



Knowledge regarding family planning methods among undergraduate nursing students in West Bengal: A descriptive study

Riku Maji

Associate Professor, Desun Nursing School & Desun College of Nursing, West Bengal, India

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Abstract

Background: Family planning is an essential component of reproductive health and contributes to prevention of unintended pregnancies, improved maternal and child health, and informed reproductive decision-making. Nursing students are future healthcare professionals and should possess adequate knowledge of temporary, permanent, and emergency contraceptive methods.

Objectives: To assess knowledge regarding temporary, permanent, and emergency family planning methods among undergraduate nursing students.

Methods: A descriptive study was conducted among 51 third-year Bachelor of Science (B.Sc.) Nursing students at Sister Nivedita University Nursing Institute, Kolkata, West Bengal. Participants were selected using a non-probability purposive sampling technique. Data were collected using a structured questionnaire consisting of demographic items and 35 knowledge-related items on family planning methods. Descriptive statistics, including frequency and percentage, were used for data analysis.

Results: Most participants were aged 18–21 years (76.5%), Hindu by religion (96.1%), and belonged to nuclear families (88.2%). Knowledge regarding temporary and permanent family planning methods was predominantly average, reported by 80.0% and 84.3% of students, respectively. However, knowledge regarding emergency family planning methods was poor among 56.9% of participants. Good knowledge was observed among 11.8% for temporary methods, 13.7% for permanent methods, and only 3.9% for emergency methods.

Conclusion: Undergraduate nursing students demonstrated predominantly average knowledge of temporary and permanent family planning methods, whereas knowledge of emergency contraception was inadequate. Focused educational interventions on emergency contraception and comprehensive family planning counselling are recommended in undergraduate nursing education.

Keywords: Family planning, contraception, emergency contraception, nursing students, knowledge, undergraduate students, West Bengal

Introduction

Family planning enables individuals and couples to decide freely and responsibly the number and spacing of their children. It includes the use of temporary, permanent, and emergency contraceptive methods to prevent unintended pregnancies and improve reproductive health outcomes. Appropriate family planning practices contribute to reduced maternal morbidity and mortality, prevention of unsafe abortions, improved child health, and enhanced socioeconomic well-being of families.

India has historically faced major population-related challenges. Although fertility rates have declined over time, access to accurate reproductive-health information and appropriate contraceptive services remains important, particularly among young adults. Family planning is not limited to birth control; it also supports birth spacing, maternal health, child health, educational opportunities, and financial stability within families.

Young adults in higher educational institutions may be aware of contraception but may not necessarily possess accurate and comprehensive knowledge regarding its use. Evidence suggests that awareness of family planning methods does not always translate into appropriate contraceptive knowledge or utilization. Misconceptions,

stigma, inadequate counselling, limited access to youth-friendly services, and insufficient education regarding emergency contraception can contribute to unintended pregnancies.

Nursing students are future health educators and healthcare providers. Their knowledge of family planning is important not only for their personal reproductive-health decisions but also for their future role in counselling individuals, couples, and communities. Therefore, this study was conducted to assess knowledge regarding family planning methods among undergraduate nursing students at Sister Nivedita University, West Bengal.

Materials and Methods

Study Design

A descriptive research design was used.

Study Setting

The study was conducted at the Nursing Institute of Sister Nivedita University, Kolkata, West Bengal, India.

Study Population

The study population comprised undergraduate nursing students enrolled at the Sister Nivedita University Nursing Institute.

Sample and Sampling Technique

The study included 51 third-year B.Sc. Nursing students. Participants were selected using a non-probability purposive sampling technique.

Inclusion Criteria

Students who:

- Were enrolled in the third year of B.Sc. Nursing;
- Were available during the period of data collection; and
- Were willing to participate in the study.

Exclusion Criteria

Students who were absent during the data-collection period were excluded.

Study Tool

Data were collected using a structured questionnaire with two sections:

1. **Demographic characteristics:** age, religion, type of family, number of siblings, and source of information regarding family planning.
2. **Knowledge questionnaire:** 35 items assessing knowledge regarding temporary, permanent, and emergency family planning methods.

Scoring and Interpretation

The total knowledge score was categorized as follows:

Poor knowledge: 0–10

Average knowledge: 11–25

Good knowledge: >25

Domain-wise knowledge was categorized as follows:

Domain	Poor	Average	Good
Temporary methods	0–5	6–10	>10
Permanent methods	0–3	4–7	8–11
Emergency methods	0–2	3–5	>5

Validity of the Tool

Content validity of the structured questionnaire was established through expert review. Of the 35 knowledge items, 17 were fully accepted, 14 were modified, and 4 were rejected based on expert suggestions.

Data Collection Procedure

Institutional and administrative permission was obtained

before data collection. The purpose of the study was explained to the participants, and written informed consent was obtained. The questionnaire was administered using the pen-and-paper method. Confidentiality of responses was maintained.

Ethical Considerations

Ethical permission was obtained from the Institutional Ethics Committee of the concerned institution before commencement of the study. Participation was voluntary, and written informed consent was obtained from all participants.

Data Analysis

Data were analysed using descriptive statistics. Frequencies and percentages were calculated and presented in tables and figures.

Results

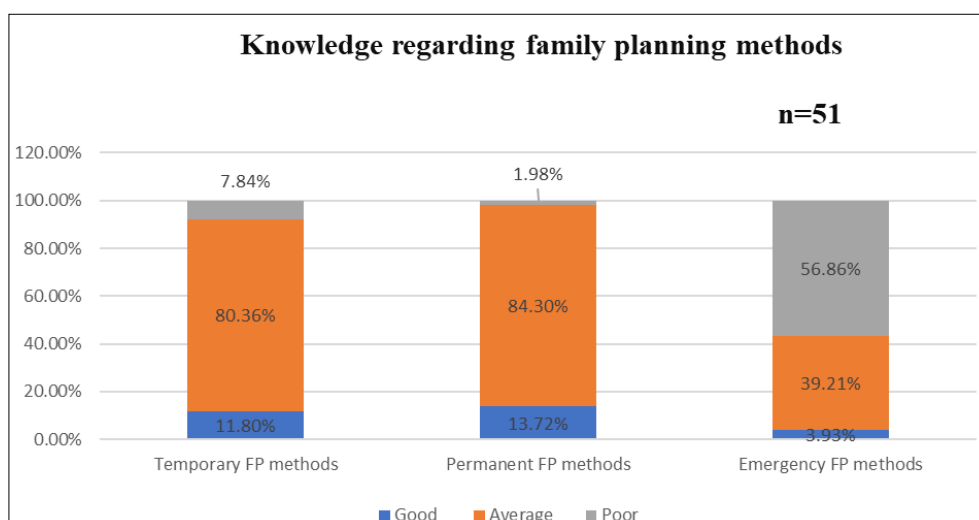
Demographic Characteristics of Participants

A total of 51 third-year B.Sc. Nursing students participated in the study.

Variable	Frequency (n)	Percentage (%)
Age		
18–21 years	39	76.5
22–25 years	12	23.5
26–29 years	0	0.0
Religion		
Hindu	49	96.1
Muslim	2	3.9
Christian/Other	0	0.0
Type of family		
Nuclear family	45	88.2
Joint family	6	11.8
Extended family	0	0.0
Number of siblings		
Single child	16	31.4
Two siblings	32	62.7
More than three siblings	4	7.8

Most students were aged 18–21 years, belonged to the Hindu religion, and came from nuclear families. Nearly two-thirds of the participants reported having two siblings.

Knowledge Regarding Family Planning Methods



The majority of participants demonstrated average knowledge regarding temporary and permanent family planning methods. In contrast, knowledge regarding emergency family planning methods was predominantly poor.

The findings indicate that 80.0% of students had average knowledge regarding temporary family planning methods, while 11.8% had good knowledge. Regarding permanent family planning methods, 84.3% had average knowledge and 13.7% had good knowledge. Knowledge of emergency family planning methods was poor among 56.9% of students, and only 3.9% demonstrated good knowledge.

Discussion

The present study assessed knowledge regarding family planning methods among third-year B.Sc. Nursing students at Sister Nivedita University, West Bengal. The findings showed that most participants had average knowledge regarding temporary and permanent family planning methods. However, knowledge regarding emergency family planning methods was poor among more than half of the participants.

The high proportion of average knowledge regarding temporary methods may be due to greater exposure to commonly discussed methods such as condoms, oral contraceptive pills, and intrauterine contraceptive devices. Similarly, students showed average knowledge regarding permanent methods such as tubectomy and vasectomy.

A major concern identified in the study was inadequate knowledge regarding emergency contraception. Emergency contraceptive methods are important in preventing unintended pregnancy following unprotected intercourse, contraceptive failure, or incorrect use of contraception. Inadequate knowledge among nursing students may affect their ability to provide accurate information and counselling in future professional practice.

The findings are consistent with previous literature indicating that awareness of family planning may not necessarily result in complete and accurate knowledge, particularly regarding emergency contraception. Educational programmes focusing on emergency contraceptive methods, indications, timing, effectiveness, side effects, and misconceptions may improve students' knowledge and confidence.

Nursing curricula should incorporate regular updates on reproductive health, contraceptive counselling, and evidence-based family planning services. Interactive teaching methods, workshops, simulation-based learning, and student-led health education programmes may be useful in strengthening knowledge.

Conclusion

The study concluded that third-year B.Sc. Nursing students had predominantly average knowledge regarding temporary and permanent family planning methods. However, knowledge regarding emergency family planning methods was inadequate, with more than half of the participants demonstrating poor knowledge.

The findings highlight the need for structured educational interventions on emergency contraception and comprehensive family planning methods among undergraduate nursing students. Strengthening family planning education during nursing training may help future

nurses provide accurate, sensitive, and effective reproductive-health counselling.

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