



Original Research Article

KNOWLEDGE AND PRACTICE OF TEMPORARY CONTRACEPTIVE METHODS AMONG PRIMI MOTHERS AT KALPANA CHAWLA GOVERNMENT MEDICAL COLLEGE AND HOSPITAL, KARNAL, HARYANA: A DESCRIPTIVE STUDY

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ABSTRACT

Background

Family planning is an important component of reproductive and maternal healthcare. Temporary contraceptive methods provide reversible options for preventing unintended pregnancy and spacing subsequent pregnancies. Adequate knowledge and appropriate practice are important for informed contraceptive decision-making. Primi mothers may require appropriate counselling regarding available methods, correct use, benefits, limitations, and possible adverse effects.

Aim

The study aimed to assess the knowledge and practice of temporary contraceptive methods among primi mothers, determine the association between practice level and selected demographic variables, and examine the relationship between knowledge and practice scores.

Materials and Methods

A quantitative descriptive research design was adopted. The study was conducted among 60 primi mothers at Kalpana Chawla Government Medical College and Hospital, Karnal, Haryana. Participants were selected using a non-probability convenience sampling technique. Data were collected using a demographic proforma, a self-structured knowledge questionnaire, and a structured practice checklist. Descriptive statistics were used to summarize the data. The chi-square test was used to determine the association between practice level and selected demographic variables, and Pearson's correlation coefficient was used to assess the relationship between knowledge and practice scores. Statistical significance was set at $p < 0.05$.

Results

Among the 60 participants, 8 (13.3%) demonstrated good practice, 28 (46.7%) demonstrated average practice, and 24 (40.0%) demonstrated poor practice regarding temporary contraceptive methods. The mean practice score was 4.03 ± 1.877 , with a median of 4.00 and a mean percentage score of 40.3%. A statistically significant association was observed between practice level and type of family ($\chi^2 = 9.753$, $p = 0.045$). No statistically significant association was observed between practice level and age, religion, educational qualification, occupation, family income, or source of information. The mean knowledge score was 5.23 ± 1.917 . Pearson's correlation analysis showed a very weak positive relationship between knowledge and practice scores, which was not statistically significant ($r = 0.073$, $p = 0.578$).

Conclusion

Most participants demonstrated average or poor practice regarding temporary contraceptive methods. Practice level was significantly associated with type of family, whereas no significant relationship was observed between knowledge and practice scores. Individualized contraceptive counselling and practical reproductive health education may help support informed contraceptive decision-making among primi mothers.

(Keywords:-Contraception; temporary contraceptive methods; knowledge; practice; primi mothers; family planning; reproductive health.)

INTRODUCTION

Family planning is an important component of reproductive healthcare that enables individuals and couples to determine the timing and spacing of pregnancies. Access to appropriate contraceptive methods can help prevent unintended pregnancies and support reproductive health [1,2].

Temporary contraceptive methods include oral contraceptive pills, condoms, injectable contraceptives, intrauterine contraceptive methods, implants, and other reversible approaches. Correct and consistent use is important for achieving the intended contraceptive effect, while method selection should consider individual health status, reproductive intentions, preferences, and circumstances [1,3,4].

Knowledge and actual contraceptive practice may not always correspond. Weldegerima and Deneke reported variation in women's knowledge, preferences, and use of modern contraceptive methods [5]. Similarly, Shukla et al. reported differences between awareness and actual contraceptive use among women of reproductive age in India [6]. Studies from India have also demonstrated gaps between contraceptive awareness and practice and identified factors such as education, family circumstances, perceived adverse effects, and access to information as relevant considerations [7,8].

The postpartum period provides an important opportunity for contraceptive counselling and pregnancy-spacing services. Recent evidence from India indicates that postpartum contraceptive use varies over time and differs according to individual and sociodemographic characteristics, including among first-time mothers [9]. Research has also demonstrated the importance of integrating family-planning counselling with maternal health services to improve postpartum contraceptive uptake [10,11].

Nurses and other healthcare professionals can support informed contraceptive decision-making by providing accurate information, correcting misconceptions, explaining method-specific benefits and limitations, and facilitating access to appropriate services [1,3,12].

NEED FOR THE STUDY

Unintended pregnancy and inadequate birth spacing remain important reproductive health concerns. Appropriate contraceptive use enables women and couples to plan the timing and spacing of pregnancies and supports informed reproductive choices [1,2].

Previous Indian studies have demonstrated that awareness does not necessarily translate into appropriate contraceptive practice. Factors such as fear of adverse effects, lack of knowledge, family circumstances, education, and access to services may influence contraceptive utilization [7,8].

Among postpartum women in India, contraceptive use may change during the months following childbirth, with differences observed according to individual characteristics and reproductive circumstances [9]. Studies have further emphasized the importance of counselling during antenatal, intrapartum, and postpartum care for improving acceptance and use of contraceptive methods [10,11].

Therefore, assessing both knowledge and practice among primi mothers may help identify areas requiring further reproductive health education and counselling.

AIM OF THE STUDY

The aim of the study was to assess the knowledge and practice of temporary contraceptive methods among primi mothers at Kalpana Chawla Government Medical College and Hospital, Karnal, Haryana.

Objectives

- I. To assess the level of knowledge regarding temporary contraceptive methods among primi mothers.
- II. To assess the level of practice regarding temporary contraceptive methods among primi mothers.
- III. To determine the association between the level of practice and selected demographic variables among primi mothers.
- IV. To determine the relationship between knowledge and practice scores regarding temporary contraceptive methods among primi mothers.

MATERIALS AND METHODS

Research Design

A quantitative descriptive research design was adopted.

Study Setting

The study was conducted at Kalpana Chawla Government Medical College and Hospital, Karnal, Haryana.

Study Population

The target population comprised primi mothers attending the selected hospital during the study period.

Sample Size

The sample consisted of 60 primi mothers who fulfilled the predetermined eligibility criteria.

Sampling Technique

A non-probability convenience sampling technique was used to select the participants.

Inclusion Criteria

Participants were included if they:

1. were primi mothers;
2. were residents of Karnal;
3. were willing to participate in the study; and
4. could understand and communicate in Hindi.

Exclusion Criteria

Participants were excluded if they:

1. were multigravida or had more than one child;
2. were unwilling to participate;
3. had already adopted a permanent method of family planning; or
4. had participated in the pilot study.

Data Collection Instruments

Three instruments were used for data collection.

Section I: Demographic Proforma

The demographic proforma included age, religion, type of family, educational qualification, occupation, annual family income, and source of information regarding contraception.

Section II: Knowledge Questionnaire

A self-structured knowledge questionnaire was used to assess participants' knowledge regarding temporary contraceptive methods.

Section III: Practice Checklist

A structured practice checklist was used to assess participants' reported practice regarding temporary contraceptive methods.

Data Collection Procedure

Permission was obtained from the concerned authorities before commencement of data collection. Eligible participants were informed about the purpose and procedure of the study. Written informed consent was obtained before participation.

The research instruments were administered to the participants with appropriate instructions. Completed instruments were checked for completeness and collected by the investigator. Privacy and confidentiality were maintained throughout the data collection process.

Statistical Analysis

The collected data were coded, tabulated, and analyzed using descriptive and inferential statistics.

Frequency and percentage were used to describe categorical variables. Mean, standard deviation, and median were used to summarize continuous scores.

The chi-square test was used to determine the association between practice level and selected demographic variables. Pearson's correlation coefficient was used to assess the

relationship between knowledge and practice scores. A p-value of <0.05 was considered statistically significant.

RESULTS

Sociodemographic Characteristics of the Participants

A total of 60 primi mothers participated in the study. The largest proportion of participants belonged to the 20–22-year age group (45.0%), followed by the 22–24-year age group (36.7%). Hindu participants constituted 76.7% of the sample.

Regarding family structure, 58.3% of participants belonged to nuclear families, 30.0% belonged to joint families, and 11.7% belonged to extended families.

Regarding educational qualification, 33.3% were graduates, 28.3% had completed 10th standard, 26.7% had completed 12th standard, and 11.7% had completed postgraduate education.

More than half of the participants (55.0%) were housewives, while 45.0% were employed. Regarding annual family income, 45.0% reported an income above ₹40,000, followed by 23.3% reporting ₹20,000–30,000, 18.3% reporting ₹30,000–40,000, and 13.3% reporting ₹10,000–20,000.

Mobile phones were the most commonly reported source of contraceptive information (43.3%), followed by family members and relatives (31.7%), television (20.0%), and newspapers (5.0%).

Table 1. Sociodemographic Characteristics of the Participants (N = 60)

Variable	Category	n	%
Age (years)	≤20	7	11.7
	20–22	27	45.0
	22–24	22	36.7
	≥24	4	6.7
	Total	60	100.0
Religion	Hindu	46	76.7
	Muslim	7	11.7
	Sikh	7	11.7
	Christian	0	0.0
	Total	60	100.0
Type of family	Nuclear	35	58.3
	Joint	18	30.0

	Extended	7	11.7
	Single-parent family	0	0.0
	Total	60	100.0
Educational qualification	10th standard	17	28.3
	12th standard	16	26.7
	Graduation	20	33.3
	Postgraduation	7	11.7
	Total	60	100.0
Occupation	Housewife	33	55.0
	Employed	27	45.0
	Online working	0	0.0
	Other	0	0.0
	Total	60	100.0
Annual family income (₹)	10,000–20,000	8	13.3
	20,000–30,000	14	23.3
	30,000–40,000	11	18.3
	>40,000	27	45.0
	Total	60	100.0
Source of information	Family and relatives	19	31.7
	Television	12	20.0
	Newspaper	3	5.0
	Mobile phone	26	43.3
	Total	60	100.0

Practice Level Regarding Temporary Contraceptive Methods

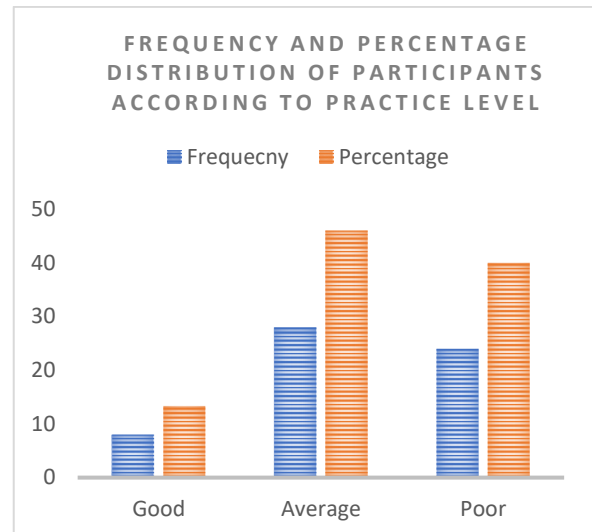
Among the 60 participants, 8 (13.3%) demonstrated good practice, 28 (46.7%) demonstrated average practice, and 24 (40.0%) demonstrated poor practice. Overall, 52 (86.7%) participants demonstrated either average or poor practice.

Table 2. Frequency and Percentage Distribution of Participants According to Practice Level (N = 60)

Practice level	Score	n	%
Good	7–10	8	13.3

Average	4–6	28	46.7
Poor	0–3	24	40.0
Total	0–10	60	100.0

Figure 1. Frequency and Percentage Distribution of Participants According to Practice Level (N = 60)



Descriptive Statistics of Practice Scores

The mean practice score was 4.03 ± 1.877 , with a median score of 4.00. The observed scores ranged from 0 to 7 against a maximum possible score of 10. The mean percentage score was 40.3%.

Table 3. Descriptive Statistics of Practice Scores

Statistic	Value
Mean	4.03
Standard deviation	1.877
Median	4.00
Minimum observed score	0
Maximum observed score	7
Maximum possible score	10
Mean percentage	40.3%

Association Between Practice Level and Selected Demographic Variables

The chi-square analysis showed a statistically significant association between practice level and type of family ($\chi^2 = 9.753$, $p = 0.045$).

No statistically significant association was observed between practice level and age, religion, educational

qualification, occupation, annual family income, or source of information.

Table 4. Association Between Practice Level and Selected Demographic Variables (N=60)

Variable	χ^2 value	p-value	Interpretation
Age	6.768	0.343	Not significant
Religion	5.430	0.246	Not significant
Type of family	9.753	0.045	Significant
Educational qualification	6.208	0.400	Not significant
Occupation	0.212	0.900	Not significant
Annual family income	5.331	0.502	Not significant
Source of information	5.341	0.501	Not significant

Result: A statistically significant association was found between practice level and type of family ($\chi^2=9.753$, $p=0.045$). No statistically significant association was observed between practice level and age, religion, educational qualification, occupation, annual family income, or source of information.

Correlation Between Knowledge and Practice Scores

The mean knowledge score was 5.23 ± 1.917 , while the mean practice score was 4.03 ± 1.877 . Pearson's correlation coefficient between knowledge and practice scores was 0.073, with a p-value of 0.578.

The findings indicated a very weak positive relationship between knowledge and practice scores; however, the relationship was not statistically significant.

Table 5. Correlation Between Knowledge and Practice Scores

Parameter	Knowledge score	Practice score
Mean	5.23	4.03
SD	1.917	1.877
N	60	60
Pearson's correlation (r)	0.073	—

p-value	0.578	—
Interpretation	Not significant	Not significant

DISCUSSION

The present study found that 13.3% of participants demonstrated good practice, while 46.7% demonstrated average practice and 40.0% demonstrated poor practice. Thus, most participants demonstrated average or poor practice regarding temporary contraceptive methods.

Previous research has similarly demonstrated that awareness and knowledge do not always result in appropriate contraceptive practice [5-8]. A study among married women in rural Vellore found that although modern contraceptive use was relatively common, knowledge levels were comparatively poor and misconceptions regarding contraceptive methods persisted [7]. Another study from an urban slum population in Punjab reported a gap between contraceptive awareness and practice, with fear of side effects and lack of knowledge among the reasons for non-use [8].

The present study demonstrated a statistically significant association between practice level and type of family ($\chi^2 = 9.753$, $p = 0.045$). Family structure may influence communication, support, decision-making, and access to reproductive health information. Previous evidence has also indicated that household and interpersonal factors can influence contraceptive use [12].

The present study found no statistically significant association between practice level and age, religion, educational qualification, occupation, annual family income, or source of information. These findings should be interpreted within the context of the sample size and sampling technique used in the present study.

The knowledge-practice correlation was very weak and statistically non-significant ($r = 0.073$, $p = 0.578$). This finding indicates that greater factual knowledge was not necessarily accompanied by better contraceptive practice in the present sample. Similar gaps between awareness and actual contraceptive use have been documented in Indian studies [7,8].

Recent evidence specifically examining postpartum contraception in India found that contraceptive use changes considerably during the postpartum period and that patterns differ among first-time mothers and other population groups [9]. Evidence also indicates that maternity-care contacts provide important opportunities for counselling and subsequent adoption of modern contraception [10].

The findings therefore support the importance of individualized contraceptive counselling rather than relying solely on information provision. Counselling should address method selection, correct use, possible

adverse effects, misconceptions, reproductive intentions, and access to services [1,3,11].

LIMITATIONS

1. The study included only 60 participants; therefore, the findings should be interpreted within the context of the study sample.
2. A non-probability convenience sampling technique was used, which limits generalizability.
3. The study was conducted in a single healthcare institution in Karnal, Haryana.
4. Practice was assessed using a study-specific checklist and may not capture all dimensions of long-term contraceptive behaviour.
5. The descriptive cross-sectional design does not establish causal relationships between knowledge, demographic characteristics, and contraceptive practice.

RECOMMENDATIONS

1. Structured contraceptive counselling should be incorporated into routine maternal and reproductive health services.
2. Nurses should provide individualized education regarding available temporary contraceptive methods, correct use, benefits, limitations, and possible adverse effects.
3. Counselling should address misconceptions and practical concerns that may influence contraceptive decision-making.
4. Family involvement may be considered when appropriate and acceptable to the woman while maintaining her autonomy and informed choice.
5. Similar studies may be conducted using larger probability-based samples across multiple healthcare institutions.
6. Future research may evaluate the effectiveness of structured nursing education or counselling interventions on contraceptive knowledge and practice.

CONCLUSION

The present study found that most primi mothers demonstrated average or poor practice regarding temporary contraceptive methods. Only 13.3% of participants demonstrated good practice, whereas 46.7% demonstrated average practice and 40.0% demonstrated poor practice.

Practice level was significantly associated with type of family but not with age, religion, educational qualification, occupation, annual family income, or source of information. Knowledge and practice scores showed a very weak positive but statistically non-significant correlation.

The findings support the need for individualized contraceptive counselling and practical reproductive health education. Nurses and other healthcare professionals can contribute to informed contraceptive decision-making by providing accurate, understandable, and method-specific counselling.

DECLARATIONS

Ethics Approval and Consent to Participate

Ethical permission was obtained from the concerned institutional authority before commencement of the study. Written informed consent was obtained from all participants before data collection.

Consent for Publication

Not applicable.

Availability of Data and Materials

The data generated during the study are available from the corresponding author on reasonable request, subject to applicable institutional requirements.

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The authors declare that no external funding was received for this study.

Conflict of Interest

The authors declare that they have no conflict of interest.

Author Contributions

Mrs. Jatinder Kaur contributed to the conception and design of the study, provided academic guidance and supervision throughout the research process, and contributed to interpretation of the findings and critical revision of the manuscript. The student authors contributed to data collection, data organization and analysis, interpretation of findings, and preparation of the manuscript under the guidance of the supervisor. All authors reviewed and approved the final version of the manuscript for publication.

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