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Original Research Article

Contraception-still miles to go: a study among married women in a rural area of West Bengal

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ABSTRACT

Background: Unregulated growth of population is the most important problem that is hindering the socio-economic growth of a developing country like India since its independence. Multiple socio-economic factors are responsible for non-acceptance of contraception. To meet the unmet need these factors are needed to be explored. The current study aimed to assess the rate of acceptance of different contraceptive methods, various socio-demographic factors affecting acceptance and to find out the reasons for non-acceptance among married women of reproductive age group in a rural area of West Bengal.

Methods: An institution based cross sectional study was conducted among 224 married women of reproductive age group with the help of a predesigned, pretested schedule.

Results: Almost entire study population (98.2%) had the knowledge of any modern accepted method of contraception; health personnel (91.1%) being the most common source of knowledge. In majority of cases (69.6%) the decision of contraceptive use was taken by the husband and wife jointly. The overall prevalence of current use of contraception was 33.9% of which most common method adopted was found to be tubectomy (42.1%). The total unmet need was 50%. Multivariate analyses revealed that women aged more than 27 years, belonging to Hindu religion, nuclear family of higher per capita income with education of self and husband being up to or above middle level, having at least two living issue and one male child had higher odds of ever use of contraception.

Conclusions: To bridge the gap of knowledge and practice intense awareness generating programmes focusing on the local barriers of contraceptive practice were the need of the hour to address this alarming public health problem.

Keywords: Contraception, Married women, Rural, West Bengal

INTRODUCTION

Uncontrolled growth of population is the single most important problem that India is facing at present. The country officially obtained the title of the world's second population 'billionaire' on the 11th of May, 2000 and it adds about 10 lakh persons to its population every fortnight and about one Australia every eight month.^{1,2} By 2045 or earlier, India would overtake China as the world's most populous Nation.³ Population control still remains a distant dream in India despite of availability of

a wide range of contraceptives and mass media campaigns and awareness programs. A robust Family Planning Program had been launched by the Government earlier in 1952 and India was the first country in the world to do so, though it had not yet achieved the expected outcome.⁴

Multiple socio-economic, cultural factors, taboos, misconceptions are playing against the use of contraceptives among the sexually active women which are ultimately hindering the socio-economic growth of

this country.^{1,5} According to National Family Health Survey-3 (NFHS-3) the unmet need for family planning is 13 per cent in India and 8 percent in West Bengal, whereas District Level Household and Facility Survey-3 (DLHS-3) has found the unmet need of contraception to be as high as 21.3 per cent in India, with 7.9 per cent and 13.4 per cent for spacing and limiting respectively.^{6,7}

Too early, too many and too frequent pregnancies were the most important risk factors for maternal and child mortality. Lack of access to safe and legal termination-of-pregnancy services, lack of awareness about abortion rights, and stigma concerning the procedure contribute to women's reliance on unsafe means to terminate unwanted pregnancy.⁸ Hence knowledge about ideal contraception and its acceptance is of utmost importance for birth control, proper spacing and thereby reducing the maternal mortality. Women need the ability to decide when to start and finish childbearing, how long to wait after the birth of one child before becoming pregnant with the next and how many children to have.⁹ Every woman should have the easy access to medical and social services.¹⁰ In a developing country like India where still male-child preference is playing a major role in shaping contraceptive practices, mothers adopt these methods only after completion of family with birth a of male child. Rejection of long term spacing methods are mainly due to fear of side-effects, lack of proper knowledge, followed by husbands' objection, desire for more children and health reasons.¹¹

The National Family Welfare Programme has achieved only a modest reduction in the population growth. Though all contraceptive methods are promoted through Cafeteria Approach, female sterilization continues to be the most preferred method.¹² Despite widespread availability and ubiquitous knowledge, other contraceptive methods are often not used regularly or effectively. However, as the relative effect of each factor differs from one population to another, it is of interest to study their association and contribution in any defined population. Although there is ample information in this aspect, area specific focused information is necessary for delivery of need based health services.

With this background, an attempt was made with this research to assess the rate of acceptance of various contraceptive methods, various socio-demographic factors affecting acceptance and to find out the reasons for non-acceptance among married women of reproductive age group in a rural area of West Bengal.

METHODS

An institution based cross-sectional study had been conducted in Nasibpur Union Health Centre (NUHC) of Singur block, Hooghly district, West Bengal from 15th August-14th November 2012. All the married women of reproductive age group (15-49 years) attending general OPD of NUHC during the study period were the study

population. Institutional ethical clearance was obtained and informed consent was taken from every participant. Pregnant women, lactating mothers (upto 6 months postpartum), women who were separated or widowed, who had undergone hysterectomy or achieved menopause and who did not give consent were excluded from the study. Thus, a total of 224 participants were included in the study.

The study tool consisted of a questionnaire which was first prepared in English. Then it was translated into Bengali by a linguistic expert keeping semantic equivalence. To check the translation, it was retranslated back into English by two independent researchers who were unaware of the first English version. Face validity of each item had been checked from previous researches in presence of experts. They also decided the content validity of each domain. Reliability had been checked (Cronbach's alpha=0.9). Pretesting followed by pilot testing was done. Necessary corrections and modifications were made accordingly. Exit interview was conducted for every participant with this schedule.

Data thus collected had been entered and analyzed in SPSS 20.0 software. Odds ratios (univariate regression) were calculated to predict the strength of association between the dependent and the independent variables. Multivariate logistic regression had been done to find out the strength of association between dependent variable and the independent variables after adjusting for all the independent variables. All the independent variables which were significantly associated with dependent variable in univariate regression or having biological plausibility to be associated with dependent variable, were entered in the multivariate logistic model (LINK FUNCTION=LOGISTIC) using enter method. Hosmer Lemeshow test was done to check model fitness ($p > 0.05$ = good fit). Nagelkerke R square (a pseudo R²) value had been mentioned in each model to demonstrate the proportion of variability of the dependent variable explained by the predictor variables.

RESULTS

Majority of study population belonged to the age group of 15-24 years (42.9%) with the mean age of 28 ± 8.076 years, Hindu religion (75.9%), educated up to middle level (33%), joint family (58%), lower middle socio-economic class according to Modified B. G. Prasad scale 2012 (56.25%) and with majority of their husband educated up to middle level (25%).

Most of the women got married between the age group of 18-20 years (58%) with mean age at first marriage of 18.7 ± 1.835 years and majority delivered their 1st child between 19-21 years (42%) with mean age at first child birth of 20.75 ± 2.39 years. More than half of the participants were not having any male child (61.6%) and 32.1% of them did not have any issue yet.

Table 1: Knowledge regarding different contraceptive methods, n=224.

Different methods of contraception	Knowledge (yes) Frequency	%
Any method (Approved modern/traditional)	220	98.2
Any modern method	220	98.2
Female sterilization	218	97.3
Male sterilization	136	60.7
OCP	220	98.2
IUCD	144	64.3
Injectable contraceptives	28	12.5
Male condom	214	95.5
Female condom	18	8.0
Any other modern method (Like vaginal sponge etc.)	8	3.6
Emergency contraception	52	23.2
OCP + IUCD+ condom	144	64.3
Any traditional method	178	79.5
Withdrawal method	136	60.7
Calendar method	140	62.5
Lactational amenorrhea	112	50.0

Almost everyone (98.2%) of the Participants were aware of any modern method of contraception, 64.3% of them knew about all the three approved modern methods (OCP+ IUCD+ condom) and only 23.2% of them were aware about emergency contraception (Table 1).

Table 2: Practice of contraception, n=224.

Practice of contraception		
Methods of contraception	Practice (yes) Frequency	%
Contraception: ever-used (n=224)	120	53.6
Contraception: currently using (n=224)		
Modern accepted method only	76	33.9
Traditional method (calendar/withdrawal)	60	26.8
Not using any method (modern/traditional)	88	39.2
Type of contraception: currently using (n=38)		
Tubectomy	32	42.1
OCP	18	23.7
IUCD	12	15.8
Condom	14	18.4
Met/unmet need of contraception		
Met need	76	33.9
Unmet need for spacing	90	40.2
Unmet need for limiting	22	9.8
Wants to be pregnant	36	16.1

Regarding the source of knowledge health personnel (91.1%) was the most common source of information

followed by mass media (75.9%), relatives (67.9%), neighbors (52.7%) and friends (44.6%).

In most of the cases decision regarding practice of contraception had been taken by the husband and wife jointly (69.6%), whereas in 24.1% and 6.3% cases husband and mother-in-law was the main decision maker respectively.

More than half of the study subjects had used any approved method of contraception at least once in their lifetime since marriage, though current users were only 33.9%. Female sterilization (23.7%) was found to be most common method among current users. Total unmet need of contraception (spacing + limiting) was 50% (Table 2).

Multivariate analyses revealed that women aged more than 27 years, belonging to Hindu religion, nuclear family of higher per capita income with education of self and husband being up to or above middle level, having at least two leaving issue and at least one male child had higher odds of ever use of contraception.

Another model revealed that women aged more than 27 years, belonging to nuclear family, higher per capita income with education of self and husband being up to or above middle level, having at least two leaving issue and at least one male child had higher odds of current use of contraception (Table 3).

Desire of children (39.4%), fear of side effects (32.7%), interference with body's normal process (39.4%), health concerns (37.5%), wish of a male child (26.9%), opposition from family (24.04%) were the most commonly found causes of non-acceptance or discontinuation of contraception among the study population (Table 4).

DISCUSSION

The present study assessed the knowledge and practice regarding contraception among married women. According to NFHS-3, 97.6%, 96.2%, 77.1%, 82.2%, 63.5%, 68.4% and 8.1% of eligible couples had knowledge regarding any modern method, female sterilization, male sterilization, OCP, IUCD, male condom, emergency contraceptives respectively in rural India.⁶ The current study as well as a study in rural Haryana also found the similar results.¹³

Saluja N et al revealed that the most common source of knowledge for all couples in general was the Exposure to family planning messages (72.0%) followed by discussion with doctors and other health care workers (42.6%), whereas the current study showed the most common source of knowledge regarding contraceptives was health personnel (91.1%).¹³

Table 3: Determinants of ever use and current use of contraception: Bi-variate and Multivariate analyses (n=224).

Variables	Contraception (ever use)		p value	OR (CI)	AOR (CI)	Contraception (current use)		p value	OR (CI)	AOR (CI)
	Yes No (%)	No No (%)				Yes No (%)	No No (%)			
Age group										
<27 years	18(16.7)	90(83.3)	0.000	1	1	6 (5.6)	102(94.4)	0.000	1	1
≥27 years	88(87.9)	28(12.1)		15.7 (12.54-85.77)	8.66 (5.80-64.54)	70 (60.3)	46 (39.7)		25.86 (12.67-76.8)	10.9 (6.56-56.4)
Hindu										
Hindu	106 (62.4)	64 (37.6)	0.001	4.73 (1.80-12.43)	2.22 (1.13-8.60)	64 (37.6)	106 (62.4)	0.011	2.11 (1.23-17.56)	1.02 (0.67-5.24)
Muslim										
Muslim	14(25.9)	40(74.1)		1	1	12(22.2)	42(77.8)		1	1
Family type										
Nuclear	72 (97.9)	22 (2.1)	0.000	5.59 (3.01-38.04)	4.89 (2.80-31.23)	62(66)	32(34)	0.000	16.05 (7.89-67.78)	7.79 (5.45-56.57)
Joint										
Joint	48(21.5)	82(78.5)		1	1	14(10.8)	116(89.2)		1	1
Education of women										
Up to primary	12 (13.6)	76 (86.4)	0.000	1	1	6 (6.8)	82 (93.2)	0.000	1	1
Middle and above	108 (79.4)	28 (20.6)		24.42 (10.61-69.28)	8.02 (5.34-84.52)	70 (51.5)	66 (48.5)		14.49 (6.76-34.33)	6.76 (4.14-23.4)
Education of husband										
Up to primary	10(11.6)	76(88.4)	0.000	1	1	12(14)	74(86)	0.000	1	1
Middle and above	110 (79.7)	28 (20.3)		29.86 (9.92-89.84)	16.7 (10.89-58.6)	64 (46.4)	74 (53.6)		5.33 (2.34-15.67)	2.12 (1.44-20.02)
Age at marriage										
<19 years	40 (37.7)	66 (62.3)	0.001	1	1	30 (28.3)	76 (71.7)	0.019	1.62 (1.03-6.78)	0.98 (0.23-4.152)
≥19 years	80 (67.8)	38 (32.2)		3.474 (1.59-7.56)	1.12 (0.79-6.56)	46 (39.0)	72 (61.0)		1	
Age at 1st child birth										
<21 years	44(40.0)	66(60.0)	0.006	1	1	32(29.1)	78(70.9)	0.025	1	1
≥21 years	76(66.7)	38 (33.3)		3.0 (1.58-18.86)	1.54 (0.88-3.57)	44 (38.6)	70 (61.4)		1.53 (0.67-4.16)	0.87 (0.23-3.39)
No of living children										
<2	36(27.7)	94(72.3)	0.000	1	1	16(12.3)	114(87.7)	0.000	1	1
≥2	84 (89.4)	10 (10.6)		21.93 (12.33-63.42)	10.36 (7.92-54.2)	60 (63.8)	34 (36.2)		12.57 (7.06-23.56)	8.13 (6.19-20.03)
No. of male children										
0	42(30.4)	96(69.6)	0.000	1	1	18(13.4)	120(86.6)	0.000	1	1
1-2	74(90.2)	8(9.8)		21.14 (6.68-66.9)	9.34 (7.87-56.04)	58 (70.7)	24 (29.3)		16.11 (8.89-34.34)	9.14 (5.46-21.34)
Social class										
Up to Middle	80 (81.6)	18 (18.4)	0.000	9.56 (4.77-34.03)	2.67 (1.38-36.89)	60 (61.2)	38 (38.8)	0.000	10.85 (6.42-25.78)	5.13 (2.34-16.67)
Lower middle and lower										
Lower middle and lower	40(31.75)	86(68.25)		1	1	16(12.7)	110(87.3)		1	1
Hosmer Lemeshow test										
Hosmer Lemeshow test	0.67					0.34				
Nagelkerke R²										
Nagelkerke R ²	0.721					0.615				

Table 4: Cause of non-acceptance/discontinuation of contraceptives (n=104)

Cause of non acceptance/Discontinuation*	Frequency	%
Desire of children	41	39.4
Fear of side effects	34	32.7
Opposition from family	25	24.04
Not having sex/infrequent sex	14	13.46
Want a male child	28	26.9
Recently married	18	17.3
No knowledge about source	5	4.8
Anti-religion	15	14.4
Inconvenient for use	20	19.2
Interferes with body's normal process	41	39.4
Costs too much	9	8.65
Lack of access/source too far	19	18.26
Health concerns	39	37.5

A study by Manna N et al in rural West Bengal found in 85.2% of cases husbands were the main decision maker regarding contraceptive use, while inconsistent with this finding the current study showed in majority of the cases (69.6%) decision were taken by husband and wife jointly.¹⁴

As per NFHS 3 couple protection rate (CPR) of rural India was 45.3%.⁶ A study in rural Haryana and rural West Bengal revealed the CPR to be 59.2% and 33.3% respectively.^{13,14} The prevalence of contraceptive use among the married women attending the study setting of the current study was found to be 33.9%. The unmet need of family planning was found to be 50% in this study which corroborated well with other researches by Manna N et al (66.67%) and by Saluja N et al (41.61%), whereas the finding was not consistent with the results of a study by Chakraborty N et al which revealed the unmet need to be 26.4% only.¹³⁻¹⁵ According to NFHS 3⁶ prevalence of practice of different contraceptive methods were 37.1%, 2.8%, 1.1% and 3.2% for female sterilization, OCP, IUCD and condom respectively. A study by Manna N et al showed them to be 41.19%, 20.58%, 20.58% and 17.65% respectively, whereas the present study found more or less consistent results (42.1%, 23.7%, 15.8% and 18.4%).¹⁴

Regarding the different causes of non-acceptance or discontinuation of contraceptive use a study in Chanai village revealed the common causes to be desire of children (25.85%), fear of side effects (16.34%), opposition from family (14.06%) and menopausal (14.06%); whereas Manna N et al found the causes were desire to be pregnant (64.29%), wish of a male child (14.29%), no idea about the source of availability (3.57%), no faith in contraceptives (1.79%), considered using it as a social taboo (3.57%) and opposition from husband side (12.50%).^{3,14} The current study found out that the common causes of non-acceptance among the study population were desire of children (39.3%), fear of

side effects (32.1%), interference with body's normal process (38.4%), health concern (37.5%), wish of a male child (26.9%) and opposition from family (24.04%).

Regarding the determinants of contraceptive use Chakraborty N et al revealed age, educational status of women and their husbands, socioeconomic status, age at marriage and age at first pregnancy were having statistically significant association ($p < 0.05$) with family planning; whereas multivariate analyses in current study found that that age, religion, type of family, socioeconomic status, education of the woman and her husband, number of leaving issue and male child had significant impact on the ever use of contraception ($p < 0.05$).¹⁵

The current study was an institution based study with inclusion of small study population without application of proper sampling technique. Considering this limitation, further community based researches with larger sample size to be performed for better representation of the study area.

CONCLUSION

The present study revealed that unmet need of contraception was quite high among the study population, though knowledge regarding contraception was satisfactory. There is an urgent need of awareness generating programmes to address this problem by breaking the common barriers of contraceptive practice like gender bias, misconception regarding side effects and related health problems etc. Peripheral health workers should be trained regularly regarding this topic so that they can motivate more and more eligible couples to adopt an accepted method of contraception.

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