Research Article

Contraceptive use: Its prevalence, awareness, practices and determinants in a rural population of Northern India

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ABSTRACT

Background: Despite decades of formulating and implementing the National Family Welfare Programme, India, has still not attained the desired level of contraception usage. **Objective:** The present study aimed to assess the contraception awareness, practices and its determinants among rural eligible couples in Jammu district. **Material and Methods:** The present cross-sectional and observational study was conducted among 270 eligible couples in three villages of Kot Bhalwal block which were selected randomly. **Results:** Three-fifth of the study population were young adults in 20-29 years age group residing in nuclear families with only <10% of them married before <18 years of age. Contraception prevalence rate was 71.11%. 39% of the respondents were using permanent methods. Among the various correlates, literacy status of wife and type of family were found to significantly affect the contraceptive usage ($P < 0.05$). Among other variables, no significant association was found between age of marriage, number of children, socioeconomic status and contraceptive usage ($P > 0.05$). **Conclusion:** There was good awareness regarding contraception, but the need is to promote more spacing methods among the eligible couples besides sterilization which still remains the most widely used method. The contraceptive prevalence rate was found to be 71.11%.

KEY WORDS: Contraception; Awareness; Practices; Eligible Couples

INTRODUCTION

The world is witnessing a decline in death rates on the one hand and continuous high birth rate in developing countries on the other hand which is resulting in rapid population growth.[1] Despite 70 years of independence, India is facing problems such as environmental pollution, food scarcity, inadequate health care supply, fertility reduction, and reproductive health of women. By regulating fertility and reducing unwanted births, family planning program is the mainstay to solve the above problems.[2] Family planning refers to practices that help individuals or couples to attain certain objectives such as to avoid unwanted birth, to bring about wanted birth, to regulate birth spacing, to control the time at which births occur in relation to the ages of the parents, and to determine the number of children in the family.[3]

India was the first nation to adopt an official population policy and launch official family planning program in 1952 which remains the cornerstone of all family planning efforts. In the incipient years, the focus was on health rationale of family planning. It was only after 1971 population census that family planning as a strategy for population stabilization received due attention.[4] The strategy paid off, and proportion of couples effectively protected increased to 46.5% in 1995-96 from 12.4% in 1971-72, though it decreased to 40.4% during 2010-11, When National Rural Health Mission was launched in 2005, family planning program was subsumed in

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the reproductive and child health component of the Mission.[5] Only 54% of eligible couples were using a contraceptive method in 2007-08 to regulate their fertility,[6] and the contraceptive prevalence rate appears to have stagnated after 2004.[7] As per National Family Health Survey (NFHS-4)[8] results, current use of any of the family planning methods has dropped to 53.5% in comparison to 56.3% reported by NFHS-3.[9] Further, contraceptive practice in India is heavily skewed toward terminal methods which reveal that birth limitation is the primary aim of contraception rather than birth planning.

A wide variety of factors are known to influence contraceptive use that includes individual attributes, resources of household and community in which person lives, to socio-cultural mores and institutions that affect autonomy, behavior and lifestyle and finally access to health-care services.[10] During the review of literature, the authors found paucity of data regarding current trends of contraceptive use among eligible couples in the rural area of the state and hence this study was planned to see the recent trends of contraceptive use and determinants that affect the contraceptive behavior of rural eligible couples.

MATERIALS AND METHODS

This population based cross-sectional study was conducted in a rural area of Jammu district for 4 months among the eligible couples. The present study was conducted in Kot Bhalwal block of Jammu. This block has 24 sub-health centers which cater to the population spread over 107 villages. Using two step random sampling, first, a sub-health center was selected, and in the next step, three villages under that sub-health center were chosen for conduct of the study. Clearance was sought from Institutional Ethics Committee of Government Medical College Jammu before the start of this study.

The data collection tool was an interview schedule that was developed by the faculty members of Department of Community Medicine, Government Medical College Jammu (GMC). The questionnaire so developed was pilot tested on 25 eligible couples attending the outpatient department in Gynae Department of GMC Jammu to check its comprehensibility and acceptability. The feedback obtained during the pilot study was incorporated to make the questionnaire custom made for this study. The study participants were explained the purpose of the study and anonymity was ensured. Informed verbal consent was taken before the interview.

The eligible couples, willing to participate and residents of the surveyed area were taken as inclusion criterion for the purpose of this study. The persons not giving consent mentally unfit person and visitors to the surveyed area were excluded from the purview of this study.

The authors collected the data using the interview technique by house to house visit, and the survey was conducted twice a week. The data were collected on sociodemographic profile of the study participants, obstetric history, awareness, and practices regarding family planning. For classification of socioeconomic status of the study subjects, Modified Uday Pareek Scale[11] was used. Contraceptive prevalence rate was the percent of eligible couples protected against childbirth by any method of family planning modern or traditional method.[12]

Data were collected, tabulated and analyzed. Percentages were calculated and *P* value obtained by applying Chi-square test with $P < 0.05$ taken as statistically significant.

RESULTS

A total of 270 respondents were interviewed during the course of this study. About one-third of them belonged to 20-24 year age group, and majority of them (62.22%) were Hindu in religion. Literacy rate was found to be good as 46.6% were literate up to secondary level and only 9.62% were illiterates. About two-third of the study participants were house wives. About less than half of the males in the surveyed families had literacy levels up to secondary level, and service was the main (40%) occupation. 60% of the study participants belonged to nuclear families. Modified Uday Pareek scale revealed that about 52.5% of the respondents were in lower middle class (Table 1).

Among the study participants, only 9.62% had married before the age of 18 years. 51.48% study participants had two living children while 24% had more than two children. Although all the respondents had heard of contraception, yet only 71.11% of them were using one or the other method of contraception. Among the nonusers, 46.15% study participants wanted to have more children, and 66.66% had issues regarding side effects of contraceptive methods. For 57.77% of the respondents, meaning of family planning was birth limiting and for 48.51%, it meant planning for better future. Among the contraceptive user study participants, two-fifth (39.06%) had already undergone sterilization and about one-fourth (23.95%) were using oral contraceptives (Table 2).

The study results revealed that there was no statistical association between contraceptive usage and variables such as age at marriage, number of children in the family, and socioeconomic status of the family ($P > 0.5$). However, it was found that higher proportion of study participants residing in nuclear families were using contraceptives, and this association was found to be statistically significant ($P < 0.05$). Similarly, literate respondents were found to be using contraceptives more than their illiterate counterparts, and this association of contraceptive usage with literacy was found to be statistically significant ($P < 0.05$) (Table 3).

Table 1: Sociodemographic characteristics of the respondents (*n*=270)

Sociodemographic variable	*n* (%)
Age in years	
<20	17 (6.29)
20-24	90 (33.33)
25-29	71 (26.29)
30-34	30 (11.11)
>35	32 (11.85)
Religion	
Hindu	168 (62.22)
Muslim	64 (23.70)
Sikh	38 (14.07)
Literacy level of wife	
Illiterate	26 (9.62)
Up to primary	96 (35.55)
Up to secondary	126 (46.66)
Graduate and above	22 (8.14)
Occupation of wife	
Housewife	174 (64.44)
Service	96 (35.55)
Literacy of husband	
Illiterate	09 (3.33)
Up to primary	84 (31.11)
Up to secondary	132 (48.88)
Graduate and above	25 (9.25)
Occupation of husband	
Laborer	72 (26.66)
Skilled worker	41 (15.18)
Self employed	47 (17.40)
Service	110 (40.74)
Type of family	
Nuclear	162 (60.00)
Joint	108 (40.00)
Socioeconomic status	
Upper class	16 (5.92)
Upper middle class	38 (14.07)
Middle class	54 (20.00)
Lower middle class	142 (52.59)
Lower class	20 (7.40)

Table 2: Awareness and practices regarding family planning in the study population (*n*=270)

Question	Response	*n* (%)
Age at marriage (years)	<18	26 (9.62)
	>18	244 (90.37)
Number of living children	0	17 (6.29)
	1	49 (18.14)
	2	139 (51.48)
	>2	65 (24.07)
Have you heard of contraception	Yes	270 (100)
	No	0 (0)
Are you using some method of contraception	Yes	192 (71.11)
	No	78 (28.88)
Reasons for not using contraceptive*	Worried about side effect	52 (66.66)
	Believe in natural spacing	12 (15.38)
	Want to have more children	36 (46.15)
	Pressure from husband/in laws	23 (29.48)
	No specific reason	04 (5.12)
Meaning of family planning*	Pregnancy prevention	112 (41.48)
	Birth spacing	92 (34.07)
	Planning for better future	131 (48.51)
	Birth limiting	156 (57.77)
	Others	05 (1.85)
Currently used family planning methods	Natural methods	21 (10.93)
	Barrier methods	20 (10.41)
	OCP	46 (23.95)
	IUCDs	16 (8.33)
	Emergency contraception	14 (7.29)
	Sterilization	75 (39.06)

*Multiple responses. IUCDs: Intrauterine contraceptive devices, OCP: Oral contraceptive pill

DISCUSSION

About 60% of the respondents were in 20-29 year age group residing in nuclear families. Only 9.62% of the respondents were illiterate. About half of the respondents had two living children, and all of them had heard of contraception. Sterilization was the main method (39.06%) of contraceptive usage. Literacy status and nuclear families were found to be statistically significant in association with contraceptive usage ($P < 0.05$).

Among the females surveyed, 33.3% were in 20-24 year age group and 26.29% were in 25-29 year age group and these results were similar to those reported by Gupta et al.[13] from West Bengal. Only 9.62% of the respondents were illiterate, and thus overall literacy was above 90% which was in line with the results of Gupta et al.[13] The contraceptive use was maximum in the female group who were literate up to secondary level. The contraceptive prevalence rate differs significantly with literacy status of the wife ($P < 0.05$). Even male literacy was quite high as only 3.33% of them were illiterate. These findings are well supported by Manna and Basu,[14] Sharma et al.,[15] Shobha,[16] Gupta et al.,[13] and Anil.[17] Results of the current study further revealed that

Table 3: Determinants of contraceptive practices with different variables of study population (n=270)

Variable	Contraceptive usage		χ^2	df	*P*
	Yes	No			
Age at marriage (years)					
<18	18	08	0.04	1	0.82
>18	174	70			
Type of family					
Nuclear	132	30	21.2	1	0.00
Joint	60	48			
Literacy status of wife					
Illiterate	08	18	21.82	3	0.00
Up to primary	60	36			
Up to secondary	92	34			
Graduate and above	19	03			
Number of children					
0	13	04	6.83	3	0.07
1	40	09			
2	100	39			
>2	39	26			
Socioeconomic status					
Upper class	12	04	5.64	4	0.22
Upper middle	30	08			
Middle class	38	16			
Lower middle	102	40			
Lower class	10	10			

60% of the eligible couples were living in a nuclear family, and higher proportion of contraceptive acceptors belonged to nuclear families ($P < 0.001$). These findings were in line of agreement with those reported by Bisoi et al.,[18] Haldar et al.,[19] and Gupta et al.[13] Only 9.62% respondents had married before the age of 18 years, and contraceptive use did not differ significantly with age at marriage ($P > 0.05$). These results concur with those reported by Bisoi et al.[18] but are in contrast with the results reported by Gupta et al.[13] More than half of the respondents in the current study had two living children, and the contraceptive use rate did not differ significantly with a number of living children ($P > 0.05$). These results differ from Gupta et al.[13] and Nair et al.[20] while Chaco[10] observed that number of living children was an important determinant of contraceptive use. More than half of the eligible couples were in lower middle class as per Modified Uday Pareek scale.[11] All the respondents were using contraceptives at a rate of above 70% except lower class (50%), and this difference was not statistically significant ($P > 0.05$). The findings of the current study are in congruence with those reported by Gupta et al.,[13] Manna and Basu,[14] and Haldar et al.[19] These different results could be best explained on the basis of different sociocultural factors as well as studies conducted among disadvantaged groups.

In this study, 71.11% was the contraceptive prevalence rate which concurred with an earlier study conducted by Gupta et al.[21] in the same district in 2013. The rate was slightly more than that reported by Gupta et al.[13] (67.50%) and Bisoi et al.[18] (62.3%), and NFHS-4[8] (53.5%). Among the contraceptive users, 40% had undergone sterilization and all of these were tubectomies. Gupta et al.[21] reported this rate to be 36% while Gupta et al.[13] reported a higher rate of 49%. Oral contraceptive users were 24% in the present study which was consistent with that reported by Haldar et al.[19] Higher rates of oral contraceptive pill usage to the tune of 43.4% was reported by Chankapa et al.[22] while lower rates of 7.5% were reported by Rao and Somayajulu[23] and Kumar et al.[24] Intrauterine contraceptive device (IUCD) users were found to be relatively low 8.33% while Chankapa et al.[22] and Nair et al.[20] reported a still lower rate of IUCD usage at 4.19% and 4.8%, respectively. Analysis of factors for nonuse of contraceptives revealed that side effects of contraceptives were a major concern among them. Furthermore, those respondents who had either no child or a single child probably replied to have more children while pressure from husband/in laws was another reason for nonuse of contraceptives. The results are in conformity with those reported by Khan et al.[25] from a Karachi study.

The strength of the study is that the authors have tried to report the recent trends of contraceptive use in the studied population. The limitation of the study is since this was a cross-sectional study with small sample size, the results lack generalizability. Furthermore, causal association cannot be arrived at in this cross-sectional study.

CONCLUSIONS

Contraception prevalence rate of 71.11% was higher than the reported by NFHS-4. Higher literacy rate among the eligible couples, good socioeconomic status, and nuclear family have been positively correlated with high contraceptive use. Among the contraceptive users, sterilization remains, the most common. Other methods available in the cafeteria approach under the National Programme need to be promoted among the beneficiaries.

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