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Original Research Article

Contraceptive awareness, patterns of use, and unmet contraceptive needs among pregnant women attending antenatal clinics in a tertiary care facility

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ABSTRACT

Background: The term unmet need for family planning is a central metric in reproductive health, guiding advocacy, policy formation, programme implementation, and monitoring of health outcomes globally. This study evaluated awareness, perceptions, and usage of contraceptive methods among pregnant women.
Methods: A descriptive cross-sectional study was undertaken among 384 third-trimester antenatal attendees at a tertiary care hospital. Data were obtained using a pre-validated questionnaire and analysed using SPSS v20 and Epi Info.
Results: While 94.3% knew of at least one contraceptive method and 76% endorsed use to delay or avoid pregnancy, only 25.3% had ever practised contraception. The most frequently used methods reported were condoms (55%) and oral contraceptive pills (26%).
Conclusions: Contraceptive knowledge and use were significantly associated with age over 20 years, higher education, employment, and better socioeconomic status (SES).

Keywords: Contraception, Family planning services, Pregnant women, Awareness, Cross-sectional studies, India

INTRODUCTION

The international community has agreed that the right to health includes the right to control one's health and body, including sexual and reproductive freedom.[1] The family planning 2020 (FP2020) initiative is a global movement that supports this right and therefore the rights of women and girls to decide freely and for themselves whether, when, and how many children they want to have. The initiative is an outcome of the 2012 London summit on family planning where more than 20 national governments made commitments to address the policy, financing, delivery, and socio-cultural barriers to women accessing contraceptive information, services, and supplies.[2]

Among the 1.9 billion women of reproductive age group (15-49 years) worldwide in 2021, 1.1 billion have a need for family planning; of these, 874 million are using modern contraceptive methods, and 164 million have an unmet need for contraception who want to use safe and effective family planning methods but are unable to do so because they lack access to information, services, or the support of their partners or communities. Most of these women with an unmet need for contraceptives live in 69 of the poorest countries on earth.[3]

India is yet above the replacement level, with contraceptive prevalence rate for married women being only 56% and total unmet need being 12.8%. As per NFHS III data, messages about family planning are not

reaching all youth. Many youths have not heard of available modern contraceptive spacing methods in spite most of the youth desiring a small family and having a positive attitude towards contraception. Houses almost 17.3% of the world's protected couples and 20% of world's eligible couples with unmet need. India became the first country in the world to initiate the family planning program in 1952 with the goal of lowering fertility and slowing the population growth rate.

Bridging the gap between desired family size and contraceptive practice remains a priority in reproductive health agendas.[4,5] The NFHS-5 shows that 56.4% of married Indian women of reproductive age currently use contraception, while 9.4% still have an unmet need.[7]

India's family planning services were integrated under the reproductive and child health programme in 1997, aiming to expand choice, improve quality, and reach underserved populations.[7] This was followed by the RMNCH+A approach, embedding family planning within maternal, newborn, child, and adolescent health initiatives.[12]

Recent government interventions have broadened contraceptive options, rolled out fixed-day services, strengthened postpartum and post-abortion family planning, increased male involvement, and leveraged community health workers like ASHAs for last-mile outreach.[10,11] Yet, awareness and access gaps persist, especially in rural and socioeconomically disadvantaged areas.[12]

This study aimed to assess awareness, attitudes, and practices toward contraception among pregnant women in a tertiary care setting, and to analyse socio-demographic influences on these patterns.

METHODS

This is a part study of the main study which was a cross-sectional study undertaken to assess the knowledge, attitude, and practices regarding ANC among pregnant women attending the antenatal clinic in a tertiary care hospital. This study was carried out between March 2024 to February 2025. For the purpose of sample size estimation, prevalence was taken as 50%, confidence level as 95% and absolute error of margin (d) was set at 05% (i. e., a=0.05). The minimum sample size was estimated to be 384. The study population comprised of all pregnant women attending the antenatal clinic. Ethical approval for conducting the study was obtained from institutional ethics committee of the hospital. Written informed consent was obtained from each subject. The data were collected by interviewing all the eligible subjects willing to participate in the study. Predesigned, pretested questionnaire was used. Study subjects were selected by systematic random sampling technique.

Knowledge about the various methods of contraception was assessed. Attitude questionnaire was scaled using 5-point Likert scale. Questions were asked to assess the practices with regards to ANC visit, dietary changes made during pregnancy, IFA tablets taken. Questions related to smoking, alcohol, self-medication were noted.

Demographic characteristics namely age; parity, type of family, education and occupation, and SES were selected for studying association with knowledge and practices with regards to contraception awareness and practices. For the ease of study, age is categorized into two categories namely age <20 years and ≥20 years. Family was divided into two categories namely joint family and other. Education was categorized divided into those below 10th standard and more than 10th standard. Occupation was divided as unemployed and employed. Study participants were divided into two categories; 1st up to upper lower class and 2nd category included more than the lower middle of Kuppuswamy scale.[6] Appropriate statistical tests like mean, standard distribution chi square, odds ratio were applied as per requirement of study and in consultation with statistician.

RESULTS

In our study, the age range of study subjects ranges from 18 to 37 years with mean age of 24.02 years. The 193 (50.3%) women were primigravida and 49.7% were multigravid. 29.2% women were educated up to high school, followed by 20. Three percent graduate, 18.5% intermediate, 16.1% until middle school, 10.7% until primary school, and 1.3% were professional. Only 3.9% women have not attended any formal schooling. About 91% women were unemployed and were working as housewives, and only 8.9% were working. The 49.2% study subjects belonged to lower middle class, 44.5% in upper lower, 5.7% in the upper middle, and 0.3% each in lower and upper class. The 61.7% respondent belonged to joint family followed by 37% nuclear and only 1.3% three generation. Table 1 shows age distribution in respect with 1st pregnancy.

Educational status of respondent and their husband is depicted in Figure 1.

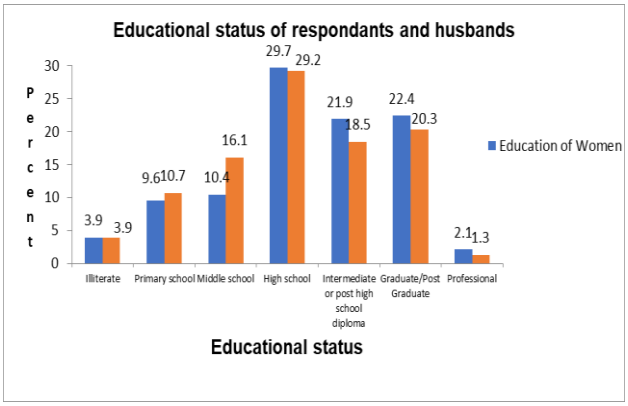

Figure 1: Distribution of study subjects and their husbands as per educational status.

The 91.1% women were unemployed and were working as housewives and only 8.9% were working. With regards to occupational status of husbands, 44.3% were doing clerical/shop-owner jobs followed by 37.2% skilled workers. 49.2% study subjects belonged to lower middle class, 44.5% in upper lower, 5.7% in upper middle and 0.3% each in lower and upper class.

In our study 362 women (94.3%) had heard about any form of contraception. The 79.4% women were aware about CU-T, 76.6% about oral pills, 75% about male condoms, 11.2% about natural methods, 6% about injectable contraceptives and 6% had heard about vaginal condoms.

During assessment of attitude on five-point Likert scales, it was found that 28.9% strongly agreed, 46.9% agreed, 23.4% remained neutral and 0.8% disagreed when it was said that Women should use contraceptive methods as a method of spacing.

Practice of contraception

Out of 384 only 97 (25.26) had used any form of contraception. Among them 54.6% had used condoms, 25.8% oral pills, 23.7% natural methods, 8.24% CU-T and 4.1% injectable contraceptives. The 97 (25.26%) women said that they had used any form of contraceptive methods. Among them 54.6 % had used condoms, 25.8% oral pills, 23.7% natural methods, 8.24% CU-T and 4.1% injectable contraceptives.

Table 3 shows relationship between various socio demographic factors and contraceptive use practices regarding ANC by pregnant women. Age >20 years, Multi parity, education above 10th, employment and higher education were significantly associated with contraceptive usage.

Table 4 show various factors for not using the contraception.

Table 1: Distribution of study subjects as per age and age at marriage and with 1st pregnancy.

Variables	N	Percentage (%)	Mean±SD	95% CI
Age (in years)				
≤18	49	12.8	21.58±3.03	21.27-21.87
19-23	251	65.4		
24-28	71	18.5		
29-33	13	3.4		
Total	384	100.0		
Distribution of gap between age at marriage and 1st pregnancy				
<3	324	84.4	1.60±1.65	1.44-1.77
3-5	50	13.0		
>5	10	2.6		
Total	384	100.0		

Table 2: Association of contraceptive knowledge with demographic factors of study.

Variables	Cut off level	N	Mean score	Std. deviation	Significance (chi square)
Age (in years)	≤20	60	2.12	1.37	P=0.000, df=382
	>20	324	2.84	1.27	
Type of family	Joint	237	2.74	1.29	P=0.823, df=382
	Others	147	2.71	1.35	
Parity	Primi	193	2.53	1.39	P=0.004, df=382
	Multi	191	2.92	1.20	
Education	<10th	230	2.48	1.23	P=0.000, df=382
	>10th	154	3.09	1.35	
Occupation	House maker	350	2.71	1.27	P=0.319, df=382
	Job	34	2.94	1.69	
SES	≤Upper lower	172	2.45	1.23	P=0.000, df=382
	>Lower middle	212	2.95	1.34	

Table 3: Association of contraceptive use with demographic factors of study subjects.

Socio demographic variables			Contraceptive use		Chi square	OR	95% CI
Category		**N**	**Yes**	**No**			
Age (in years)	>20	324	95	229	P=0.000	12.03	2.88-50.26
	<20	60	2	58			

Continued.

Socio demographic variables		Contraceptive use		Chi square	OR	95% CI
Category		N	Yes	No			
Parity	Multi	191	70	121	P=0.000	3.56	2.15-5.88
	Primi	193	27	166			
Family	Joint	237	53	184	P=0.097	0.67	0.42-1.07
	Others	147	44	103			
Education of wife	>10th	154	54	100	P=0.000	2.35	1.47-3.75
	<10th	230	43	187			
Occupation of wife	Working	34	14	20	P=0.025	2.25	1.09-4.65
	Non-working	350	83	267			
SES	Middle and upper	212	69	143	P=0.000	2.48	1.51-4.08
	Lower	172	28	144			

Table 4: Barriers in practices of contraception.

Reasons	N	Percentage (%)
Unavailability	41	10.67
Social stigma in purchasing	359	93.5
Shyness	355	92.4
Family opposition	21	5.5
Fear of side effect	112	29.16
Inconvenience to use	76	19.79
Lack of adequate information	134	34.9

DISCUSSION

Our findings parallel national-level evidence indicating that despite widespread awareness of contraception, uptake of modern methods remains comparatively modest.[6,11,14] In our population, use was higher among women above 20 years of age, with greater educational attainment, employment, and higher SES-trends consistent with other Indian and South Asian studies.[14,15]

Non-clinical barriers such as stigma, discomfort in procurement, family disapproval, and concerns about adverse effects were notable.[16] 0Similar obstacles have been documented in rural and peri-urban Indian research.[17] Addressing them through culturally tailored information campaigns, structured postpartum counselling, and male participation initiatives has shown measurable benefits.[18,19]

Consistent with NFHS-5 trends, our data also linked multi-parity, older maternal age, and higher income with increased contraceptive uptake.[6] Although some evidence suggests nuclear households may favour higher usage, this was not strongly reflected in our study, possibly due to contextual factors.[20]

Overall, the results support integrating comprehensive contraceptive counselling into routine antenatal and postnatal services to reduce unmet need, alongside expanding method availability and tackling socio-cultural barriers.[9,11]

Limitations

Since the study sample is taken from the women attending the tertiary care setup, the extrapolation may not be carried out on all population especially rural area.

CONCLUSION

Awareness of contraception was high, yet utilisation was low among pregnant women studied. Programmes should prioritise interventions that close the awareness–practice gap through targeted education, better counselling, and community-level engagement.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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