Original Article

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Unmet Need of Contraception among Married Women in Reproductive Age Group & Impact of Intensified Interventional IEC Measures in Rural Area of Vasai, Thane, Maharashtra

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Abstract

Objectives: 1) To find out prevalence of contraceptive use & unmet need for contraception & reasons thereof in rural area. 2) To assess the impact of interventional measures among unmet need groups. **Methodology:** Community based interventional study was carried out in Rural area - Parol Primary Health Centre, District Thane, Maharashtra state among women of reproductive age groups who were selected by stratified simple random sampling technique. Systematically planned interventional measures (counseling, health education & audio-visual shows) were directed for unmet need groups, husbands & their family members by ANMs during the study period & thereafter. Follow-up visits were made to unmet need groups to assess the impact of interventions. **Results:** Prevalence of unmet need for contraception was 44.1%; for spacing-23.7% & for limiting-17.1%. Most common unmet need reasons for contraception were related to its side-effect (36.3%) followed by contraceptive methods i.e not knowing different contraceptive methods, their usage & source (24.4%). Fertility related reasons (desire for more children/male child) & health concern reasons were mentioned by 23.8% & 21.3% women respectively. 18.8% women stated family planning staff doesn't give information about all available contraceptive methods, method of their use & their source. Disapproval by family members was mentioned by 15.6% women & 3.1% said that source of obtaining contraceptive method is out of their reach. After interventions, unmet needs for contraception were significantly reduced to 14.3% from 44.1%. **Statistical Analysis:** SPSS 11.0 version, Chi-square & Z test. **Conclusion:** Intensified, well planned interventional measures reduce unmet need of contraception.
Article summary: Article Focus & Key words:

- Rural area
- Unmet needs reasons for contraception
- Impact of Intervention on reducing unmet need reasons & increasing contraceptive use.

Strengths of the study: Rural based interventional study wherein all remote areas are also covered.

Keywords: Women of reproductive age group; Unmet need for contraception; Intervention; Rural area.

Introduction

Efforts for population control are continued since the time of independence but it's still a big challenge in front of India. Most urban couples desire 2 to 3 children, including at least

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a boy. A higher proportion of couples in rural area prefer 3 children. About 45% of population increase is contributed by births above 2 children per family.[1] Inadequate attention to alarmingly rising population & its deleterious effect on developmental effort & food situation, has led us to a disastrous situation. *RAJARETNAM* has demonstrated that even if there is no reduction in the family size of individual couples, delaying childbearing will bring about a decline in fertility & population growth rate.[2]

In India, efforts were made since the early 1950's to spread the small family norm & the importance of adopting family planning methods to every nook & corner of the country through various mass media. But the continued high birth rate (though declining slowly), even in the late 1980's raises the issue of the efficacy with which such programmes are running. Though the Family Planning programme has experienced significant growth & expansion over the past half century, there is inverse relation between fertility preferences & practice of contraception & pregnancies continue to be unplanned & the unmet need for contraception remains substantially high.

In developing countries over 100 million women who are married or in union have an unmet need for Family Planning either for Spacing or Limiting. India has the most, at about 31 million women having an Unmet Need either for Spacing or Limiting.[3] According to NFHS-3 in India - the prevalence of unmet need for contraception is 13 %(14.6% in rural areas and 10% in Urban areas).[4]

India is a vast country with population of 1.21 billion (121 crores) & about three-fourth of the country's population live in rural areas. As challenging as it is to meet the contraceptive needs of women in hospital & urban settings, but it is more complex in rural area, where most women in developing countries live & give birth. There are several studies undertaken in the country to examine family planning acceptance & unmet need for contraception in urban & rural areas. In order to boost the family welfare programme & make it client friendly as envisaged in RCH II programme, it is necessary to monitor systematically & regularly, the unmet needs of contraception in different settings & plan need based community level interventions. Present study is an attempt towards the same.

Materials & Methods

The present, descriptive epidemiological study with community based intervention measures, was carried out over a duration of 13 months, among married women of reproductive age group (eligible couples), in Parol PHC, Taluka – Vasai, District Thane, Maharashtra state, which is affiliated to Department of Preventive & Social Medicine of Topiwala National Medical College & B. Y. L. Nair Ch. Hospital, Mumbai, as Rural Health Training Centre. Preliminary information on Family Planning practices among the married women was collected from the PHC functionaries. Parol tribal PHC has 7 sub centres, 17 villages & total population of 20,586, which includes 2486 eligible couples.

Pilot study, which included 65 married women, from one of the villages in Parol PHC, revealed 51.2% prevalence of unmet needs of contraception, as per the operational definition used in this study. Total sample of 381 women was finalized by using appropriate formula, ($4PQ/L^2$), taking into account prevalence in pilot study & 10% allowable error. Stratification was done as per sub centre area, to ensure representation of study subjects from entire PHC area. Out of these 381 women, 6 refused to give interview & 12 were not interested in using contraceptives in future at all, & hence were excluded, thus limiting the study group to 363 women.

Pre formed, pre tested, semi structured interview schedule was used for data collection by the principal investigator herself, which included information on

1) Knowledge, attitude & practice of contraception.
2) Classifying study population into satisfied & unmet need groups. Unmet need

groups were further classified into spacers/limiters/dis-satisfiers.

The operational definitions of spacers, limiters & dis-satisfiers used in this study are as follows:

Unmet Need for SPACING: Pregnant women whose pregnancy was mistimed, whose last birth was mistimed, women who are not pregnant, not using method of family planning & who say they want to wait two or more years for their next birth & women who are unsure whether they want another child or who want another child but unsure when to have the baby.

Unmet Need for LIMITING: Pregnant women whose pregnancy was unwanted, women whose last child was unwanted & women who are not pregnant, not using any FP methods & who wanted no more children.

As unmet need phenomenon is a subjective phenomenon, those who are using contraception but not satisfied with method currently using because of many reasons are also considered as having an unmet need for contraception. Dixon-Muller & Germain (1992) found that the standard definition of unmet need overlooks the women who discontinue contraceptive method due to dissatisfaction with a particular method; the barrier may be the lack of satisfactory alternatives to switch to, along with the unavailability of safe abortion to back up the method.[5]

Interventions

Interventional measures were introduced during & after phase of data collection. These measures were counseling, health education (during data collection) & audio-visual shows (after data collection). Follow-up visits to unmet need groups were given for four & half month by AWWs, Health-staff & Interviewer.

Counseling

Counseling was done for each respondent of unmet need group at the end of interview by interviewer. Counseling included information on different contraceptive methods (for males & females) the purpose for which it is used (temporary or permanent), their availability & side effects. The advantage of counseling was that it maintained utmost privacy with the respondent & hence respondent were free to ask their doubts.

Health-education

Health education sessions were conducted in early phase of the study, i.e. immediately next day after data collection & counseling. The group of individuals categorized as unmet need groups (Spacers, Limiters & Dis-satisfiers), their husbands & their family members were gathered for the health education, to overcome the obstacles of disapproval by husbands & family members. They were given education about different contraceptive methods, their availability, the purpose for which they are used & their side-effects if any, by ANM at the Anganwadi Centre. The same procedure was then used in each Anganwadi to cover entire unmet need groups. Interns & post-graduate students posted in the PHC were also involved in delivering FP messages & services wherever feasible which are then continued forever.

Audio-visual Shows

Special attempt was made to organize Audio-visual shows at each sub centre area, with assistance from Public Health Department of Municipal Corporation of Greater Mumbai, with prior advocacy in the community. The A-V shows included films on - Adolescent health, different contraceptive methods including temporary & permanent methods, their source, the doctor explaining the advantages & disadvantages of different contraceptives to the beneficiary, counseling done by ANMs to the beneficiary on the side effects of contraceptives & satisfied women sharing their experience about the usage of contraceptives.

Follow-up Visits

Each respondent was visited by Anganwadi worker (AWW), in the respective village/ pada every Monday till four & half months. ANM visited each of the respondents in their

respective village/pada once a week (Wednesday) till four & half months. Similarly follow-up visits to respondents were made by Interviewer in village/pada once a week (every Friday) till four & half months. The purpose of follow-up visits to unmet need groups was to clarify any doubts related to the contraception, to identify the impact of the interventions, in terms of number of unmet need groups adopting contraceptive methods & type of contraception preferred by them.

Results

Mean age of the 363 study subjects was 24.12 ± 4.45 years & average number of children per women was 2.02. Hindu religion predominates in the community. Males were found more literate than females in the present study (69.1% Vs 47.2%). Most of the women & their husbands were doing labour work & were belonging to lower socio-economic status (51.8%). Early marriages are still very much prevalent in this area (53.7%).

Table 1: Prevalence of Unmet & Met Need for Contraception among the Study Groups

Classification of study population	No.	Percentage
Group IA (Spacer)	86	23.7
Group IB (Limiter)	62	17.1
Group II (Dis-satisfier)	12	3.3
Satisfied	203	55.9
Total	**363**	**100**

88% of women were having knowledge about contraceptive methods but only few women (26.7%) had ever used contraception in the past & 59.2% were currently using. Among current contraceptive users, acceptance for permanent contraceptive methods was more than temporary contraceptives (53.3% Vs 39.1%). Among users, most commonly used method was OC pill (20.9%), followed by Condom (13%), & IUD (10.7%). Most of the current users were satisfied. 12.5% women were not aware of contraceptive methods & all were belonging to unmet need groups.

Table 2: Unmet Need Reasons for Contraceptive Methods (N=160)

Main reasons	No.	%	Details	No.	%
Side effect related reasons	58	36.3	backache	20	34.5
			headache/ nausea/ vomiting	15	25.9
			headache/ nausea/ vomiting; menstrual irregularity	13	22.4
			Menstrual irregularity; Painful intercourse	10	17.2
			Subtotal	**58**	**100**
Contraceptive method related reasons	39	24.4	Don't know use, source & methods	39	100
Fertility related reasons	38	23.8	Lactational amenorrhea	17	44.7
			More children	13	34.2
			Male child	6	15.8
			Infrequent sex	2	5.30
			Subtotal	**38**	**100**
Health concern	34	21.3	No time to take rest; backache	20	58.8
			No time to take rest	14	41.2
			Subtotal	**34**	**100**
FP staff related reasons	30	18.8	Don't talk about side effect	1	3.3
			Don't inform about variety of contraceptive method; Don' talk about side effect	29	96.7
			Subtotal	**30**	**100**
Socioeconomic reasons	25	15.6	Husband & Mother in law disapproves	16	64
			Husband disapproves	9	36
			Subtotal		
Reasons for non-use/ dissatisfaction/ related to source of obtaining	5	3.1	Source not accessible	5	100

The prevalence of contraceptive use & prevalence of unmet needs for contraception is shown in Table 1. Contraceptive prevalence rate was 59.2%. Among these contraceptive users, 55.9% respondents were Satisfied while 3.3% respondents were Dis-satisfied. Total unmet need for contraceptive methods was 44.1%. (Including dis-satisfied group).

Different unmet need reasons have been shown in the Table 2. Non-use/dissatisfaction for contraceptive methods is not because of one reason; but more than one reason could also be responsible for unmet needs. The most common reasons were side effect related reasons followed by unawareness about contraceptive methods & its usage & the least common was inaccessibility of source for getting contraceptives. The different unmet need reasons for contraception among Spacers, Limiters & Dis-satisfiers is discussed below:

Group IA (Spacers): Among this group of 86, most common reason for non-use/dis-satisfaction, was contraceptive method related reasons (which includes lack of knowledge about its use, about its source & lack of awareness that OC pills, Condoms & IUDs are used as spacing method between two children) in 37(43%) women. 26(30.2%) respondents said that they had fear of Side-effect related to contraceptives (Menstrual irregularity; Painful intercourse due to IUD insertion, headache/ nausea/ vomiting) & FP staff doesn't inform them about variety of contraceptives as well as they don't discuss its side effects. Desire for more children or desire for male child was seen in 14(16.3%) women. Only 5(5.8%) women mentioned reasons, as opposition from family members for non-use/dissatisfaction of contraceptive methods. Inaccessibility of source for obtaining contraceptive method was revealed by only 4 (4.6%) women.

Group IB (Limiters): Among this group of 62, most common reasons for unmet need were (revealed by 34 (54.0%) respondents) health concern & side-effect related reasons. i.e. no family members other than husband & wife to look after their children after surgery, no time to take rest as they all are involved in labour work & fear of post-surgical backache. Fertility related (desire for more children/desire for male child) & socioeconomic reasons (opposition from family members) combined were responsible for unmet need in 20 (32.2%) women. 5 (8.1%) women gave fertility related reasons for non-use/dissatisfaction of contraceptive methods & inaccessibility of source for obtaining contraceptives were responsible for unmet need in (4.8%) women.

Group II (Dis-satisfiers): Among this group of 12, reasons for unmet needs for contraception were Side-effect related & FP staff related.

Unmet need for spacing was more among 15-24 years (83.7%). Low awareness, desire for more children, just married, could be reasons for non-use of contraceptives among this group. Unmet need for limiting was higher rather than unmet need for spacing. Unmet need for contraceptive methods was statistically high in illiterate groups while majority of the satisfied group were found literate both in women & their husbands. An inverse relation was found between incomes & unmet need groups. The association was statistically significant. Unmet need for contraceptive method was highest (31.68%) among women who were married before 18 years of age than those married at or after 18 years of age (12.4%). This difference was statistically significant ($P < 0.001$).

Table 3: Post Intervention Comparisons

Pre-intervention study groups			Post-Intervention study groups		S.E.	Z value	Significant
Groups	No.	Percentage	No.	Percentage			
Satisfied	203	55.9	311	85.7	3.19	-9.34	Significant
Group IA	86	23.7	23	6.3	2.57	6.77	Significant
Group IB	62	17.1	29	8.0	2.43	3.74	Significant
Group II	12	3.3	0	0.0	0.94	3.51	Significant
Total	363	100.0	363	100.0			

Impact of Intervention

Impact of intervention among unmet need groups is shown in Table 3. After intervention, Among Spacers (out of 86), 73.3% of women have started using contraceptive methods (MET GROUP). Among Limiters (out of 62), 53.2% of women have done female sterilization (MET GROUP). Among Dis-satisfiers (out of 12), all women have started using one or other contraceptive methods (MET GROUP). Unmet need groups have significantly reduced as follows:

Spacers have reduced from 23.7% to 6.3%; Limiters have reduced from 17.1% to 8%; after intervention all Dis-satisfiers were found satisfied with the increased awareness and improved service delivery.

From the above results, it can be said that after interventions, contraceptive prevalence rate has significantly increased to 85.7% from 55.9% & unmet need for contraception has significantly reduced from 44.1% to 14.3% among unmet need groups.

Discussion

In the present study, total pre interventional unmet need for contraception was 44.1%. (Including dis-satisfied group) which is proportionately higher as compared to unmet need in India (14.6%), as per NFHS-3 data. Unmet need for spacing remains always higher i.e. 23.7% than unmet need for limiting - 17.1%.

Unmet need for contraception is powerful concept for family planning. It poses challenge to family planning programme to reach & serve millions of women whose reproductive attitude resembles those of contraceptive user but who are for some reason or combination of reasons, not using contraceptives. Hence to reduce unmet needs of contraception, it becomes essential to find out reasons for the same, to appropriately facilitate improvement in family planning programme.

In the present study most common unmet need reasons were side-effect related to contraceptives followed by lack of knowledge about it. Perception of side effect was often based on misinformation & therefore side effects & misinformation commonly interact to create a disproportionate fear about fertility regulation methods. Most contraceptives have side effects, & these can be a barrier to adoption or a reason for discontinuing a method.

Ross J *et al* studied that lacking a range of contraceptive choices can result in unmet need. Research found that expanding the mix of available methods should reduce unmet need substantially.[6]

As more than third women lacked information about variety of contraception & also had concern about the side effects based on incorrect information, emphasis should be given on communication & good counseling to the women, giving correct information about available source, & side effects. Good quality services & access to convenient methods are important to meet unmet need.

Next common reasons were fertility related i.e. desire for more children & at least one male child. T Rajaretnam et al also concluded that areas where sex preference is high overall method use rates are low.[7] In a study by B.K. Patro, S. Kant, N. Bardalyne and A.K.Goswami, expectation of male child is responsible for non-use of contraception in 44% of cases.[8] Leela Visaria *et al*, also conclude that 70% of women, avoid use of contraceptive measures, because of desire for more number of children.[9]

Present study confirms dominant role played by husbands, in choice of contraceptive methods by their spouses. It is therefore essential to focus on programmes addressing reproductive health needs & perception of men in reproductive matters. Ram et al noted in 12% of mothers the reason for unmet need was opposition from husband, families & communities.[10] Casterline J B *et al*, study found that husband is a major factors accounting for unmet need.[11] Because most of the family planning programs are designed to serve primarily women the finding of husband's approval or disapproval has important program implications.

In response to the findings of the survey i.e.

low contraceptive use & high unmet need for contraception, an attempt was made to introduce interventions in the form of detail individual couple counseling, health education to the needy groups & audiovisual shows in the community to raise general awareness about the importance of family planning & create enabling environment, so as to reduce prevalence of unmet needs of contraception. The impacts of these interventions, as shown in table 3, are very encouraging.

Conclusion

Present study confirms very high rate of unmet needs of contraception among tribal women, in Thane districts of Maharashtra. Analysis of various reasons for the same clearly reveals that there is scope to exercise better control on the factors responsible for very high prevalence of unmet needs, by the PHC functionaries. Strengthening client based IEC activities with household follow up, as done in the present study, can substantially reduce the level of unmet needs, provided there is concern for the problem & priority is appropriately set. Measures in this direction would go a long way, towards the success of family planning programme as desired.

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