

Original article

Awareness and acceptability of contraceptive methods amongst antenatal patients attending antenatal care clinic at Pravara Rural Hospital (PRH) Loni

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ABSTRACT

Background: Family planning is one of the most crucial interventions to address maternal morbidity and mortality. It also refers to the use of contraceptives for spacing child birth and achieving the desired family size, which is in turn beneficial for the family and society, from a financial and practical perspective. Usage of contraceptives is also pivotal in maintaining an optimal balance of the national and global population.

Objective: This study aims to identify the knowledge, acceptability and practice among antenatal patients attending the antenatal care unit at the Rural Hospital of Pravara.

Materials and methods: A descriptive cross-sectional study has been conducted using a structured questionnaire which was given to the respondents attending the antenatal clinic.

Results: The respondents belong to the age group of 18 and 32 years. A high level of awareness was noted among the respondents, but the usage was low. The main reason for not using contraceptives was willingness to conceive (as majority of them had not yet reached their desired family size). Other factors associated with non-usage were apprehensions like fear of side-effects and harmful effects on health (which indicate that intense and in-depth counselling is required to allay the apprehensions). Husband's consent also plays an important role in family planning.

Conclusion: Incorporation of family planning and contraception into a greater proportion of households will require trained healthcare professionals to provide detailed counselling to patients. There is also a strong need for media to promote the usage of contraceptives. Additionally, education of women is integral to facilitate the society reaching a more conscientious and enlightened state without any gender bias.

Keywords: Antenatal care , Contraceptive measures , Rural population

INTRODUCTION

The world is undergoing a great change and we are at the brink of global transformation. For betterment of health of human population, United Nations has developed 17 Sustainable Development Goals (SDGs) which will build a more prosperous, equal, and secure world by 2030¹. In this context, family planning can be presented as a cross-sectional intervention that can hasten progress across the five SDG themes of people, planet, prosperity, peace and partnership. Also, investing in family planning is a 'developmental best buy' as it has an impact on maternal, child and adolescent health². Family planning in

countries with high birth rate has shown the potential to reduce poverty and hunger and avert 32% of maternal deaths and nearly 10% of childhood deaths³. India's population was 1.36 billion in 2019 and projected to be close to 1.38 billion in 2020⁴. According to demographic transition model, India stands at the third stage due to decreased birth rates and death rates. It is projected to be at the fourth stage if the total fertility rate reaches 2.1⁵.

Exacerbation of population can cause fast depletion of resources and it is an important issue in India. If this trend is not controlled, it will have a devastating effect on populations and economies as has

been observed in some third world countries⁶. The Government of India launched the family planning program in 1952, and over the years, efforts are being made to increase the effectiveness of the program. According to the Family Planning 2020, Country Action Plan released in 2016, the Government aims to intensify family planning activity by focusing on a modern contraceptive prevalence rate (MCPR). India had been a signatory of SDG 2015 and has committed itself to achieving good health, wellbeing, and gender equality by 2030⁷.

As 68.64% of India's population resides in rural India, there is tremendous potential for adopting family planning measures in rural settings. The need to carry out such promotions is urgent, as is the need for universal and equitable access to quality health service⁷. Based on this need, this study has been conducted to assess the awareness and acceptability of the different contraceptive methods among the antenatal patients attending the clinic at a rural hospital in Maharashtra. Antenatal clinic is an area frequently visited by women in the reproductive age group chosen for the study. It also provides a forum for discussing family planning measures and correction of wrong perceptions. Moreover, it is a platform for the exchange of ideas between expecting and present mothers⁸.

METHODOLOGY

A descriptive cross-sectional study was conducted over a period of three months, from 1 January 2020 to 31st March 2020. Antenatal women (primigravida and multigravida) were included in the study belonging to the age group of 18 years to 35 years. The sample size was 113 antenatal patients (40 primigravida and 73 multigravida). It included both low-risk antenatal patients and patients with other medical conditions in both the groups.

Study method

A structured questionnaire was formatted and pretested for its efficacy. The questionnaire was designed to include the socio-demographic factors, clinical details, obstetric history, and pre-existing health issues of the subjects, as well as awareness level, acceptability/non-acceptability factors of contraceptive methods. The questionnaire was handed over individually to the participants and assistance was provided to the subject in case of literal or interpretational difficulty in filling out the form. The data collected was transferred to an Excel spreadsheet for further analysis. The analysis was carried out in MS Excel, and its table and graph functionalities were used for displaying results. The observations have been categorised into the following sections: socio-demographic profile; awareness; and, acceptability and practice.

RESULTS:

TABLE 1: EXISTENCE OF AWARENESS IN PRIMIGRAVIDA AND MULTIGRAVIDA PATIENTS

Awareness exists	primi (n = 40)		multi (n = 73)	
	frequency	%	frequency	%
Yes	34	85	70	96
No	6	15	3	4.1

TABLE 2: KEY STATISTICS OF SOCIODEMOGRAPHIC PROFILE

Characteristics		Primi (n=40)		Multi (n=73)	
		Frequency	%	Frequency	%
Age groups (year)	18 to 19	11	27.5	0	0
	20 to 24	24	60	24	32.88
	25 to 29	4	10	43	58.9
	30 to 32	1	2.5	6	8.22
Education	Illiterate	1	2.5	2	2.74
	Primary (1 to 4th)	0	0	2	2.74
	Secondary (5 to 10th)	14	35	29	39.73
	Higher secondary (11 and 12th)	13	32.5	20	27.4
	Graduate	12	30	20	27.4
Religion	Hindu	37	92.5	67	91.78
	Muslims	2	5	5	6.85
	Christians	1	2.5	1	1.37
Occupation	Sedentary	9	22.5	9	12.33
	Supervisory	3	7.5	4	5.48
	Hard labour	8	20	19	26.03
	Homemaker	20	50	41	56.16
Monthly Income (INR)	<10000	16	40	9	12.33
	10000 to <20000	17	42.5	35	47.95
	20000 to <30000	5	12.5	25	34.25
	30000 and more	2	5	4	5.48
Marital duration (years)	<1	9	22.5	0	0
	1 to 2	22	55	0	0
	2 to 5	9	22.5	34	46.58
	>5	0	0	39	53.42
Past medical history	Yes	8	20	35	47.95
	No	32	80	38	52.05
Number of children*	1	0	0	41	56.16
	2	0	0	19	26.03
	>2	0	0	9	12.33

TABLE 3: LEVEL OF AWARENESS OF CONTRACEPTIVE METHODS IN PRIMIGRAVIDA AND MULTIGRAVIDA PATIENTS WITH MEDICAL ISSUES

primigravida (n=8)			multigravida (n=29)		
aware	not aware	awareness %	aware	not aware	awareness %
6	2	75%	28	1	96.55%

TABLE 4: RELATION BETWEEN AGE AND AWARENESS

Age group (years)	Aware	Unaware
18-19	90.91%	9.09%
20-24	85.42%	14.58%
25-29	97.87%	2.13%
30-34	100.00%	0.00%

FIGURE 1: RELATION OF EDUCATION AND LEVEL OF AWARENESS OF CONTRACEPTIVE METHODS

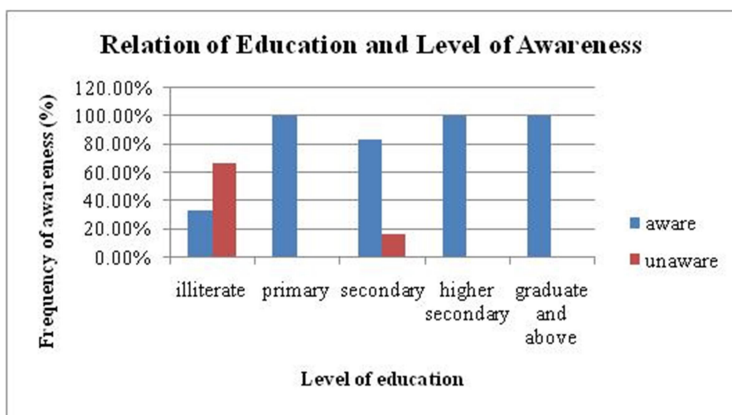


FIGURE 2: AWARENESS OF CONTRACEPTIVE METHODS BY INCOME GROUP

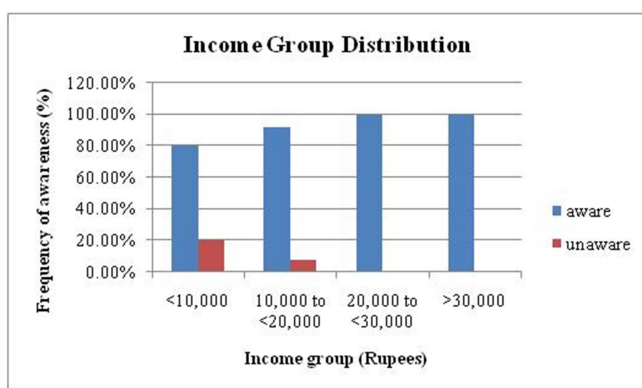


FIGURE 3: RELATION BETWEEN MARITAL STATUS AND AWARENESS OF CONTRACEPTIVE METHODS

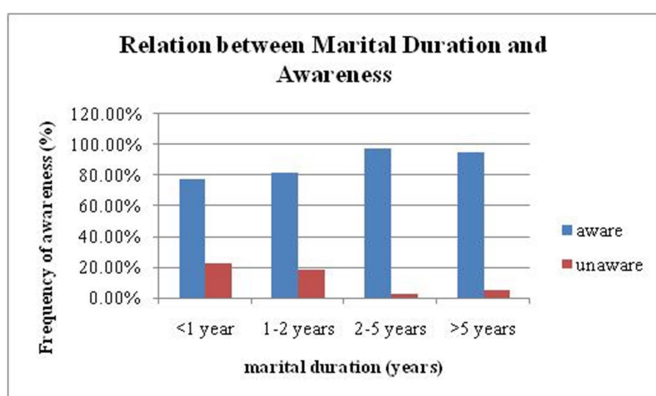


TABLE 5: SUMMARY OF STATISTICS OF AWARENESS WITH RESPECT TO FACTORS

Factors related to awareness		Primi (n=40)		Multi (n=73)	
		Frequency	%	Frequency	%
Period of awareness (number of years)	1 to 5	34	85	55	75.3
	6 to 10	0	0	15	20.6
	>10	0	0	0	0
Source of awareness*	Family/friend	22	55	42	57.5
	Health worker	24	60	52	71.2
	Media	14	35	30	41.1
	Others	1	2.5	0	0
Contraceptive methods*	Abstinence	27	68	48	65.8
	Coitus interruptus	2	5	4	5.48
	Condom	31	78	65	89
	Injection	4	10	17	23.3
	Calendar	10	25	25	34.3
	Others (IUCD/Pills/TL)	25	63	64	87.7
Importance of contraceptives	Important	27	68	62	84.9
	Not important	0	0	1	1.37
	Don't know	12	30	10	13.7
	Neutral	1	2.5	0	0

*Multiple responses

TABLE 6: SUMMARY OF FREQUENCY PERCENTAGES FOR FACTORS OF AWARENESS

Factors that impact usage of contraceptives		Primi (n=40)		Multi (n=73)	
		Frequency	%	Frequency	%
Importance of further education/career-building	Very important	10	25	15	20.55
	Important	15	37.5	18	24.66
	Non-important	7	17.5	23	31.51
	Don't know	8	20	17	23.29
Space between next pregnancy	Very important	19	47.5	54	73.97
	Important	5	12.5	14	19.18
	Not important	9	22.5	3	4.11
	Don't know	7	17.5	2	2.74
Planning for next pregnancy	After 2 years	23	57.5	14	19.18
	1 to 2 years	3	7.5	2	2.74
	Not planning	3	7.5	49	67.12
	Don't know	11	27.5	8	10.96
Emotional reaction if conceived immediately	Not happy	13	32.5	51	69.86
	Happy	20	50	15	20.55
	Very happy	7	17.5	7	9.59
Importance of using contraceptive methods	Very important	24	60	51	69.86
	Important	9	22.5	14	19.18
	Non-important	2	5	1	1.37
	Don't know	5	12.5	7	9.59
Husband consent	Yes	23	57.5	51	69.86
	No	5	12.5	4	5.48
	May be	12	30	18	24.66
If contraceptive methods are painful	No	17	42.5	42	57.53
	Yes	9	22.5	14	19.18
	Doubtful	14	35	17	23.29
Are contraceptive means harmful	Yes	11	27.5	6	8.22
	No	13	32.5	37	50.68
	Don't know	16	40	30	41.1
Pregnancy possible while using contraceptive	Yes	11	27.5	11	15.07
	No	6	15	25	34.25
	Don't know	23	57.5	37	50.68
Use contraceptives next year	Yes	19	47.5	48	65.75
	No	2	5	7	9.59
	Don't know	19	47.5	18	24.66

TABLE 7: DESCRIPTION OF USAGE AND NON-USAGE OF CONTRACEPTIVES

USING			NOT USING		
respondent type	primi	multi	respondent type	primi	multi
percentage	20%	52%	percentage	80%	47.95%
TYPES OF CONTRACEPTIVES USED*			REASON FOR NOT USING*		
type of contraceptive	primi	multi	reason for not using	primi	multi
Pills	25.00%	29.51%	Social/religious	4.35%	6.00%
IUCD	0.00%	8.20%	Unwilling husband	6.52%	22.00%
Condoms	58.33%	44.26%	Fear of side-effect	15.22%	16.00%
Calendar method	16.67%	9.84%	Willing to conceive	65.22%	42.00%
Injection	0.00%	8.20%	Abstinence	8.70%	14.00%
*multiple options chosen by respondents					

DISCUSSION

The present study included antenatal mothers between the age of 18 and 32 years; the mean age for primigravida patients was 21.4 years and that for multigravida patients was 25.43 years. This represents the peak reproductive age group and also a time for building careers and families. In the present study, the level of awareness and acceptability of different contraceptive methods among primigravida and multigravida were observed. In both the groups, antenatal patients with pre-existing medical conditions were also included.

Women with pre-existing medical conditions form a unique group, and the contraceptive advised for them is very specific. They need individual counseling, lifestyle intervention and adequate control of medical condition to minimise the risks to an acceptable level⁹. In this study, the awareness level among both groups is observed to be high. In the primigravida group, there was 85% awareness, and in the multigravida group, 95.89% awareness was noted. High awareness level was observed in similar studies done in other countries and in different states of India^{8,10-21}. It was also observed in the study that awareness level increased with increasing age. According to a study by Patel, use of contraception was significantly associated with age¹⁵. In terms of education, the general tendency was that awareness increased with increase in level of education. In a study by Allagoa et al, most of the respondents who used the health facilities were educated with high awareness on contraceptive options⁸.

However, it was observed that education alone may not be sufficient to improve the contraceptive usage rate⁸. According to a study by Nansseu et al, women with a level of education at or below the secondary level were unable to understand scientific or complicated words¹². On the contrary, in a study by Patel, parity, education and social class were found to not be statistically associated with use of family planning method¹⁵. Another study concluded that some factors which significantly influenced the use of contraceptives include a positive attitude towards contraceptives. This positive attitude is in turn brought about by an improvement in the education level of women²⁰.

When investigating income level, it was observed that as monthly income increased, there was greater awareness. When investigating the relation between marital duration and awareness of contraceptives, awareness of contraceptive methods was directly proportional to marital duration. Among the different methods of contraception, it was observed that condom was the most identified method of contraception in both the groups (31.31% in primigravida and 29.15% in the multigravida group) followed by abstinence/safe period in the primigravida group (27.7%) and IUCD, pills and TL in the multigravida group (28.70%). Similar result was seen in other studies as well, where condoms were found to be the most widely known contraceptive^{12,13,14}. Another study showed that the most common method known was tubectomy (33.73%) followed by condoms (28.92%)¹⁵. A study by Sharma et al showed that the level of awareness

was maximum for IUCD (48.5%)¹⁶. Regarding the source of awareness, in the present study, health workers were found to be the main source (39.34% for primigravida group; 41.94% for multigravida group), similar to other studies^{8,12}. Friends, family, neighbours and relatives are found to be the main source of awareness in other studies^{10,11,16,20}. A study by Poonam Taneja showed that the main source of awareness was media (42.5%) followed by health personnel (25%)²¹. Acceptability can be interpreted as positive attitude towards adoption of contraception. In the present study, 62.5% of primigravida and 45.21% of multigravida had plans for their careers and other family responsibilities. So, they showed positive attitude towards contraceptive usage. In a study with antenatal women carried out by Adma Harshan et al, it was found that 60% of respondents had decided on the mode of postpartum conception²⁰.

Spacing between the next childbirth was considered important by 60% of primigravida and 93.15% of multigravida. 67.12% of multigravida opted for TL after the index pregnancy. The usage of contraceptives depends on many other factors, and husband's consent is one of them. 58% of primigravida and 70% of multigravida informed that their husbands agree to the usage of contraceptives, while 11% of primigravida and 5% of multigravida respondents stated that their husbands do not agree to using contraceptives. Another factor for not using contraceptives was apprehension regarding the method. It was observed in the study that apprehension regarding the usage of contraceptive creates a negative attitude. 58% of primigravida and 42% of multigravida had perception of painfulness, while 68% of primigravida and 49% of multigravida perceived usage of contraceptives to be harmful. Additionally, 72.5% of primigravida and 85% of multigravida were unaware of the possible failure of contraceptives. These apprehensions and lack of in-depth knowledge were both important factors that resulted in the lower use of contraceptives. In the study, it was observed that even though there was high awareness about contraceptives, the usage was low. Only 20% of primigravida and 52.05% of multigravida respondents have used temporary contraceptive methods.

NFHS – 4 for Maharashtra showed that the current users of family planning methods (currently married women between the ages of 15 and 49 years) in

rural areas, for any method was 65.5%; users of female sterilisation was 55.9%; users of IUCD was 1.1%; users of pills was 1.7%; users of condoms was 4.6%²². These results are different from our study because the present study was conducted among antenatal mothers of age group 18 to 35 years. The most common method of contraception used was condoms (58% in the primigravida and 44% in the multigravida group), followed by oral pills (25% in primigravida and 30% in multigravida). Injections and IUCD both had been used by multigravida with a frequency of 8.20%. Comparatively, these values are greater than those provided in NFHS – 4.

High level of awareness and low usage of contraceptives have been seen in many studies almost universally^{8, 10-14}. The study carried out by Patel among married women showed that 55.3% of respondents engaged in the use of contraceptives¹⁵. The study by Adma Harshan et al showed that 50.6% participants in the ANC clinic used contraceptives²⁰. These results indicate that the study of the main barrier to acceptance and usage of contraceptives is extremely important for achieving the 17 SDGs. In this study, the most common barrier was the respondents' desire to conceive (primigravida 65% and multigravida 42%) as they had not yet reached the ideal number of children. About 22% of multigravida and 8% of primigravida respondents stated that their husbands were not willing to use contraceptives. A small percentage in both the groups indicated social or religious causes for not using contraceptives. Different studies have identified most of the above reasons for not using contraceptives, albeit in different proportions: incomplete family size^{10,13-15}; fear of side effects^{8,11-13,15-16,19-20}; unwilling husband or gender disparity^{11,13-14,16}; religious reasons; and, pressure from family members^{8,13-15}.

Promotion of education among both men and women is a necessary step to understand the importance of family planning. Healthcare providers are to be trained to provide an in-depth knowledge of the contraceptives and should be able to allay their apprehension, clear the myth and encourage them to use contraceptives. The contraceptives should be easily available and if possible, at a subsidised rate by social marketing schemes. The support from media, like coverage by radio and television programs of these schemes should be promoted. It is extremely helpful in rural communities if the health

workers can share the same language and customs of their clients.

CONCLUSION

The questionnaire in this study was developed to measure the awareness, acceptability, and usage of contraception in antenatal patients in a specific rural area. It appears to be a reliable and valid tool to identify women who may have problems with contraception usage, and to identify aspects that need to be incorporated into counselling sessions held for women and their families. This tool, however, requires further testing to enhance its predictive ability and clinical utility.

RECOMMENDATION

Contraceptives are a form of medication, and the user needs supervision and guidance from a knowledgeable healthcare provider for adherence to the usage of such medication. Role of the male members of the family and society is of immense importance for the successful adoption of family planning programs, especially in a patriarchal society. This will facilitate improvement in

society in terms of health, employment, and economic position. This will also bring about the formation of society that exists without any gender bias.

STUDY LIMITATIONS

Family planning and usage of contraceptive is a combined decision of the couple. As most of the antenatal patients attending antenatal clinic were accompanied by a lady attendants and not their husband; so the views of their husbands could not be obtained. However the patients included in the study stated their husband's attitude in the questionnaire regarding the use of contraceptives.

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