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Epidemiological correlates of unmet need for contraception in slum dwellers in Karad Town, Western Maharashtra

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***Abstract*---**Background: Unmet need is one of the challenges to meet the contraceptive use among slum dwellers. The study was conducted among married women in the reproductive age group (18-49 years) in slum dwellers Karad town, western Maharashtra. Objective:-1) To assess the prevalence of unmet need for family planning among married women living in slum area of Karad town.2) To identify the different variables which are associated with unmet need for contraception. 3) To find out reason for unmet need for family planning. Methods: This was a Community based, Observational Analytical cross -sectional study. By systematic random sampling method, 201 reproductive sexually active women were included. A predesigned, and pretested questionnaire by personal interview method data was collected from the respondents with written consent. Results: Study showed, 71(35.3%) of women had an unmet need for family planning. While 130(64.7%) had showed met need for family planning. More than 34 years of age (OR=4.633, CI 1.6- 12.6), Hindus (OR=2.039, CI 0.91 - 4.5), < 5years of women married life (OR=8.37, CI 2.2 - 31), all were found to be risk factor for unmet need (OR>1). The most prevalent reason for not using contraceptives was ignorance i.e. 33(46.5%). Conclusion: This study showed that prevalence for unmet need in the study area was more than the national average (NFHS-4&5).Government should have to organise frequent family

planning awareness programme and giving motivation at community level byhealth workers.

***Keywords*---**Urban slum, Prevalence, Unmet need.

Introduction

India was the first nation to launch an official family planning program in 1952 and to adopt an official population policy which was approved by parliament in 1983 with a clear focus to reduce birth rates.[1] Still growth rate was not decline. Estimated population of India in 2021 is 132 crores. Aim &Objective of this study to assess the prevalence of unmet need for family planning among married women living in slum area of Karad town. To identify the different variables which are associated with unmet need for contraception.To find out reason for unmet need for family planning.

Materials and Methods:

This was a Community based, Observational Analytical cross-sectional study, conducted among married women in the reproductive age group (18-49 years).Study was conducted in two adopted urban slums i.e. Karad town slum area and Agashvinagar slum area with the population of 5000 in each slum. Located 2 khm away from KIMS which is a part of field practice area of urban health training centre, adopted under the department of community medicine. Sample size was estimated using the formula $\mathbf{N=4(pq)/L^2}$.According to previous study conducted by Patel SV et al among 100 couples who were sexually active and in which women are in reproductive age group of Vadodara, in 2015, prevalence for unmet need of contraceptive was 40%.[2]
Here the prevalence, P=40, q=60 (100-p), Allowable error (L) =7
N =4(40x60)/7X7 = 195.
But, total of 201 women were included in the study.
Ethical clearance was approved by the Institutional Ethical Review Committee of Krishna Institute of Medical Science Deemed University, Karad for the ethical Justification.

Systematic random sampling method was used in this study. By lottery method, market yard community of karad city was first selected, then after entering study area, which is near to our UTHC. In each slum, community were selected by random selection. First A-community was selected randomly followed by B, C, and D till half sample size was completed from karad city slum area. Same procedure was carried out in Agashvinagar slum area till desired sample size was completed.

Inclusion criteria for this study was married women in the reproductive age group of (18-49 years), and currently living with their husband. And who are permanent resident of study area. Whereas, women who were affected with any critical/terminal illness or other co-morbid conditions, pregnant married women, widows, and divorcees were excluded from this study.

Data was collected by house to house visit, using a predesigned, and pretested questionnaire by personal interview method. Data was collected in two parts. Part-I regarding identification data, Socio-demographic information of study subjects. Part-II regarding questionnaire related to unmet need of contraception, reasons for unmet need, till desired sample size was completed.

Data was be entered using Microsoft Excel 2016 spread sheet. Data summarization and analysis of data was been carried out by using IBM SPSS Software version 20 (licensed: Armonk, New York, USA). Descriptive statistics frequency, percentage, Mean and Standard deviation, Chi square test, Odds ratio, Logistic Regression analysis was applied in this study. P-value (<0.05) was considered statistically significant.

Results

Out of the total, 201 Reproductive women, majority of women i.e. 94(46.6%) were between age group of 26-35 years. The mean age of women was 30.81 $\pm$ 7.7. Most of women were illiterate i.e. 68(33.8%). Majority of study participants were unemployed 195(95%). Among the study subjects, maximum were belonged to nuclear families i.e. 109(54.2%), while 58(28.9%) and 34(16.9%) were belonged to joint and 3 generation families respectively. The majority of them were Hindus by religion i.e. 132 (65.7%) and 69(34.3%) were Muslims. The median number of children was 2.47 $\pm$1.105. Table: 1 showing out of 201 study subjects, 71(35.3%) women were under unmet need. Whereas,130 (64.7%) women had a met need for family planning.

Table1
Prevalence of unmet need for family planning

Family planning	N	Percentage (%)
Met need	130	64.7
Unmet need	71	35.3
Total	201	100

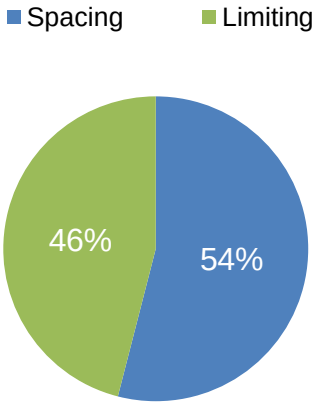

Figure1: Distribution of study subjects according to unmet need for family planning

Figure1: 71(35.3%) of women had an unmet need for family planning, out of which 38(54%) having unmet need for spacing, while 33 (46%) having unmet need for limiting birth.

Table 2
Association of socio- demographic characteristics of women with met and unmet need for family planning

AGE GROUP(Years)	MET NEED (N=130)	UNMET NEED (N=71)	TOTAL (201)	CHI-SQUARE (P VALUE)
18-24	12 (9.2%)	30 (42.4%)	42 (20.8%)	42.92 (0.001)
25-34	60 (46.1%)	35 (49.2%)	95 (47.4%)	
≥35	58 (44.7%)	6 (8.4%)	64 (31.8%)	
RELIGION				
Hindu	79 (60.7%)	53 (74.6%)	132 (65.8%)	3.923(0.048)
Muslim	51 (39.3%)	18 (25.4%)	69 (34.2%)	
OCCUPATION				
Unemployed	123 (94.6%)	68 (95.7%)	191 (95%)	0.568(0.753)
Unskilled worker	7 (5.4%)	3 (4.3%)	10 (5%)	
EDUCATION				
Illiterate	49 (37.6%)	19 (26.7%)	68 (33.8%)	9.305 (0.054
Primary	19 (14.6%)	4 (5.6%)	23 (11.4%)	
Secondary	25 (19.2%)	24 (33.8%)	49 (24.4%)	
High school	32 (24.8%)	21 (29.7%)	53 (26.4)	

Intermediate & above	5 (3.8%)	3 (4.2%)	8 (4%)	
TYPE OF FAMLIY				
Nuclear	79 (60.8%)	30 (42.2%)	109 (54.2%)	11.14 (0.004)
Joint	37 (28.4%)	21 (29.5%)	58 (28.9%)	
3 Generation	14 (10.8%)	20 (28.3%)	34 (16.9%)	
GENDER COMPOSITION				
Both	101(77.6%)	29(40.8%)	130 (64.7%)	30.68(0.001)
Girl	9 (7%)	19(26.7%)	27(13.4%)	
Boy	20(15.4%)	20(28.1%)	40(19.9%)	
Years OF MARRIAGE				
<5 years	3(2.3%)	25(35.2%)	28(13.9%)	41.46(0.001)
≥5years	127(97.7%)	46(64.8%)	173(86.1%)	
NUMBER OF CHILDREN				
0	1 (0.5%)	3 (4.2%)	4 (2%)	32.8(0.001)
1	7 (5.5%)	22 (30.9%)	2 (14.4%)	
2	50 (38.4%)	28 (39.4%)	78 (38.8%)	
≥3	72 (55.6%)	18 (25.5%)	90 (44.8%)	

Table 2 showing, the met need was more common among women aged >35years, i.e. 58(44.7%), Whereas, unmet need was more seen in women under the age of 34 years 65(91.6%). It was observed younger age group needs adequate contraception. As age increases unmet need for contraception decreases, while met need for contraception increases. Which showed statistically significant ($p<0.05$).

In comparison with religion, unmet need was more among Hindus i.e. 53(74.6%). while Muslims are more under met need 51(39.3%) as compared with unmet need 18(25.4%). This difference showed statistically significant ($p=0.048$). When it comes to occupation and education, no significant association was found ($p>0.05$).

In relation to the type of family, unmet need is highest in nuclear families 30(42.2%), followed by joint and 3 Generation families. Whereas, unmet need was higher seen in women who had only single gender child. A significant association

was found (p<0.05).

Met need was more observed in women who had been married for more than 5 years i.e.127(97.7%). whereas, unmet need was higher in women who had been married for less than 5 years 25(35.2%) as compared to met need women 3(2.3%). which showed statistically significant (p<0.05).

In relation to number of children, met need was more seen in women who had more than or equal to 3 children i.e. 72(55.6%) as compared to unmet need women. While, out of 71 women with unmet need, unmet need was more seen in 53 (74.5%) women who are having less or equal to 2 children. Significant association was found between me need and unmet need women (p<0.05).(Table:-2)

Table-3
Multivariate logistic regression analysis relating socio-economic demographic predictors with unmet meed for family planning

VARIABLES	B	OR 95% CI (Lower-Upper)	P VALUE
AGE GROUP			
< 34	1.533	4.633(1.6- 12.6)	0.003
> 35		1(r)	
RELIGION			
Hindu	.713	2.039 (0.91 - 4.5)	0.079
Muslim		1(r)	
OCCUPATION			
Housewife	0.280	1.32 (0.22 - 7.7)	0.755
Working		1(r)	
EDUCATION			
Illiterate&Primary	-0.016	0.827 (0.446 - 2.1)	0.724

Secondary& above		1(r)	
TYPE OF FAMILY			
Nuclear	-569	0.566 (0.26-1.2)	0.138
Joint		1(r)	
GENDER COMPOSITION			
Both	-0.781	0.458 (0.17 - 1.17)	0.023
Girl	0.612	1.8 (0.580 - 5.8)	0.105
Boy		1(r)	
YEAR OF MARRIAGE			
< 5years	2.1	8.37(2.2 - 31)	0.002
> 5years		1(r)	
NUMBER OF CHILDREN			
<2 child	0.039	1.104(0.42 - 2.5)	0.931
>3 child		1(r)	

Table:-3 showing Logistic regression analysis showed that women under the age of 34years (OR=4.633, CI 1.6- 12.6, P=0.003) were a significant risk factor for unmet family planning needs. When compared to women who are over the age of 35 years. Women among Hindus were (OR=2.039, CI 0.91 - 4.5, P= 0.079) were a moderately significant risk factor for unmet need for family planning as comparison to Muslims.

Women who were having both children were significantly protective factor for unmet need for family planning as compared to women having only boys OR=0.458 (CI 0.17 - 1.17), P=0.023). Women who had been married for less than 5 years appeared (OR=8.37, CI 2.2 - 31, P=0.002) to have a significant risk factor for unmet need for family planning than women who had been married for more than 5 years.(Table:-3)

Table: 4
Prevalence of 'Reason for unmet need of family planning'

Reason for unmet need	**N=71**	**(%)**
Ignorance	**33**	**46.5**
Lack of knowledge	6	8.5
Fear of side effects and not conceiving in future	3	4.2
Postpartum amenorrhea	18	25.4
Against religion	5	7
Opposition by family members	2	2.8
Wanted male child	3	4.2
Wanted children	1	1.4

Table:4 showing Out of 71 study participants, the most prevalent reason for not using contraceptives was ignorance i.e. 33(46.5%), followed by postpartum amenorrhea 18(25.4%), lack of information 6(8.5%), and a desire for a male child 3(4.2%).

Table: 5
Association of Unmet need for family planning in relation to male child with met need

Male child	met	Unmet	Total N=201	Chi-square value (P value)
Yes	121 (71.7%)	49 (28.3%)	170 (100%)	20.384 (**0.001**)
No	9 (29.03%)	22 (70.97%)	31 (100%)	
Total	130 (64.7%)	71 (35.3%)	201 (100%)	

Table:5 showing significant relationship between met and unmet need in relation to existence of a male child in the family, it was observed that 121(71.7%) women who are under met need for family planning having a male child, while out of 31 women, 22(70.97%)% women who are under unmet need are not having a male child as compared to met need women i.e. 9(29.03%).

Discussion

Table:1 According to NFHS-5 (2019-2020) especially in urban Maharastra prevalence rate for total, unmeet need among eligible couples in Maharastra is 9.6% including 3.9% for spacing and 5.7% for limiting births. In Satara district, the total unmet need was 6.2% including 3.0% for spacing and 3.2% for limiting births.[3] In a studies of Kriti Yadav et al from Lucknow,[4] unmet need for family planning services among young married women (15-24 years) living in urban slums prevalence for unmet need was 55.3%. Neethu George et al study conducted on married women in aged 18-49 years in select villages in Anekal taluk, Karnataka showed 11.3% prevalence for unmet needs for family planning.[5] In present study, 35.3% of women had unmet need for family planning. Whereas, 38(54%) having unmet need for spacing, while 33 (46%) having unmet need for limiting birth.. Prevalence of our study found to be more may be due to smaller sample size or because study done in urban slum. Depending upon two factors-contraceptive use and fertility desire level of unmet need is not static but always in flux.

In our study we found that (Table-2), the unmet need for family planning was more among 25-35 years of age group i.e. 35(49.2%). In contrast to our study, Ramesh Devidas Pawar et al study, unmet need of family planning was found to be higher among Younger women (age 15-24 yrs) have a greater unmet need for spacing than for limiting. Where as in another study, unmet need was highest in (20.7%)35-44 years age group conducted by Srishti Singh et al.[6]

In our study, unmet need was more among Hindus i.e 53(74.6%) as compared to met need women i.e. 79(60.7%) respectively. Another study by Ramesh Devidas Pawaret et al, unmet need was higher among the Muslim religion (66.67%) followed by Boudh (40.38%).[7] Whereas, in contrast to our study, the unmet need was seen in 61.29% Muslims in comparison to 33.26% Hindus seen in study conducted by Rajaat Vohra et al.[8] In contrast to our study, unmet need of family planning was found to be higher among the Illiterate (40.82%) than literate (23.40%) conducted by Ramesh Devidas Pawaret et al.[7]

In our study, met need and unmet need was more commonly seen in nuclear family i.e. 79(60.8%) and 30(42.2%) respectively. Similar finding seen Rajaat Vohra et al study, that unmet need was higher in a nuclear family (32.18%) in comparison to a joint family (7.52%). In contrast to our study, unmet needs were higher among women residing in joint families (72.16%) as compared with nuclear families (6.02%) seen in study conducted by Ramesh Devidas Pawaret et al.[7]

Met need was more commonly seen in women who had both children 101(77.6%). Whereas, unmet need was higher seen in women who is having only either female child or male child i.e. 39(54.8%) as compared to those with met need. Study conducted by El-Masry R et al, revealed that having only girls or having only boys were significantly higher among women with unmet need compared to those with met need.[9]

Present study found that unmet need for family planning were more among the females who was married for more than 5years i.e. 46(64.8%). This can be

attributed to the fact that they may not have sufficient knowledge on availability of family planning services or fear of side effects of various contraceptives methods. In contrast to our study, Neethu George et al found that unmet need was more among the females who was married for less than 5years.[5]

Strong relation was observed between the number of children and women with unmet need and met need.After two children the the unmet demand for contraceptives reduces with each additional child. Another study by Ramesh Devidas Pawaret et al, unmet need was also found to be higher among women who have more than 2 children.

In present study (Table -3), Logistic regression analysis present study showing, women under the age of 34years (OR=4.633) were a significant risk factor for unmet family planning needs. whereas, Women of the 15–19 year age group were about 3 times more likely to have an unmet need than women of the age group (20–24 years) showed in Yadav K et al study.[4]

Women among Hindus were (OR=2.03) were a significant risk factor for unmet need for family planning as comparison to Muslims. Similar finding was seen in, Yadav K et al study, were unmet need was observed more among Hindus (83.4%) as compared to Muslims (69.8%) (COR: 2.17, CI: 1.06–4.44).[4]

Women who had been married for less than 5 years appeared (OR=8.37) to have a significant risk factor for unmet need for family planning. Than women who had been married for more than 5 years. whereas, Women who were married for more than 1 year were significantly less likely to have an risk factor for unmet need (92.8%; COR: 0.28, CI: 0.11–0.68) for family planning, in comparison to women who were married for more than a year in study of Yadav K et al.[4]
In study of El-Masry R et al, women having only boys (OR=2.60) were significant risk factors for unmet need for FP.[9] In present study, showed similar finding, women who were having both children (OR = 0.458)were less likely having risk factor for unmet need for family planning as compared to women who is having boy or girl alone.

Table:4 One issue that often comes up is why more married women who report not wanting child but do not use some form of contraception. Usually a multiple reasons were expresses by this women. In present study, Ignorance (46.5%) was the most common reason we found in present study. Another barrier we observed that, women do not want to use any contraception till they resume their menstruation after delivery and similar findings was reported in Shahina Begum et al study.[13] Best way to decrease the unmet need and unwanted pregnancies by post placental delivery IUD insertion by counselling the couple according to their need. In Shahina Begum et al study, Health concern/fear of side effects (48.9%) was most common reason, followed by Postpartum amenorrhea (30.0%), Knows no method/source (9.7%). Whereas, study done by AartiSahasrabuddhe et al, main reason for not using contraceptives was environment and family related (Family, cultural, religious) (44.2%) followed by User related (health concern, fear of fertility loss) (39.5%) and poor health services (4.8%).[11]

Table:5 showed Significant association was observed unmet need in relation to presence of male child ($p<0.001$). This contributes to strong preference for sons to carry the name of family. Singh S et al also reported that unmet need for family planning was high among those who had more daughters in the family.[6]

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Conflict of interest: Nil

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