

## Original Research Article

# Practices of contraception among rural people in Nellore district, Andhra Pradesh: a cross-sectional study

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**Received:** 11 November 2018

**Revised:** 19 June 2019

**Accepted:** 25 June 2019

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## ABSTRACT

**Background:** As per the census 2011, the provisional population of India is about population of 1.21 billion. It is now estimated that by 2030, India will most likely overtake China to become the most populous country on the earth. India was the first country in the world to officially launch a national family planning programme (NFPP) in 1952 to reduce birth rate and to stabilize the population at a level consistent with the requirement of national economy. Protecting the young couple from unwanted fertility and educating them to adopt their desired family through informed choice, are among the prerequisites to achieve a TFR of 2.1. To study the prevalence of contraceptive methods among rural population and to study the reasons for not using family planning methods among eligible couples.

**Methods:** A community based cross-sectional study was done among 600 married women in reproductive age, in the three randomly selected Primary health centre areas, one each from the three revenue divisions of Nellore, dated from June 2011 to May 2012.

**Results:** The contraception prevalence rate was 56.3% among whom 91.4% adopted permanent family planning methods.

**Conclusions:** The contraceptive prevalence rate in the study subjects was 56% which was lower than that reported in NFHS-III (67%). Majority of the women opted for permanent sterilization when compared to spacing methods.

**Keywords:** Family planning practices, Rural population, Contraceptive prevalence

## INTRODUCTION

India's population has been steadily increasing since 1921. Therefore the year 1921 is called the "big divide" because the absolute number of people added to the population during each decade has been on the increase since 1921.<sup>1</sup> As per the census 2011, the provisional population of India is about population of 1.21 billion.<sup>2</sup> A point that is striking is that while India accounts for a meagre 2.4 percent of the world surface area of 135.79 million square kms, it supports and sustains a whopping 17.5 percent of the world population. It is now estimated that by 2030, India will most likely overtake China to become the most populous country on the earth with 17.9 percent population living here.<sup>3</sup> Therefore stabilizing

population is essential requirement for promoting sustainable development with more equitable distribution. Acknowledging the interrelationship between population and socio-economic development India was the first country in the world to officially launch a National family planning programme (NFPP) in 1952 to reduce birth rate and to stabilize the population at a level consistent with the requirement of national economy. "National Population Policy 2000" (NPP 2000) provides frame work for achieving goals to meet the reproductive and child health needs of the people of India and to achieve net replacement level of fertility rate by 2012, stabilizing population by 2045.<sup>4</sup> Among the socio demographic goals of the NPP 2000, those relevant to population control are addressing the unmet needs for

reproductive, child health services, supplies, infrastructure, and to achieve universal access to information/ counseling, services for fertility regulation and contraception with a wide basket of choice.

Efforts towards population stabilization will be effective only if an integrated package of essential services is directed at village and house hold levels.<sup>1</sup> India has entered late transition stage of demographic transition and can now smile at its slowing population growth as indicated by Census 2011, being the first decade (with the exception of 1911- 1921) which has actually added lesser population than the previous decade.<sup>2</sup> It confirms that fertility rates have been declining across the country. The decline appears well established in four southern states and reasonably well established Maharashtra in west and Odisha, West Bengal in East. Total Fertility Rate (TFR) 1.79 at its lowest in the state of Andhra Pradesh in 2005-6.<sup>5</sup> Protecting the young couple from unwanted fertility and educating them to adopt their desired family through informed choice, are among the prerequisites to achieve such a level of TFR. Owing to extremely contrasting demographic landscape, variations in contraceptive behavior are observed not only in the state but also between administrative blocks within a single state. In such scenario, acceptance of contraceptives in a community and the factors responsible for varied picture may operate at individual, family and community level with their root in the socioeconomic and cultural milieu of Indian society.<sup>6</sup> Since fertility in India is primarily marital, this study is conducted in Nellore district of Andhra Pradesh among married women between 15-49 years of age for current usage of contraception and some of the reasons for not using any method.<sup>7</sup>

### Objectives

- To study the prevalence of contraceptive methods among rural population.
- To study the reasons for not using family planning methods among eligible couples.

### METHODS

The present study is a community based cross sectional study done at three randomly selected Primary Health Centers of Nellore district for a period of one year from June 2011 to May 2012. Taking 68% as prevalence of contraceptive practice (NFHS-III Andhra Pradesh data) sample size was estimated at 5% level of significance with an allowable error of 10% and we arrived at sample size of 188, which was rounded off to 200 women of reproductive age group.<sup>8</sup> This sample of 200 was collected from each of the three PHCs and therefore the sample size in our study is 600. (200 from each PHC).

A multistage sampling method was adopted according to which at the first stage one PHC (Primary Health Centre) was selected randomly from each of the three revenue

divisions of the district. Then five sub-centers were selected randomly from each PHC. From each sub-center a sample of 40 was collected using systematic random sample after calculating the sampling interval. The first household was selected randomly using currency note method. From this house every fifth house was selected till the desired sample size was achieved. In case of locked houses and where there was no reproductive age, women the next house on the right side were selected.

Institutional Ethical Committee of the college accorded clearance for this study. A pretested, semi structured questionnaire pertaining to the socio-demographic profile, contraception practices and reasons for not practicing contraception was used to collect the data from the study subjects after obtaining their informed consent.

### Data analysis

Collected data was fed into Microsoft Excel spread sheets and analysis was made with help SPSS version 17.0. Descriptive data are presented as frequency. Univariate analysis using  $\chi^2$  test was done to determine significant differences and associations of various parameters with contraceptive usage. A P value < 0.05 was considered significant.

### RESULTS

Majority (41.2%) of the women are in the age group of 20-24 years, followed by 33% of them in the age group of 25-29 years. Thus 74.5% of the women are between 20 and 29 years of age. A total of 71.7% of the women had a formal education of five or more years. 21.8 % of individuals were illiterate.

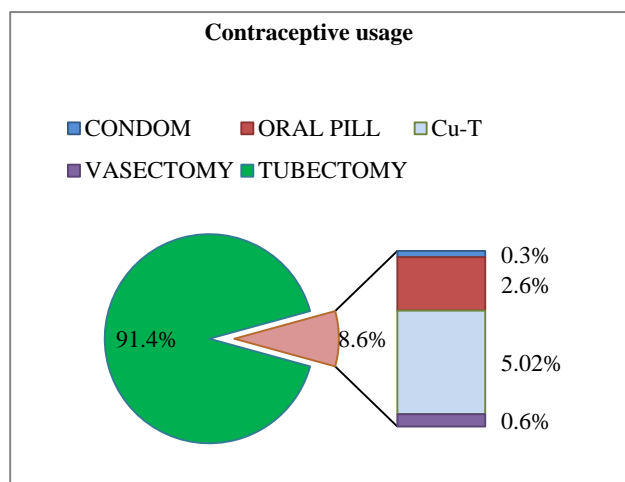
Majority (40%) of the women belong to poor and BPL, followed by lower middle class in (37.2%). 91% of the women are Hindu followed by Muslims (5%). Around 52% of the women belonged to schedule tribe and schedule caste. 71.8% of the women live in nuclear families. Majority (69.5%) of the women are married above their legal age. Around 33% of the women have borne their first child before 20 years of age. Around 48.8% of the women have two children, followed by one child in 36.2% of the women. 46.7% of the women have borne at least one girl child. 2.2% of women have a three or more girl children. More than half (50.8%) of the women have at least one living son. About 1.2% of the women have three or more male children. About 53.5% of the women have achieved their desired size of family.

Around 56.3% of the women are currently using contraceptives (Figure 1) among whom 91.4% of the women adopted permanent methods; only 8.6% of women are currently using temporary methods (Figure 2).

Majority (67.9%) of the non-users want to become pregnant, followed by 21.7% of non-users have recently delivered child (Table 1).

**Table 1: Distribution of study subjects according to the reasons for not using contraception (n= 262).**

Reason for not using	Number	Percent
Want a child	178	67.9
Side effects	15	5.7
Husband un willing	4	1.5
In-laws un willing	6	2.3
Recent delivery	57	21.7
Lack of knowledge	2	0.7
Total	262	100.0

**Figure 1: Distribution of study subjects using contraceptive methods (n =600).****Figure 2: Distribution of women as per current method (n= 338).**

## DISCUSSION

In our study the contraceptive prevalence is 56.3%, which is lower than the contraceptive prevalence of 67% reported through NFHS-III survey of Andhra Pradesh and 66.1% of the DLHS-III survey of Nellore District.<sup>8,9</sup> This difference may be due to, smaller distribution of the women in the age group 30-39 (21%) in our sample (n=600) to that of 31% of the women in same age group in NFHS –III (n=3718), and larger distribution of women between the age group of 20 to 29 years of age, i.e. 74.5% of in our study to that of 40. 2% in the DLHS-III

(n=770). Puspha et al, reported a similar prevalence of 60.7% Manna and Basu reported a prevalence of 33.35% in Singur RHU& TC, West Bengal.<sup>10,11</sup> Chandra, Kandpal SD, Negi KS reported contraceptive prevalence of 49.86% in Doiwala block Dehradun District.<sup>12</sup> Murarkar SK et al reported 48.63% contraceptive prevalence in Chanai village of Maharashtra.<sup>13</sup> The reason for lower prevalence of contraception in these areas compared to our study could be lack of information regarding family planning methods. Among the 56% of the current prevalence, tubectomy accounts for 91.4% of all contraceptive use. Similar findings have been reported in the usage of terminal methods in NFHS-III survey of Andhra Pradesh (rural) and DLHS-III survey Nellore District, in which the former reported a contraceptive prevalence of 67% of which 63.6% opted for tubectomy and the later a prevalence of 66.1% of which 64.1% were tubectomised.<sup>8,9</sup> Similarly tubectomy as a predominant method among current practices in studies reported by Puspha, Manna and Basu, Kansal, Chandra R, Kandpal SD, Negi KS, Murarkar SK et al.<sup>10-13</sup> In our study, vasectomy to the spouse was opted in 0.6% of the women which is lesser than that reported in NFHS-III (2.8%) and DLHS-III (1.1%).<sup>9,10</sup> In another study by Jyothi. Conjeevaram et al vasectomy was chosen as a limiting method in 1.8% of the study subjects.<sup>14</sup> The lesser prevalence of vasectomy in our study might be due to majority of the women aged between 20-29 years of age who had not completed their family.

The prevalence of birth spacing methods in our study (Cu-T-2.8%, OCP-1.5%, Condom-0.2%) is 4.5% which is higher than 0.4%(0.2%- Cu-T, 0.1%-OCP and Condom each) of NFHS-III and 0.9%(Condom-0.6%,Cu-T-0.3%,OCP- 0%) of DLHS-III.<sup>8,9</sup> The relatively higher prevalence of birth spacing methods compared to other surveys in Andhra Pradesh might be due more number of younger women in the study who have not completed their family yet.

Among the current non users of contraception (n=262) reasons for non-usage are the following, 67.9% wanted to have a child birth soon. Desire to have more children was also reported as the commonest reason as reported by Chandhick N, Dhillon BS, Kambo I, Saxena NC, Amrita Kansal et al.<sup>12,13</sup> However, Rao PD, Babu MS reported lack of knowledge as the most common reason in their study.<sup>15,16</sup> Reason for lack of knowledge could be that the study was conducted in tribal community with 74% of illiteracy. Opposition from family as a reason for non-usage was seen with 3.8% of the women. Similarly Amrita Kansal, Kandpal SD, Mishra reported 5.8% objection from family members, P Chandhick N, Dhillon BS, Kambo I, Saxena NC reported 7.1% opposition, Murarkar SK, Soundale SG, Lakade RN reported 14.06% opposition from family members.<sup>13-15</sup> About 0.7% of women in our study with lack of knowledge regarding contraceptives, Chandhick N, Dhillon BS, Kambo I, Saxena NC reported 10.1% of women had fear of side effects.<sup>15</sup> Murarkar SK, Soundale SG, Lakade RN<sup>13</sup>

reported 5.7% lack of knowledge.<sup>13</sup> However Rao PD, Babu MS reported lack of knowledge in 64.9% among the reasons for current non-use of contraceptive methods.<sup>16</sup> Reason for lack of knowledge could be that the study was conducted in tribal community with 74% of illiteracy. This difference among the non-usage of contraception could be due to a literacy rate of 71.7% in our study.

## CONCLUSION

The contraceptive prevalence rate in the study subjects was 56% which was lower than that reported in NFHS-III (67%). Majority of the women opted for permanent sterilization and only 0.6% of women reported that their spouses underwent vasectomy.

## Recommendations

In the present study majority of the women adopted limiting methods for family planning. In spite of knowing about birth spacing, many of them are not using any spacing method. Therefore, health personnel should motivate the child spacing practice, through proper counseling to the beneficiaries. Among the limiting methods, tubectomy is widely practiced among the study women. So, health personnel have to focus in motivating the eligible couples to adopt vasectomy after achieving their desired family size.

## Limitations

Unmarried, adolescent and pregnant women were not included in the study and only practices of modern contraceptives were assessed, practices of traditional methods of contraceptives were not considered. Practice of emergency contraception was not included in the study.

## ACKNOWLEDGEMENTS

Authors would like to thank Dr. K Vijaya and Dr. C Kumar for their immense support, help, and encouragement. We also thank all the study participants for their co-operation during the study.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics committee*

## REFERENCES

1. Park K. Parks's Textbook of Preventive and Social Medicine. 23rd ed. Jabalpur, India: Bhanot Publishers; 2015.
2. Census (2011). Available at [www.censusindia.gov.in/2011-prov-results](http://www.censusindia.gov.in/2011-prov-results). Accessed 3 May 2011.

3. World Population Prospects. Available at <http://esa.un.org/unpp>. Accessed 8th March 2011.
4. Lal S. Textbook of Community Medicine Preventive and Social Medicine, 3<sup>rd</sup> ed, New Delhi: CBS Publishers; 2011:76.
5. International Institute for Population Sciences (IIPS) and Macro International. 2007. Mumbai, India: National Family Health Survey (NFHS-3); 2005-06:1.
6. Kansal RC, Kandpal SD, Negi KS. Epidemiological correlates of contraceptive prevalence in rural population of Dehradun district. *IJCM*. 30(2):60-62.
7. Visaria L, Jejeebhoy S, Merrick T. From family planning to reproductive health: Challenges facing India. *International Family Planning Perspectives*. 1999;25:S44-9.
8. International Institute for Population Sciences (IIPS) and Macro International. 2008. Mumbai, India: National Family Health Survey (NFHS-3), 2005-06: Andhra Pradesh.
9. International Institute for Population Sciences (IIPS). 2010. Mumbai, India. IIPS. District Level Household and Facility Survey (DLHS-3); Andhra Pradesh: 2007-08.
10. Pushpa SP, Venkatesh R, Shivaswamy MS. Study of fertility pattern and contraceptive practices in a rural area-A cross sectional study. *Indian J Sci Technol*. 2011;4(4):429-31.
11. Manna N, Basu G. Contraceptive methods in a rural area of West Bengal, India. *Sudanese Journal of Public Health*. 2011;6(4):164-9.
12. Murarkar SK, Soundale SG. Epidemiological correlates of contraceptive prevalence in married women of reproductive age group in rural area. *National Journal of Community Medicine*. 2011;2(1):78-81.
13. Kansal A, Kandpal SD, Mishra P. Reasons for not practicing contraception in a rural population of Dehradun District. *J. Commun. Dis*. 2006;38(1):97-101.
14. Conjeevaram J, Sasikala P, Chandrasekhar V, Kumar C, Bhaskar S. A KAP study on family planning practices among married women attending Urban Health Training Centre, Narayana Medical College, Nellore. *National journal of research in Community medicine*, 2017;6(2):158-62.
15. Chandhick N, Dhillon BS, Kambo I, Saxena NC. Contraceptive knowledge, practices and utilization of services in the rural areas of India (an ICMR task force study). *Indian J Med Sci* 2003;57(7):303-10.
16. Rao PD, Babu MS. Knowledge and use of contraception among Racha Koyas of Andhra Pradesh. *The Anthropologist*. 2015;7(12):115-9.

**Cite this article as:** Gollapalli PK, Conjeevaram J, Veluri C. Practices of contraception among rural people in Nellore district, Andhra Pradesh: a cross-sectional study *Int J Community Med Public Health* 2019;6:3350-3.