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Research Article

A study on prevalence of contraception and estimate unmet need of family planning among married women in the rural Shamirpet, Ranga Reddy District, T.S, India.

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Abstract: The study on contraceptive use and unmet need for family planning is the key to understanding the change in fertility and improving reproductive health. Family planning program aims to not only achieve population stabilization but also to promote reproductive health and reduce maternal, infant & child mortality and morbidity. In this study an attempt has been made to assess the family planning practices adopted in the rural Shamirpet. Probability proportion sampling was done and 402 women were selected from 13 villages. Prevalence of contraception was found to be 61.7%. Permanent methods were preferred over temporary methods. Total unmet need for family planning was 11.7%. The contraceptive prevalence rate found in the present study is higher than the district figures and is on par with the state statistics. Unmet needs also are low compared to state figures.

Keywords: Contraception, Family planning, Unmet need for spacing, Unmet need for limiting, Unmet need for spacing, Married women.

Introduction

Today no problem is more urgently important to the wellbeing of mankind than the limitation of population growth. Rapid population growth hinders a nation's ability to progress and to satisfy the growing demand of its people for a better life. Family planning is essential for the welfare of the individual, family, and population control for the socio economic development of the nation. The family size plays a very important role in the health and welfare of not only the individual, family and community but also of the nation as a whole.[1]The population division of United Nations department of economic and social affairs states that the knowledge of contraceptive use and unmet need for family planning are key to understanding the change in fertility and improving reproductive health worldwide. India, currently the second most populous country in the world, has 16.87% of world's population in less than 3% of world's land area. India's population as per 2011 census is 1.21 billion, second only to China in the world. Single greatest threat to India's health, political, economic, and social development is un-controlled population growth. With its population already exceeding one billion, it is all set to overtake China and become the most populous country in the world by 2050[2].

India was the first country in the world to formulate the National Family Planning Program in the year 1952 with the objective of "reducing the birth rate of the extent necessary to stabilize the population at a level consistent with requirement of National economy". Since then, the family planning program has evolved and the program is currently being repositioned to not only achieve population stabilization but also to promote reproductive health and reduce maternal, infant & child mortality and morbidity[3].

According to the United nations report released in 2013 on world contraceptive patterns, prevalence of contraception in the year 2011 was 63.2% worldwide, in developed countries it was 70.1%, developing countries it was 62.1%[4]. According to the MDG report 2015 the contraceptive prevalence increased from 55% in 1990 to 64% in 2015 worldwide while in SEAR it increased from 49% in 1990 to 64% in 2015[5]. Prevalence of contraceptive use of any method in India as per National Family Health Survey (NFHS) data has increased 47.4% in NFHS I (1992-93), 59.6% in NFHS II and 67.7% in NFHS III (2005-06)[6]. According to District Level Health Survey DLHS-III (2007-08) total contraceptive prevalence in India was 54%, in rural areas it was 51.1% and in urban areas it was 60.2%.[7] DLHS-4 was conducted between 2012-13, this was the most recent survey that was conducted. DLHS 4 consolidated national report not yet released on the website, only state and district statistics are available. At state level total prevalence of contraceptives was

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61.8% both in rural and urban areas. In Rangareddy district total prevalence was recorded as 55.3% with 54.6% in rural areas[8].

According to WHO definition women with unmet need for family planning are those who are fecund and sexually active, do not want any more children or wanting to delay the next child but are not using any method of contraception. The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior.[9] Millennium Development Goal (MDG) 5 is to improve maternal health. Target 5b is to achieve universal access to reproductive health. Indicator 5.3 is contraceptive prevalence rate and indicator 5.6 unmet need for family planning.[10]

In this present study an attempt has been made to assess the family planning practices adopted in the rural Shamirpet. This will give us a clear idea about the lacunae in current available services and areas that need to be concentrated up on to strengthen the services.

Materials and Methods

A Cross-sectional study was conducted from October 2013 to October 2015. Sample size was determined adopting the formula $4PQ/L^{2*}$ in which P is prevalence of any method of Family planning, Q is (1-P) and L is the allowable error i.e., 5% of absolute error. According to DLHS-3 (2007-2008) [7] contraceptive prevalence rate in Rangareddy was 64.7%. By taking the prevalence as 64.7%, sample size was obtained. The formula used for sample size calculation $4 \times 64.7 \times 35.3 / 5 \times 5$. Allowing for 10% non-response rate the total sample size was worked out to be 402.

As systematic random sampling was planned, sample interval had to be calculated. Number of eligible couples in these 13 villages was 2465; this data was obtained from the ANMs of respective villages. Sample interval (k) was calculated as follows k = Number of eligible couples / 402 = 2465/402 = 6. Total Population of villages was 25869 based on census 2011. The Total sample (402) was divided by probability proportional to size (PPS) in which the village with more population required more sample and village/hamlet with less population required fewer samples.

In each Village, required total sample was collected by using systematic random sampling. Village gram panchayat office was used as a starting point. Data collection was started from right hand side from that site. First house in each village was selected by lottery method, after that every 6th house was visited (Sample interval k=6) and data was collected till the sample for that village was achieved. For example, in a village by using lottery method 3rd house was selected after that every 6th house was approached 3,9,15,21,27,33….so on till sample in that particular village was covered.

Prior to initiation of the study 10% of sample that is 40 married women in reproductive age group were randomly selected and questionnaire was administered. After the pre-test, required corrections were made to the questionnaire and the study was commenced. After explaining nature and scope of study, informed consent was taken from all the participants. Data was collected done by interviewing the participants. Pre-designed, pre-tested, semi-structured questionnaire was used. The DLHS – III[7] was conducted under Reproductive Health Project. It had many modules of questionnaires. The ever- married women's questionnaire was used as the basis in constructing the study instrument for the current study.

Results

Table 1. Table showing distribution of women according to acceptance of Family planning

Family planning	Number	Percentage
Acceptors	248	61.7%
Non-acceptors	154	38.3%
Total	402	100%

In the present study out of total 402 women 248 were accepting some method of family planning. Thus, prevalence of contraception was found to be 61.7%.

Table 2. Table showing distribution of various contraceptive methods among acceptors

Family planning method adopted	Number	Percentage (%)
Tubectomy	198	79.8%
Laproscopic Tubectomy	21	8.5%
O.C Pill	13	5.2%
IUD	11	4.4%
Condom	4	1.6%
Lactational Amenorrhoea Method	1	0.4%
Vasectomy	0	0%
Total	248	100%

In this study tubectomy was most commonly adopted method of contraception. Among acceptors majority 79.8% had adopted tubectomy, 8.5% laproscopic tubectomy, 5.2% used OC pills, 4.4% used IUD, 1.6% Condom and one woman followed lactational amenorrhoea method. None of the husbands accepted vasectomy as contraceptive method.

Table 3. Distribution of women according to Unmet Need for Family planning

Unmet need	Frequency	Percentage
Present	18	11.7%
Absent	136	88.3%
Total	154	100.0%

In current study there were 154 women who did not accept any contraceptive method, among them 18 had unmet need for family planning. Thus, total unmet need for family planning is 11.7%.

Table 4. Distribution of women according to Type Unmet Need for Family

Women	Number	Percentage
Unmet need for spacing	8	44.4%
Unmet need for limiting child bearing	10	55.6%
Total Unmet need	18	100%

Unmet need for family planning in present study was found in 18 women, of this 8 (44.4%) had unmet need for spacing while 10 (55.6%) had unmet need for limiting child birth.

Table 5. Distribution of women according to the status of unmet need for family planning

Women	Number	Percentage
Do not want a child (UMN for limiting)	4	22.2%
Want a child after 2 years (UMN for spacing)	5	27.8%
Women whose pregnancy was unintended (UMN for limiting)	1	5.5%
Women whose pregnancy was mistimed (UMN for spacing)	2	11.2%
Post-partum amenorrheic women whose recent birth was unintended (UMN for limiting)	5	27.8%
Post-partum amenorrheic women whose recent birth was mistimed (UMN for spacing)	1	5.5%
Total	18	100%

Discussion

Out of 402 women in the present study, 248 women adopted contraceptive methods. Thus present study has shown 61.7% contraceptive usage. According to DLHS-4[8] conducted during 2012-13, the contraceptive prevalence rate in state was 61.8%. In rural areas of Ranga Reddy district it was 54.6% .The prevalence rate found in this study are on par with the state figures, and are more than the district statistics. In a study conducted in Mumbai by Kiran G Makade, *et al.,*[11] it was found that contraceptive prevalence was 68.4% which was more than the prevalence found in the current study. A study done by Swati Khan *et al.,*[12] in Uttar Pradesh showed that 62.9% females were using family planning methods. In a study done at Uttar Pradesh by Shweta *et al.,*[13] it was found that 61.5% respondents adopted family planning methods. These two studies showed prevalence of contraception almost equal to that found in the present study.

A study done by Rajinder Singh Balgir *et al.,*[14] in Punjab showed contraceptive prevalence to be 53.84%. In cross sectional study by S.M. Pandey[15] in rural Haryana prevalence of contraception was 45.55%. These are the studies in which the prevalence of contraception was found to be lower than that found in the current study.

In this study 88.3% women underwent permanent sterilization. All of them underwent tubectomy, 198 (79.8%) underwent tubectomy by open method and 21 (8.5%) members underwent laproscopic tubectomy. None of the participating women said their husbands underwent vasectomy. Among acceptors of temporary methods 13 (5.2%) used OC pills, 11 (4.4%), IUD, 4 (1.6%) Condom and 1 (0.4%) followed lactational amenorrhoea method.

In a study done by Rajinder Singh Balgir *et al.,*[14] in Punjab it was found that most commonly used method was tubectomy while only 0.7% of the eligible couples opted for vasectomy. Among the spacing methods condoms, oral contraceptive pills and intra-uterine devices were used by 41.6%, 28.4% and 8.0% of the eligible couples respectively. Contrasting findings were observed in study done by Bhasin SK *et al.,*[16] showed that male condome was the most common method (33.4%) followed bt tubectomy (27.3%), Oral pills (16.6%), IUCD (15.%). Another study by Garima Namdev *et al.,*[17] (2013) in Madhya Pradesh revealed that 96% individuals accepted temporary methods, of which 81.4% preferred condom, 10% used OCPs and 3.8% used IUCDs, whereas only 4% accepted permanent methods.

In the present study there are 154 women who did not accept any contraceptive method, among them 18 had unmet need for family planning. Thus the total unmet need for family planning was 11.7%. According to DLHS-4[8] conducted during 2012-13, in rural Ranga Reddy district total unmet need for family was 27.1%. The unmet need in this study is less than the district statistics. A study done by Indu D[18] conducted in Thiruvananthapuram, Kerala reported that out of 1000 study subjects, 17.0% women had unmet need for contraception. In a study done at Aurangabad, Maharashtra by Andurkar S.P. *et al.,*[19] it was reported that 20.54% of study subjects had unmet need for contraception. Another study on contraceptive use in women from a resettlement area in Delhi by Khokhar A *et al.,*[20] showed 30.6% of the subjects had unmet need of contraception.

Arshiya Masood *et al.,*[21] conducted a study in rural and urban areas of Allahabad, Uttar Pradesh and observed that 25.3% of women in rural areas and 36.4% of women in urban areas had unmet need for family planning. In this study total unmet need for family planning was found to be 11.7% of this 5.2% was unmet need for spacing and 6.5% was unmet need for limiting child birth. Thus unmet need for limiting constituted to 44.4% and unmet need for spacing constituted to 55.6% of the total unmet need for family planning. According to DLHS-4[8] conducted during 2012-13, in rural Ranga Reddy district total unmet need for spacing was 9.2 % and that for limiting it was 17.9%. The findings in present study are less than the district figures.

A study conducted by Mustafa M *et al.,*[22] on prevalence and determinants of unmet needs of family planning in Bihar, it was found that unmet

need for spacing was 9.4% and that for limiting is 14.5%. A study on unmet needs in urban slums of Thiruvananthapuram, Kerala by Indu D.[18] showed unmet need for spacing was 10.8% while for limiting child bearing it was 6.2%. Another study done by Andurkar S.P. *et al.,*[23] in Aurangabad, reported that 20.54% of study subjects had unmet need, 3.61% for spacing births and 16.93% for limiting births. In a study conducted by Puri A[24] on unmet needs in an Urban Slum of Delhi, it was found that 49.8% women had unmet need for contraception. 22.6% women had the need for spacing and 27.2% women had unmet need for limiting.

Conclusion

From the present study it can be concluded that prevalence of contraception was 61.7%. Tubectomy was the most commonly practiced method of family planning. OCPs are most commonly used temporary methods of contraception. Total unmet need for family planning was 11.7%. Unmet need for limiting child birth was more than that for spacing. Majority of the study subjects were not using any form of spacing methods, showing the lack of awareness and inadequate knowledge of the importance of contraception. Study also highlights that unmet need for limiting child birth was more than that for spacing. Therefore, the action plans for promotion of spacing methods, especially in the younger age couples is recommended. A multipronged strategy aimed at sustained IEC efforts focusing on safety and beneficial effects of various contraceptives, clearing of misconception about side effects of contraceptives and equal involvement of both husband and wife as one unit should be able to bring out an outcome favorable results.

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