

Effectiveness of the Structured Teaching Programme on Knowledge Regarding Recent Developments in Infertility Management among Staff Nurses Working in Tertiary care Hospital Nellore, Andhra Pradesh

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ABSTRACT

Infertility is a challenging experience affecting individual and couples' adjustment. However, the way the members of the couple support each other may affect the experience of infertility and their adjustment. Fertility is highly valued in most cultures, and the wish for a child is one of the most basic human motivations. This study would help the nursing practitioner to understand Infertility Management. The study adopted a quasi-experimental one-group pre-test post-test design, and 60 subjects were selected using a non-probability convenient sampling technique. The setting of the study is Narayana College of Nursing, Nellore. The intervention was the Structured Teaching Programme. Socio demographic variables of the study population; out of the total study population, most of the samples, 24 (35%) are 25 -29 age, 47 (78%) are Female, 33 (55%) are B.Sc. graduates, 26 (43%) are 10 – 14 years of experience, 36 (60%) are the rural area of living. The pre-test and post-test knowledge scores on recent trends in infertility management; 51 (85%) have inadequate knowledge in the pre-test and 4 (7%) in the post-test. 0 (0%) Adequate knowledge in the pre-test and 57 (95%) in the post-test. Associates the significance between the post-test level of knowledge and demographic variables, regarding age chi-square 8.93, regarding gender chi-square 6.25, regarding experience 22.54, p-value less than 0.05 level of significant, significant and education and area of living are non-significant. The present study concludes that the staff nurses' knowledge increased significantly after the STP administration.

Keywords: Structured Teaching Programme, Knowledge, Infertility Management, Staff Nurses...

Introduction

Failing to get pregnant after one year or more of frequent, unprotected sexual contact defines infertility. Infertility is a disorder of the male or female reproductive system. The term infertile should not be used until it is proved that pregnancy is impossible [1]. According to WHO, 4.8 crore couples and 18.6 crore individuals live with infertility globally [2] and approximately 15 percent of Indian couples [3]. Numerous male or female reproductive system elements can lead to infertility; sometimes, it's impossible to pinpoint the root causes of infertility. Issues with the ejection of semen, a lack of sperm counts, irregular sperm morphology, and motility typically bring on infertility in men. Infertility in women can result from abnormalities of the ovaries, uterus, fallopian tubes, and endocrine system, among other things [4]. The first baby born in a test tube in July 1978 opened up new opportunities for scientific advancement and the entire field of infertility [5].

Assisted reproductive technologies played the main role in the advancements of infertility management. ART refers to all fertility procedures that handle sperm and eggs. ART methods often entail surgically removing eggs from a woman's ovaries, fertilizing them in a lab, and either putting them back into the body or giving them to another. They do not include managements in which only sperm are handled (i.e., intrauterine/artificial insemination) / procedures in which a woman takes medication only to stimulate egg production without the plan of having eggs retrieved [7].

Today, infertility is referred to as a couple's issue, and clients who are experiencing infertility are given the knowledge and emotional support they require. The female nurse is the health care provider who is most qualified to render the service. She is better at coming up with therapeutically insensitive and sympathetic ways [6]. In recent years, nurse practitioners have added infertility care to their obstetric-gynaecological specialties. Inform them about the causes, tests, and treatments associated with infertility to reduce stress. Nurses can provide them with attentive emotional assistance [8].

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The objective of the study

1. To assess the pre-test level of knowledge regarding Recent Developments in Infertility Management among Staff Nurses.
2. To associate the level of knowledge regarding Recent Developments in Infertility Management among Staff Nurses with their selected demographic variables.

Hypothesis

H₀: There is no significant association between knowledge regarding Recent Developments in Infertility Management among Staff Nurses with selected demographic variables.

H₁: There is a significant association between knowledge regarding Recent Developments in Infertility Management among Staff Nurses with selected demographic variables among nursing students.

Methodology

Research Design; Quasi-experimental one-group pre-test - post-test design. The study was conducted at Narayana College of Nursing, Nellore, Andhra Pradesh. The sample size consists of 60 staff nurses working in the hospital; 60 subjects were selected using a non-probability convenient sampling technique.

Inclusion criteria: Staff nurses who are: Working in Working in NMCH, Willing to participate. Who knows to read, write and speak in English and Telugu languages? **Exclusion criteria:** Staff nurses unwilling to participate in the study are on leave.

The tool was organized as follows. Part-1: Sociodemographic variables of the staff nurses. **Part 2:** Consists of the Questionnaire with 30 items based on the basic concept of infertility, causes of infertility, factors of infertility, diagnosis for infertility and selected technique in infertility management. Scoring interpretation: <50% Poor, 51- 75% Average, >75% Good.

Data collection procedure

The researcher decided to conduct the study at NMCH. The investigator obtained written permission from the authority of the respective hospital before data collection. The data was collected from 12.09.2021 to 15.10.2021. The researcher conducted the study in three shifts of duty scheduled by the respective hospital. A written informed consent was taken separately from each sample. Appropriate orientation was given to all the samples about the aim of the study and the nature of the tool; adequate care was taken to protect them from potential risk, including maintaining confidentiality, security, identity etc. Participants were asked to answer a structured knowledge questionnaire with demographic data.

After the pre-test, a structured teaching program was given to the staff nurses with the help of charts. An interval of one-week post-test was conducted using the same tool to determine the effectiveness of a structured teaching program.

Statistical design: Data were verified before computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Test of significance (chi-square and paired t-test) was applied to test the study hypothesis.

Data Analysis and Interpretation

Table 1: Frequency and percentage distribution of sociodemographic variables

Sl. No	Sociodemographic variables	Frequency (f)	Percentage (%)
1.	Age in years		
	20 – 24	9	15%
	25 – 29	24	40%
	30 – 34	21	35%
	Above 35	6	10%
2.	Gender		
	Male	13	22%
	Female	47	78%
3	Education		
	ANM	7	12%
	GNM	6	10%
	BSc	33	55%
	PB BSc	9	15%
	MSc	5	8%
4	Experience		
	0 – 4	18	30%
	5 – 9	16	27%
	10 – 14	26	43%
5	Areas of living		
	urban	24	40%
	Rural	36	60%

Table 1 describes the description of demographic variables of the study population; out of the total study population, most of the samples, 24 (35%) are 25 -29 age, 47 (78%) are Female, 33 (55%) are Bsc graduate, 26 (43%) are 10 – 14 years of experience, 36 (60%) are the rural area of living.

Table 2: Pre and post-test knowledge score on recent trends in infertility management

Level of knowledge	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
Inadequate knowledge	51	85%	4	7%
Moderately adequate knowledge	9	15%	3	5%
Adequate knowledge	0	0%	57	95%

Table 2 describes the pre-test and post-test knowledge scores on recent trends in infertility management; 51 (85%) have inadequate knowledge in the pre-test and 4 (7%) in the post-test. 0 (0%) Adequate knowledge in the pre-test and 57 (95%) in the post-test.

Table 3: Determination of overall knowledge score before and after the structured teaching program

Test	Knowledge score mean±SD
Pre-test	14.28 ± 4.32
Post-test	27.66 ± 2.19*
Student paired t-test, *P – 0.05, significant	

Table 3 associates the significance between the pre-test and post-test level of knowledge at 0.05 level of significance.

Associates the significance between the post-test level of knowledge and demographic variables, regarding age chi-square 8.93, regarding gender chi-square 6.25, regarding experience 22.54, p-value less than 0.05 level of significant, significant and education and area of living are non-significant.

Discussion

In the present study, the pre-test level of knowledge regarding recent developments in infertility management, 85% of them have inadequate knowledge, 15 % have moderately adequate knowledge, 0% have Adequate knowledge, and 7%, 5%, and 95%, respectively inadequate, moderately adequate, Adequate knowledge in the post-test. The pre-test knowledge score was 47%, and the post-test was 92%. 45 % was an increased score after the intervention, and the level of knowledge at 0.05 was significant. Significance between the post-test level of knowledge and

demographic variables regarding age and gender, the experience was significant at the level of 0.05, and education and area of living were non-significant.

The results of the present study supported by Robby Solanki [9] (2019), which was carried out in Karnataka, showed that 68% inadequate and 19% moderate knowledge regarding infertility management. 16% and 83% inadequate and adequate knowledge in the post-test, respectively. There was a significant increase of 39.3% in knowledge gain after the intervention. The pre-test and post-test knowledge scores were highly significant at 0.001 level. The following conclusion drawn from the study, an intervention was effective among staff nurses regarding infertility management.

T. C. Suguna (2021) [10] studied about Video Assisted Teaching Programme on Assisted Reproductive Technology among Infertile Women; the study findings revealed that out of 40 infertile participants, 30% of the sample belonged to the 20-25 years of age group. 27.5% of the women studied up to secondary education, 30% had primary education, and 32.5% of women graduated. 50% of the women were not working, and 35% had information from health personnel. The mean post-test score was higher than the mean pre-test score. The ‘t’ value was found statistically significant at p<0.05. So it is evident that post-test knowledge scores were higher than the pre-test knowledge scores. There was a non-significant association between the knowledge of infertile women with demographic variables. The following conclusion from the study, the teaching program is very effective in improving the knowledge of infertile women regarding assisted reproductive technology. Ravina Patel et al. (2021) [11] studied knowledge on infertility among college students and revealed that after the teaching program administration, 68.33% had good knowledge, 23.33% had average, and 8.34% had poor knowledge. While 18.33% of samples had a negative attitude and 81.67% had a positive attitude toward infertility among students. 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. Bhoomika Patel et al. (2021) [12] studied knowledge regarding the Management of Infertility among Infertile women in selected urban areas in the Mehsana District with a view to developing an Information Booklet on the Management of Infertility, revealed that 85% of the sample had inadequate knowledge about management of infertility.

Conclusion

The present study is an effort to evaluate the STP regarding recent trends in infertility management

on the knowledge of staff nurses. These findings showed that staff nurses' knowledge increased significantly after the STP administration. The mean knowledge in all aspects of improvement. The study's findings revealed a significant increase in the post-test knowledge score after the administration of the STP. The difference between pre and post-test knowledge scores was highly significant. Recommendations for further study can be conducted for a larger sample group and in different settings.

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