ORIGINAL ARTICLE

UNMET NEEDS FOR CONTRACEPTION IN MARRIED WOMEN IN A TRIBAL AREA OF INDIA

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ABSTRACT

Background and Objectives: *Unmet need for contraception is the gap between women's reproductive intentions and their contraceptive behavior. This community based_interventional study was carried out to determine the unmet needs for contraception, the reasons for this and to assess the impact of interventional measures on acceptance of contraception.* ***Subjects and Methods:*** *This study was conducted in 52 villages in the state of Maharashtra, India, among 363 married women selected by cluster sampling. Data was collected using an interview guide. An intervention was done for the women who had an unmet need and an assessment of the change was done subsequently. Data was analyzed by using SPSS.* ***Results*** *The prevalence of contraceptive usage was 59.2% and the prevalence of unmet need for contraception was 44% (160). The unmet need for spacing births was 53.8%, 38.7% for limiting births and 7.5% women were dissatisfied with the current contraceptive method. The reasons ranged from side effects to contraceptives to source of obtaining contraceptives. Age of the respondents, education and number of living children showed statistically significant association with unmet needs. Post intervention, the contraceptive prevalence rate increased significantly 85.7% and there was a significant reduction in the unmet needs for spacing and limiting births, equally there was a significant reduction of dissatisfaction with using contraception.* ***Conclusion:*** *Improvement in the use of contraception and addressing the unmet need for contraception requires community involvement and ongoing, sustained efforts by health workers to ensure quality care to the beneficiaries.*

Key words: *Unmet need, contraceptive prevalence, intervention*

INTRODUCTION

Rising population and its deleterious effects on developmental efforts and food situation is alarming. Though population control is practiced in India the population growth is still a major problem [1].India's population rose by 181 million (21.34 %) from 1991 - 2001 more than the 170 million population of Brazil [2].Contraception is a viable solution [3]. However, many sexually active women who do not want to get pregnant are not using any method of contraception. These women are considered to have an unmet need for family planning. Unmet need for contraception is the percentage of fertile, married women of reproductive age who do not want to become pregnant and are not using contraception [4]. The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behaviour[5].

The presence of an unmet need for contraception among many populations was demonstrated from data collected in surveys of Knowledge, Attitude and Practice (KAP) of birth control methods in the 1950s and 1960s. The discrepancy between reproductive intentions and birth control practices was termed as "discrepant behaviour" [6] or "KAP-gap" [7-8] or "unmet need" [9-10]. The standard definition of unmet need overlooked women who discontinue contraceptive methods due to dissatisfaction with a particular method; the reason could be due to lack of satisfactory alternatives or the non-availability of safe abortion to back up the method[11-12]. As unmet need is a subjective phenomenon, those who using a contraceptive but dissatisfied with the method currently used are also considered to have an unmet need for contraception.

In developing countries, the average level of unmet need is about 20%[13]. According to the National Family Health Survey (NFHS-3) 2005-06, Maharashtra, India, the unmet need for family planning in currently married women of reproductive age group is 9.6 %, lower than the 13.2% for India as a whole[13].

This study was conducted to assess the unmet needs of contraception in women residing in a tribal area which was not covered in the NFHS surveys.

This study was carried out with the objectives:

a) to estimate the magnitude of unmet needs for contraception among married women

of reproductive age in a tribal area who had not accepted any family planning method,

b) to identify socio demographic factors associated with unmet needs for family planning and contraceptive users, and

c) to explore the common reasons for the same.

The study was planned to explore go beyond previous KAP-Gap research to identify the reasons for non-use/ dissatisfaction/ discontinuation of contraception and to address the unmet needs among women in a rural area intending to limit or space births adopting simple interventional strategies.

SUBJECTS AND METHODS

The study was conducted in 52 villages in the tribal block of Thane district, which is the largest district in the state of Maharashtra, located in the western part of India. The population is predominately tribal. The topography is difficult as the settlements are in a hilly region. The hutments are located far from each other. A group of 20 to 25 hutments constitutes a "pada" and a group of 10 such padas constitutes one village.

The study design was a community based interventional study among women in the reproductive age group. It was carried out over a period of 13 months from September 2006 to September 2007.

As per the demographic records available at the District Health Office, the total population of the 52 villages was 20586 and the number of women in the reproductive age group was 3910. Based on sample size calculation, a fixed number of respondents were to be selected from each village. One pada was selected at random and considering each pada as a cluster, all available women satisfying the criteria and available for interview were interviewed. When the required number was not satisfied, then an additional pada was included. 391 women representing 10% women in the reproductive age group were selected as the sample size due to constraints of time and accessibility. The inclusion criteria included:

- Married women in reproductive age group (15-45 years) living with their husbands at the time of the study
- those who were not currently pregnant
- those who had not attained menopause and
- those who had not undergone hysterectomy.

Of the 391 women, 6 did not want to participate in the study and 22 women were not interested in using contraception in the future. The final sample size was 363. In triggered

An interview guide was applied to assess the unmet need of contraception and various reasons produce the unmet need. Female sterilization, oral contraception and intrauterine device are the most common methods of contraception among these women. Intervention for the study subjects was carried out by conducting health education sessions using audio – visual aids, which included information on various contraceptive methods, their utility, possible side effects by the investigators and trainers for family planning. The health care providers like the public health nurses (PHN) and auxiliary nurse midwives (ANM) were also given counseling to improve client satisfaction. This intervention was carried out in three sessions conducted per week. Each session contained information for the women in the language easily understood by them. After conducting the survey for a period of four months, intervention was carried out for two months and the effect of the intervention amongst the unmet need groups was assessed with six months post intervention.

Ethics

The study was conducted with the approval of the institute's ethics committee. Informed consent was obtained from all the participants and confidentiality of the subjects was totally assured.

Statistical analysis

The collected data was analyzed with SPSS software version 11.0. After describing the data, comparison amongst the unmet need for spacing births, limiting births and dissatisfied group was performed applying the Chi square test. Pre and post intervention contraception practice was analysed using Chi square test. A 'p' value of <0.05 was considered statistically significant.

RESULTS

The Contraceptive practice prevalence rate among the study population was 59.2% (215). Among the contraceptive users, 94.4% (203) of the respondents were satisfied while 5.6 % (12) respondents were dissatisfied with the currently applied contraceptive method. Female sterilization was the most common permanent method of contraception among these women (74, 34.4%).Amongst the temporary methods of contraception, oral contraceptive pills were the

most preferred (41, 29.1%) followed by intrauterine device (Copper T) (23, 16.3%).
Out of the total of 363, 44.1% (160) women had unmet needs for contraception. Of these, 53.8% (86) had unmet needs for spacing births, 38.7% (62) had unmet needs for limiting births and 7.5% (12) women were using some method of contraception but were not satisfied with it, thus contributing to the unmet needs for contraception.

A majority of 53.7% (195) women were in the age group of 20-24 years followed by 26.4% (96) in the 25-29 years group, 8.5% (31) in the 30-34 years age group, 6.1% (22) in the age groups 15-19 years and the minimum number of women of 5.2% (19) was found in the age group of 35 – 39 years.

Table 1 shows the reasons for unmet needs of contraceptive methods. Side-effect related reasons were reported by 36.3% (58) of the respondents which included headache and nausea. Contraceptive method related reasons were given by 24.4% (39) of the respondents that included a lack of knowledge regarding its place of availability and a lack of awareness of the contraceptive to be used. 23.8 % (38) women reported fertility related reasons mainly lactational amenorrhoea, followed by desire for more children, desire for male child and infrequent sex. 21.7 % (34) cited health concerns, commonest being inadequate time to rest after surgery for Puerperal Sterilization (PS) and low backache.18.8 % (30) respondents cited health care provider related reasons which included staff not discussing about side effects of contraceptive methods and not giving choices for various contraceptive methods available.

Socio-economic reasons for unmet need of contraception were given by 15.6 % (25) of the respondents which included disapproval by husband and mother in law. 3.1 % (5) of the women cited inaccessibility to the health center, the long waiting period and inconvenient timings.

Table 1. Reasons for unmet needs of contraception

Sr. No.	Reasons for unmet need	No. (N=160)	Percentage of respondents
1	Side-effect related reasons (Headache, nausea)	58	36.3
2	Contraceptive method related reasons (Place of availability and awareness of the use of contraceptive type)	39	24.4
3	Fertility related reasons (lactational amenorrhoea, desire for more children, infrequent sex)	38	23.8
4	Health concern reasons (Inadequate time to rest post surgery, backache)	34	21.7
5	Health care provider related reasons (Inadequate advise by staff regarding contraceptive choices and side effects)	30	18.8
6	Socio-economic reasons (Not allowed by husband/mother in law)	25	15.6
7	Source of obtaining contraceptive method (Inaccessible health care facility, long waiting periods, inconvenient timings)	5	3.1
Total		229*	

*Total number of reasons given was 229 by the 160 study subjects which included multiple responses

Table 2 shows the age distribution of the respondents of the unmet need groups. For the women in the age group of 15-25 years, the unmet need for contraception was largely for spacing births (67.9%) followed by for limiting births (24.5%) and the dissatisfaction with the current method of contraception. In contrast, ≥25years age group, unmet need for limiting births was higher (66.7%) than the unmet need for spacing births (25.9%)($p<0.05$).

Amongst women with 2 or less children, unmet need for spacing births was more (73.6%) than the unmet need for limiting births (21.7%). On the contrary among women with more than 2 children, unmet need for limiting were more (72.2%) than unmet need for spacing (14.8%) ($p<0.05$).

The unmet need for limiting births was highest among illiterate women (47.5%) followed by unmet needs for spacing births whereas among literate women the unmet needs for spacing births was the highest (81.6 %) followed by limiting births ($p<0.05$) as seen in table 2.

Table 2. Distribution of unmet needs respondents by their current age, number of living children and level of education

	Unmet need for					
Current age in years	**Spacing births (86)**	**Limiting births (62)**	**Dissatisfied with current contraceptive method (12)**	**Total (160)**	**Chi-square value**	**P value**
15 to 25	72 (67.9%)	26 (24.5%)	8 (7.5%)	106 (100%)	28.13	**0.000**
≥25	14(25.9 %)	36 (66.7%)	4 (7.4 %)	54(100 %)		
No. of living children						
</=2	78 (73.6 %)	23 (21.7 %)	5 (4.7 %)	106 (100%)	45.32	**0.000**
>2	8 (14.8 %)	39(72.2 %)	7(13.0 %)	54 (100%)		
Education						
Illiterate	55 (45.1%)	58(47.5 %)	9 (7.4 %)	122 (100%)	15.88	**0.000**
Literate	31(81.6 %)	4 (10.5 %)	3 (7.9 %)	38(100%)		

Table 3 shows that post intervention, the contraceptive practice prevalence increased from 59.2% (215) to 85.7% (311). This was highly significant ($p<0.05$).

Table 3. Pre- and post-intervention prevalence of Contraception practice among the study population

Study subjects	Using contraceptive method		Total	Chi square result	P value
	Yes	No			
Pre-intervention	215 (59.2%)	148 (40.8%)	363 (100%)	62.28	**0.000**
Post-intervention	311 (85.7%)	52 (14.3%)	363 (100%)		

Figure1 shows the number of respondents with unmet needs pre and post intervention. The overall finding shows a reduction in the number of women with unmet needs in each group. Among women (86) who had unmet need for spacing births pre intervention, 73.3% (63) were satisfied post intervention. Among women (62) who had unmet needs for limiting births pre intervention, 53.2% (33) underwent female sterilization post intervention. All the 12 respondents who were dissatisfied with their contraceptive methods before intervention were satisfied post intervention.

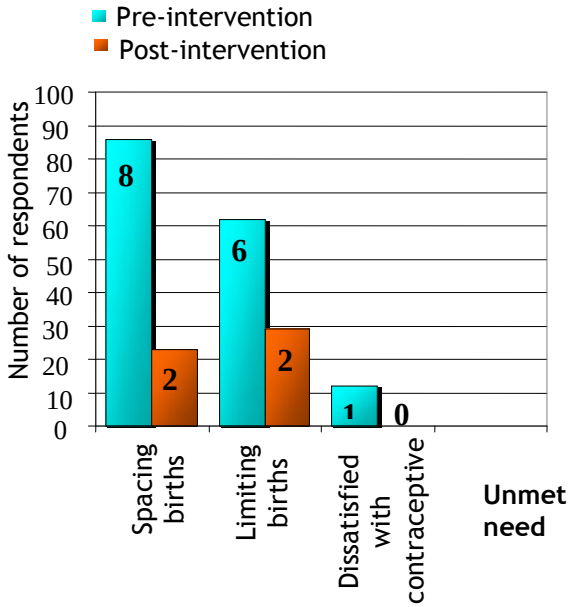

Figure1. Unmet needs amongst the respondents before and after intervention

DISCUSSION

For a second most populous country in the world, the usage of contraception is not only necessary but also indispensible to maintain a decent standard of living for its people. The Government of India in its new National Population Policy 2000 has set addressing unmet need for contraception as its immediate objective the in order to bring down the total fertility rate down to replacement level by the year 2010. One of the 14 national socio-demographic goals identified for this purpose is to achieve universal access to information/counseling and services for fertility regulation and contraception with a wide range of choices [14]. This study has identified the unmet need and the factors influencing for a rural tribal population.

The prevalence of contraceptive practice for any modern method was 59.2% as compared to the Indian figure of 48.3%.For rural India it was 45.2% [15]. In China a study showed that the contraceptive practice was 69.5% among married women of childbearing age[16]. The state of Maharashtra has better health and health service indicators than many of the other states of India. The ever use of modern contraceptives for rural Maharashtra is 62.1%. Female sterilization is the commonest modern method adopted (51.9%). Maharashtra is the only state where prevalence is higher in rural areas (62.7 percent) than in urban areas (58.5 percent). Contraceptive usage is generally lower among rural population[17]. The difference in usage found in this study for the state was not statistically significant.

16 percent of currently married women in India have an unmet need for family planning. The unmet need for spacing births is the same as the unmet need for limiting births (8 percent). If all of the women who say they want to space or limit their births were to use family planning, the contraceptive prevalence rate would increase from 48 percent to 64 percent of currently married women, implying that 25 percent of total family planning need is not being met[16]. In this study, the percentage of women having an unmet need was higher probably because of a difference in definition from the NFHS survey. However the need for spacing births is much higher. If contraceptive services are offered effectively to these women there would be a jump in the total utilization.

In this study, the most common reason for unmet needs was side effect related causes followed by contraceptive method related reasons and fertility related reasons. In NFHS-2 Maharashtra

(1998-99), the most common reason for unmet needs was fertility related reasons (69.9%), other reasons included opposition to contraception use, lack of knowledge of either method or its source, method related reasons, side effects, health concerns, hard to obtain contraceptives and cost. In another study conducted in rural South India, the overall method use rate was low and the most common reason was sex preference[18], whereas in China, the common reasons were infertility, social economic reasons[16]. In another study conducted in five Asian countries, the common reasons for unmet needs were lack of knowledge, health concerns, fertility related reasons, opposition by family members and side effects related reasons[19]. In Pakistan there is a large unmet need for family planning in all population strata. This is due to gender inequities in the social system, reflected by women's low autonomy, lack of educational attainment, limited participation in family decision-making, a preference for male children and fatalistic attitudes towards the use of family planning[20].

In this study age of the unmet needs group women, education and the number of living children were found to be significant. Similarly in Jakarta, a survey revealed that the major factors affecting the nonuse of contraception were number of living children, frequency of exposure to mass media, level of education, and the current age[21]. For younger women, the unmet need was largely for spacing rather than for limiting as in NFHS-2 (1998-99) Maharashtra[15].

This study showed the unmet needs for women with less than 2 children were higher, this finding was similar to the finding of another study in central part of India [22] but in a study conducted in Bangladesh the opposite was found[23].

Data obtained from the World Fertility Survey compared for Thailand, Sri Lanka, Korea, Philippines, Pakistan, Malaysia, Indonesia, Fiji, and Bangladesh showed that for all countries investigated, women entering marriage at older ages have closer spacing [24] thus showing the unmet need for spacing births, this finding is similar to our study where the unmet need for spacing was higher among women married after 18 years of age.

Education level is a major limiting factor in accepting family planning methods especially for limiting births. Studies conducted in Rajasthan, and Kolkata, India indicated that unmet demand for contraceptive remained highest in illiterate group [25 - 26] similar to the finding of this study.

There was no available data on post interventional analysis studies on this subject. Family planning methods and services in India are provided primarily through a network of Government hospitals and urban family welfare centers in urban areas and Primary Health Centers (PHC) and sub-centers in rural areas. In the rural areas, the primary contact with clients is by home visits. The NFHS survey found that during home visits, the health workers were more likely to talk on child immunization, antenatal care or health problems. Family planning, though discussed, is more likely to be done with women who are currently pregnant or those with a child receiving immunization. The finding of this study suggests that simple and cost effective interventions like health education to the health care providers and the beneficiaries especially among socially and educationally deprived women have a huge and beneficial impact on the use of contraception and the reduction of unmet needs for contraception.

CONCLUSION

Though the adoption of Family Planning programme has experienced significant growth and expansion over the past half century, pregnancies continue to be unplanned and the unmet need for contraception remains substantially high. The contraceptive choice is conspicuously absent very few and the quality of care is exceptional poor limited within the programme. If the goal is to create a demand for adoption family planning and services, a check in the potential future unmet category is needed. The strategies should be devised so that the present and potential unmet need is minimized and eliminated. A focused periodic mop up operation as was done in this study would increase acceptance and bridge the unmet need.

Improvement in the contraceptive prevalence rate and addressing the unmet need for contraception requires community involvement and ongoing, sustained efforts by health workers to ensure quality care to the beneficiaries. Delaying the age at marriage and improving literacy rate would significantly contribute to these efforts. Focus on improving information, education and communication (IEC) activities are the key to address the unmet needs for contraception along with easily accessible, convenient and good quality methods of family planning.

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