### **Original Research Article**

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# Unmet need for contraception among married women of reproductive age in rural Maharashtra

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#### **ABSTRACT**

**Background:** The concept of "unmet need" for contraceptive points to the gap between women's reproductive intention and their contraceptive behavior. About 12.8% of currently married women in India have an unmet need for contraception. The present descriptive cross-sectional survey was initiated to address the research questions regarding unmet need for contraception among married women of reproductive age group in rural Maharashtra.

**Methods:** 400 married women of reproductive age living in rural area of Sangli district of Maharashtra state interviewed. The survey based on women's response to survey questions regarding family information, fertility profile and attitude and practice of contraceptive use. Expanded formulation used for surveys to assess the size and characteristics of unmet need group, dividing it into distinct subgroups and to explore the reasons for unmet need using in-depth qualitative research. Data analyzed with absolute number and percentage of women having unmet need which is useful to set priorities in program for effective fertility control. The data was tabulated and analyzed using MS Excel.

**Results:** Total unmet need for contraception was found 27.50% women, which comprises need for 'spacing' in 12.25% women, need for 'limiting birth' in 13.25% women and need for 'appropriate contraception' in 2.0% women among 400 married women of reproductive age. Most unmet need among younger women is for spacing birth (67.18%) while in older women above age 30 year; most unmet need (68.18%) is for limiting birth. The education of women does not affect significantly the unmet need for spacing and limiting birth. After first child the unmet need for spacing decreases with each additional child. On the contrary unmet need for limiting birth increases with each additional child after first child and it was maximum (96.55%) among women having 3 or more children.

**Conclusions:** The study group expresses multiple reasons for the unmet need. Many of the reasons are not directly related to contraception. Most women with unmet need desire to use contraception in future favours spacing methods. People should have access to good quality information and services. Health education and motivation is needed to overcome these causes.

**Keywords:** Unmet need, Contraceptive survey, Reproductive age, Contraceptive use, Intrauterine device, Oral contraceptive pills, Condom

#### INTRODUCTION

The rampant population growth has been viewed as the greatest obstacle to the socio-economic development of country, especially in developing countries. Control of

population growth is a major concern for the health planners and administrators today. Family planning is recognized as a key intervention for population control. Over the past 40 years, there have been significant advances in contraceptive methods; its approaches and services. However, contraceptive practices are no longer in wide use.

Many women who prefer to avoid becoming pregnant either right away or ever, but are not using contraceptives. These women are considered to have an "unmet need" for contraceptive. The concept points to the gap between women's reproductive intention and their contraceptive behaviour. In most surveys, its measurement has been limited largely to married women of reproductive age (MWRA). Standard and Expanded formulations have been in use for surveys to measure unmet need. In the standard formulation the unmet need group includes all fecund women who are married or living in union-and thus presumed to be sexually active, who are not using any method of contraception and who either do not want to have any more children or want to postpone their next birth for at least two more years. Those who want to have no more children are considered to have an unmet need for limiting birth, while those who want more children but not for at least two more years are considered to have an unmet need for spacing birth. In the Expanded formulation, the unmet need group also included all pregnant married women whose pregnancies are unwanted or mistimed and who became pregnant because they were not using contraception. Similarly, women who recently have given birth but are not yet at risk of becoming pregnant because they are amenorrheic postpartum are considered to have an unmet need if their last pregnancy was unintended or mistimed. Also included in expanded formulations are women using contraception who need a more appropriate because they are using an ineffective method (traditional methods), using a method incorrectly or using a method that is unsafe or unsuitable for them or using a method suited to spacing births when in fact they want no more children. This is called unmet need for "appropriate contraception".

#### Statement of problem

India is the second most populous country in the world, next to China. India's population is projected to reach 1.4 billion by the year 2026.<sup>2</sup> This alarming increase in population is slowing down the socio-economic development, lowering the quality of life, degrading our environment and putting a further strain on our already overloaded resources. Today about 53.4% eligible couples are still unprotected against conception.<sup>3</sup> The problem of underutilization of contraception is complicated by deep-rooted religious beliefs, attitude, and practices favouring large families. According to National Family Health Survey-III about 12.8% of currently married women in India have an unmet need for contraception.<sup>4</sup> The unmet need for spacing the birth is almost same as the unmet need for limiting the birth. It is highest (27%) among women below age 20 years. In addition, it is higher in rural areas than in urban areas. There are wide interstate variations in unmet need that

range from 7% in Punjab to 25% in Uttar Pradesh and Bihar.<sup>5</sup> Among the most common reasons for unmet need are inconvenient or unsatisfactory service, lack of information, fear about the contraceptive side effect, little perceived risk of pregnancy and opposition from husband and relatives.

Although data regarding unmet need for contraception at National and International level is available, data at district level, especially at rural area is incomplete and inadequate due to lack of specific surveys at these levels. The present descriptive cross-sectional survey was initiated to address the research questions regarding unmet need for contraception among married women of reproductive age group in rural Maharashtra (Tasgaon taluka in Sangli district) which will provide useful information for formulating and evaluating strategies to improve family planning programme performance in the state.

#### **Objectives**

- To measure the level of unmet need for contraception
- To study the distribution of unmet need by various characteristics
- To identify factors related to contraceptive methods, services and its use that hinders contraceptive use.
- To develop specific responses that addresses the reasons for unmet need.

#### **METHODS**

Descriptive cross-sectional study design was planned to provide insight into the dynamics of contraception as unmet need. An unmet need strategy program needs several kind of information like the absolute sizes of unmet need subgroup and the percentage of all reproductive age women that they represent, characteristics of women with unmet need and the reasons for unmet need. Data obtained from the primary source, based on representative sample survey. The issue of contraception is linked to fertility. Subgroup of the population practically concern with fertility process i.e. married woman in the age group of 15-44 years comprise the 'Target population'. 5350 married women in the age group of 15-44 years residing at Tasgaon formed the target population for the present study. Sample size was worked out to be 400 considering expected prevalence of unmet need as 20% with relative precision of 20% and level of significance set at 5%. For the present study 400 women selected by simple random sampling method from the 5350 women listed in the sampling frame.

#### Inclusion criteria

All married women in the age group of 15-44 years who were residing more than 6 months in that area and were willing to participate were included in the study.

#### Exclusion criteria

Married women residing in that area for less than 6 months, not willing to participate and age less than 15 years were excluded.

As the survey was based on women's own statements in answer to survey questions, a questionnaire schedule containing list of questions regarding identification data, family information, fertility profile and knowledge and attitude of contraceptive use was used. Confidentiality and security of the collected information was assured. Accuracy and completeness of data collection process was assured by timely monitoring the whole survey process by the chief investigator. Data was collected by trained female investigators within a period of two months (November-December 2003). Response rate was 100%. Data analysis carried out by the use of qualitative (different subgroups) and quantitative methods (absolute number and percentage). Expanded formulation used for surveys to assess the size and characteristics of unmet need group, dividing it into distinct subgroups and to explore the reasons for unmet need using in-depth qualitative research. Data analyzed with absolute number and percentage of women having unmet need which is useful to set priorities in program for effective fertility control. The data was tabulated and analyzed using MS Excel.

Predictor and outcome variables used in the present study were predefined as follows,

- 1. Married women of reproductive age (MWRA): Ever married woman in the age group of 15-44 years.
- 2. Sexually active woman: Ever married woman currently living in union (with husband)
- 3. Exposed woman: Sexually active woman currently at risk of pregnancy.
- 4. Infecund: Sexually inactive (separated, divorce, widow) or ammenorrheic due to pathological cause or non-contraceptively sterile woman due to any cause.

#### **RESULTS**

#### Unmet need for contraception: Extent and composition

All 400 respondents categorized into different subgroups depending upon the contraceptive use and risk of pregnancy as shown in Figure 1. Of all 400 married women, 173 (43.25%) were using contraceptives. Out of 227 women not using contraception, only 110 were practically exposed to the risk of pregnancy currently referred to as "exposed women" while 117 were considered to be currently at no risk of pregnancy as they were either sexually inactive or infecund or pregnant or lactating women (lactational amenorrhoea).

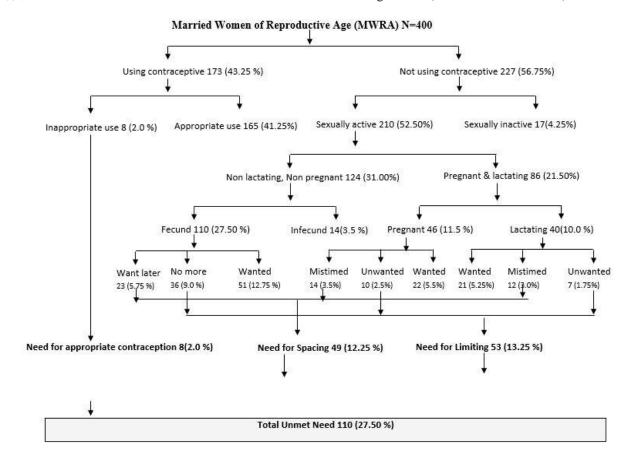


Figure 1: Defining level of unmet need for contraception among 400 MWRA.

Table 1: Distribution of women with unmet need for contraception, by age group 15-44 years.

Age group (Years)	Unmet need for	Unmet need for			
	Spacing N (%)	Limiting N (%)	Appropriate contraception N (%)	Total N (%)	
15-19	8 (7.27)	1 (0.91)	0 (0.00)	9 (8.18)	
20-24	24 (21.82)	8 (7.27)	1 (0.91)	33 (30.00)	
25-29	11 (10.00)	12 (10.92)	1 (0.91)	24 (21.82)	
30-34	3 (2.72)	17 (15.45)	2 (1.82)	22 (20.00)	
35-39	2 (1.82)	7 (6.36)	2 (1.82)	11 (10.00)	
40-44	1 (0.91)	8 (7.27)	2 (1.82)	11 (10.00)	
Total	49 (44.54)	53 (48.18)	8(7.28)	110 (100)	

Table 2: Distribution of women with unmet need for contraception, by education, occupation and parity.

	Unmet need for	■ Total			
Factors	Spacing N=49 (%)	Limiting N=53 (%)	Appropriate contraception N=8 (%)	N=110	
Education					
Illiterate	4 (3.64)	11 (10.00)	1 (0.91)	16 (14.54)	
Primary	8 (7.28)	12 (10.90)	1 (0.91)	21 (19.10)	
Secondary	25 (22.72)	19 (17.88)	2 (1.82)	46 (41.82)	
Higher secondary & above	12 (10.90)	11 (10.00)	4 (3.64)	27 (24.54)	
Occupation					
Housework	42 (38.18)	40 (36.36)	2 (1.82)	84 (76.36)	
Working productively	7 (6.36)	13 (11.82)	6 (5.46)	26 (23.64)	
No. of living children					
1	31 (28.18)	5 (4.54)	1 (0.91)	37 (33.64)	
2	18 (16.36)	20 (18.18)	6 (5.46)	44 (40.00)	
≥3	0 (0.00)	28 (25.46)	1 (0.91)	29 (26.36)	

Figures in parenthesis are per cent of Total i.e.110.

For the present study, the level of unmet need for contraception was defined by 'expanded formulation'. Schematic distribution of unmet need for contraception among 400 married women of reproductive age group is shown in Figure 1. Total unmet need for contraception was found in 110 (27.50%) women, which comprises need for 'spacing' in 49 (12.25%) women, need for 'limiting birth' in 53 (13.25%) women and need for 'appropriate contraception' in 8 (2.0%) women among total 400 married women of reproductive age (MWRA). There were 86 (21.5%) women either currently pregnant or having lactational amenorrhoea. Of these 86 women, 26 (6.5%) told that their current pregnancy/recent birth was mistimed while in 17(4.25%) it was unwanted. Out of 110 'exposed' women currently not using contraceptive, 36 (9.0%) wanted no more children and 23 (5.75%) wanted children after 2 years. Also 173 (43.25%)'exposed' women currently contraceptive, 8 (2.0%) are in need of appropriate contraceptive method.

#### Unmet need and women's age

Level of unmet need vary substantially according to women's age. Distribution of women with unmet need by age is shown in Table 1. Of the total 110 women having unmet need, 33 (30.00%) were in the age group of 20-24

years while only 9 (8.18%) were in the age group of 15-19 years. Majority of women i.e. 43 (39.09%) in the age group less than 30 years among 110 married women of reproductive age were having unmet need for spacing while majority of women i.e. 32 (29.08%) above age 30 years having unmet need for limiting birth. This suggest the most unmet need among younger women is for spacing while in older women most unmet need is for limiting birth. It was observed that unmet need for appropriate contraception increases as the age advances.

#### Unmet need and education, occupation and parity

Pattern of unmet need related to women's education, occupation and parity is shown in table 2. Unmet need is maximum (41.82%) in women having secondary school education. It is minimum (14.54%) in illiterates. In women having education secondary school and above, the unmet need for spacing was observed in 37 (33.63%) women and for limiting birth in 30 (27.27%) women. But overall, the education of women does not affect significantly the unmet need for spacing and limiting birth (p>0.05).

It was found that 76.36% women having unmet need for contraception are doing housework and only 23.64% are occupied in jobs either in house or outside. No significant

association was found between occupation of women and unmet need for spacing and limiting birth (p>0.05)

Unmet need for spacing was observed in 31 women among 37 (83.78%) who have had their first child. But after first child the unmet need for spacing decreases with each additional child. On the contrary unmet need for limiting birth increases with each additional child after first child and it was maximum i.e. in 28 women among 29 (96.55%) in women having 3 or more children.

Table 3: Reasons for not using contraception cited by non-users.

Sr. No	Reasons*	No (%)
1	No perceived risk of pregnancy	139 (61.23)
2	Desiring pregnancy	74 (32.69)
2	Related to contraceptive methods	42 (18.50)
3	Related to contraceptive services	11 (4.84)
4	Other reasons <sup>#</sup>	23(10.13)

<sup>\*</sup>Some women give multiple reasons.

## Reasons for not using contraception cited by 227 non-users

Table 3 provides data regarding reasons for not using contraception among 227 women not using contraception. In our study 61.23% of contraceptive nonusers believe that they are unlikely to become pregnant while 32.69% women wanted to become pregnant. 18.50% of the non-users reported reasons related to contraceptive methods while 4.84% were unsatisfied with the contraceptive services. Apart from these reasons, most of the non-users (10.13%) reported non-specific but important reasons like no faith in contraception.

Table 4: Women with unmet need for contraception intended to use contraception in future among categories of unmet need women.

Unmet need for	Future cont use Yes N (%)	Total N	
Spacing birth	39 (35.45)	No N (%) 10 (9.10)	49 (44.54)
Limiting birth	26 (23.64)	27 (24.54)	53 (48.18)
Appropriate use	5 (4.54)	3 (2.72)	8 (7.28)
Total	70 (63.64)	40 (36.36)	110 (100)

## Women with unmet need for contraception intended to use contraception in future

Women with unmet need who intended to use contraception are different from those who do not. Table

4 provides data regarding intension to use contraception in future by different categories of unmet need women. Of the total 110 women with unmet need, 70 (63.64%) desired to use contraception in future while 40 (36.36%) expressed unwillingness regarding contraceptive use in future also. Desired to use contraception in future was almost similar in women with unmet need for spacing (44.54%) and limiting birth (48.18%).

#### DISCUSSION

The concept of unmet need for contraception is generally applied to married women. Recent Family Health Survey-III reports that total unmet need in India is 14.8% (7.3% for spacing and 7.5% for limiting birth).<sup>4</sup> In a study of Punjab, unmet need was 16%.6 The present study found total 27.5% of married women age 15-44 having unmet need for contraception of which 12.25% for spacing, 13.25% for limiting birth and 2% for appropriate contraception. The higher observed rates are due to use of expanded formulation in calculation of unmet need and rural study area. In a study conducted in Uttar Pardesh, the unmet need was 30%, which accounts for 60 percent of total need for contraception (met plus unmet). The level of unmet need is not static but always in flux, depending on the interplay of two factors- fertility desire and contraceptive use. It rises as more women want to control their fertility and it falls as more women use the contraception. Thus, a high level of unmet need does not necessarily indicate programme failure, nor does a low necessarily indicate success. With contraceptive prevalence, the level of unmet need is low. At low levels of contraceptive use the level of unmet need is high. With slightly lower level of unmet need with low level of contraceptive use suggest that a transition has started.

Usually, it is assumed that women using any contraception, whether effective or ineffective, safe or unsafe, using correctly or not have their contraceptive needs met. In fact, however women is considered as protected only when she uses 'appropriate contraceptive' methods. Following are the categories of women among contraceptive users which can be labelled as having unmet need for 'appropriate contraception'.

- Using temporary method when permanent method is indicated
- 2. Not satisfied due to any reason
- 3. Using method incorrectly
- 4. Using miscellaneous methods

Karen Foreit and colleagues have called this broader concept as the 'unmet need for appropriate contraception'.

Inappropriate methods are either useless, gives false sense of security or in the same cases it may lead to contraceptive failure and unintended pregnancy. Unintended pregnancies and births can have negative

<sup>#</sup>Other reasons include no faith, opposition from husband/relative, fear about survival of living children.

consequences for children themselves, for their parents, for their siblings and for society as a whole. Findings in the current study revealed 2% users are in need of appropriate contraception. The observations emphasize the importance of reinforcing strategies to remove obstacles due to inappropriate use of contraceptives.

Most unmet need among younger women like most contraceptive use is for spacing birth, because younger women still want to have more children. When unmet need is divided into spacing and limiting component, there is clear relationship between woman's age and level of unmet need. In the present study we found that the overall total unmet need was low in the beginning of reproductive age and increased from late 20's up to the age of 35 years and then declined. Unmet need is more in younger age group (20-30 years) for spacing. While in late 30's it is more for limiting births. The need for appropriate contraception is more in late 30's onwards. Similar results were seen by a study in Calcutta.<sup>8</sup> A National Survey of Family Health-III (NHFS) found that as many as 30% of women aged 15-19 years had the unmet need and also reported that age group 15-19 years contributes to 19% of the total fertility in India. 4 Harbison also observed that compared with women aged 40-49 years, women in the youngest age group (15-29 years) were most likely to fall into the unmet need category. Also according to Jejeebhoy, 17% of all adolescent females aged 13-19 years are already mothers or pregnant with their 1<sup>st</sup> child. <sup>10</sup> Population pyramids of developing countries shows that adolescent population is growing in sheer numbers. Social and religious norms support demonstration of fertility soon after marriage. Motherhood may be one way in which a younger married woman can affirm her value and identity to herself and to her community.

Though no significant association was found between education of woman and level of unmet need, we observed that unmet need for contraception is more in better educated women and less in illiterate or less educated women. It may be due to the fact that women with more education are more interested in avoiding pregnancy than other women but face more obstacles to using contraception than other women.

By working status of woman, unmet need was more in those women who were doing housework (76.36%) as compared to women working productively (23.64%). It is not clear whether women use contraceptive because they are working and so do not want children or they work because they are using contraceptive and so have few children and are able to do jobs. Also the other factors like age, residence, education are closely related to occupation. Since young woman are more likely than older women to be educated, to live in urban areas, and to have a job to work.

Once women had their first child, unmet need for spacing as well as for limiting are increasing. Total unmet need after 1<sup>st</sup> child is 33.64% which shows that woman become more interested in controlling their fertility after the birth of 1<sup>st</sup> child. The need for appropriate contraception is seen after 2<sup>nd</sup> child indicates that there is substantial scope for improvement to meet the needs of women. Khokhar et al also found that 63% of unmet need women had borne one child while 10.2% had two children.<sup>11</sup>

A question often raised is why more married women do not use some form of contraception. Usually a woman expresses multiple reasons for this. Many of the reasons are not directly related to contraception. The most common reason we observed was a little perceived risk of pregnancy. While many women may be right about their inability to conceive (due to current pregnancy, lactational amenorrhoea, sexually inactive or because they are infecund), other women face a risk of unintended pregnancy. Reasons related to contraceptive methods are also an important barrier for contraceptive use. It relates to knowledge of methods and its sources, cost, availability and side effects etc. Most of the women although aware of the methods are unaware about its source. Many a times even the services are available, especially for spacing methods, they are either costly or having some side effects which ultimately tends to discontinuation of such method. Some methods, such as condom and pills require repeated visits, require convenient (distance and time) source. Opposition from husband/relatives and fear about survival of children may limit the use of contraceptives. Health education and motivation is needed to overcome these causes. The intensified promotion of temporary methods may reduce unmet need for limiting as well as unmet need for spacing. Moreover, some women who begin use by spacing may shift to limiting at a lower number of living children than they would if they did not space.<sup>7</sup>

#### **CONCLUSION**

Total unmet need as a percentage of married women of reproductive age was 27% of which need for spacing was 11%, for limiting birth was 10% and 7.5% for appropriate contraception. Unmet need for contraception peaks among woman in their early thirties.

Most unmet need among younger women is for spacing birth. Among older women most unmet need is for limiting birth. Immediately after first child, unmet need for spacing decreases with each additional child and unmet need for limiting birth increases with each additional child. Most women with unmet need desire to use contraception in future favours spacing methods.

#### Recommendations

As new people are continually entering into the childbearing years and because individual attitude and behaviour is always changing, a comprehensive strategy to anticipate these changing needs of people should be

developed. For this, contraceptive survey can be repeated at intervals. People should have access to good quality information and services.

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