(RESEARCH ARTICLE)

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Contraceptive awareness and its determinants for use among women of reproductive age: A cross sectional study

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Abstract

Introduction: According to the WHO, family planning is an approach to thinking and living that people and couples freely adopt in order to enhance their health and welfare based on their knowledge, attitude, and responsible choices. Each year, incorrect use of contraceptives or their failure to work as intended results in around one-third of unwanted births. The obstacles that exist in poorer nations include a lack of awareness about contraceptive techniques, the availability of supplies, their cost, or their inadequate accessibility.

Method: This was a cross sectional study; conducted to asses o contraception awareness, acceptance, and adoption among women of reproductive age. Women who attended/delivered at the Saidham Hospital affiliated to Dr. Mane Medical Foundation and Research Centre (DMMFARC) Maharashtra, India were included. Face-to-face interviews were conducted while data were collected using a structured questionnaire.

Result: Out of total 359 total women the majority 115 (32.02%) belonged to the 21–25 age group, while 197 (54.87%) were housewives, 112 (31.19%) had higher secondary education, 201 (54.98%) belonged to the lower socioeconomic class and were BPL cardholders, 191 (52.20%) belonged to rural areas, and Hindu populations contributed 182 (50.69%). Furthermore,165 (45.96%) study participants had one child, and 21 (5.84%) had a history of one abortion. occupation, level of education, socioeconomic class, area of residence, and religion showed statistically significant relationships with contraception usage.

Conclusion: The present study concludes that the majority of women of reproductive age still do not use contraceptives and their opinion is not taken into account. More similar studies are needed to ascertain the determinants of contraceptive use and such knowledge can be used to formulate specific health education needed for adoption of family planning methods.

Keywords: Contraception; Family planning; Awareness; Determinants

1. Introduction

By 2050, the world's population is projected to increase from its present level of 6.7 billion people to 9.2 billion people1. Such a population rise will put a strain on the community's infrastructure as well as its food supply, medical services, and general well-being. Governments have incorporated family planning as a component of their demographic control program in order to offset the impacts of such a massive surge in population.

According to the most recent United Nations figures, India had 1,342,463,457 people as of 2017. It is the second most populous nation. Given that India's median age is 26.9 years, a significant portion of women are also of reproductive age. It is not unfair to state that women continue to pass away in our nation due to conditions that are almost unknown in industrialised nations2. 17.86% of all people on Earth live on the Indian subcontinent3. In 2019, there are 1.9 billion women globally in the reproductive age range (15-49 years), and 1.1 billion of them need family planning4. Contraception is recommended in order to meet the vital issue of rapid population expansion as well as the demands of both men and women in terms of reproductive health5.

According to research, 222 million spouses do not use any kind of contraception even in this day and age. This is mostly due to a lack of awareness and resources as well as cultural taboos and attitudes around the usage of various forms of contraception6. This hypothesis is reinforced by the statistic that among women with unplanned pregnancies, roughly sixty percent of them were not using any kind of contraception. This concept uses the practice of spacing between each child (in years) through the use of contraceptive methods7. Induced abortions are frequently the outcome of unplanned pregnancies, which presents a serious problem for young people's reproductive health in developing nations like India8.

Therefore, the current study intended to evaluate married females who were 18 years of age and order's awareness, acceptance, and adoption for contraception.

2. Methodology

The current study was done over a six-month period using a cross sectional design. Participants was recruited based on predetermined criteria and attended/delivered at the Saidham Hospital affiliated to Dr. Mane Medical Foundation and Research Centre (DMMFARC) Maharashtra, India. Married women who are 18 years of age or older, of reproductive age; and those who were willing to participate were included and participants who chose a permanent method of contraception, those who underwent hysterectomy were excluded from the study.

Sample size calculated by using reference from Bamniya J et al study9 finding and using following formula

$$\text{Sample size} = Z(1 - \alpha/2)^2 pq d^2$$

Where;

P: 63% participants were not using any method of contraception, 5% absolute precision (d), considering alpha (α) 5%, and Z value (1 – α/2) 1.96.

Putting these values in equation, sample size = $(1.96)^2 \times 63 \times 37 / (5)^2$, calculated sample size was 359. To examine the feasibility, applicability, and validity of the questionnaire, a pilot study was carried out. For this initial test, a pre-made questionnaire was employed. The questionnaire was improved based on the feedback we got and the difficulties we ran into during the pilot trial. The pretested final version was then used to conduct data gathering. Questionnaire was of three parts viz. Part 1: Contains sociodemographic information Part 2: History of obstetrics and gynaecology Part 3Knowledge, Attitude, and Practise Questions. The accuracy of the data tools was verified, and data input and coding were carried out in Microsoft Excel. To highlight key aspects, the raw data was organised, categorised, and presented in a tabular and graphical format. After confirming that all of the gathered questionnaires were complete, data coding and input were carried out in Microsoft Excel. SPSS Software 21 was used to examine the data. The analysis employed descriptive and inferential methods such percentage, mean, standard deviation, odd's ratio, and Chi-square test. P values under 0.05 were deemed significant for statistical analysis.

3. Results

Table 1 shows the demographic variables of study participants. Our study revealed that out of a total of 359 study participants, the majority 115 (32.02%) belonged to the 21–25 age group, while 197 (54.87%) were housewives, 112 (31.19%) had higher secondary education, 201 (54.98%) belonged to the lower socioeconomic class and were BPL cardholders, 191 (52.20%) belonged to rural areas, and Hindu populations contributed 182 (50.69%). Furthermore,165 (45.96%) study participants had one child, and 21 (5.84%) had a history of one abortion.

Table 1 Demographic variables of cases

Demographic variables	Number of cases (N – 359)	Percentages
Age (years)		
18 to 20	97	27.01
21 to 25	115	32.03
26 to 30	87	24.23
31 to 35	37	10.30
>35	23	6.40
Mean age	24.97	
SD	5.38	
Occupation		
House wife	197	54.87
Working wife	162	45.12
Education		
Illiterate	15	4.17
Primary	16	4.45
Secondary	47	13.09
Higher secondary	112	31.19
Graduation	91	25.34
Post graduation	78	21.72
Socioeconomic status		
BPL	201	55.98
APL	158	44.01
Area of residence		
Urban area	168	46.79
Rural area	191	52.20
Religion		
Hindu	182	50.69
Muslim	167	46.51
Others	10	2.78
Number of children		
1	165	45.96
2	163	45.40
>2	31	8.63
Abortion		
No	321	89.41
1	21	5.84
2	9	2.50
>2	8	2.22

Table 2 Awareness of contraception among study participants

Variables	Number of study participants (N - 359)	percentages
Understanding the concept of contraception		
Not Adequate	143	39.83
Adequate	216	60.16
Understanding of emergencies contraceptive usage		
Not Adequate	159	44.28
Adequate	200	55.71
Educational Resources regarding Contraception methods		
Family members	17	4.73
peers	103	28.69
News paper	119	33.14
Online social media platform	88	24.51
Health care providers	32	8.91

Table 2 shows that awareness of contraception among study participants, out of a total of 359 study participants, 216 (60.16%) had adequate understanding of the concept of contraception, while 200 (55.71%) had adequate understanding of emergency contraceptive usage, and furthermore, 119 (33.14%) study participants got sex education from newspapers.

Table 3 Contraception usage

Contraception use	Number of cases	Percentage
Yes	216	60.16
No	143	39.83
Type of contraception (N 216)		
Nirodh	91	42.12
Deluxe condom	53	24.53
Occi pills	22	10.18
Emergency contraceptive pills	9	4.16
Injectable	13	6.01
Copper T	23	10.64
Calendar method	5	2.31
Consider in Family planning decision/Choice of Contraception use		
Yes	279	77.71%
No	80	22.28%

Table 3 shows the usage of contraception among study participants. Out of the total 359 study participants, 216 (60.16%) had a positive history of contraception usage. Out of a total of 216 study participants, 91 (42.12%) used Nirodh as contraception, 53 (24.53%) used Deluxe Condom, 22 (10.18%) used Occi Pills, and 23 (10.64%) used Copper T as contraception.

Table 4 Association of sociodemographic variables with usage of contraception

Demographic variables	contraception usage (yes) N - 216	contraception usage (no) N - 143	P value
Age (years)			
18 to 20	59	38	0.201
21 to 25	78	37	
26 to 30	46	41	
31 to 35	19	18	
>35	14	9	
Occupation			
House wife	105	92	0.003
Working wife	111	51	
Education			
Illiterate	2	13	0.0001
Primary	4	12	
Secondary	16	31	
Higher secondary	70	42	
Graduation	66	25	
Post graduation	58	20	
Socioeconomic status			
BPL	105	96	0.0001
APL	111	47	
Area of residence			
Urban area	112	56	0.018
Rural area	104	87	
Religion			
Hindu	128	54	0.0001
Muslim	80	87	
Others	8	2	
Number of children			
1	105	60	0.151
2	97	66	
>2	14	17	
Abortion			
No	192	129	0.091
1	17	4	
2	4	5	
>2	3	5	

Table 4 shows associations of demographic variables with contraception usage. Our study revealed that there was no statistically significant relationship between age and contraception usage. While occupation, level of education, socioeconomic class, area of residence, and religion showed statistically significant relationships with contraception usage, Furthermore, the number of children and history of abortion did not show any statistically significant associations with contraception usage.

4. Discussion

Our study revealed that out of a total of 359 study participants, the majority 115 (32.02%) belonged to the 21–25 age group, as per Gothwal M et al study 82.6% study participants were belonged from 21 to 30 years age group10. As per Bajracharya A et al study 361(90.25%) participants were belonged from 20 to 34 years age group11. As per Bamniya J et al study 263(49.5%) study participants were belonged from 26 to 30 years age group9. As per Tusubira AK et al study 204(55.3%) study participants were belonged from 25 to 34 years age group12.

While 197 (54.87%) were housewives, as per Bajracharya A et al study 287(71.80%) participants were housewife11. As per Bamniya J et al study 392(73.8%) participants were unemployed by occupation9. As per Tusubira AK et al study 230(62.3%) participants were farmer by occupation12. 112 (31.19%) had higher secondary education, Bajracharya A et al study 151(37.80%) participant had higher secondary education11. As per Bamniya J et al study 297(55.9%) had secondary level of education9. As per Tusubira AK et al study 194(52.6%) had primary level of education12.

Our study found that 201 (54.98%) belonged to the lower socioeconomic class and were BPL cardholders, Bajracharya A et al study 245(61.25%) participants were belonged from upper cast group11.191 (52.20%) belonged to rural areas, Bajracharya A et al study 273(68.30%) participants were belonged from urban area11.

Our study found that Hindu populations contributed 182 (50.69%). as per Gothwal M et al study 86.7% study participants were Hindu by religion10. As per Bamniya J et al study 483(91%) study participants were Hindu by religion9. As per Tusubira AK et al study 172(46.6%) study participants were catholic by religion12.

 Furthermore,165 (45.96%) study participants had one child, as per Bamniya J et al study 307(57.8%) participant had one child9. As per Tusubira AK et al study 171 (46.3%) participants had 1 to 2 number of children12. 21 (5.84%) had a history of one abortion. As per Bamniya J et al study 22(4.1%) participants had history of one abortion9.

Our study found that awareness of contraception among study participants, out of a total of 359 study participants, 216 (60.16%) had adequate understanding of the concept of contraception, as per Gothwal M et al study 71% participant had positive attitude towards contraception usage10. Bajracharya A et al study 363(90.8%) study participant were aware for contraception11. As per Bamniya J et al study 473(89.1%) had knowledge about barrier method, while 313(58.9%) had knowledge about oral contraceptive pills, 380(71.6%) had knowledge about intra uterine contraceptive device, 232(43.7%) had knowledge about lactational amenorrhea method, 236(44.4%) had knowledge about tubal ligation, furthermore, 174(32.8%) had knowledge about injectable progesterone9. As per Verma N et al study 112(20.3%) study participants had good knowledge on contraception., 199(36.1%) participants had used condom as contraception method13.

Our study found that 200 (55.71%) had adequate understanding of emergency contraceptive usage, and furthermore, 119 (33.14%) study participants got sex education from newspapers. as per Gothwal M et al study 79.8% were got information from through media10. Bajracharya A et al study 55.7% were got information from through media11. As per Verma et al study 164 (29.8%) study participants got sex education from social media13.

Our study found that usage of contraception among study participants. Out of the total 359 study participants, 216 (60.16%) had a positive history of contraception usage. Out of a total of 216 study participants, 91 (42.12%) used Nirodh as contraception, 53 (24.53%) used Deluxe Condom, 22 (10.18%) used Occi Pills, and 23 (10.64%) used Copper T as contraception. as per Gothwal M et al study 64.1% study participant had preferred male condom, 57.8% had preferred intrauterine device, while 58.3% had preferred lactational amenorrhea as postpartum contraception method10. Bajracharya A et al study 60.35% study participants had used modern method of contraception. While 60.5% women had use OCP as common method of contraception11. As per Verma et al study 87(15.8%) participants had awareness regarding usage of emergency contraceptive13. As per Tusubira AK et al study 279(75.6%) participants used modern method of contraception previously12.

Our study found that occupation, level of education, socioeconomic class, area of residence, and religion showed statistically significant relationships with contraception usage, Furthermore, the number of children and history of

abortion did not show any statistically significant associations with contraception usage.as per Gothwal M et al study shows significant association of age, marital status, family size with usage of contraception10. As per Bamniya J et al study education of women, education of spouse, occupation of women, parity, live birth show statistically significance with usage of contraception9.

5. Conclusion

The present study concludes that the majority of women of reproductive age still do not use contraceptives and their opinion is not taken into account. More similar studies are needed to ascertain the determinants of contraceptive use and such knowledge can be used to formulate specific health education needed for adoption of family planning methods.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

Institutional Ethical Committee (IEC) Permission was obtained before commencing the study

Statement of informed consent

The aim and objectives of the present study were explained to participants in vernacular language and Informed consent was obtained from all individual participants included in the study.

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