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Original Research Article

Modern contraceptive practices and associated predictors among married women: a cross-sectional study at tertiary care centre in Jharkhand

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ABSTRACT

Background: World Health Organization defines family planning as a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples, in order to promote the health and welfare of the family group and thus contribute effectively to the social development of a country. The objectives of the study were to estimate contraceptive usage in married females of the reproductive age group and its determinants.
Methods: A cross-sectional analytical study was conducted in Obstetrics and Gynecology Department, RIMS, Ranchi. Study participants were married females of the reproductive age group attending OPD in the study period. The sample size was calculated using scientific formula. Data collection used a pretested semi-structured questionnaire including basic information like sociodemographic profile etc. The data was analyzed using SPSS version 20.
Results: The study included 384 participants. Only 20.3% of participants used one or other contraceptive methods. 68.2% had knowledge of any contraceptive method, 45.3% felt the need to use contraception and 20.3% used any particular method.
Conclusions: Contraception prevalence rate varies with the socio-demographic variables in different states in India. Other indices such as couple protection rate, couple years of protection, unmet needs for family planning, etc play a vital role in determining the exact situation as compared to relying on a single indicator. An estimation of persisting KAP gap is essential before addressing the key factors of unmet needs, family planning effort indices, and contraceptive continuation rate to make community programs more efficient.

Keywords: Contraception prevalence rate, Family planning

INTRODUCTION

World Health Organization defines Family Planning as a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes, and responsible decisions by individuals and couples, in order to promote the health and welfare of the family group and thus contribute effectively to the social development of a country.[1] Family planning can be defined as the term which refers to the use of modern contraceptives or natural techniques for either limiting or spacing pregnancies. Pills, male and female sterilization, intrauterine devices (IUDs), injectables, implants, male and female condoms, diaphragms, and emergency

contraception are modern methods of contraception. Similarly, traditional methods include periodic abstinence, withdrawal, and "folk" methods such as herbs.[2] It is required for individuals and couples to anticipate and attain their desired number of children and also for the spacing and timing of their births. This has a direct impact on women's health and well-being as well as on the outcome of each pregnancy.[3]

Family planning services can bring a wide range of benefits to women, their families, and society as a whole. This allows spacing of pregnancies and can delay pregnancies in high-risk women, thus, reducing maternal deaths, can reduce infant mortality by preventing closely spaced and ill-timed pregnancies which are termed as the contributor to infant mortality. It can also help in reducing unsafe abortion which accounts for 67,000 deaths annually and can also reduce adolescent pregnancies and slows population growth as well. Thus, family planning is essential in reducing poverty and achieving United Nations' Millennium Development Goal.[4]

It also helps in the empowerment of people (viz. having smaller families allows parents to invest more in each child and also increases the duration of schooling); prevention of transmission of HIV/AIDS (viz. consistent use of family planning measures minimize the risk of unintended pregnancies among women living with HIV, resulting in fewer infected babies; it also aids in preventing the acquisition of other sexually transmitted infections and vice-versa.[5,6]

According to NFHS-5 report, the contraceptive prevalence rate (CPR) of India is 67 percent and that of Jharkhand is 62% of currently married women age 15-49. More than half (56%) of currently married women use a modern method. Modern contraceptive use: Modern contraceptive use by currently married women has increased from 48 percent to 56 percent between 2015-16 and 2019-21. Female sterilization is still the most popular contraceptive method, used by 38 percent of currently married women.[7]

Meeting unmet need requires that policymakers and program managers know the characteristics of women with a demonstrated unmet need for family planning, that is, the reasons that some couples do not use contraceptives even when they do not want children and use that information to reduce the health and development consequences of unintended fertility.[8]

More research needs to be done and published in this field to get a better understanding of the present situation regarding the prevalence and determinants of modern contraceptive practices so as to help improve government policies. This being the rationale of the study.

Aim of study were to estimate the contraceptive user in married couple and types of contraceptives used and to determine factors favouring or against use of contraceptive.

METHODS

This was a hospital-based cross-sectional study conducted at outdoor Department of Obstetrics and Gynecology department, Rajendra Institute of Medical Sciences, Ranchi, Jharkhand. The duration of the study was 6 months (Feb-2021 to Aug-2021). The participants were married females of the reproductive age group.

Sample size

The sample size required is calculated according to the formula $n = z^2 p (1-p)/e^2$, where n = required sample size, Z = confidence level at 95% (standard value of 1.96), P = expected prevalence of contraceptive use according to NFHS-4data (48%), E = margin of error at 5% and the total calculated sample size was 384.[7] A pretested semi-structured questionnaire was prepared after taking clearance from the institutional ethical committee. The proforma included basic information like socio-demographic profile, methods of contraceptives, knowledge of contraception, etc. The study included all married females between the age of 18-45 years age, who were willing to participate and excluded those with acute illnesses. Interviews with participants were conducted after explaining the purpose, benefits, risks, and confidentiality of the study.

Data analysis

The data was analyzed using SPSS version 20.

RESULTS

A total of 384 married females of reproductive age group attending the OPD of Obstetrics and Gynaecology department participated in our study. The majority (66.2%) of them belonged to 21 to 30 years of age, 77.4% were coming from urban areas and as far as ethnicity was concerned about 90.2% were non-tribal. Only 9.3% of female participants and 2.4% of their husbands were illiterates. The majority (82%) of participants were Hindu in religion, housewives (83%), and living in a nuclear family (67%).

Table 1 states statistically significant higher contraception use in the Age group 31-35 years, participants and their husbands educated up to tertiary/college, occupation of the husband being government job, and in those participants with knowledge of contraception.

In our study, only 20% (76) of participants were using any form of modern contraceptive method, temporary and permanent methods being 75.3% (57) and 24.7% (19) respectively. Among the participants using the permanent sterilization method, 70% were males and the remaining

were females. The most common temporary method was condom (49%), followed by PPIUCD (15.6%) and IUCD (14.3%) (Figure 1 and Figure 2).

Table 1: Contraceptive use determinants.

Determinants		Contraception use			
		Yes (%)	No (%)	Total (%)	P value
Participant age in years	18-20	9.4	90.6	100	0.000
	21- 30	17.3	82.7	100	
	31-45	36.5	63.5	100	
Residence	Rural	20.0	80.0	100.0	1.0
	Urban	19.9	80.1	100.0	
Ethnicity	Non-tribal	20.4	79.6	100.0	0.703
	Tribal	16.2	83.8	100.0	
Religion	Christian	14.3	85.7	100.0	0.274
	Hindu	21.8	78.2	100.0	
	Muslim	13.2	86.8	100.0	
	Sarna	6.2	93.8	100.0	
Education of participant	Illiterate	17.1	82.9	100.0	0.000
	Primary	9.6	90.4	100.0	
	Secondary	26.3	73.7	100.0	
	Tertiary/college	36.5	63.5	100.0	
Education of husband	Illiterate	11.1	88.9	100.0	0.000
	Primary	21.2	78.8	100.0	
	Secondary	13.1	86.9	100.0	
	Tertiary/college	34.7	65.3	100.0	
Occupation of participant	Govt. job	42.9	57.1	100.0	0.241
	House wife	18.9	81.1	100.0	
	Labour	10.0	90.0	100.0	
	Private job	31.0	69.0	100.0	
	Self business	16.7	83.3	100.0	
Occupation of husband	Govt. job	34.3	65.7	100.0	0.03
	House wife	14.3	85.7	100.0	
	Labour	20.4	79.6	100.0	
	Private job	24.1	75.9	100.0	
	Self-business	13.2	86.8	100.0	
Knowledge of contraception	Yes	28.9	71.1	100	0.000
	No	0.8	99.2	100	

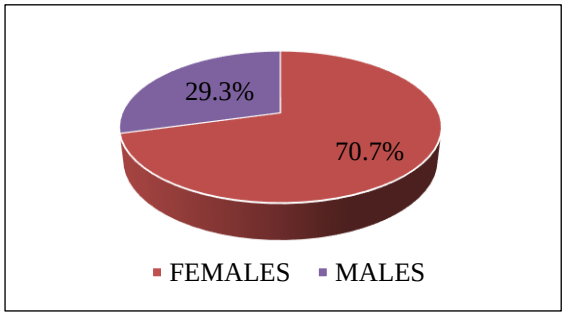

Figure 1: Permanent methods.

On applying logistic regression, the older age group, higher education status of participants, and their husbands were found to be positively associated with the practice of contraceptives. Participants staying in a joint family were 1.6 times more likely to use contraceptives as compared to a nuclear family with a P value of 0.009 and 95% CI (1.96-2.81) (Table 2).

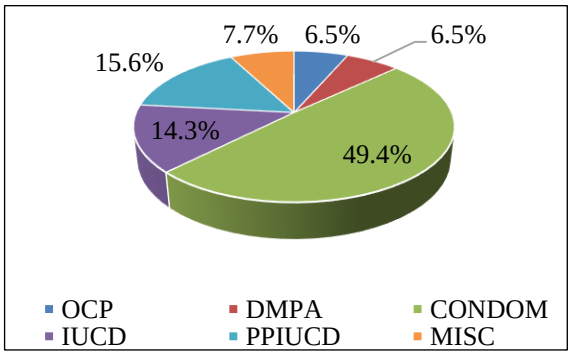

Figure 2: Temporary methods.

Table 2: Logistic regression.

Variables		P value	AOR	95% CI	
				Lower	Upper
Age in years	18-20	Reference			
	21- 30	0.007	5.081	1.551	16.648
	31-45	0.001	3.436	1.713	6.891
Participants education	Illiterate	Reference			
	Primary	0.188	2.625	0.623	11.063
	Secondary	0.035	3.044	1.083	8.558
	Tertiary/college	0.009	1.707	1.472	2.057
Education of husband	Illiterate husband	Reference			
	Primary	0.339	3.431	0.274	42.987
	Secondary	0.253	0.525	0.174	1.584
	Tertiary/college	0.035	1.50	1.362	1.667
Family type	Nuclear	0.275	2.286	0.518	10.096
	Joint	0.009	1.614	1.926	2.813

DISCUSSION

In our study, increasing age was associated with higher use of contraceptives. Similar findings were found by Prateek et al, Patel et al and Valekar et al.[9-11] Possible reasons for low usage in young couples could be the desire of newly married couples to have children and the fear that using contraception may affect their fertility in the long run. Whereas older couples who have the desired number of children and have completed their families are more likely to use contraception both for spacing or limiting childbirth.

In the present study, the education of participants and their husbands was found to be positively associated with the practice of contraceptives which was similar to the findings of Pandey et al and Chaurasia et al.[12,13] Knowledge and awareness regarding contraception are higher in educated couples hence promoting increased usage. Similar findings of literacy status affecting contraception usage were seen in studies by Rama et al, Khokkar and Gulati, Banerji and Kansal et al.[14-17]

According to our study, participants staying in a joint family were more likely to use contraception as compared to a nuclear family. Contradictory results were seen in studies by Valekar et al and Singh et al, in which the nuclear family was found to be accepting the family planning methods higher than those in the extended family.[11,18] A possible reason for the higher contraception rate in joint families could be a greater number of family members increasing the economic burden of the family and making them adopt birth control.

The present study showed 20% of participants used any form of modern contraceptive method, which is very less as compared to rates in a study by Thulaseedharan JV in Kerala (52%).[19] However, the data was comparable to the NFHS 3 data for modern contraceptive use in married females (14.9%).[20] One possible reason could be the higher number of couples belonging to the younger age group who were hesitant in using contraception.

Our study reported a higher use of temporary methods (75%) as compared to permanent methods. Contrary results were found in studies by Patel et al, Osborn et al, Shree et al and Nanda et al.[10,21-23] The reason for the higher use of temporary methods could be the higher percentage of participants in the younger age group who prefer spacing to limit.

In our study, regarding the use of temporary methods, the most commonly used method was condoms (50%), results were similar to the study by Thlaseedharan JV (52%).[19] Reasons for higher condom use can be as follows; the most easily available, cost-effective, a temporary/reversible method, and easy to use with the added advantage of prevention against sexually transmitted infections.

In the present study, participants using the permanent sterilization method, 70% were males and the remaining were females. Among temporary methods, after condoms, PPIUCD (15.6%) and IUCD (14.3%) were the next common methods. The results were contradictory (higher) to results seen in studies done by Nanda et al (5.1%), Ewerling et al, and Chandra et al (11.7%) which has a lower IUCD use rate.[23-25] Possible reasons for higher IUCD use can be a large number of couples belonging to older age groups with children.

The main limitation of the study is that it is done in a hospital and not a community. Hence, it is not a true representation of the community in terms of socio-demography. As we have taken married females above 18 years, we missed the 15-17 years age group which is also a part of the reproductive age group.

CONCLUSION

Contraception prevalence rate varies with the socio-demographic variables in different states in India. Significantly higher contraception use was seen in the age group 31-35 years, with participants and their husbands with higher education status and participants with previous knowledge of contraception.

Recommendations

Education and knowledge are key factors to enhance contraception use. Hence, improving literacy levels and awareness at the grassroots will immensely help in increasing contraception use. An estimation of persisting KAP gap is essential before addressing the key factors of unmet needs, family planning effort indices, and contraceptive continuation rate to make community programs more efficient. More research needs to be done to understand the key reasons against contraception use, and then to address these. Contraception is mostly used for limiting than spacing. To prevent population explosion, awareness, and family planning services should be made accessible and available to young couples as well.

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