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Research Article

Knowledge Regarding Recent Advancement in Infertility Treatment Among Nursing Students, New Delhi: A Descriptive Study

Bandhu Sharma[1], Anamika Dewan[2]

[1,2]Tutor, Rufaida College of Nursing, Jamia Hamdard, Deemed to be University, New Delhi, India
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I N F O

Corresponding Author:
Anamika Dewan, Rufaida College of Nursing, Jamia Hamdard, Deemed to be University, New Delhi, India
E-mail Id:
anamikadewan@jamiahamdard.ac.in
Orcid Id:
https://orcid.org/0009-0005-0172-9199
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A B S T R A C T

Introduction: Infertility is defined as not being able to conceive even after 12 months of regular, unprotected coitus, affecting millions of couples globally and being one of the major public health concerns. It results from either male, female, or combined factors. In males, causes include testicular trauma, hypogonadism, and varicocele, while female infertility often stems from ovulatory disorders, menstrual irregularities, or uterine abnormalities such as fibroids and endometriosis. Understanding the causes and timely evaluation are essential for effective infertility management and treatment. Keeping this in view, a descriptive study was conducted to assess the knowledge regarding recent advancements in infertility treatment among nursing students of a selected college of nursing, New Delhi.

Objectives: The objectives of the study were to assess the knowledge and to develop and disseminate an information pamphlet on recent advancement regarding recent advancement in infertility treatment among nursing students of a selected college of nursing in New Delhi.

Material and Methods: A quantitative research approach was used. A total of 110 students were selected using purposive sampling technique from a selected college of nursing. Self-structured knowledge a questionnaire was used to collect the data. Data was analysed using descriptive analysis.

Results: Findings suggest that only 16.3% of nursing students had adequate knowledge, followed by 36.4% of nursing students have moderate knowledge, and the majority, i.e., 47.3% of nursing students had poor knowledge.

Conclusion: The study revealed that a significant proportion of student nurses had poor to moderate knowledge about recent advancements in infertility treatment. The development and dissemination of an informative pamphlet proved essential in enhancing awareness and bridging the knowledge gap among nursing students.

Keywords: Infertility Treatment, Recent advancements, Knowledge, Nursing students

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Introduction

Infertility is not being able to reproduce by natural means. It is not commonly seen in a healthy adult. According to the international glossary, infertility is defined as "a disease characterised by the failure to establish a clinical pregnancy after 12 months of regular, unprotected sexual intercourse or due to an impairment of a person's capacity to reproduce either as an individual or with his/her partner." Infertility testing may therefore begin after six months if the female spouse is over 35 and unable to conceive, whereas testing should begin right away if the woman is over 40. 20–30% of causes are due to male infertility, while 20–35% are due to female infertility, and 25–40% comprise combined problems in both partners. Infertility is increasingly acknowledged as a significant global public health issue. Male-related factors are implicated in approximately 50% of all infertility cases. The most prevalent aetiology in males includes testicular neoplasms; hypogonadism—characterised by underdeveloped gonadal structures and reduced serum testosterone concentrations; testicular trauma; varicocele; cryptorchidism; premature ejaculation; and non-obstructive azoospermia. In females, infertility arises from a multifactorial ethology, commonly encompassing menstrual irregularities, a prior history of ectopic gestation, disorders of ovulation, and structural anomalies of the uterus. Uterine abnormalities may include endometriosis, leiomyomas (uterine fibroids), endometrial polyps, and intrauterine adhesions, as observed in Asherman syndrome.[1]

Recent advances in infertility treatment include personalised medicine, ovarian rejuvenation, and improved cryopreservation techniques. These advancements are enhancing the chances of success in various infertility treatments, including IVF, and offer new options for individuals and couples struggling with fertility.[2]

Material and Methods

The current study was conducted to assess the knowledge regarding recent advancements in infertility treatment among nursing students of selected colleges of nursing, New Delhi. The data was collected during the period January- February, 2025, from 110 students selected from a nursing college, New Delhi using a self-developed structured knowledge questionnaire. Samples were selected by the purposive sampling technique. A self-developed structured questionnaire was developed after extensive review of literature. The tool had 2 sections**.** Section 1 describes demographic data of students in terms of age, gender, religion, educational qualification, previous knowledge related regarding recent advancements in infertility and source of information to recent advancements in infertility. Section 2 consists of 25 questions to assess the student's knowledge regarding recent advancements in infertility treatment. The student's knowledge was categorised into 3 categories as per the following scoring criteria: Adequate knowledge with score 19-25, moderate knowledge with a score of 13-18, Poor knowledge with a score of 1-12. Data was collected by the pencil-paper method. The tool was validated by 7 nursing experts from obstetrics and gynaecology nursing, paediatric nursing and community health nursing. Following the data collection, an information pamphlet was given to the study participants, which contained information regarding infertility, its causes, treatment and use of advanced technology.

Results

Section A

Findings related to demographic variables of subjects

Table 1.Frequency and percentage distribution according to their demographic variables

n= 110

S.no	Demographic Profile	Frequency	Percentage %
1	Age A. 18-19years B. 20-21years C. 22-23years D. 24 and above	8 41 43 18	7.3 37.3 39.1 16.3
2.	Gender A. Female B. Male	83 27	75.5 24.5
3.	Religion A. Christion B. Hindu C. Muslim D. Other	8 37 61 4	7.3 33.5 55.5 3.7

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4	Educational Qualification A. B.Sc. (Hons) Nursing B. DGNM C. PB B.Sc. Nursing	38 56 16	34.5 50.9 14.6
5	Previous Knowledge Regarding Recent Advancement In Infertility A. Yes B. No	71 39	64.5 35.5
6	Source of Information A. Book B. Friends C. Hospital D. Internet E. Teachers F. Training Conference	22 5 15 48 14 6	20 4.5 13.7 43.6 12.8 5.4

Section B

Findings Related to level of Knowledge Score Related to Recent Advancements in Infertility Treatment Among Nursing Students

Figure 1 Percentage distribution of nursing students regarding knowledge about recent advancements in infertility treatment

As data represented in table 2 and figure 1 show, the level of knowledge i.e.,16.3% of nursing students have adequate knowledge, followed by 36.4% of nursing students having moderate knowledge and 47.3% of students having poor knowledge.

Table 2.Frequency and percentage distribution of students about knowledge regarding recent advancement in infertility treatment

S.No	Level of Knowledge	Range score	Frequency	Percentage
1	Adequate Knowledge	19-25	18	16.3%
2	Moderate knowledge	13-18	40	36.4%
3	Poor knowledge	1-12	52	47.3%

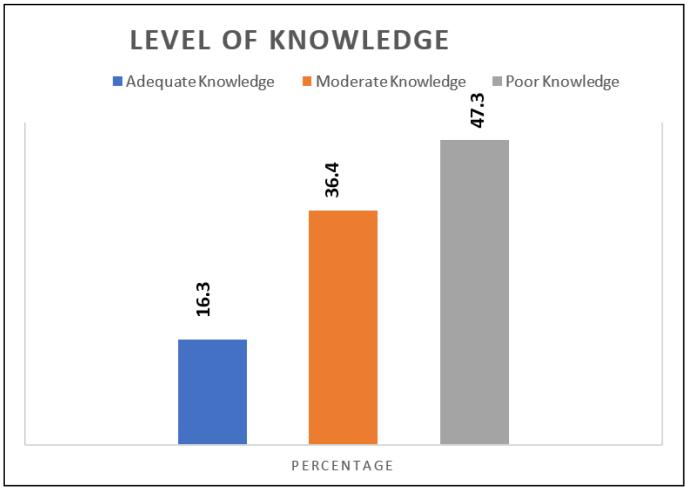


Figure 1.Percentage distribution of nursing students regarding knowledge about recent advancements in infertility treatment

Discussion

The present study assessed knowledge regarding recent advancements in infertility treatment among nursing students in a selected college, New Delhi. The study revealed that there is a lack of knowledge among the nursing students regarding recent advancements in infertility.

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A total of 47.3% of nursing students have poor knowledge, followed by 36.4% of nursing students having moderate knowledge and 16.3% of students having adequate knowledge. Findings of the current study are similar to the results of the study conducted by Ravin Kumar Bishnoi (2019) on the effectiveness of a self-instructional module on knowledge regarding recent advancements in infertility treatment among staff nurses. Findings show that only 5% of the study sample were having adequate knowledge, 88.3% were having moderate knowledge and 6.7% were having poor knowledge regarding recent advancements in infertility. Concluded that the self-instructional module significantly increased the knowledge of staff nurses regarding recent advancements in infertility treatment. [4]

Bhawna Sharma et al. (2019) conducted a study on the effectiveness of a self-instructional module (SIM) on the level of knowledge regarding recent advancements in infertility treatment among the staff nurses working in obstetrics and gynaecological departments. Findings show that the majority of pre-test knowledge score, 83.33% of the staff, had average knowledge. 8.33% of staff had good knowledge, and 3.33% of staff nurses had excellent knowledge. According to the post-test knowledge score majority, 91.66% of the staff had excellent knowledge, and the remaining 8.33% of staff had good knowledge regarding recent advancements in infertility treatment. On comparison of pre-test and post-test levels of knowledge regarding recent advancements in infertility treatment among the staff nurses, it was revealed that there was a significant difference between pre-test and post-test knowledge scores; the self-instructional module (SIM) was found to be highly effective in enhancing the knowledge score. [5]

Jasmi Manu et al. (2023) conducted a study on an organised learning programme on knowledge regarding recent developments in infertility management among staff nurses working in a tertiary care hospital. Findings show that the pre-test level of knowledge regarding recent developments in infertility management is such that 85% of them have inadequate knowledge, 15% have moderately adequate knowledge, 0% have adequate knowledge, and 7%, 5%, and 95%, respectively, have inadequate, moderately adequate, and 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.6intervention.[6]

Conclusion

The study was aimed at assessing the knowledge regarding recent advancements in infertility treatment among nursing students of selected colleges in New Delhi. Regarding knowledge, around half of the nursing students, i.e., 47.3%, have inadequate knowledge regarding recent advancements in infertility, 36.4% have moderate knowledge, and only 16.3% of the participants had adequate knowledge. There is a need to pay special attention to the recent advancement in infertility. While teaching the nursing students, as this is part of their curriculum. Knowledge of nursing students will affect their practice and care they provide to the patients suffering any issues pertaining to infertility.

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