



## Prevalence of unmet need for contraception among reproductive age group of married women in district hospital, Ananthapuramu

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### Abstract:

**Background:** Unmet need for contraception determines the percentage of fecund women in reproductive age group who want to delay or avoid childbirth but are not using any contraceptive method. Such an enquiry helps also to find out the reasons and therefore inform the family planning programs about the needs of the community in terms of their fertility preferences. This study seeks to determine the prevalence of unmet need for contraception and the reasons for its existence among married women in reproductive age group of 15-49 years attending the district hospital, Ananthapuramu. Existence of unsafe abortion in the community is a strong proxy to the existence of unmet need for contraception among women of reproductive age group. **Objectives:** To measure the prevalence of unmet need for contraception among married women between the ages of 15 and 49 years attending the district hospital, Ananthapuramu, to identify the reasons for unmet need for contraception in this community, and to assess the knowledge about modern methods of contraception among married women of reproductive age 15 – 49 years among the same. **Materials and Methods:** This is a cross-sectional study, conducted among the outpatient women attending the district hospital, Ananthapuramu and the study is carried out for two months from September to October 2013, among the women attending the outpatient departments of gynecology and obstetrics in the district hospital, Ananthapuramu district of Andhra Pradesh. **Results:** The mean age of women in the study was 33.4 years and standard deviation (SD) 7.9 years and mean age of their husbands were 40.8 years and SD 9.0 years. 900 women were recorded and 850 were interviewed (94.4%). **Conclusion:** Unmet need for contraception is to be addressed promptly and effectively out of bias owing to the control of population size and the health of a family thereby an ideal community.

**Key words:** Ananthapuramu; Contraception; Demographic and Health Surveys; Knowledge; Unmet Need

## Introduction

The National Population policy 2000 states that the immediate objective is to address the unmet need for contraceptive services [1]. According to the 2011 census, the population of India is 1,210,569,573 crores which is more than three times the population 50 years ago [2]. As regards with fertility rates, India may be able to achieve the population replacement level of TFR 2.1 only by 2016 against the NPP target of 2010 [1].

The National Population Policy, 2000 (NPP 2000) affirms the commitment of Government towards voluntary and informed choice and consent of citizens while availing of reproductive health care services, and continuation of the target free approach in administering family planning services. The NPP 2000 provides a policy framework for advancing goals and prioritizing strategies during the next decade, to meet the reproductive and child health needs of the people of India, and to achieve net replacement levels (TFR) by 2010 [1]. It is based upon the need to simultaneously address issues of child survival, maternal health, and contraception. The immediate objective of the NPP 2000 is to address the unmet needs for contraception.

National Socio-Demographic Goals for 2010, address the unmet needs for basic reproductive and child health services, supplies and infrastructure. Higher fertility is due to unmet need for contraception (estimated contribution 20 percent) and India has 168 million eligible couples, of which just 44 percent are currently effectively protected. Urgent steps are currently required to make contraception more widely available, accessible, and affordable. Around 74 percent of the population lives in rural areas, many with poor communications and transport. Reproductive health and basic health infrastructure and services often do not reach the villages, and, accordingly, vast numbers of people cannot avail of these services [3].

International Conference on Population Development held in 1994 at Cairo, resolved that the sexual and reproductive health of women be considered as a priority, since its effects extend into all other development goals and targets. It also underlined the importance of reproductive health from the point of view of sexual and reproductive health rights of women [4]. Unmet need for contraception determines the percentage of fecund women in reproductive age group who want to delay

or avoid childbirth but are not using any contraceptive method. Such an enquiry helps also to find out the reasons and therefore inform the family planning program about the needs of the community in terms of their fertility preferences.

This study seeks to determine the prevalence of unmet need for contraception and the reasons for its existence among married women in reproductive age group of 15-49 years attending OP in the government general hospital, Ananthapuramu. Unmet need for contraception leads to unwanted child bearing. When people are motivated to reduce fertility but are not able to access contraceptive services, they suffer from unplanned pregnancy. Many of these pregnancies are aborted using unsafe abortion services. Improving contraceptive prevalence reduces both unplanned pregnancy and unsafe abortion.

## Materials and Methods:

This was a cross-sectional study, conducted in outpatient department of government general hospital, Ananthapuramu. The sample size was calculated using the formula  $4 pq/d^2$  taking 'p' as 10% (ref) and precision as 20% (relative) the required sample size was 900. A structured questionnaire, modified from the standard DHS survey questionnaire, was translated into Telugu and then back-translated to English to test for accuracy and the process repeated until there was good agreement between the translated and back-translated versions. This was administered to the respondents and their responses recorded.

The questionnaire was adapted from the Demographic and Health Surveys (DHS) questionnaire and the data was entered using Epi Data, free data entry software. Analysis was carried out using Statistical Package for Social Sciences (SPSS Version 12.0). Relevant prevalence and their confidence intervals were determined and tabulated. Cross-tabulations were also carried to assess factors associated with unmet need.

The unmet need group includes all fecund women who are married and thus presumed to be sexually active, who either do not want any more children or who wish to postpone the birth of their next child for at least two more years but are not using any method of contraception. The unmet need group also includes all pregnant married women

whose pregnancies were unwanted or mistimed or who unintentionally became pregnant because they were not using contraception. Total knowledge score for an individual was calculated by summing up the scores for knowledge about items relating to family planning in the questionnaire. Total scores were then divided into 2 categories of “Low” and “High” knowledge categories, using the 50% percentile as the cutoff point.

## Results

The required sample size for this study was 900 but 850 women were interviewed, which was 94.4% of the requisite number. The mean age of women in the study was 33.4 years and standard deviation (SD) 7.9 years and mean age of their husbands were 40.8 years and SD 9.0 years.

**Table 1: Need for contraception**

Contraception category	No.	%
Met need	592	69.6
No need	178	20.9
Need for limiting	37	4.4
Need for spacing	43	5.1
Total	850	100

**Demand for contraception = Met + Unmet need = (592 + 37 + 43) = 672 = 79.06%**

The total number of women eligible for the study was 850. Among them 69.6% were using one or the other contraceptive methods. 20.9% were of the opinion that they are not in need of contraception, 5.1% needed for spacing and 4.4% needed for limiting size of family.

Table 2 shows the women divided into contraceptive users in different age groups. The percentage of women using contraception increases as the age increases up to 44 years and then comes down by small percentage. Unmet need is more among 15-19 years age group when compared with other age groups.

Knowledge regarding contraceptive methods was assessed as described in materials and methods. The highest possible score was 14 and lowest was 0 (one mark for each correct answer). The mean score for this sample was 5.01 (S.D. 2.88) and the median

score was 5. A score of 6 was chosen as a cut-off for categorizing into high and low knowledge categories. (Low is score from 0 to 6, High is greater than 6), based on the assumption that women should be aware of 6 out of the 9 most common methods of contraception. There were 623 women (73.3%) in the low knowledge category and 227 women (26.7%) in the high knowledge category. The population in general had poor knowledge about the various contraceptive methods.

Table 4 shows met and unmet need in women according to different background characteristics. This table brings out the significant differences that exist in met and unmet need of women belonging to different subgroups in each category. Women who are not educated or educated up to 8th standard have a significantly lower unmet need than the women with education higher than 8th standard. Women with low knowledge about contraceptive methods have a significantly lower unmet need than the women with higher knowledge. Women 30 years of age or younger have significantly higher level of unmet need as compared to women more than 30 years of age. Women with 2 children or less have a significantly higher level of unmet need than the women with more than 2 children. Literate women have higher level of unmet need than the illiterate women. Unemployed women have a higher level of unmet need than the employed women.

Table 5 illustrates the number of women distributed according to their ability to name a contraceptive method or recognize it when told about it. There are 11 contraceptive methods (both modern and traditional) about which questions were asked. The most well known contraceptive method is female sterilization, followed by IUD, followed by the Pill.

More users knew about the pill than the non users. The number of women who knew about condoms was 43.8% among non users and 47.6% in users. 24.7% of the users knew about lactational amenorrhoea. 10.1% of users knew about withdrawal method, very few non users knew about this method. 10.1% of non users knew about rhythm method whereas very few users knew about this method. The knowledge of modern methods was generally lower in non users than the users.

## Discussion

The present study calculated the unmet need for contraception in this rural population to be 9.4% which is less than the national figure of 13.2% as per NFHS-III [5] and higher than unmet need of state

(8.1%) as per DLHS-3 (District level household and facility survey 3rd round) [6]. The unmet need of the present study is greater than DLHS-3 report of Ananthapur district (8.5%). Currently in this study there are 69.6% (95% C.I. 67.07 – 72.23) married women in reproductive age group who are practicing contraception. A study done by Kanchan Lata et al reported that The total unmet need for family planning was 23.9%; 9.4% for spacing births and 14.5% for limiting births [7].

Distribution of contraceptive users across different age groups indicates a progressive increase in the use of contraceptive methods from the youngest age group up to 40-44 years age group, beyond which it declines but remains at 81.2%. In the 20-24 years age group, there are 74% of women who are not using contraception, while 40% are not using in the 25-29 years of age. 20-29 years is the time when women make most of their fertility decisions about spacing. This group of women if counseled about contraception could make a difference in improving the contraceptive prevalence

of temporary methods. Also the period from 20-29 years of age is the most productive time in terms of participation in employment opportunity. Emphasizing about spacing methods to this group of women could have an important effect of improving their motivation and opportunity to empower themselves.

The extent of the use of various methods of contraception further indicates the emphasis laid on female sterilization as a method of contraception. 68.0% of all married women of reproductive age group have used female sterilization as their method of contraception. In India the highest percentage of female sterilization is reported in the state of Andhra Pradesh (63%), while in Tamil Nadu the percentage of women sterilized is 51.9% [5]. The distribution of users of female sterilization in different age groups reveals that women as young as 20-24 age group had used this method

**Table 2: Different age groups and current use of contraception**

Age Group	With Unmet need (%)	Total (%)
15-19	8 (1.0%)	9 (1.1%)
20-24	33 (3.9%)	114 (13.4%)
25-29	20 (2.4%)	177 (20.8%)
30-34	6 (0.7%)	149 (17.5%)
35-39	3 (0.4%)	184 (21.6%)
40-44	5 (0.5%)	116 (13.6%)
45-49	5 (0.5%)	101 (11.9%)
Total	80 (9.4%)	850 (100%)

**Table 3: Knowledge about contraception**

Knowledge Category	Frequency	Percent
Low	623	73.3
High	227	26.7
Total	850	100.0

**Table 4: Univariate analysis of factors associated with unmet need (excluding those with “No need”)**

Variable	Unmet Need (n= 80)	Met Need (n= 592)	O.R.	95% CI	p value
<b>Education</b>					
0 – 8 yrs (n=294)	20 (25.0%)	274 (46.3%)	0.39	0.23 - 0.66	< 0.001 *
> 8 yrs (n=378)	60 (75.0%)	318 (53.7%)			
<b>Illiterate</b>					
Yes (n=152)	8 (10.0%)	144 (24.3%)	0.35	0.16 - 0.74	0.004*
No (n=520)	72 (90%)	448 (75.7%)			
<b>Parity</b>					
>2 (n= 326)	5 (6.3%)	321 (54.2%)	0.06	0.02 - 0.14	< 0.001 *
0 – 2 (n=346)	75 (93.9%)	271 (45.8%)			
<b>Age</b>					
<= 30 years (n=251)	74 (92.5%)	177 (29.9%)	28.92	12.36 - 67.68	< 0.001 *
> 30 years (n= 421)	6 (7.5%)	415 (70.1%)			
<b>Knowledge</b>					
Low (n=257)	55 (68.8%)	568 (66.8%)	0.78	0.48 - 1.29	0.009 *
High (n=415)	25 (31.2%)	202 (33.2%)			
<b>Occupation</b>					
Housewife and working (n=197)	5 (6.3%)	192 (32.4%)	0.14	0.06 - 0.35	< 0.001*
Housewife alone (n=475)	75 (93.8%)	400 (67.6%)			
<b>Husband approves</b>					
Yes (n=416)	42 (52.5%)	374 (63.2%)	0.67	0.38 - 1.19	0.227
No (n=140)	20 (25.0%)	120 (20.3%)			

\* = significant at the 0.05 level; O.R. = Prevalence Odds Ratio

**Table 5: Knowledge about contraceptive methods among contraceptive users, nonusers and total**

Method	Non-users, n=258		Users, n=592		Total, n=850	
	No	%	No	%	No	%
Female						
sterilization	232	89.9	591	99.8	823	96.8
Male sterilization						
	177	68.6	423	71.5	600	70.6
“Pill”						
	104	40.3	441	74.5	545	64.1
IUD						
	166	64.3	408	68.9	574	67.5
Injectables						
	148	57.4	311	52.5	459	54.0
Implants						
	32	12.4	68	11.5	100	11.8
Condoms						
	113	43.8	282	47.6	395	46.5
Female condoms						
	53	20.5	122	20.6	175	20.6
Diaphragm						
	11	4.3	26	4.4	37	4.4
Foam or jelly						
	13	5.0	26	4.4	39	4.6
Lactational						
amenorrhoea	55	21.3	146	24.7	201	23.6
Rhythm method						
	26	10.1	48	8.1	74	8.7
Withdrawal						
	1	0.4	60	10.1	61	7.2
Emergency						
Contraception	51	19.8	123	20.8	174	20.5

**Table 6: Reasons for unmet need (n=80)\***

Reasons for unmet need	No. (%)
Husband's disapproval	32 (40.0)
Lack of awareness	20 (25.0)
Fear for side effects	20 (25.0)
Inconvenient to use	15 (18.8)
Lack of access	6 (7.5)
Against my religion	6 (7.5)

\*Multiple Responses

69% of all women who had used female sterilization fell between the ages of 20-39 years. A mean score of 5.01 meant that on an average, the women in the population were aware of at least five different types of contraceptive methods. There were 9 common methods of contraception and knowledge of at least 6 from among these could be expected. Knowledge about contraception as a whole was poor.

The level of unmet need is highest in the youngest age group and declines in the older age groups. When just two groups were considered one was 30 years or less and the other group with more than 30 years age, 29.5% of the younger women were found to have unmet need while 1.4% of the older women had unmet need (O.R. 28.92; Chi square 118.03, p value < 0.001). The significantly higher unmet need seen in the younger women shows one or both of the following: women are moving towards small family norms and younger women are not able to access contraceptive methods for some reason.

The distribution of demand for family planning across different age groups indicates that a larger proportion for older age groups have a demand for family planning than the youngest women. This makes the argument stronger that younger women are not able to access family planning methods as easily as the older age groups.

### Parity

The chi square test showed a significant association between parity and the level of unmet need. The women were divided into two groups according to number of children (one group with more than 2 children, other group with 0-2 children). The group with 0-2 children was found to have a significantly higher level of unmet need (21.7%) than the group with more than 2 children (1.53%) (O.R. 0.06; Chi square 64.93, p < 0.0001). This also brings to light the fact that a larger proportion of women with less than two children are not able to get their

fertility choices fulfilled. A study from Uttar Pradesh by D Radha Devi et al. in National Family Health Survey subject Reports, showed that 63 percent of women with unmet need were living in joint family [8]. A study done by Bhandari et al, the odds of unmet need were 2.24 times higher in women with four or more children and 2.21 times higher in women with 2 children [9].

### Education

Educated women are expected to have lower unmet need than uneducated women. In this study the women who had schooling from 0-8yrs were found to have lower level of unmet need (6.8%) than those who were educated for more than 8 years (15.9%). The association was tested with Chi square and found to be significant (O.R. 0.39; Chi square 12.97, p< 0.001) (Table 4). This is very different from what is generally seen among groups with different levels of education. This probably is an indicator of the fertility transition that the study is experiencing as a result of the socioeconomic development. As more women get educated more than eight years they begin to want to limit or delay pregnancy, while the number of children desired by lesser educated women remains more than the number desired by educated women, so the expressed unmet need remains low in lesser educated women. The access to the family planning services however may not have been keeping pace with the growing demand for family planning.

### Literacy

Literacy is the functional ability to be able to read and write. Among the illiterate women, there are 5.3% women who have reported unmet need while there are 13.8% women in the literate group who have reported unmet need (O.R. 0.35; Chi square 8.262, p value <0.004). This is consistent with the pattern seen among educated and uneducated women in the study. Tuladhar J.M. et al. in a study of unmet

need in Nepal showed that about 43 percent of women with no schooling had unmet need [10].

### Employment

A comparison of the levels of unmet need in employed and unemployed women reveals a higher level of unmet need (15.8%) in unemployed women than in the employed women (2.5%). (O.R. 0.14; Chi square 23.32, p value < 0.0001). Employed women are not only empowered because of financial independence and knowledge but also over-burdened by the increased load of work. This situation works toward a choice of smaller family and effective implementation of fertility preference.

### Use of contraception across age groups:

Distribution of contraceptive users across different age groups indicates a progressive increase in the use of contraceptive methods from the youngest age group up to 40-44 years age group, beyond which it declines but remains at 81.2%. In the 20-24 years age group, 74% of the women are not using contraception, while 40% are not using in the 25-29 years age group. Ages 20-29 years is the time when women make most of their fertility decisions about spacing. This group of women if counseled about contraception could make a difference in improving the contraceptive prevalence of temporary methods.

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