Research Article

Unmet need of family planning among married women of reproductive age: A clinic-based study in rural Bengal

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ABSTRACT

Background: Fecund married women who currently do not practice any family planning (FP) methods are considered to have unmet need for FP. In spite of a longstanding and robust family welfare program in India, the key health indicators like birth rate or maternal mortality ratio are still far from satisfactory for which mitigating unmet need plays a crucial factor. **Objectives:** The objective of this study is to assess the unmet need for FP and its determinants among married women of reproductive age group. **Materials and Methods:** It was a clinic-based descriptive study conducted among 104 married women of reproductive age group (15–49 years) attending the outpatient Department of Anandangar Primary Health Center, in the rural field practice area of All India Institute of Hygiene and Public Health, Kolkata. Data were collected 2 days a week with the help of a pre-tested structured interview schedule from women who attended the clinic and consented to participate during the 1 month study period (September 2016). **Results:** The mean age of the subjects was 32.4 years, and unmet need was found to be 34.6%. In univariate logistic regression analysis, significant association was found with religion odds ratios (OR) 3.75 (confidence interval [CI] 1.36–10.31), socioeconomic status (as measured by modified B.G Prasad scale 2016) OR 2.51 (CI 1.08–5.75), and who had at least one male child OR 3.73 (CI 1.50–9.23). In multivariable logistic regression, significant association was found with religion OR (CI) 14.22 (3.45–58.60) and socioeconomic status OR (CI) 2.93 (1.06–8.06). **Conclusion:** Proper counselling by healthcare providers to rectify the misconceptions associated with contraceptive use may reduce their unmet need and increase the acceptance rate of contraceptives.

KEY WORDS: Unmet Need; Married Women; Contraception

INTRODUCTION

Unmet need for family planning is defined as the percentage of women of reproductive age, either married or in a union, who have an unmet need for family planning. Women with unmet need are those who are want to stop or delay childbearing but are not using any method of contraception.[1]

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Unmet need for FP indicates the gap between women's intentions toward FP methods and their actual contraceptive behavior. The total numbers of women with an unmet need for FP consist of two groups of women: Those who have need for limiting and those who have need for spacing.[2]

India was the first country in the world to launch the National FP Program in the year 1952 with the objective of "reducing the birth rate of the extent necessary to stabilize the population at a level consistent with requirement of National economy."[1] After the passage of more than six decades of intensified programmatic efforts, India boasts of one-sixth of the global population with current population count at 1, 21, 01, 93, and 422.[2,3] The last decade has seen India's population growth by 17.64% with approximately 31 million married women

identified to have unmet need which is more than any other country.[3,4] According to the National Family Health Survey 2015–2016 (NFHS-4), total unmet need in West Bengal was 7.1% and unmet need for spacing was 3.2%.[5]

Unmet need is an important indicator for measuring the progress of FP program and exploring the reasons of suboptimal FP practices which would further help to address the gap in service delivery. Thus, with this background, the present study was undertaken to find the extent of unmet need for FP among married women of reproductive age attending Anandangar PHC in rural Singur, West Bengal, as well as to find the reasons of unmet need and its sociodemographic determinants if any. This would further help to bridge the lacunae identified by formulating solutions to address the unmet need of FP among the women of this area and thus reduce unintended pregnancy.

MATERIALS AND METHODS

A clinic-based, descriptive study was undertaken from September 1st to September 30th, 2016 among married women of reproductive age group (15–49 years) attending the General outpatient department of Anandangar PHC, which falls under the rural field practice area of All India Institute of Hygiene and Public Health (AIIH and PH), Kolkata, and West Bengal. Data were collected 2 days a week by the researchers with the help of a pre-tested, structured, interview schedule from 104 married non-pregnant women who had attended the clinic during that period and given informed written consent for the study. The study technique was by face-to-face interview method in a separate room to maintain privacy and confidentiality was also assured to the study participants. The interview schedule was developed from NFHS-4, NFHS-3, and other studies[6-9] and modified according to the local context in consultation with experts in preventive and social medicine, AIIH and PH, Kolkata. This tool was translated into local language (Bengali) with the help of experts and pre-tested on 21 married women of reproductive age group in an adjacent Primary Health Center to test for ease of use, relevance, and understanding. It was revised based on the responses obtained in pre-testing and finalized for use in this study.

Study variables included assessment of demographic and socioeconomic status (modified B.G Prasad scale 2016) age, education and occupation of wife and husband, religion, number of family members, type of family, family income, duration of marriage, age at first childbirth, desired family size, gender and age of last child, history of abortion, knowledge about FP methods, and self-reported reasons of non-usage of contraceptives. The dependent variable was unmet need of FP.

Statistical Analysis

Data were analyzed using the SPSS software (version 16). Binary multivariable logistic regression was performed: Binary because the categorical dependent variable was dichotomous (unmet need - yes/no) and multivariable because more than one independent variable were considered. At first, univariate analysis was performed with variables such as education of husband, occupation of wife, religion, type of family, socioeconomic status, knowledge about contraceptive methods, desired family size, history of abortion, gender of the youngest living child, and presence of at least one male child. Knowledge about contraception, socioeconomic status, religion, and gender of the youngest child was further considered for multivariable regression model.

RESULTS

The present study conducted among 104 married women of reproductive age group revealed that 36 (34.6%) participants belonged to age group of 26–35 years followed by 32 (30.8%) of them in the age group of 15–25 years and mean age (standard deviation [SD]) was 32.4 (5.41) years. 49% of them belonged to nuclear family and more than 80% were Hindus. Regarding educational status, 38.5% were educated up to middle standard, while 7.7% were illiterate. 88.5% were homemakers, whereas only 11.5% worked for pay, mostly manual labors. 53.8% of spouses of the women were educated up to middle standard and 30.8% of them were semiskilled labors. Socioeconomic status assessed by Modified BG Prasad Scale 2016 revealed that majority (61.5%) of the women belonged to socioeconomic Class IV (lower middle class) followed by 29.8% Class III (middle class), 8.7% Class II (upper middle class), and the mean (SD) per capita monthly family income was Rs. 1865.7 (738.1).

46.2% of the studied rural women had a duration of marriage <10 years. Majority, i.e., 73.1% had their first childbirth at <20 years of age. 50% of them had two living children, while among the rest, 69.2% had expressed the desire of having family size more than two. Among 92.3% who had at least one child, 53.8% had male child last. 14.4% gave the history of spontaneous abortion and 3.8% induced abortion, respectively. 42.3% study participants currently did not practice any FP methods and 8 (7.7%) study participants were identified no unmet need of FP as they want baby now. Unmet need for spacing was 11 (10.5%) and for limiting was 25 (24.1%).

Regarding knowledge of contraceptive methods, 100% of the women knew about condom and oral contraceptive pill (OCP), followed by tubectomy (96.2%) and vasectomy (69.2%), whereas only 19.2% had knowledge about intrauterine devices (IUD). Among the women with unmet need, only 33.3% of the women were aware about all the methods of contraception vis-a-vis 57.7% of the women without unmet need. Among the women with unmet need, 77.8% had never practised any method of FP and rest of them had used either OCP (37.5%) or condoms (62.5%) within the past 3 years. When enquired about the reasons for

not practising FP methods, 25% answered that, since their husbands were staying out of the village for work, they had not felt the need of using any methods. 13.9% expressed fears of side effect of use, while 22.2% of participants perceived little or no risk of pregnancy. However, 90.9 % had plans to use FP methods in the future [Table 1].

In univariate logistic regression analysis, significant association was found with religion (odds ratios [OR] 3.75; 95% confidence interval [CI] = 1.36–10.31) and socioeconomic status (OR 2.51; 95% CI=1.08–5.75) and at least having one male child (OR 0.27:95% CI=0.11–0.66). Multivariable logistic regression model fitted well as explained by significant Omnibus Chi-square test and non-significant Hosmer–Lemeshow statistic. The independent variables in the model could explain 19–27% variation of dependent variable, i.e. unmet need as evident from Cox and Snell R^2 (0.19) and Nagelkerke R^2 (0.27) statistic. Finally, religion (AOR 14.22; 95% CI = 3.45–58.60) and socioeconomic status (AOR 2.93; 95% CI = 1.06–8.06) came out to be statistically significant predictors of unmet need of FP among the studied rural women [Table 2].

DISCUSSION

The mean age of the subjects was 32.4 years and unmet need was found to be 34.6%. In univariate logistic regression, significant association was found with religion OR 3.75 (CI 1.36–10.31), socioeconomic status (as measured by modified B.G Prasad scale 2016) OR 2.51 (CI 1.08–5.75), and who had at least one male child OR 3.73 (CI 1.50–9.23). In multivariable logistic regression, significant association was found with religion OR (CI) 14.22 (3.45–58.60) and socioeconomic status OR (CI) 2.93 (1.06–8.06).

The present study has revealed that overall level of unmet need of FP among the studied rural women of Singur was 34.6% which was quite high with respect to NFHS-4 report where total unmet need has been reported as 7.1% and unmet need for spacing as 3.2%.[5] However, the findings are in concurrence with a study done by Prateek and Saurabh who reported 28.9%[7] had unmet need for spacing and 22.7% had unmet need for limiting in Africa as well as a study done in Western part of India by Patel *et al*. which was 20.50%.[8] Unmet need was much higher in Lucknow as reported by a study done by Pal *et al*. (53.1%),[10] Vohra *et al*. (35%) in Jaipur,[11] and Singh *et al*. in Patiala where unmet need for spacing was 23.5%.[12] A high proportion of unmet need in the present study could be due to the reason that among those who were not practising FP methods 25% cited that their husbands were staying away from home for work. In the present study, unmet need was found to be higher among the Muslims which were similar to other studies,[7,13] but Patel *et al*. study and Indu[14] in their studies reported that unmet need was high among the Hindus. In the present study, 8.3% of the Muslims had cited need of FP method use was not felt, while 2.8% religious taboos was the major hindrance of non-usage.

Table 1: Profile of FP among women with unmet need (*n*=36)

Profile	Number (%)
Age (in completed years) mean±SD: 24.2±3.41	
≤25	20 (55.5)
>25	16 (44.5)
Duration of marriage	
<10	32 (88.8)
≥10	4 (11.2)
Desired family size	
2	4 (11.2)
≥1	32 (88.8)
History of abortion	
Yes	8 (22.2)
No	28 (77.8)
Knowledge about FP methods	
Yes	12 (33.3)
No	24 (66.7)
Reason for unmet need	
Fear of side effects	5 (13.9)
Little perceived risk of pregnancy	8 (22.2)
Inconvenience	5 (13.9)
Need not felt	4 (11.1)
Breastfeeding more than 6 months	4 (11.1)
Religious inhibition	1 (2.8)
Husband out of village for work	9 (25.0)
Plan to use FP method in future	
Yes	32 (88.8)

SD: Standard deviation, FP: Family planning

In the present study, 57.7% of participants were current users of contraceptive methods. A study by Kansal *et al*. showed that 49.8% practised contraceptive methods.[13] Similarity in result may be due to the fact that both the studies were done on rural population in India.

Unmet need was higher among the women with poor socioeconomic status in our study which may be attributed to their poor living conditions forcing them to shift their priorities to fulfilling their basic needs of life compounded by their misconceptions about FP practices. Similar results were found in a study done by Kansal *et al*. in Dehradun[13] and Prateek and Saurabh in Africa.[7]

The present study found that 96.2% of women had knowledge about tubectomy and 69.2% about vasectomy. In case of spacing methods, all women had knowledge about condom and OCP and 19.2% about IUD. These findings are in concurrence with findings of Kaushal

Table 2: Univariate and multivariable logistic regression for predictors of unmet need (*n*=104)

Variables	Total	Unmet need	OR (95% CI)	AOR (95% CI)
		n (%)		
Husband education				
Above primary	80	28 (35)	1.07 (0.41–2.82)	-
Up to primary	24	8 (33.3)	1	-
Wife occupation				
Home maker	92	32 (34.7)	1.1 (0.29–3.70)	-
Work for pay	12	4 (33.2)	1	-
Religion				
Muslim	20	12 (60)	3.75 (1.36–10.31)	14.22 (3.45–58.60)
Hindu	84	24 (28.5)	1	1
Family type				
Nuclear	51	16 (31.3)	1.32 (0.58–2.98)	-
Joint	53	20 (37.6)	1	-
Socioeconomic status				
Class II and III	40	19 (47.5)	2.51 (1.08–5.75)	2.93 (1.06–8.06)
Class IV	64	17 (26.5)	1	1
Desire family size				
≤2	32	4 (12.5)	1.75 (0.85–3.60)	-
>2	72	32 (44.3)	1	-
H/o abortion				
No	85	28 (32.8)	0.67 (0.24–1.86)	-
Yes	19	8 (42.1)	1	-
Gender of last child				
No child	8	4 (50)	1.29 (0.49–3.08)	2.30 (0.43–12.34)
Male child	56	20 (35.6)	2.39 (0.31–11.0)	2.80 (0.98–8.01)
Female child	40	12 (30)	1	1
Knowledge about all method of contraception				
Yes	60	24 (40)	1.77 (0.82–4.1)	0.253 (0.07–0.84)
No	44	12 (27)	1	-
At least having one male child*				
No	28	16 (57.1)	3.73 (1.50–9.23)	-
Yes	76	20 (26.3)	1	-

*Not included in the final model because of interaction. OR: Odds ratios, CI: Confidence interval

where awareness regarding s-pacing methods ranged from 90% to 97% and 98.6% about tubectomy and 37.5% about vasectomy.[6]

Various studies have explored the reasons of unmet need of FP across the globe as in-depth understanding of these reasons is necessary for addressing the gap of unmet need at programmatic level. Genet *et al*., in his study at Dangila, Amhara regional state, found 33% of women had lack of knowledge regarding risk of pregnancy by not practising FP methods, 32% reported fear of side effects, and 11.8%[15] cited religious prohibition as the principal reason for not availing FP services. Patel *et al*. in his study reported lack of knowledge regarding contraceptive measures (55%)[16] and Raveendran and Vijayakuma from South India cited want of a male child in the future by spouse (63.3%) as the most important reason for unmet need.[17] A study by Jesha *et al*., in North Kerala, also cited that fear of complications, religious inhibitions, and lack of contraceptive knowledge were common reasons for not using contraception.[18] In the present study, most common reason for unmet need was absence of husband from home due to work out of village (25%), followed by perceived little risk of pregnancy (22.2%), fear of side effects of contraceptive usage and inconvenience (13.9% each), need not felt (11.1%), and religious taboos (2.8%), thus more or less corroborating with the findings of the studies mentioned above. In a study done by Bhattathiry and Ethirajan, unmet need was 39% and the main reason was little perceived risk of pregnancy 18%.[4] Almost similar

results were reported by Murakar *et al*. from Chennai.[19] The principal reason of husbands out of home for work as found in this study is explained by the fact that 15.4% of husbands were gold workers and 7% were masons working mostly in Western India, and they generally came home once or twice in a year.

The strength of the study lies in the selection of the study population, i.e., rural women as they are at high risk of suffering from the consequences of unmet need, i.e., unintended pregnancies. It is also a recognized fact that their decision-making power regarding FP issues is usually undermined. However, the study has its limitation that it was a clinic-based study due to time and resource constraints. A community-based study with appropriate sampling methodology would have given more in-depth results with external generalizability. In spite of cross-checking the age, many women above 49 years may have been included in the study or women below 49 years excluded because in rural areas most of the women are ignorant about their actual age.

The present study elicits high unmet need of FP among rural married women attending a clinic in rural West Bengal. Their knowledge regarding FP methods was also found to be insufficient and fear of side effects of contraceptive use was identified as one of the important reasons for their suboptimal FP practices. Other misconceptions like practice of breastfeeding more than 6 months would not require contraceptive protection, and their ignorance of the risk of unintended pregnancy by non-usage of FP methods is the rectifiable areas that can be addressed by healthcare providers by proper health education and counseling. Since one of the commendable attitude of these women was their intention to use FP methods in the future, there is a huge scope of reducing their unmet need by utilizing every point of contact by healthcare providers (e.g., clinic visits, immunization clinics, and home visits by ASHA workers) for emphasizing the need of adopting FP methods for the betterment of their own health by reducing the chances of unintended pregnancy. Acceptance rate can also be further enhanced by providing proper knowledge and cafeteria choice regarding different types of contraceptives. However, more in-depth studies with both qualitative and quantitative components and involving male participation to find the root causes of improper FP practices would further help in formulating effective evidence-based strategies by policymakers to reduce unmet need in future.

CONCLUSION

Proper counseling by healthcare providers to rectify the misconceptions associated with contraceptive use may reduce their unmet need and increase the acceptance rate of contraceptives.

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