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Research Article

CONTRACEPTIVE PRACTICE: AN EXPERIENCE FROM RURAL WEST BENGAL, INDIA

***S. Bisoi[1], A. Haldar [2], B. Baur[3], R. Mishra[4], U. Dasgupta[5] and L. Banerjee[6]**
[1]R G Kar Medical College, Kolkata,
[2] Midnapur Medical College, Midnapore,
[3] Medical College, Kolkata,
[4] Burdwan Medical College, Burdwan,
[5]Calcutta National Medical College, Kolkata,
[6]AIIH&PH, Kolkata
**Author for Correspondence*

ABSTRACT
India's population is currently increasing at the rate of 16 million each year with growth rate of 1.93 and birth rate 24.1 (2001 census). To achieve the demographic goal of NRR 1 the couple protection rate should have to be achieved by 60% far beyond the present level (46.6%). The objective was to assess the contraceptive prevalence rate by different methods and to find out the correlation of different biosocial factors with the use of contraception. This was a cross-sectional observational study done in 12 villages of Howrah district, West Bengal obtained by multistage random sampling method on a sample size of 1482. Contraceptive prevalence rate was found to be 62.3% and couple protection rate 54.4%. The most commonly used method was oral pill (25.38%) followed by sterilization (17.07%), condom (8.3%), other traditional methods (7.89%) and IUD (3.64%). Younger age of women, early age at 1st pregnancy, less number of living children, joint family, illiteracy and low income were found to be associated with low use of contraception. Low couple protection rate can be improved by proper counseling and promoting vasectomy along with other approved methods of contraception.

Key Words: *Contraceptive Prevalence, Couple Protection Rate, Biosocial Factors, Joint Family*

INTRODUCTION

The rampant population growth has been viewed as the greatest obstacle to the social and economic advancement to the majority of people in the under developed world **(**Anonymous, 2005-2006). Although India has the distinction of initiating an official family planning programme way back in 1952 and a considerable of money, time and manpower has been spent on the programme during last five decades, the achievements are far from satisfactory (Thiagarajan and Adhikari, 1995). As per NFHS-3 (2005-2006) report, to achieve the population stabilization (TFR 2.1, NRR1), package of family planning services should be directed at household level (Anonymous, 2005-2006). India's population is currently increasing at the rate of 16 million each year with growth rate of 1.93, birth rate 24.1 and current fertility rate 2.9 (2001 census). During the year 2005 the couple protection rate of India was 56.6% (NFHS-3) (Anonymous, 2005-2006). Declining fertility in large part is due to women's increased use of contraception. Their use of modern contraceptive methods increased from 43% to 49% between NFHS-2 to NFHS-3. The extent of acceptance of contraceptive methods still varies within societies and also among castes and different religious groups. The factors responsible for such varied picture operate at individual, family and community level with their roots in the socioeconomic and cultural milieu of Indian society (Rao and Somayajulu, 1999). The contraceptive prevalence rate among currently married women age 15 – 49 is 71% in West Bengal. The rate in urban areas (76%) is 6 percentage points higher than in rural areas (70%). Keeping in view the above points, the present study was designed to find out the contraceptive prevalence and identified the different variables that affected the contraceptive behavior among the eligible couples of rural area of Howrah district, West Bengal.

MATERIALS AND METHODS

A cross-sectional observational study was undertaken on eligible couples in rural areas of Howrah district, West Bengal during April to September 2009. 12 villages (two villages from each of two subcentre areas of each of Sankrail, Domjur and Bagnan block) were identified by multistage random sampling method. The sample size taken was 1482 considering prevalence rate as 56.6% with allowable error 5% at 95% confidence limit. . The data were collected by interview of the female partner by house to house visit with the help of a pre-designed and pre-tested schedule. The study variables were age of women, their age at marriage, age at first pregnancy, religion, family type, their socio-economic, literacy status and number of living children.

Statistical analysis was done by using computer-fed Epi-info and SPSS package.

Some definitions: Social class was determined from per capita monthly income as follows (Anonymous, 2005-2006): Upper High (Rs 10000 & above), High (Rs 5000-9999), Upper Middle (Rs 3000-4999), Lower (Rs 1500-2999), Poor (Rs 500-1499) and BPL (< Rs 500).

Eligible couple- an eligible couple refers to a currently married couple wherein the wife is in the reproductive age, which is generally assumed to lie in the ages of 15 and 45. There will be at least 150 to 180 such couples per 1000 population in India.

Couple Protection rate is defined as the percent of eligible couples effectively protected against childbirth by one or other approved methods of family planning, viz. sterilization, IUD, condom or oral pills.

RESULTS

Total number of eligible couples studied was 1482. Out of them 923(62.3%) were using any of the methods of contraception. The couple protection rate was worked out to be 54.4% by considering the use of any of the approved methods of contraception (OCP, IUD, condom and sterilization).

Table1 shows that most of the women were using oral pill (25.38%) followed by female sterilization (17.07%) and condom (8.3%).The IUD (Cu-T) use rate was 3.64%. A significant percentage (7.89) of women were also using the different other non-approved methods (safe period, withdrawal method) of contraception.

Table 2 shows the relation of different biosocial factors with the use of contraceptive methods. Most (31.57%) of the women were in the age group of 25-29 years. The contraceptive use rate was significantly increased ($p<0.001$) with the increase of the age of female. The Hindus were double in number of the Muslims (990 vs. 492) but the contraceptive use rate not differed significantly ($p>0.05$) with the difference of religion. Early marriage (<18 years) was the most striking feature of the rural area of the district (55.17%). The contraceptive use rate not differed significantly ($p>0.05$) with age at marriage. Another striking feature was age at first pregnancy. 53.3% of the women became pregnant before attaining their 20 years of age. The contraceptive use rate was significantly ($p<0.001$) decreased with the increase of age at first pregnancy. It was maximum (70.94%) among women having 2 living children and it differed significantly ($p<0.001$) with the difference of number of living children. Most (40.08%) of the women were literate up to secondary level. The contraceptive use rate was significantly ($p<0.01$) differed with the difference of literacy status of the woman. It was also found higher among nuclear families than from joint families (65.38% vs.55.0%) and this difference was statistically significant ($p<0.001$).

From table 2, it is also evident that most (54%) of the women were from poor socio-economic class followed by BPL (34%). The contraceptive use rate was significantly ($p<0.001$) increasing with the increase of per capita monthly family income.

DISCUSSION

Current users of contraception in the present study was found to be 62.3% that is higher than the national rate (56.3%) (Anonymous, 2005-2006). and also the rate found in rural area of Dehradun District (Kansal et al., 2005). and in the study in East Delhi in the year 2001 (59.8%) (Bhasin et al., 2005). The prevalence of terminal method in the present study was 17.07%. The rate is about 50% point lower than

the rate in rural India (DLHS-3) (34.5%) (Anonymous, 2007-08). The rate of acceptance of permanent method was found much higher (33.4%) in a study among residents of a village in South Delhi[7] as well as in East Delhi (27.3%) (Bhasin et al., 2005). Alarmingly in our study we found not a single user of vasectomy whereas in East Delhi this rate even in the year 2001 was 4.8%(Bhasin et al., 2005). The prevalence of officially sponsored spacing methods was 37.32% (OCP-25.38%, condom-8.3%, IUD-3.64%). This finding was much higher than the rate found in NFHS-3 (10.2%) (Anonymous, 2005-2006) and in the study in rural Dehradun district (18.17%) (Kansal et al., 2005).But the striking feature is about the use of Cu-T in the present study which was only 3.64% and that was much lower than the earlier study in East Delhi(Bhasin et al., 2005). The use of contraception in the present study was maximum (68.69%) in 30-35 years age group which is consistent with an earlier study conducted by Kansal A et al.(2005) in Dehradun district (72.64%) and in the study by NFHS-2 (67.4%), India (Anonymous, 1998-99).

Table 1: Distribution of eligible couples according to their methods of contraception used (N= 1482)

Methods used	Number	Percentage
Oral Contraceptive Pill (OCP)	376	25.38
Sterilisation	253	17.07
Condom	123	8.30
Other methods	117	7.89
Intrauterine Contraceptive Device (IUCD)	54	3.64
Not used	559	37.72
Total	1482	100.0

In an earlier study in Uttar Pradesh (Kan and Patel, 1997) the contra captive use rate among Muslims (18%) were just half of that of Hindus (36%). But no such difference was obtained from the present study. In our study, 55.12% female were found married before attaining their 18 years of age. But according to DLHS-3 (Anonymous, 2007-08) the mean age at marriage for girls in rural areas was 19.3 years. The acceptance rate of contraceptive in our study was higher (70.94%) among couples having 2 living children whereas this rate was higher (56.4%) among women having 4 or more children in a study by Sharma et al. (1997) in a village in South Delhi. In our study the acceptance of contraception was significantly higher among literates (65.52%) than illiterates (55.8%). Similar findings were also obtained from the study by Kansal et al. (2005) (56.93% & 46.17% respectively) in their study at Dehradun district. But no linear relationship with education was found in the study by Sharma et al. (1997) in a village in South Delhi. The contraceptive use rate in the present study was found significantly higher in nuclear families (65.38%) than joint families (55.0%). But no such linear relationship was found between use of contraception and type of family in an earlier study (Sharma et al. 1997).

Table 2: Correlation of bio-social factors with the use of contraceptive methods (N=1482)

Bio-social characteristics	Group	Contraceptive use		Total	X^2	d.f.	P - value
		Yes	No				
Age of female (years)	<18	5 (31.25)	11 (68.75)	16	27.5	4	<0.001
	18-23	187 (51.37)	177 (48.63)	364			
	24-29	298 (63.67)	170 (36.33)	468			
	30-35	297 (69.88)	128 (30.12)	425			
	≥36	136 (65.07)	73 (34.93)	209			
Religion	Hindus	633 (63.9)	357(38.1)	990	3.47	1	>0.05
	Muslims	290 (58.9)	202 (41.1)	492			
Age at marriage	<18	510 (62.0)	307 (38.0)	817	4.62	2	>0.05
	18-23	394 (63.0)	230 (37.0)	624			
	24-29	19 (46.0)	22 (54.0)	41			
Age at 1st pregnancy	<20	608 ((77.0)	182 (33.0)	790	125.16	2	<0.001
	20-29	310 (48.0)	339 (52.0)	649			
	≥30	5 (12.0)	38 (88.0)	43			
No. of living children	0	48 (28.5)	120 (71.5)	168	100.93	4	<0.001
	1	280 (62.48)	168 (37.52)	448			
	2	337 (70.94)	138 (29.06)	475			
	3	145 (69.37)	64 (30.63)	209			
	≥4	113 (62.08)	69 (37.92)	182			
Literacy status	Illiterate	276 (55.8)	219 (44.2)	495	14.41	3	<0.01
	Primary	214 (67.7)	102 (32.3)	316			
	Secondary	384 (64.6)	210 (35.4)	594			
	≥ H.S.	49 (63.6)	28 (36.4)	77			
Type of family	Nuclear	678 (65.38)	359 (34.62)	1037	14.13	1	<0.001
	Joint	245 (55.0)	200 (45.0)	445			
Per capita monthly family income in Rs	<500	313 ((62.7)	186 (37.3)	499	15.73	3	<0.001
	500-1499	472 (59.5)	321 (40.5)	793			
	1500 2999	97 (68.3)	45 (31.7)	142			
	3000 - 4999	20 (83.33)	4 (16.67)	24			
	5000 - 9999	19 (90.47)	2 (9.53)	21			
	≥10000	2 (66.7)	1 (33.3)	3			

N.B. The figure in the parenthesis indicates percentages

Acceptance of contraception was higher among higher income group (58.9%) in the study by Sharma et al. (1997). Similar findings were obtained in our study also.

To achieve NRR 1, CPR has to be increased. A sizable percentage (7.89%) was using the methods other than the approved methods. By counseling, they can be moved towards approved methods to increase CPR. Low literacy level and poor economic status are important factors for low CPR, so necessary program to be taken to improve the status of these social factors. Special emphasis is to be given on spacing methods and action to be taken to increase age at marriage & age at 1st pregnancy. All these can be done by awareness generation camp, display of hording, banners etc and also adequate supply and service.

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