Original Research Article

Trends in contraceptive demands and unmet need for family planning in migrant population of Uttarakhand

Sadhna Singh[1], Neha Priya[1]*, Debabrata Roy[2], Anurag Srivastava[1], Surekha Kishore[3]

Department of Community Medicine, [1]TMMC&RC, Moradabad, Uttar Pradesh, [2]Subharti Medical College, Dehradun, [3]AIIMS Rishikesh, Uttarakhand, India

*Correspondence:
Dr. Neha Priya,
E-mail: neha.priya287@gmail.com

ABSTRACT

Background: The knowledge of contraceptive use and Unmet need is important to know the constraints for unmet need based on user perspective. The aim of the study was to find the prevalence of Contraceptive use, Contraceptive preferred and the Un-met demand for contraceptives.

Methods: Married, non-pregnant women of reproductive age group (15-49 years) from the migrant population were interviewed by Census method using pre-designed and pre-tested instrument by cross-sectional survey. Operational definitions for unmet need for spacing, limiting and unfelt need used in the study were as per NFHS -4 findings and traditional methods of contraception like abstinence, withdrawal were included in Un-met need for contraceptive due to its very high failure rate.

Results: 58.44% study subjects had 'Ever Used FP' and 56.78% are currently using FP methods. The CPR is 56.7% by 'Any Method' and 43.0% by 'Modern method'. The method which is most popular is 'Sterlisation 29% and 20.96% and 'Others' i.e. highly unreliable methods like coitus interruptus, calendar method etc found high number of users. The reasons for non use were apprehension of complication/side effects in 39%) and inconvience/ the difficulties with modern contraceptive methods or lack of knowledge by 7.67% and 6.95% respectively, 16% were relied on traditional methods, such as periodic abstinence, withdrawal and herbal mixtures from traditional healers as well as LAM 8% for a FP method, all of which have high failure rate. Only 24.8% Women were decision maker regarding the time and type of contraceptive to be used. The Unmet need was 29.7% out of which the unmet needs for spacing and limiting were 9.6 per cent and 20.1 per cent, respectively

Conclusions: The Un- met Need is high and can be addressed by removing the constraints such as poor accessibility to the knowledge thus removing apprehension for side effects, improve accessibility to resources and low decision-making autonomy.

Keywords: Contraceptive demand, Unmet need, Unmet need for spacing, Unmet need for limiting

INTRODUCTION

Contraceptive use and unmet need for family planning are key to understanding profound changes in fertility and to improving reproductive health worldwide.[1] The current fertility rate for India is 2.2 according to NFHS-4, and 2.1 in Uttarakhand by DLHS 2016.[2,3] The CPR is 53.5% by 'Any Method' and 49.3% by 'Modern Method', and the irony is, we still have a high unmet Need for contraception, 12.6 for India as a whole and 12.9, 12.8 in Uttarakhand and Uttar Pradesh respectively. That is, there is further scope of improving the CPR of the Country and achieve the replacement level. Unmet need is especially

high among groups such as adolescents, migrant, urban slum dwellers, refugees and women in the postpartum period.[4]

In order to improve the reproductive health the women must have access to safe and effective methods of fertility control. The promotion of family planning is must, so that women can avoid unwanted pregnancy, have the desired spacing and number of children, which can be achieved easily by identifying and catering to their 'unmet need' for family planning.

Women with unmet need are those who are fecund and sexually active but are not using any method of contraception, and report not wanting any more children or wanting to delay the next child. The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behaviour. The Un-met need may also be interpreted as the number of additional clients who would be using contraception (over and above the number of current users) if all women at risk of pregnancy and desiring to either terminate or postpone childbearing were to adopt contraception.[5]

Which is calculated as follows:

$$U_L + U_S = U$$

Where:
U = the number or percent of women with unmet need for FP;
U_L = the number or percent of women with an unmet need for limiting; and
U_S = the number or percent of women with an unmet need for spacing.

Unmet need for family planning is the sum of unmet need for spacing and unmet need for limiting. State level survey shows a grim picture of contraceptive use in the slum areas. The slum population is the most vulnerable section of our society. It is also very important to see the trend in contraceptive use, in order to effectively bridge the gap of unmet need.[4]

This study was carried out among the eligible couples of urban slum, migrants of Dehradun district, India with the objective to assess the prevalence of Contraceptive use and determine the pattern of its use and asses the unmet need for contraception, as also to identify factors related with unmet needs for contraception.

Aims and objectives

I) To assess the prevalence of contraceptives use among reproductive age married migrant women living in urban slums.
II) To assess the self- perceived, Unmet Need for Contraception in reproductive age married migrant women.

III) To determine the pattern of use of essential reproductive health needs related to fertility regulation.

METHODS

Study period

Study was carried out from Jan 2015 to June 2015

Study population

The design of the present study considered a probability sample of 06 settlements/slums, out of the 18 slums along the rivers in the district Dehradun, chosen by simple random sampling and comprising a study population of 5033. The study considered those migrants who are residing within a maximum distance of 50 mtrs from the river bank.

Study subjects

Married, non-pregnant women of reproductive age group (15-49 years) from the defined study universe.

Study design

Cross-sectional, community based survey.

Sampling

The entire urban slums of the city along the river banks were taken to be the universe. A list of slums locations along the selected rivers was prepared and 6 such slum locations were selected from the list of 18 slums by the method of Simple Random Sampling at the first stage. At the second stage, all the households within 50 m. from the river banks were considered as study population. All the married women in the reproductive age group, not currently pregnant, were the study subject. Cent per cent (100%) enumeration of house-holds / settlements or Census was done (Natural sample pyramid) and all the households within 50m from the river banks were visited. In a household where there were no eligible subject the subsequent household with eligible subject was taken up. Operational definitions for unmet need for spacing, limiting and unfelt need used in the study were as per NFHS.[4] Further, the following categories of women were excluded from unmet need for FP:

- Currently pregnant or amenorrheic women whose pregnancy was reported as intentional; and
- Fecund women who want their next child within the next two years.

A cross-sectional study design with qualitative approach was used. Data was collected by face to face interviews using pre-tested and pre- structured questionnaire.

Data management and statistical analysis

Generated data was collated and analyzed and were calculated using SPSS-17.

RESULTS

Out of a total 965 study subjects studied, majority of the women belonged to 20-29 yrs age group i.e. 469 (48.61%) where the un- met need and demand for spacing is maximum. The prevalence of <18 years marriage was as high as 753 (78.03%) and Teenage Pregnancy was 423

(46.68%) and another 420 (46.36%) had their first conception between 19-24 yrs.

It was found that the majority of study subjects i.e. 434 (44.90%) had parity of 4 or more. Educational status was very poor, as 671 (69.53%) females were illiterate and amongst the literate, largest proportion of women i.e. 79(8.20%) were educated only up to primary standards. The distribution of study subjects' families according to socio economic status as per modified B.G. Prasad's classification, most of the families i.e. as many as 786 (81.45%) belonged to 'Lower' class and as many as 792 (82.15%) women fell under the category of 'housewife'.

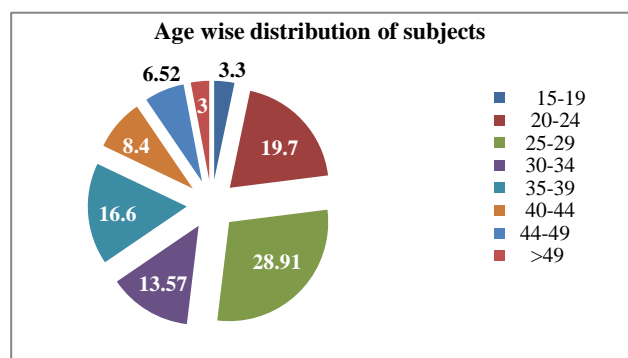### Table 1: Distribution of study subjects according to profession.

Age in years	Profession of the study subjects					
	Unskilled worker (%)	Skilled worker (%)	Shop/Service Business (%)	Professional (%)	Home maker (%)	Total (%)
15-19	0 (0)	0 (0)	1 (1.3)	0 (0)	32 (3.31)	32 (3.31)
20-24	10 (5.26)	5 (2.6)	2 (1.05)	1 (0.5)	172 (90.5)	190 (19.6)
25-30	22 (7.88)	7 (2.5)	2 (0.71)	0 (0)	248 (88.9)	279 (29)
30-34	17 (12.9)	2 (1.52)	4 (3.0)	0 (0)	108 (82.4)	131 (13.5)
35-39	33 (20.6)	5 (3.1)	5 (3.1)	0 (0)	115 (71.8)	160 (16.6)
40-44	10 (12.34)	8 (9.87)	3 (3.7)	0 (0)	62 (76.5)	92 (9.53)
45-49	19 (20.65)	7 (7.6)	6 (6.5)	0 (0)	60 (65.21)	92 (9.53)
Total	111 (11.5)	34 (3.5)	23 (2.3)	1 (0.1)	796 (82.5)	965 (100)

(Figures in parenthesis denote percentage)

Table 2: Distribution of study subject by educational status (n=965).

Age of respondent	Illiterate n(%)	Just literate n(%) Primary n(%) Jr. high school n(%)	High school n(%)	Intermediate n(%)	Graduate and above n(%)	Total n(%)
15-19	15 (46.86)	11 (34.37)	2 (6.25)	3 (9.40)	1 (3.12)	32 (3.31)
20-24	113 (59.47)	57 (30.0)	8 (4.21)	4 (2.10)	8 (4.21)	190 (19.69)
25-29	191 (68.46)	48 (17.2)	13 (4.65)	10 (3.58)	7 (2.50)	279 (28.91)
30-34	91 (69.46)	26 (19.8)	5 (3.80)	4 (3.05)	5 (3.80)	131 (13.57)
35-39	123 (76.87)	19 (11.8)	7 (4.37)	6 (3.75)	5 (3.12)	160 (16.58)
40-44	61 (75.30)	14 (17.2)	2 (2.46)	3 (3.70)	1 (1.23)	81 (8.39)
45-49	52 (82.53)	07 (11.1)	3 (4.76)	3 (4.76)	1 (1.58)	63 (6.52)
>49	25 (86.20)	01 (3.4)	0 (0)	0 (0)	0 (0)	29 (3.05)
Total	671 (69.53)	172 (17.8)	40 (4.0)	33 (3.40)	27 (2.81)	965 (100)

(Figures in parenthesis denote percentage)

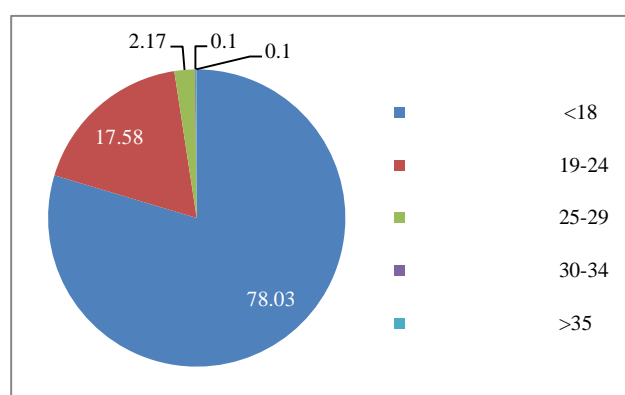**Figure 1: Age wise distribution of study subjects.**

Of the 965 women, though 548 (56.78%) eligible couples were using contraceptives by 'Any Method' and 415 (43.0%) by 'Modern Method'; the Unmet need for contraception was 29.7% per cent; unmet needs for spacing and limiting were 9.6 percent and 20.1 percent, respectively.

There were 186 abortions out of which 58 (6.01%) had induced abortion as a means of Contraception.

The Figure 1 shows that out of a total of 965 study subjects 564 (58.44%) were the ones who have 'Ever Used FP' and 548 (56.78%) are currently using FP methods. Considering the type of contraceptive used the

CPR is 56.7% by 'Any Method' and 415(43.0%) by 'Modern Method'.

The Table 1 shows that the method which is most popular is 'Sterlisation157 (29%) and 113 (20.96%) have preference for use of 'IUD' and 89(16%) are using 'Others' i.e. highly unreliable methods like coitus interruptus, calendar method etc. found high number of users. As seen in Table 2 the reasons for not using Contraception were apprehension of complication/side effects 161 (39%) and inconvenience / the difficulties with modern contraceptive methods or lack of knowledge 32 (7.67%) and 29 (6.95%) women respectively were more likely to rely on traditional methods, such as periodic abstinence, withdrawal, or charms and herbal mixtures from traditional healers as well as LAM44 (8%) as a FP method, all of which have high failure rate.[9]


Figure 2: Age of marriage distribution of study subjects by age of marriage.
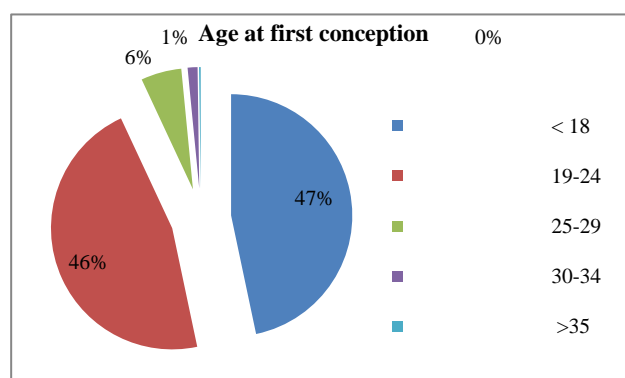

Figure 3: Age at first conception distribution of study subjects by age at conception.

The unmet need for contraception was found to be 154 (15.9%) from among non-users as shown in Table 2. But the study subjects using highly unreliable methods with very high failure rate like coitus interrupts, calendar methods etc. falling in 'others' is as high as 89 (16%) and 44 (8%) LAM, cannot be over looked and should be taken as unmet need. Considering this the unmet need is 287 (29.7%) out of which the unmet needs for spacing
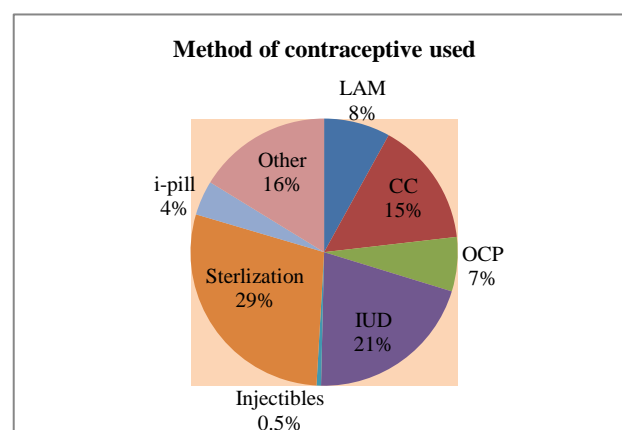
and limiting were 9.6 percent and 20.1 percent, respectively.
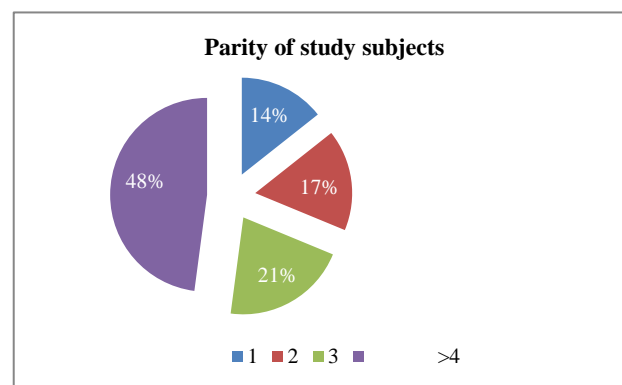
Figure 4: Parity of study subjects distribution of study subjects by parity.
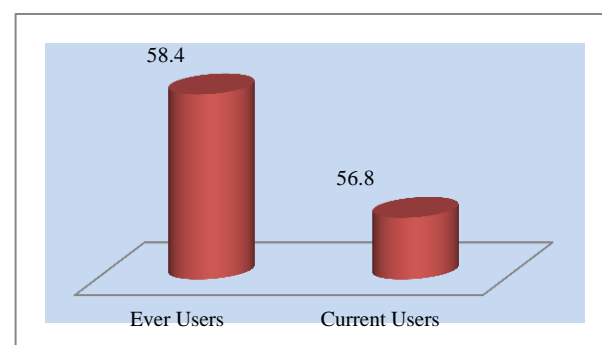
Figure 5: Distribution of study subjects by ever user and current user of contraceptives.

Figure 6: ????

Figure 3 reflects the women empowerment in relation to deciding the time and choice of Contraceptive Use, which was found to be as low as 140 (24.8%) out of the 564 (58.44%) ever users. Mostly the decision was made by the husband, 405 (71.8%). This also explains the high unmet need for FP along with lack of knowledge, presence of myths and fear of side effects among the other causes in the migrant slum population.

Table 4: Distribution of study subjects according to methods of contraceptive used.

Method currently used	N=548	Percentage (%)
#LAM	44	8.0
CC	83	15
OCP	36	7
IUD	113	21
Injectibles	3	0.5
Sterlization	157	29
i-pill	23	4
#Other (traditional method)	89	16

Suggest the unmet need for family planning in the study subjects as these methods have high failure rate.

Table 5: Distribution of study subjects by reason for not using FP.

Reason of Non-Use	N=417	Percentage (%)
# No knowledge of contraceptive methods	29	6.95
Against religion	18	4.31
#Husband objects	45	10.79
#In-laws object	9	2.16
#Not available	5	1.19
# Not accessible	10	2.39
#Inconvenient to use	32	7.67
Afraid of complications	120	28.77
Afraid of side effects	41	9.83
#Can't work after sterlisation	14	3.35
#Can't afford	10	2.39
Want a son /child	50	12.0
Others/Do not feel Need	34	8.15

Suggest the unmet need for family planning in the study subjects.
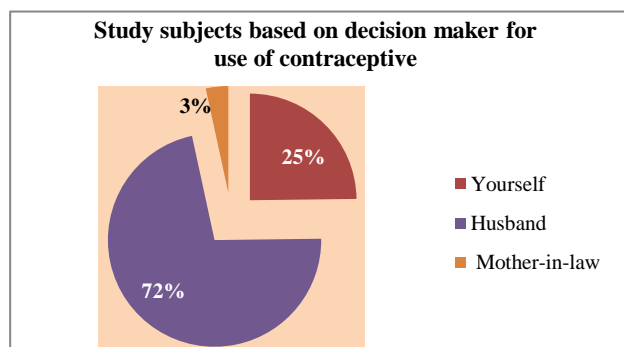
Figure 6: Who takes decision on use of contraceptive.

The Table 3 shows that out of the 186 abortions, 58(6.01%) were induced abortion due to being unwanted pregnancy and its frequency is increasing as the age of the study subject is increasing. This can be attributed to their unmet need for contraceptives which is forcing them to such desperate action.

Table 6: Distribution of study subjects by history of induced abortion.

Age group in years	Number of women with H/o Induced abortion as a means of contraception(n=58)	Percentage (%)
15-19	0	0
20-24	5	8.6
25-29	16	27.6
30-34	13	22.41
35-39	13	22.41
40-44	6	10.34
45-49	5	8.6

DISCUSSION

In order to Improve the reproductive health of women in developing countries access to safe and effective methods of fertility control is essential, but it was observed that many, 133 (24.27%) rely on traditional rather than modern contraceptives, methods which have very high failure rate.

The contraceptive finding most favour with the study subjects was sterilization 157 (16%) mostly female and the next most popular is IUD113 (21%) which is consistent with findings of NFHS-4. The decision about use of contraceptive is taken mostly by the husband, 405 (71.8%). Use of hormonal methods was limited due to lack of knowledge and fear of side effects, especially infertility. The use of i-pill 23(4%) and it was used as routine method of family planning. This practice indicates there may be latent demand for a pericoital contraceptive pill for use as a regular contraceptive method. In general, women embraced the idea of a female-controlled method that would be easier than taking a daily oral contraceptive pill and that could be taken either before or after sexual intercourse.[4]

The unmet need for contraception is used as an indicator for monitoring the progress of FP programs, but its measurement contains numerous assumptions and limitations.[5,6] The definition of unmet need should be broadened to include women using: (1) traditional contraceptive methods (on the grounds of high failure rates); (2) a theoretically effective method incorrectly or sporadically; and (3) a method that is unsafe or unsuitable for them.[6]In the present study the Traditional methods like coitus interruptus, calendar methods etc falling in 'Others' is as high as 89 (16%) and 44 (8%) LAM have been included in the unmet need for FP.

In the present study we found that 58 (6.0%) study subjects underwent abortion as a means of contraception due to lack of knowledge of safer methods; this was particularly common in the extremes of the fertile age spectrum. Unwanted pregnancy is strongly associated with maternal mortality through unsafe abortion and pregnancy complications involved with high-risk factors.[7]

In conclusion, our study indicated a high unmet need for contraception in the area with a scope to easily decrease constraints and address user perspective to meet their reproductive health needs. The women have poor access to the knowledge and resources and low decision-making autonomy and freedom of movement that would enable them to use FP effectively.

Policy makers and program managers can strengthen family planning programs by understanding and using data on unmet need, considering the characteristics of women and couples who have unmet need, and working to remove obstacles that prevent individuals from choosing and using a family planning method.[8]

REFERENCES

1. United Nations Population Division/DESA: Fertility and Family Planning Section. World Contraceptive Use 2009: Unmet Need for Family Planning. Available at http://www.un.org/esa/population/publications/WCU2009/Metadata/UMN.html. Accessed on 3 August 2017.
2. Mumbai: International Institute for Population Studies; 2007. IIPS. National family health survey (NFHS-4), 2015-16. Available at: http://www.mohfw.nic.in/nfhs3/index.htm. Accessed on 1 January 2016.
3. District level household and facility survey III 2012-13 (DLHS IV). Ministry of health and family welfare, Government of India. Available at: http://www.rchiips.org/pdf/INDIA_REPORT_DLHS-3.pdf. Assessed on 29 December 2014.
4. NFHS 4 Factsheet -National Family Health Survey. KEY FINDINGS FROM NFHS-4. Available at rchiips.org/NFHS/factsheet_NFHS-4.shtml. Assessed on 29 December 2014.
5. Cleland J, Conde-Agudelo A, Peterson H, Ross J, Tsui A. Contraception and health. Lancet. 2012;380:149–56.
6. Revising Unmet Need for Family Planning. Available at https://measuredhs.com/publications/publication-as25-analytical-studies.cfm. Assessed on 29 December 2014.
7. A 2003 policy brief from Population Reference Bureau. Available at http://www.prb.org/pdf/UnmetNeedFamPlan-Eng.pdf. Assessed on 29 December 2014.
8. Ashford L. Policy Brief - Unmet Need for Family Planning: Recent Trends and Their Implications for Programs. Population Reference Bureau and MEASURE DHS+. Doi2003 Available at http://www.prb.org/pdf/UnmetNeedFamPlan-Eng.pdf. Assessed on 29 December 2014.

Title missing: Figure 6.

Figure 6 has been given twice. Please check and number the figures correctly.