pISSN 2394-6032 | eISSN 2394-6040

# **Original Research Article**

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20171570

# **Unmet need for contraception among urban women:** a cross sectional study in Puducherry

Sudha V.\*, Vrushabhendra H. N., Srikanth S., Suganya E.

Department of Community Medicine, Sri Venkateshwaraa Medical College Hospital & Research Centre, Puducherry, Tamil Nadu, India

Received: 01 February 2017 Accepted: 28 March 2017

\*Correspondence:

E-mail: aswinsharwin@gmail.com

Dr. Sudha V.,

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

# **ABSTRACT**

Background: Providing universal family planning services is an important strategy to reduce maternal morbidity and to control population growth. Worldwide, when contraception is used properly and effectively to avoid unwanted pregnancy it can reduce 25–35% of maternal deaths. The present study aimed at measuring the proportion of married women with unmet need for family planning in an urban area of Puducherry.

Methods: A cross sectional study was conducted among 235 married women in the urban field practice area of Sri Venkateshwara Medical College Hospital & Research Centre, Puducherry. Participants were selected based on predetermined eligibility criteria using systematic random sampling method. SPSS version 23.0 was used for statistical analysis. Proportion, Mean, Standard deviation and Logistic regression were applied to interpret the results.

Results: Mean age of the participants was 33.3 ±6 years, Nearly 77 % (181) of the participants reported having used any method of contraceptive at least once and 34.5 %(81) were found to have unmet need for family planning. The most common reason for unmet need for contraception was fear of side effects (39.5%) and others were infrequent sex (12.3%), insisted by family members (12.3%) and religious reasons (12.3%).

Conclusions: Unmet need for family planning was found to be fairly high in our study population. Health care personnel, preferably field staff should be trained to give an informed choice of contraception to the eligible couples to reduce the unmet need for contraception.

Keywords: Unmet needs, Contraception, Prevalence, Urban area

#### INTRODUCTION

Of the total world population 7.06 billion, 75 per cent is contributed by the developing countries with high birth rates and large number of young population compared to low birth rates and large number of old population in developed countries.1 The population will continue to grow with addition of one or more billion in three to four years.<sup>2</sup> One reason for this rise in the population is thought to be lack of effective contraceptive methods inspite of women desire to control their family and to space births. Fertility and contraception use in developing countries is associated with socioeconomic status and other related factors.3

According to census 2011, the population of India was 1210million.<sup>4</sup> By comparing previous census population, India's population has increased by 17.64 per cent .With 2.4 per cent of world's land area, India is supporting about 17.5% world's population.<sup>5</sup> Population explosion is one of the greatest threats to India's economic, social and political development. Although India was the first nation to have an official National Family Planning Programme in 1952, the target was on population control rather than health of the women. The census of 1971 revealed an

alarming population growth which necessitated adoption of population control strategies in India.<sup>6</sup> The Government of India in 1977 renamed family planning as "Family Welfare".<sup>7</sup>

India is undergoing a fertility transition due to the widespread contraceptive use among uneducated women also besides reducing the incidence on abortions.<sup>5</sup> Smaller families are slowly becoming the norm in India. Total Fertility rate in India has declined to 2.5 children, mainly due to increased use of contraception in women. In spite of this, India is yet above the replacement level fertility, with contraceptive prevalence rate for married women being only 56% and total unmet need being 12.8% (NFHS – 3).<sup>6</sup> The prevalence rate of India is almost similar to global rates. According to NFHS - 4 the contraceptive prevalence of Puducherry during the year 2015–16 was 63 percent (urban population) and unmet need for contraception prevalence is 8.3 per cent (4.8% for spacing and 3.5% for limiting births.).<sup>8</sup>

Nearly 10% of all pregnancies are mistimed and 11% of all pregnancies are unwanted in India. The proportion of unintended pregnancies can be brought down by proper utilization of family planning services. In this context, the study has been planned to measure the prevalence of unmet needs of family planning, contraceptive prevalence and reasons for unmet need for contraception among married women.

# **METHODS**

A Community based cross sectional study was carried out in the 10 residential field practice areas of Urban Health Training Centre (UHTC) of Sri Venkateshwaraa Medical College Hospital and Research Centre Villianur in Puducherry during January 2015 to January 2016.All married women of age 18 to 45 years, who were residing in the field practice area during the study period were considered as target population. Women who were separated or divorced or widow or pregnant excluded from the study.

Sample size was calculated by based on the formula

$$n = \frac{(Z\alpha^2 PQ)}{d^2}$$

Where,  $Z\alpha = 1.96$ , P = Prevalence of contraception in Puducherry-63%, <math>Q = (1-P) = 37%, relative precision (d) = 10% of p = 6.3.

$$n = \frac{4*63*37}{(6.3*6.3)} = 235$$

Systematic random sampling method was used for selection of the households. There were 1200 households in the 10 residential areas. All the households in each area were initially listed. For the sample size of 235, the sampling interval was calculated to be 5. The first household was selected randomly by lottery method and

from then every 5<sup>th</sup> household was selected and if any eligible woman was present, she was interviewed after written informed consent. If more than one woman was present in the household, lottery method was used to select one participant. If the household was locked or an eligible participant was not available at the time of visit, one more visit was made. If participant in the selected household could not be contacted or when there was no eligible woman in the household, then the adjacent household with an eligible participant was selected.

A predesigned and pretested questionnaire was used. The questions were adopted from National Family Survey-4 (NFHS- 4) questionnaire. It includes socio-demographic details, past obstetric history and contraceptive usage.

The data was entered in Microsoft Excel 2007 version and analysed using statistical package for the social sciences (SPSS) version 23.0. The results were expressed as Mean, Standard deviation, Proportions and Logistic Regression was applied to study the significance between variables.

# **RESULTS**

The mean age of the study population was  $33.3 \pm 6.6$  years. Nearly 75% of the study participants were between the age group of 26 and 40yrs. Fifty seven percent were married at the age of 19 - 25 years, 30% had studied up to high school. Majority (71.5%) were Hindus and 78.7% belonged to nuclear family (Table 1).

Table 1: Sociodemographic details of the study participants.

Social demographic parameters	No (%)
Age of participants	
18- 25	28(11.9)
26-30	58(24.7)
31-35	59(25.1)
36-40	56(23.8)
41-45	34(14.5)
<b>Educational Status</b>	
Primary	29(12.3)
Middle school	53(22.6)
High school	71(30.2)
Higher Sec school	38(16.2)
Graduates and above	37(15.7)
Illiterate	7 ( 3.0)
Socio Economic Status	
Upper (I)	8(3.40)
Upper middle(II)	141(60.00)
Lower middle(III)	57(24.30)
Upper lower(IV)	26(11.10)
Lower(V)	3(1.30)
Religion	
Hindu	168(71.5)
Muslim	66(28.1)
Christian	1(0.4)

More than half of the study participants belonged to class II socio economic status according to modified Kuppuswamy scale. More than half (62%) of the study participants had 2 children. Only 28.9% had given more than 3 years spacing between first 2 children. The prevalence of contraception among the study participants was found to be 77% (Figure 1).

Table 2: Sociodemographic details of the study participants who had unmet needs for contraception (n=81).

Social demographic parameters	Unmet No (%)
Age (years)	
<u>≤</u> 30	38 (46.9)
> 30	43 (53.1)
Educational Status	
Middle school and below	26 (32.1)
High school and above	55 (67.9)
Socio Economic Status	
Lower class	53 (65.4)
Middle class and above	28 (34.6)
Religion	
Hindu and Christian	48 (59.2)
Muslim	33 (40.8)

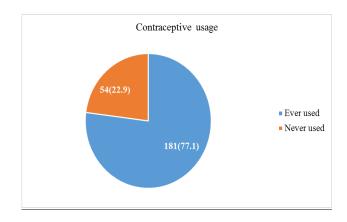


Figure 1: Distribution of study participants based on contraceptive usage (n=235).

The prevalence of unmet need for contraception was 34.5%, (15.30% for limiting and 19.14% for spacing) (Figure 2).

Among the 181contraceptive users, apart from 62% women who had underwent tubectomy, others had used IUCD (14.90%), Condom (9.94%), Oral contraceptive pills (7.70%) and Natural method (5%) like withdrawal method and calendar method.

Table 3: Unadjusted and adjusted association with unmet need for contraception among study participants (N=81).

Characteristics	Unmet N	Crude OR (95% CI)	P value unadjusted	Adjusted OR (95% CI)	P value adjusted
Age in years					
≤ 30 (86)	38	1		1	0.726
> 30 (149)	43	0.51(0.29-0.89)	0.018	1.12 (0.58-2.17)	
Educational Status					
Middle school and below (89)	26	1.46(0.83-2.58)	0.187	1.81(0.90-3.74)	0.187
High school and above (149)	55	1		1	0.167
Socio Economic Status					
Lower class (149)	53	0.87(0.49-1.53)	0.128	0.73 (0.39-1.37)	0.333
Middle class and above (86)	28	1		1	
Religion					
Hindu (169)	48	1	0.002	1	
Muslim (66)	33	0.39(0.22-0.71)		0.30 (0.15-0.62)	0.001
No. of Children					
≤ 2 (208)	74	4.16 (0.954-18.19)	0.058	0.61(0.21-1.75)	0.349
> 2 (27)	7	1		1	
Family type					
Nuclear (185)	59	1.6(0.88-3.1)	0.112	1	
Joint (50)	22	1		0.30 (0.15-0.62)	0.001

Nearly one third of the contraceptive users (IUCD /OCP) had severe bleeding as side effects.

After adjusting for variables like age, age at marriage, education, socioeconomic status, no. of children, religion and, family type compared with unmet need for contraception, Muslims were found to have less unmet

need for contraception than Hindus, it was highly significant (Table 3).

The most common reason for unmet need for contraception was fear of side effects (39.5%) (Table 4).

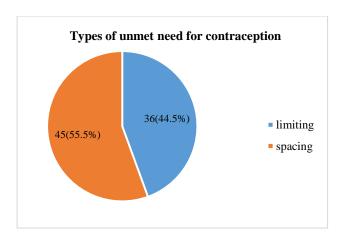


Figure 2: Distribution of study participants based on types of unmet need for contraception. (n=81).

Table 4: Distribution of study participants based on reasons for unmet need for contraception

Reasons for unmet need	Number	%
Fear of side effects	32	39.5
Infrequent sex	10	12.3
Lack of knowledge	12	14.8
Insisted by family members	10	12.3
Religious reasons	10	12.3
Lactating	5	6.1
Not satisfied with contraceptive services	2	2.4
Total	81	100

#### DISCUSSION

In our study, we found that the mean age of the study participants was 33.3±6.6 years. The proportion of the study participants according to age groups was found to be distributed concordant in 26-30 years (24.7%), 31-35 years (25.1%) and 36-40 years (23.8%) age groups. The mean age of the study participants at marriage was 21.08±4.1 years. It was similar to the study conducted in Puducherry by Sulthana et al among 267 married women in reproductive age group. Their mean age, age at marriage and marriage duration were 33.5±6.9, 21.7±3.6 and 11.8±7.9 years, respectively. Around 89 % were educated up to high school or above; 3% were illiterate or did not complete primary education. Around 69% were from nuclear families and 85% were Hindu.

In the present study, the contraceptive prevalence rate was found to be 77% that was much higher than the NFHS-3 (2005–06) data, which showed the contraceptive prevalence rate to be 56%. The contraceptive prevalence rate in Tamil Nadu was 61% according to (NFHS - 3) and in Puducherry was 63% for urban population (NFHS - 4).

Almost a similar prevalence was observed in the study by Bendhari et al in western Maharastra in 2015 which showed the prevalence of 70.25%.<sup>10</sup> Kanna et al in Guntur had observed contraception prevalence was 79.6% among eligible couples which was found to be higher prevalence compared to our study.<sup>11</sup>

Various studies done in India showed lesser prevalence of contraception as compared to this present study. 12-15

In our study we found that the prevalence of unmet need for family planning was 34.5% (15.3% for limiting and 19.4% for spacing), that was found to be high compared to NFHS -3 (13%) data. In Tamil Nadu the unmet need has been reported as 9% (NFHS -3).

Various studies done in India have reported higher prevalence range of unmet need for contraception. In the present study, the unmet need prevalence rate was much higher than the prevalence of unmet needs for family planning reported by Ilene S et al in six cities of Uttar Pradesh which showed varying prevalence rate (12 – 20) %. Another study done in Ballabgarh by Yadav et al showed the prevalence of unmet need for family planning as 17.5%.

The most common reason for unmet need for contraception was fear of side effects which has been observed in many studies. 16,22,23

Khan S et al had reported lack of knowledge (18%) as the main reason for unmet need for contraception in their study.<sup>24</sup> Patel et al in their study also had reported a similar observation.<sup>25</sup>

Sajid et al in their study had reported that 20.83% women were worried about side effects, 16.67% considered it as against religion, 11.67% wanted more children, 6.67% had no knowledge about source of information and 8.33% were opposed to family planning because of their husbands influence in choosing the contraceptive method.<sup>26</sup>

Sulthana et al had reported that unmet need for contraception was 27.3%, unmet needs for spacing and limiting were 4.9% and 22.5% respectively. Regression analysis did not reveal any significant difference in distribution of socio-demographic factors among users of contraception. This was similar to the present study.

After adjusting for variables like age, age at marriage, education, socioeconomic status, no. of children, religion and, family type compared with unmet need for contraception, Muslims were found to have less unmet need for contraception than Hindus and it was highly significant.

The Muslims who had high birth rate in the study had less contraceptive prevalence and less unmet need for contraception compared to Hindus. In contrast the Hindus who had higher contraceptive usage also had higher unmet need for contraception. Though Hindus wanted to

use contraceptives their need was unmet. So focus has to be given to the group with high unmet need to find the reason behind such high rates.

#### **CONCLUSION**

Though contraception prevalence was high in our study, the unmet need for contraception was also high among study population mainly due to fear of side effects and lack of knowledge. Hence concerted efforts through behavior change communication intervention are required to reduce the prevalence of unmet need for contraception.

#### **ACKNOWLEDGEMENTS**

UHTC staffs for accompanying for data collection.

Funding: No funding sources Conflict of interest: None declared

Ethical approval: The study was approved by the

Institutional Ethics Committee

#### **REFERENCES**

- Haub C. World population trends 2012. World population data sheet 2012, Population reference Bureau, USA. Available at: http://www.prb.org/ publications/Datasheets/2012/world-populationdata-sheet/fact-sheets.aspx. Accessed on 10 Jan 10 2017.
- Ryerson W. Population: An underlying theme in addressing some of the world's most challenging problems. Population media center. Available at http://www.population media.org/. Accessed on 12 February 2017.
- 3. Gribble JN. Unmet need for family planning. World population data sheet 2012, Population reference bureau, USA. Available at: http:///www.prb.org/publications/Datasheets/2012/ world-population-data-sheet/fact-sheet-unmet-need.aspx. Accessed on 16 March 2017.
- 4. Census of India. Provisional population total, India Census, 2011. Available at: http://www.censusindia.gov.in. Accessed on 17 March 2017.
- 5. Marston C, Cleland J. Relationships between contraception and abortion: are views of the evidence. Int Fam Plan Perspect. 2003;29(1):6-13.
- 6. NFHS III National Reports. Available at: http://www.rchiips.org/nfhs/nfhs3\_national\_report.shtml. Accessed on 5 December 2017.
- 7. Park K. Park's textbook of preventive and social medicine. 23rd ed. Jabalpur: Banarsidas Bhanot; 2015.
- 8. NFHS IV National Reports. Available at http://www.rchiips.Org/nfhs/nfhs4\_national\_reports.html. Accessed on 8 February 2017.
- 9. Sulthana B, Shewade HD, Sunderamurthy B, Manoharan K, Subramanian M. Unmet need for contraception among married women in an urban

- area of Puducherry, India. Indian J Med Res. 2015;141(1):115-8.
- Bendhari M, Korade R, Haralkar S. Contraceptive prevalence and usage of different contraceptive methods and its correlates in an urban slum area of Western Maharashtra—A cross sectional study. Indian J Maternal Child Health. 2015;17:1-10.
- 11. Kanna A, Pala VK. A profile of knowledge, attitude and practice of contraception among educated working women of South India. J of Evol of Med. Dent Sci. 2015;4(63):10896-906.
- 12. Balgir RS, Singh S, Kaur P, Verma G, Kaur S. Contraceptive practices adopted by women attending an urban health centre in Punjab, India. Int J Res Dev Health. 2013;1(3):115-9.
- 13. Manna N, Basu G. Contraceptive methods in a rural area of West Bengal, India. Sudanese Journal of Public Health. 2011;6(4):164-9.
- 14. Bandhi G, Bhawnani D, Verma N, Soni GP. Assessment of contraceptive knowledge and practices among reproductive age group of women in urban slums of Raipur city, Chhattisgarh, India.Natl J Community Med. 2014;5(4):349-54.
- Makade KG, Padhyegurjar M, Padhyegurjar SB, Kulkarni R. Study of contraceptive use among married women in a slum in Mumbai. Natl J Community Med. 2012;3(1):40-3.
- 16. Begum S, Nair S, Donta B, Prakasam C. Prevalence of unmet need for contraception in urban slum communities, Mumbai. Int J Reprod Contracept Obstet Gynecol. 2014;3(3):627-30.
- 17. Solanki HM, Chavan CMK, Velhal Gajanan D, Parmar MT. A comparative study between met & unmet need groups of contraception in rural area of Maharashtra, India. Global J Med Public Health. 2013;2(1):1-7.
- 18. Patil SS, Durgawale M, Patil S. Epidemiological correlates of unmet need for contraception in urban slum population. Al Ameen J Med Sci. 2010;3(4):312-6.
- 19. Pal A, Mohan U, Idris M, Masood J. Factors affecting unmet need for family planning in married women of reproductive age group in urban slums of Lucknow. Ind J Comm Health. 2014;26(1):44-9.
- 20. Speizer IS, Nanda P, Achyut P, Pillai G, Guilkey DK. Family planning use among urban poor women from six cities of Uttar Pradesh, India. Journal of Urban Health. 2012;89:639-58.
- 21. Yadav K, Singh B, Goswami K. Agreement and concordance regarding reproductive intentions and contraception between husbands and wives in rural Ballabgarh, India. Ind J Community Med. 2010;35(1):19.
- 22. Relwani NR, Saoji AV, Kulkarni M, Kasturwar N, Zade R, Wadke R. Revealing unmet need for contraception among married women in an urban slum of Nagpur. Int J Med Sci and Public Health. 2015;4(8):1136-40.
- 23. Wasnik V, Jawarkar A, Dhumale D. Study of family planning practices with special reference to unmet

- need among married women in rural area of Amravati district of Maharashtra. Ind J Comm Health. 2013;2(4):348-53.
- 24. Khan S, Verma R, Mahmood SE. Correlates of use of family planning methods among married women of reproductive age group in Bareilly, India. Community Med. 2012;3(4):623-6.
- 25. Patel SV, Patel DN, Pandit NB, Patel MV. A cross sectional study of contraceptive uses and unmet need for family planning among rural population of Vadodara. Int J Bio Adv Res. 2015;6(11):765-7.
- 26. Sajid A, Malik S. Knowledge, attitude and practice of contraception among multiparous women at Lady Aitchison Hospital, Lahore. Annals of King Edward Medical University. 2010;16(1):266-9.

Cite this article as: Sudha V, Vrushabhendra HN, Srikanth S, Suganya E. Unmet need for contraception among urban women- a cross sectional study in Puducherry. Int J Community Med Public Health 2017;4:1494-9.