ORGANIZED LEARNING PROGRAMME ON KNOWLEDGE REGARDING RECENT DEVELOPMENTS IN INFERTILITY MANAGEMENT AMONG STAFF NURSES WORKING IN TERTIARY CARE HOSPITALKANPUR, UTTAR PRADESH.

Dr. Jasmi Johnson, Mrs. Agnes Chinta Singh, Ms. Kesani Vanaja Lakshmi Durga Bhavani, Mrs. Priyanka Agrawal

Faculty of Nursing, Rama University, Kanpur

Email id: Jasmi.rcn.mnd@ramauniversity.ac.in

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 Tertiary Care Hospital, Kanpur. The intervention was the Organized Learning Programme.Sociodemographic 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 graduates, 26 (43%) are10 – 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 OLP administration.

Keywords:Organized Learning Programme, Knowledge, Infertility Management, Staff Nurses.

Introduction

Infertility is defined as the inability to conceive after one year or more of regular, unprotected sexual intercourse. It is a condition affecting the male or female reproductive systems. The term "infertile" should only be used once it has been confirmed that pregnancy is not achievable. According to the World Health Organization (WHO), approximately 48 million couples and 186 million individuals worldwide experience infertility, with around 15% of couples in India affected. Infertility can result from various factors in both men and women, and sometimes, the exact cause cannot be identified. In men, issues like problems with semen release, low sperm count, abnormal sperm shape, or poor sperm motility are common causes. In women, infertility can be linked to disorders of the ovaries, uterus, fallopian tubes, or hormonal imbalances, among other factors.

The birth of the first "test tube baby" in July 1978 marked a significant milestone in medical science, leading to remarkable advances in infertility treatment. Assisted Reproductive Technologies (ART) have been at the forefront of these advancements. ART includes all fertility treatments that involve handling both sperm and eggs. These methods typically involve extracting eggs from a woman's ovaries, fertilizing them in a laboratory, and either transferring the embryos back into the woman's body or using them for another individual. ART does not include procedures where only sperm is handled, such as intrauterine or artificial insemination, or treatments where a woman only receives medication to stimulate egg production without the intention of egg retrieval.

Infertility is now recognized as a condition affecting both partners, and couples experiencing infertility are provided with education and emotional support. Nurses, particularly female nurses, are uniquely positioned to provide care in this area due to their expertise in offering compassionate and sensitive support. As part of their training in obstetrics and gynecology, many nurse practitioners now offer infertility care. By informing patients about the causes, diagnostic tests, and treatment options for infertility, nurses can alleviate stress and provide much-needed emotional support throughout the process.

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

H_0 - There is no significant association between knowledge regarding Recent Developments in Infertility Management Among Staff Nurses with selected demographic variables.

H_1 -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 atTertiary care Hospitals, Kanpur, Uttar Pradesh. The sample size consists of 60 staff nurses working in the hospital; 60 subjects were selected using a non-probability convenient samplingtechnique.

Inclusion criteria: Staff nurses who are: Working in Working in Tertiary care Hospitals, 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 organizedas follows. Part-1: Sociodemographic variables of the staff nurses.

Part2: 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 atTertiary care Hospitals. The investigator obtained written permission from the authority of the respective hospital before data collection. 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 25 – 29 30 – 34 Above 35	 9 24 21 6	 15% 40% 35% 10%
2.	Gender Male Female	 13 47	 22% 78%
3	Education ANM GNM BSc PB BSc MSc	 7 6 33 9 5	 12% 10% 55% 15% 8%
4	Experience 0 – 4 5 – 9 10 – 14	 18 16 26	 30% 27% 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%) are10 – 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		Posttest	
	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
Pretest	14.28 ± 4.32
Posttest	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 higherthan the mean pre-test score. The 't' value was found statistically significant at p<0.05. So it is evident that post-testknowledge 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 inimproving the knowledge of infertile women regarding assisted reproductive technology.

Ravina Patel etal. (2020)[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 developingan Information Booklet on the Management of Infertility, reviled that 85% of the sample had inadequate knowledge about management of infertility.

Conclusion

The present study is an effort to evaluate the OLP regarding recent trends in infertility management on the knowledge of staff nurses. These findings showed that staff nurses' knowledge increased significantly after the OLP 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 OLP. The difference between pre and post-test knowledge scores was highly significant.Recommendationsfor further study can be conducted for a larger sample group and in different settings.

References

1. World Health Organization. WHO fact sheet on infertility. Global Reproductive Health. 2021 Apr 1;6(1):e52.
2. Meccariello R. Central and Local Modulators of Reproduction and Fertility: An Update. International Journal of Molecular Sciences. 2022 May 9;23(9):5285.
3. Verma D, Kaur H, Chaudhary A, Verma J. HISTORY OF HUMAN IN-VITRO FERTILIZATION (IVF) AND ASSISTED REPRODUCTION TECHNIQUES (ART). International Journal of Scientific Research in Modern Science and Technology. 2022 Sep 16;1(1):18-27.
4. Sarabi MR, Yigci D, Alseed MM, Mathyk BA, Ata B, Halicigil C, Tasoglu S. Disposable paper-based microfluidics for fertility testing. Iscience. 2022 Aug 18:104986.
5. Carneiro MM. Assisted reproductive technologies: when science helps dreams come true and pave the way to inclusion and diversity. Women & Health. 2022 May 28;62(5):369-71.
6. Zweifel J, O'Brien J. Ethical Platform of Assisted Reproduction. Fertility Counseling: Clinical Guide. 2022 Dec 31:274.
7. Sharon N. Covington. Fertility Counseling: Clinical Guide. Legal Issues and Practice Management.2nd edition. Cambridge University Press; 2022 Dec 31:264.
8. Meyer MD. The Cost of Winning the Pregnancy Lottery: An Autoethnographic Account of How My Life Was Consumed by Secondary Infertility. Journal of Autoethnography. 2022 Oct;3(4):544-60.
9. Robby Solanki. A study to assess the effectiveness of Organized Learning Programme on knowledge regarding recent trends in infertility management among staff nurses working in sc hospital, hassan, Karnataka. International Journal of Nursing Education. October-December 2019;11(4):126-129.
10. T. C. Suguna. Effectiveness of Video Assisted TeachingProgramme on Knowledge Regarding AssistedReproductive Technology among Infertile Women. International journal of science and research. 2021;10(2):1235-1237.
11. Ravina Patel, Divya Rohit. 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. Acian journal of nursing education and research. 2021;11(1):95-98.
12. Patel B, Patel P. A Study to Assess the Knowledge regarding Management of Infertility among Infertile women at selected urban areas in Mehsana District with a view to develop Information Booklet on Management of Infertility. International Journal of Nursing Education and Research. 2021;9(3):291-3.