

Prevalence and pattern of contraceptive use and unmet need among women of reproductive age in urban Mysuru

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ARTICLE INFO

Keywords:

Contraceptive use
Family planning
Unmet need
Tubectomy

ABSTRACT

Background: Uncontrolled population growth is an ongoing global concern. Rapid population growth contributes not only to the incidence of poverty but also to the transmission of poverty across generations. Adoption of family planning is crucial to limiting the unsustainable growth of the population. Although family planning services are offered free of cost, the acceptance of contraceptive methods shows wide regional variations.

Objectives: To determine the prevalence and pattern of contraceptive usage and to determine the magnitude of unmet need among the married women of reproductive age in an urban area of Mysuru.

Material and methods: A community based Cross-Sectional study was carried out among 457 married women in the reproductive age group. House to house survey was conducted and data was collected by interview method using a pre-tested, semi-structured proforma after obtaining informed consent. Data was coded and entered into MS Excel 2016 and analysed.

Results: The prevalence of contraceptive use was found to be 55.1%. The most common contraceptive used was the terminal method of tubectomy. Male Condom was the most common temporary method of contraception used. The unmet need for contraception was found to be 18.16% with an 8.06% unmet need for spacing and a 10.6% unmet need for limiting.

Conclusion: Contraceptive prevalence was 55.1% with 18.16% unmet need for contraception. Misapprehension and fear of side effects was a major reason for non-utilization of contraceptives. Routine Family Planning counselling and peer discussions will go a long way in dispelling the myths associated with family planning.

1. Introduction

Uncontrolled population growth is an ongoing global concern. The total population of the World is around 7.6 billion and nearly a third of the population is under the age of 15 years. Shortly, this proportion of the population will enter the reproductive age group and the potential population growth with further increase.^{1,2} This exponential growth of the population puts a large stress on the finite resources worldwide. The magnitude of the burden is further increased in developing and underdeveloped countries where there is a paucity of resources. Rapid population growth contributes not only to the incidence of poverty but also to the transmission of poverty across generations leading to a vicious cycle.^{2,3}

Even though India occupies only 2.4% of the total landmass of the world, with a population of 1.29 billion in the year 2018, it contributes nearly 17% to the world population. Although India was the first

country to formulate a National Family Planning Programme in 1952, with a population growth rate of 1.64%, it is yet to achieve the world average of 1.2%. With a birth rate of 20.0 and a declining death rate, India stands to replace China as the most populous country by 2050. This growing population poses a threat to the socio-economic growth of the country.^{3,4}

Adoption of family planning is crucial to limiting the unsustainable growth of the population and thereby greatly curbing the economic, developmental and environmental degradation caused due to over-population.^{3,5} Unmet need for family planning is the proportion of sexually active women who prefer to avoid pregnancy but are not using any method of contraception. Meeting demand for safe and effective family planning services in developing countries is likely to reduce an estimated 100,000 maternal deaths and prevent 67 million unintended pregnancies.^{6,7}

With almost half the population of India being in reproductive age

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<https://doi.org/10.1016/j.cegh.2020.04.018>

Received 21 January 2020; Received in revised form 30 March 2020; Accepted 20 April 2020

Available online 24 April 2020

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group, adoption of family planning methods will not only play an important role in stabilizing the population but will also significantly contribute to the reduction of maternal and neonatal mortality and morbidity.⁸ The Government of India adopted the National Population Policy in the year 2000 and one of the immediate objectives is to address the unmet needs for contraception.⁹ Though this programme offers free family planning services, only 53.5% of the Indian population currently uses contraceptive methods. The unmet need for contraception in India is 12.9%. Further, the prevalence of contraceptive use is not uniform across the country.¹⁰

The Southern state of Karnataka with a population of around 61 million ranks 9th among the most populous states of India.^{11,12} The overall prevalence of modern contraceptive usage in Karnataka is 51.8% with the prevalence being higher in rural areas (54.3%) as compared to urban areas (47.1%). The total unmet need for family planning in urban Karnataka is 12.6% which is slightly lower than the national average. NFHS-4 reports a prevalence of 46.3% usage of modern contraceptive methods in Urban Mysuru with an unmet need of 10.3%.⁷

With the above background, the present study was planned to determine the prevalence and pattern of contraceptive usage among the married women of reproductive age in an urban area of Mysuru and to determine the magnitude of unmet need for contraception among them.

2. Material and Methods

The present community based Cross-sectional study was conducted for a period of 1 year from January 2018 to December 2018 among women of reproductive age group years residing in the urban field practice area of JSS Medical College Mysuru. A sample size of 457 was calculated using the 48% prevalence of contraceptive use reported in Urban Karnataka as per NFHS-4 data with 10% relative precision, 95% confidence interval and 10% non-response rate.⁷ Married women of the age group of 15–49 years residing in the area were included in the study. Women who did not consent to the study, widows, separated and divorced women were excluded from the present study. Institutional Ethical Committee clearance was obtained before conducting the study (JSSMC/PG/4700/2017–18). The required sample size was obtained based on Population Proportionate to Size (PPS) across the 5 subcenter areas: Hanumantanagar (107), H.U.D.C.O. (106), Manjunathapura (81), B.M. Shrinagara (92) and Metagalli (71). House to house visits were made in each area starting from the first house till the required sample size for each area was attained. Information on general characteristics, reproductive history and current contraceptive use was collected using a pre-tested, semi-structured proforma by interview method after obtaining written informed consent. In view of the sensitive nature of the subject, due diligence was taken to guarantee privacy and to ensure that the participants were comfortable in responding to the questions.

2.1. Statistical analysis

The data obtained was coded and entered into Microsoft Excel worksheet 2016 and analysed. Descriptive statistical measures like percentages and proportions were used to express qualitative data. Quantitative data which were normally distributed were expressed as mean and standard deviation while non normally distributed data were expressed as median and interquartile range. Data was represented as tables and graphs as relevant.

3. Results

3.1. General characteristics

In the present study majority of the women 141 (30.9%) were in the age group of 25–29 years with a mean age of 29.22 ± 6.53 years. Among the study participants, 185 (40.5%) had studied up to Class 12,

Table 1
Distribution of Study Participants based on Socio- Demographic Variables, n = 457.

Variable	Categories	Frequency	Percentage
Age (in years)	15–19	14	3.1
	20–24	104	22.8
	25–29	141	30.9
	30–34	95	20.8
	35–39	62	13.6
	40–44	25	5.5
	45–49	16	3.5
Level of Education	Illiterate	31	6.8
	Primary School	21	4.6
	Middle School	83	18.2
	High School	185	40.5
	Intermediate or Post high school Diploma	89	19.5
	Graduate or Post Graduate	48	10.5
Occupation	Homemaker	385	84.2
	Unskilled worker	27	5.9
	Semi-skilled worker	19	4.2
	Skilled worker	18	3.9
	Clerical/Shop-owner/Farmer	6	1.3
	Semi-Professional	2	0.4
	Religion	Hindu	160
Muslim	294	64.3	
Others ^a	3	0.7	
Type of Family	Nuclear	253	55.4
	Joint Family	51	11.2
	Three Generation Family	153	33.5
Socio Economic Status	Upper	5	1.1
	Upper Middle	61	13.3
	Lower Middle	200	43.8
	Upper Lower	189	41.4
	Lower	2	0.4
Standard of Living Index	Low	109	23.9
	Medium	261	57.1
	High	87	19.0
BPL Card	Present	369	80.7
	Absent	88	19.3

^a Includes Christians and Sikhs.

385 (84.2%) were homemakers, 294 (64.3%) were Muslims by religion, 253 (55.4%) were from nuclear families, 200 (43.8%) were from Lower Middle Socio-economic Status according to Modified Kuppuswamy's Classification, 261 (57.1%) had Medium Standard of Living Index and 369 (80.7%) were BPL (Below Poverty Line) card Holders (Table 1).

3.2. Reproductive characteristics

The mean age at marriage of the participants was 19.59 years ± 3.63 years. Majority i.e. 228 (49.9%) participants were married between the ages of 15–19 years. Among the participants, 172 (37.6%) were married for 5 years or less and the median duration of married life was 8 years with an Inter-Quartile Range of 4–14 years. Among 408 women with children, 232 (56.9%) had their first pregnancy between the ages of 20–24 years. The mean age at first pregnancy was 20.97 ± 3.099 years. 305 (66.7%) participants had 1-2 children and 199 (43.5%) had children of both genders. Among 331 participants with more than 1 child or a single child above 3 years of age, 166 (50.15%) had an interval of less than 3 years between consecutive pregnancies. (Table 2).

3.3. Prevalence and pattern of contraceptive use

Majority of the study participants (447, 97.8%) did not use any modern method of contraception for the delay of the first pregnancy. Among the 10 (2.2%) who reported the use of contraception, 9 were using male condoms and 1 reported the use of combined oral contraceptive pills (COCPs).

Table 2
Distribution of Study Participants based on Reproductive Variables, n = 457.

Variable	Category	Frequency	Percentage
Age at Marriage (in years)	< 15	15	3.3
	15–19	228	49.9
	20–24	179	39.2
	25–29	32	7.0
	> 29	3	0.7
Duration of Married Life (in years)	≤ 5	172	37.6
	6–10	112	24.5
	11–15	78	17.1
	16–20	50	10.9
	21–25	32	7.0
	25–30	10	2.2
	> 30	3	0.7
Age at First Pregnancy (in years) [n = 408]	< 15	5	1.2
	15–19	123	30.1
	20–24	232	56.9
	25–29	44	10.8
	> 29	4	1.0
Number of Children	No Child	49	10.7
	1–2	305	66.7
	3–4	97	21.2
	5 or More	6	1.3
	Children		
Gender Composition of Children	No Children	49	10.7
	Only Son(s)	98	21.4
	Only Daughter (s)	111	24.3
	Both Son(s) and Daughter(s)	199	43.5
Spacing of 3 years between consecutive pregnancies [n = 331]	Present	165	49.85
	Absent	166	50.15

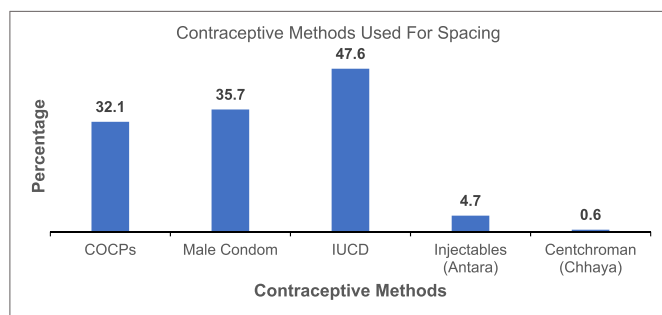


Fig. 1. Distribution of Study Participants based on Contraceptives used for Spacing of Consecutive Pregnancies, n = 168.

Among 410 women who had at least one living child, 242 (59.02%) did not use any contraceptive for spacing. Among them, 80 (47.6%) used Intra Uterine Contraceptive Devices (IUCDs). (Fig. 1).

Among the study participants, 252 (55.1%) were using modern methods of contraception with majority having undergone tubectomy. The most commonly used temporary method of contraception among the participants was Male Condoms (Fig. 2). Among those using contraceptive methods, the duration of use of majority (84, 33.3%) of the participants was 1.5 years. Among the 54 study participants currently using contraceptives like COCPs, Male Condoms, Injectable Contraceptives and Centchroman, (51) 94.4% reported regular usage. Among the participants, 34 (7.4%) reported the use of traditional method of contraception with majority (22, 4.8%) using the withdrawal method.

In the present study, among the 205 participants who are currently not using any modern contraceptive method, 52 (25.3%) cited the desire for more children as the reason for non-utilization, 48 (23.4%) listed the fear of side effects and 27 (13.1%) cited unawareness about contraceptives and their use. (Table 3).

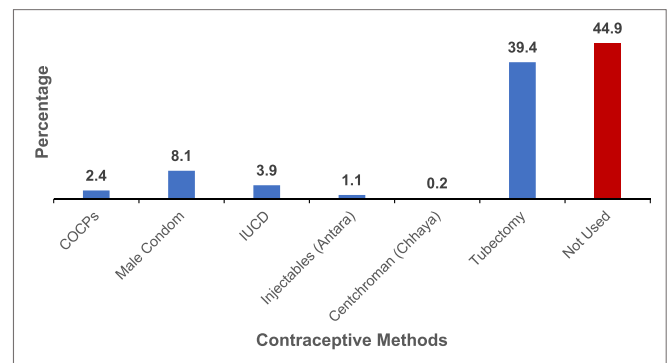


Fig. 2. Distribution of Study Participants based on Current Contraceptive Use, n = 457.

Table 3
Distribution of Study Participants based on Reasons for Non-Utilization of Contraceptives, n = 205.

Reason	Frequency (Percentage)
Occasional sex will not lead to pregnancy/Contraceptives are not required	22 (10.7)
Fear of Side Effects	48 (23.4)
Not aware about Contraceptives/Don't know how to use.	27 (13.1)
Inconvenient to buy and/or use	5 (2.4)
Currently Breastfeeding/Pregnant	16 (7.8)
Desire for more Children	52 (25.3)
Planning to undergo tubectomy	7 (3.4)
Opposition from Husband	20 (9.7)
Opposition from Family/Religion	2 (0.9)
Infertility	6 (2.9)

3.4. Prevalence of unmet need for contraception

In the present study, 121 women had at least one child. Of them, 49 want to delay the consecutive pregnancy and among them 37 are currently not using any form of contraceptive method and the unmet need for spacing in the current study was 8.06%. Among the 287 women with 2 or more children, 262 women do not want another pregnancy. Of them, 46 are not using any form of contraception. The unmet need for limiting was 10.06%. The total Unmet need for family planning was 18.16%.

4. Discussion

In the present study, only a nominal number of study participants reported the use of contraceptives for the delay of the first pregnancy with male condoms being the preferred choice of contraceptive. The use of modern contraceptives for spacing between consecutive pregnancies was seen in around 40% of the participants who have had at least one child. IUCDs were the most common contraceptive used for spacing followed by male condoms and COCPs. Very few participants reported the use of Injectable contraceptives and Centchroman for spacing. Both of these are relatively recent additions and the poor utilization may be attributed to a lack of awareness of the same. Though NFHS-4 reveals a similar preference of Male Condoms and IUCD for spacing, the use of contraceptives for spacing in the present study is much higher than that of 1% reported by NFHS-4⁷. The use of terminal method of contraception was noted among 39.4% of the study participants. All of them had undergone Tubectomy. None of the participants reported their spouses having undergone vasectomy. This preference of tubectomy over vasectomy is comparable to previous studies.^{10,13}

The prevalence of contraceptive elicited in the present study is 55.1% which is higher than the prevalence reported for urban Mysore.⁷

Overall the most commonly used method of contraception was tubectomy with a prevalence of 39.4%. Male condom was the most common method of temporary contraception which was followed by IUCDs. This is comparable to the study by Kruthika et al. in Belagavi, Karnataka where contraceptive prevalence was noted to be 51.3% with tubectomy being the most preferred choice.¹⁴

NFHS-4 data suggests a prevalence of 1.1% of traditional methods of contraceptive in urban Karnataka.⁷ In the present study, less than 10% of the participants reported the use of traditional methods of contraception with withdrawal method being the most common traditional method used. Among those not utilizing contraceptives, the most common reasons cited are the desire for more children and the fear of side effects. Another major reason cited for non-utilization was lack of awareness of contraceptive methods and their usage. A tenth of those not using contraceptives felt that occasional sex will not result in pregnancy. Around another tenth cited opposition from their husband as the reason for non-utilization. Lactation/Pregnancy, future tubectomy planned, infertility, inconvenience and family opposition were the other reasons listed for non-utilization. This is comparable to the findings of Kaware et al. who listed the desire for more children (46.7%), worry about side effects (13.10%) and lack of knowledge (8.27%) as the most common reasons for non-utilization of contraceptives.¹³ The prevalence of total unmet need for contraception was found to be 18.16%. The unmet need for contraception for spacing was 8.06% while that for limiting was 10.06%. Vincent et al. reported a prevalence of 20% unmet need for contraception among eligible couples in a rural area.¹⁵ However, the unmet need for family planning is much higher than 10.3% reported for urban Mysuru by NFHS-4 Data.⁷

As the study was conducted among married women of reproductive age group, sexually active women who are currently unmarried were excluded and their contraceptive usage was not assessed.

5. Conclusion

In the present study the prevalence of contraceptive use was found to be 55.1% with tubectomy being the most common form of contraceptive practiced. Male condom was the most common temporary contraceptive used. Contraceptive use for the delay of first pregnancy was negligible and only around half of the participants used contraceptive methods for spacing between consecutive pregnancies. A major reason for discontinuation and non-utilization of contraceptives was due to fear of side-effects. The unmet need of contraception in the present study was 18.16% with an unmet need of 8.06% for spacing and an unmet need for limiting of 10.06%.

Routine family planning counselling wherein both husband and wife are educated on the importance of family planning and its role in improving maternal and child health will help in raising the awareness of contraceptive methods. Women are to be empowered to make family planning choices and encouraged to discuss family planning with their

spouses. Community based awareness programs should be conducted to educate the population on the safety and efficacy of modern contraceptives. Peer education to be conducted to dispel the prevailing myths and misapprehensions on contraceptive use.

Funding

None.

Declaration of competing interest

None.

Acknowledgements

We would like to thank the Medical Officer and ASHA workers of Bannimantap UPHC and the study participants.

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