessment, client education and counseling. Nurse must understand the current methods of diagnosis and treatment and appreciate the important human issues related to infertility. The new advancement and technology increases the nurses responsibility to update their knowledge.<sup>5</sup>

Still, another cause of infertility is secretion of abnormal mucus by the uterine cervix. Ordinarily, at the time of ovulation, the hormonal environment of estrogen causes secretion of mucus with special characteristics that allow rapid mobility of sperm into the uterus and actually guide the sperm up along mucus threads. Abnormalities of the cervix itself, such as low-grade infection or inflammation, or abnormal hormonal stimulation of the cervix, can lead to a viscous mucus plug that prevents fertilization.<sup>6</sup>

## PURPOSE

The purpose of study is to improve the level of knowledge of staff nurses regarding recent advancement in infertility treatment.

## OBJECTIVES

1. To assess the pre-test level of knowledge regarding recent advancement in infertility treatment among the staff nurses.
2. To assess the post-test level of knowledge regarding recent advancement in infertility treatment among the staff nurses.
3. To assess the effectiveness of SIM (self instructional module) on level of knowledge regarding recent advancement in infertility treatment among the staff nurses.

## MATERIALS AND METHODS

A pre-experimental has provided comparison between a group of subjects before and after the experimental treatment used for this study. The sample consisted 60 staff nurses those were working in obstetric and gynaecology department in selected hospital Haridwar. They were selected by Convenient non - probability Sampling Technique. Data was collected by using a structured knowledge questionnaire regarding recent advancement in infertility treatment. Data analysis is done by using descriptive & inferential method.

## RESULTS

**Table No. : 1 – frequency and percentage distribution of demographic variables of study N=60**

S.NO	Demographic variables	Frequency (f)	Percentage (%)
<b>1.</b>	<b>Age in years</b>		
1.1	21-25 years	32	53.0 %
1.2	26-30 years	21	35.0 %
1.3	31-35 years	06	10.0%
1.4	36-40 years	01	1.7%
<b>2.</b>	<b>Religion</b>		
2.1	Hindu	17	28.3%
2.2	Muslim	12	20.0%
2.3	Christian	24	40.0%
2.4	Sikh	07	11.7%
<b>3.</b>	<b>Professional qualification</b>		
3.1	G.N.M	33	55.0%
3.2	Post Basic B.Sc Nursing	19	31.7%
3.3	B.Sc Nursing	08	13.3%
<b>4.</b>	<b>Experience in maternity ward</b>		
4.1	< 2 years	36	60.0%
4.2	2-4 years	16	26.7%
4.3	4-6 years	06	10.0%
4.4	>6 years	02	03.3%
<b>5.</b>	<b>Exposed to any in service education programme on infertility treatment</b>		
5.1	Yes	20	33.3%
5.2	No	40	66.7%
<b>6.</b>	<b>Any previous information regarding advance treatment of infertility</b>		
6.1	Yes	40	66.7%
6.2	No	20	33.3%
<b>7.</b>	<b>Source of Information</b>		
7.1	Books	08	13.3%
7.2	Journals	04	06.7%
7.3	Nursing professionals	20	33.3%
7.4	Medical professionals	12	20.0%
7.5	Mass media	16	26.7%

**Table.1** shows that, of 53.0% the study participant were in the age group between 21-25 years, 35.0% were aged between 26-30 years, 10.0% were aged between 31-35 years, and remaining 1.7% were aged between 36-40 years .

28.3% staff nurses were hindu, 20.0% were muslim, and 40.0% were Christian and remaining 11.7% of staff nurses were sikh.

55.0% of staff nurses were qualified the G.N.M course, 31.7% were qualified postbasic B.Sc Nursing and remaining 13.3% of staff nurses were qualified B.Sc Nursing.

Most of staff nurses 60.0% were experienced in maternity ward with < 2 years, 26.7% were experienced in maternity ward between 2-4 years, 10.0% staff nurses were experienced in maternity ward between 4-6 years and remaining 03.3% were experienced in maternity ward with >6 years .

Approximately 66.7% were not exposed to any in service education programme on infertility treatment and 33.3%

were exposed to any in service education programme on infertility treatment.

Majority of staff nurses 66.7 % were having previous information regarding advancement treatment of infertility and remaining 33.3% of staff nurses were not having previous information regarding advancement treatment of infertility.

The most of staff nurses 33.3% were get the information from the nursing professionals, 13% were get the information from books, 06.7% were get the information from the journals, 20.0% were get the information from medical professional and remaining 26.7% were get the information from mass media .

**Table No 2: Level of Knowledge regarding recent advancement in infertility treatment among the staff nurses in Pre test & Post test .**

Knowledge level	Pre- test		Post- test	
	Frequency	Percentage	Frequency	Percentage
Average(9-17)	50	83.33%	0	0%
Good(18-25)	8	13.33%	05	8.33%
Excellent(26-34)	2	3.33%	55	91.66%
<b>Total</b>	<b>60</b>	<b>100%</b>	<b>60</b>	<b>100%</b>

**Table No. 2**

Depicts that, majority 83.33% of the staff nurses had average knowledge and 3.33% of staff nurses had excellent knowledge before Self Instructional Module (SIM). After Self Instructional Module majority of 91.66% of staff nurses had reported excellent knowledge and remaining 8.33% staff nurses were reported to have good knowledge regarding recent advancement in infertility treatment.

**Table No 3: Comparison of pre- test and post- test level of knowledge of staff nurses**

N= 60

Group	Mean	Mean %	SD	Enhancement	t-value	P-value	Df
Pre-test	15.45	45.44%	3.88	43.11%	-23.036	<.0001	59
Post-test	30.11	88.55%	3.44				

**p<0.05**

**Table .3** Depicts that, the pre-test knowledge score was 15.45 ±3.88 which has increased to post test knowledge score 30.11 ±3.4. Independent sample “t” test was calculated to find the significant difference between means of pretest and post test knowledge scores. The calculated t value was -23.036 (df=59 at p<0.05). Hence the null hypothesis was rejected and research hypothesis was accepted. This significant improvement in the knowledge can be attributed to the intervention.

**DISCUSSION**

**Assessment of the level of knowledge regarding recent advancement in infertility treatment among the staff nurses by conducting pre-test.**

According to pre-test knowledge score on recent advancement in infertility treatment, the majority, 83.33% of the staff nurses had average knowledge, 8.33% of staff nurses had good knowledge and 3.33% of staff nurses had excellent knowledge. These findings showed that most of the staff nurses had average knowledge regarding recent advancement in infertility treatment.

**Effectiveness of self instructional module on the level of knowledge regarding recent advancement in infertility treatment among the staff nurses.**

On comparison of pre-test and post-test level of knowledge regarding recent advancement in infertility treatment among the staff nurses revealed that the there was a significant difference between pre-test and post-test knowledge score (t=-23.036). Self Instructional Module was found to be highly effective in enhancing the knowledge score 43.11%. Hence, hypothesis H1 is accepted and null hypothesis is rejected.

**Assessment of the level of knowledge regarding recent advancement in infertility treatment among the staff nurses by conducting post-test.**

According to post-test level of knowledge on recent advancement in infertility treatment 91.66% (55) subjects had an excellent knowledge and remaining 8.33% (05) had good knowledge regarding recent advancement in infertility treatment. These findings showed that, the maximum of staff nurses had excellent knowledge regarding recent advancement in infertility treatment.

**SUMMARY**

An evaluatory pre experimental research approach was adopted in the study. The population of the study consisted of all staff nurses of obstetrics and gynaecological departments of hospitals of Haridwar (Uttarakhand). Convenient sampling technique was utilized to select 60 staff nurses based on predetermined criteria. The investigators prepared a structured questionnaire containing 35 items to assess the knowledge of the staff nurses regarding recent advancement in infertility treatment.

Five experts did the validation of the tool. Reliability of the tool found to be r=. Pilot study was conducted on 06 staff nurses to check the feasibility and practicability of the study. This gave a basis for investigator to conduct the actual study.

Actual study was conducted on 60 staff nurses of obstetrics and gynaecological departments of B.H.E.L Hospital, HarMilap District Hospital, Metro Hospital and Ram Krishan Mission Hospital in Haridwar. The duration of the study was from 01/05/2018 to 09/05/2018. Based on the objectives and the assumption the data was analyzed and using various descriptive and inferential test.

Overall level of knowledge score in post-test regarding recent advancement in infertility treatment was 55 (i.e 91.66%) had excellent knowledge, 05(8.33%) subjects had good knowledge, followed by no subject had average knowledge regarding recent advancement in infertility treatment.

The effectiveness of self instructional module regarding recent advancement in infertility treatment on knowledge among the staff nurses was tested .The overall mean score in post test was 30.11, where as in the pre-test it was 15.45.

### Major Findings of the study

According to pre-test knowledge score on recent advancement in infertility treatment, the majority, 83.33% of the staff nurses had average knowledge, 8.33% of staff nurses had good knowledge and 3.33% of staff nurses had excellent knowledge. These findings showed that most of the staff nurses had average knowledge regarding recent advancement in infertility treatment.

On comparison of pre-test and post-test level of knowledge regarding recent advancement in infertility treatment among the staff nurses revealed that there was a significant difference between pre-test and post-test knowledge score ( $t=-23.036$ ). Self Instructional Module was found to be highly effective in enhancing the knowledge score 43.11%. Hence, hypothesis H1 is accepted and null hypothesis is rejected.

### Implications

Staff nurses should be taught during them attending in service education programme, workshop or seminars. A broad educational programme should be organized at Hospital and community level to educate staff nurses & illiterate and village people regarding recent advancement in infertility treatment as well as prevention of infertility.

### Limitations

1. The present study is limited to only one group; no control group adopted for the study.
2. The study is also limited to a small sample in four hospitals hence the findings of the study cannot be generalized.

3. The structured knowledge questionnaire and self instructional module was developed.

### CONCLUSION

The conclusion of the study was after the implementation of self instructional module, there is a significant increase in knowledge of staff nurses regarding the recent advancement in infertility treatment.

### REFERENCES:

- [1] AllahbadiaGautam N., Merchant Rubina., "Embryo Transfer" (1st edition) (2008) New Delhi: Jaypee Brothers Medical Publisher; pg.no-26
- [2] Shah Sudhir R, Pandya Manish R "Step by Step Infertility Practice; 1<sup>st</sup> Edition( 2007) New Delhi Jaypee Brothers Medical Publishers
- [3] Jayakrishnan K, Rao A Padma "Infertility, Insight in Management", 1<sup>st</sup> Edition (2006) New Delhi; Jaypee Brothers Medical Publisher ;
- [4] Guyton and Hall., "Text book of Medical Physiology" 12<sup>th</sup> Edition(2007), Saunders Elsevier Publication. pg no - 1126
- [5] Knowledge and Attitude of Nurses towards In-vitro Fertilization: A. [https:// clinmedjournals.org /articles /ogcr/ogcr-1-005.pdf](https://clinmedjournals.org/articles/ogcr/ogcr-1-005.pdf).
- [6] Guyton and Hall., "Text book of Medical Physiology" 12<sup>th</sup> Edition (2005), Saunders Elsevier Publication. pg no - 1124

