Research Article

Retrospective analysis of tubectomy beneficiaries in rural area (PHC KINAYE): one year record based study

Preeti Chaudhary^{1*}, Deepti M. Kadeangadi², Ipsa Arora¹

¹KLE University, J.N. Medical College, Belagavi, Karnataka, India

²Department of Community Medicine, KLE University, J.N. Medical College, Belagavi, Karnataka, India

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*Correspondence:

Dr. Preeti Chaudhary,

E-mail: chaudhary.preeti10@gmail.com

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ABSTRACT

Background: Population explosion has become a major concern in India. As per NFHS- IV report in Karnataka, 52.8% adopted the female sterilization other methods like male sterilization 0.0%, Intrauterine devices 0.6% and pills users were 0.3%, condom 0.6% in rural areas. The study of female sterilization as the method of choice in rural field practice area of Kinaye, PHC, Belagavi was done for a period of one year.

Methods: Retrospective Data Analysis of 200 women undergoing sterilization at PHC, Kinaye in Belagavi district of Karnataka state from 1st April 2015 to 31st March 2015 was done. The variables considered were age of beneficiary, husband's age, religion, educational status of beneficiary and of husband, total number of living children, number of sons, number of daughters, socio-economic status and their motivators etc.

Results: Out of 200 women adopting sterilization, 57.0% (114) were from the age group of 25-29 years. The maximum percentage (81.0%) of their husbands were from the age group of 30-34 years. 95.0% of the participants were Hindus. Nearly two thirds of the beneficiaries had attained secondary education (61.0%). 60.0% of the beneficiaries were belonging to the BPL group (Below Poverty Line). 55.5% of the participants had two living children. 58.0% of them had one male child, 33.5% of them had two male children, 51.0% of them had one female child. 53.0% of the participants were motivated by ASHA workers.

Conclusions: More than half of the tubectomy beneficiaries belonged to the age group of 24-29 years. Of them around two third belonged to the BPL group and more than half were motivated by the ASHA workers. More than half of the women undergoing tubectomy were having two live children, around three fifth of them were having one male child and around half of them were having one female child.

Keywords: Parity, Tubectomy, Profile, Rural

INTRODUCTION

Population explosion is the leading problem of a developing country like India, whose population has increased by more than 181 million during the decade 2001-2011.² Contraception practice by eligible couples is a crucial means to deal with this problem. Contraceptive methods can be permanent or temporary. Following the International agenda on fertility control, India's National Population Policy (NPP) 2000 had formulated the long

term objectives, to achieve a stable population by 2045. One goal of Reproductive and Child Health Program (RCH) is to stabilize the population growth and to bring the Total Fertility Rate (TFR) to 2.1 by 12th five year plan period.³ National Family Health Survey (NFHS) III data revealed that current sterilisation rate in the country is 37.0%.⁴ As per NFHS -III, in Karnataka, 62.1% adopted female sterilization and 0.1% male sterilization, other methods like Intrauterine devices 1.3% and pills users were 0.5%, condom 0.7% and according to NFHS-IV report, in Karnataka 52.8%, adopted the female

sterilization other methods like male sterilization 0.0%, Intrauterine devices 0.6% and pill users were 0.3%, condom 0.6% in rural areas.^{6,13} Keeping that in mind sterilization is becoming the most commonly accepted method of choice of contraception to prevent unwanted pregnancies and various adverse health hazards in India. The present study was conducted to know the profile of tubectomy beneficiaries in rural field practice area of Kinyae

METHODS

The present study was a record based retrospective study of utilization of family planning services in rural field practice area of Kinyae, Belagavi from 1st April 2015 to 31st March 2016. The total number of couples continued. The total number of couples who adopted sterilization operation in rural area Kinyae in the year 2015-16 was 200. Records of all couples who underwent sterilization operation were included in the study. The information about the couples & their family, available from records was collected and was analysed to understand the factors influencing female sterilization operation variables like age of beneficiary, husband's age, religion, education status of beneficiary and husband, total number of living children, number of sons, number of daughters, socio-economic status, their motivators etc. All the data obtained from the above sources was tabulated and analysed in the form of percentages.

RESULTS

200 women from rural field practice area who underwent tubectomy during the study period at PHC, Kinyae were included in the study. 57% of participants were from the age group of 25-29 years, followed by 20-24 years (33.5%), 30-34 years (8.5%) and >35 years (1.0%) (Table 1). The maximum percentage (81.0%) of their husbands were from the age group of 30-34 years, followed by >35 years (12.5%), 25-29 years (5.5%) and 20-24 years (1.0%) (Table 2).

Table 1: Distribution of study participants based on age of the woman (n=200).

Age group	Number	Percentage (%)
20-24	67	33.5
25-29	114	57
30-34	17	8.5
≥35	2	1

More than half of the beneficiaries were from the age group of 25-29 years, with lowest being the age group of ≥35 years.

Most (95.0%) of the participants were Hindus, followed by 4.5% Muslims and 0.5% belonged to other religion. 6.5% of the beneficiaries were illiterates, 29.0% of them had attained primary education (up to 5th standard) and 61.5% of the beneficiaries had completed secondary education (up to 10th standard), 2.5% of them had studied up to 12th standard, 0.5% were graduates. 8.0% of their

husbands were illiterate, 29.0% of them were educated till the primary education, 56.0% had completed secondary education, followed by 6.0% studying up to 12th standard and 1.0% were graduates. 60.0% of the beneficiaries belonged to the BPL group (Below Poverty Line). Most of the families had income from daily wage workers and unorganized service sector.

Table 2: Distribution of study participants on the basis of the age of the husband (n=200).

Participants' Husbands age group (years)	No. of husbands	Percentage (%)
20-24	2	1
25-29	11	5.5
30-34	162	81
≥35	25	12.5

Four fifths of the participants' Husbands were from the age group of 30-34 years, with lowest being from the age group of 20-24 years.

Table 3: Distribution of study participants as per parity (n=200).

Total no. of children	No. of participants	Percentage (%)
2	111	55.5
3	74	37
4	13	6.5
5 or more	2	1

More than half of the women undergoing tubectomy were having 2 live children; (Note: None of the women with only one living child – male or female – opted for tubectomy).

55.5% of the participants had two living children followed by 37.0% of them having three children, 6.5% had four children and only 1.0% of them had five or more living children (Table 3). 58.0% of them had one male child, 33.5% of them had two male children and 6.0% of the participants did not have any male child and 2.5% of them had three or more male children (Table 4). 51.0% of them had one female child, 21.0% of participants had no female children, 19.5% of them had two female children, 5.5% of them had three female children, 2.0% had four female children and 1.0% had five or more female children (Table 5).

Table 4: Distribution of participants as per no. of male children (n=200).

No. of male children	Number	Percentage (%)
0	12	6
1	116	58
2	67	33.5
3 or more	5	2.5

Around three fifth of the women undergoing tubectomy were having one male child.

ASHA (Accredited Social Health Activist) Workers motivated 53.0% of the participants and remaining 47.0%

participants were motivated by Female Health Workers. Maximum number of participants, i.e. 90.0% underwent Interval Tubectomy (after six weeks of delivery) and 10.0% of them underwent Puerperal Tubectomy (immediately after last delivery).

Table 5: Distribution of study participants as per no. of female children (n=200).

No. of female children	Number	Percentage (%)
0	42	21
1	102	51
2	39	19.5
3	11	5.5
4	4	2
5 or more	2	1

Around half of the women undergoing tubectomy were having one female child.

DISCUSSION

Amongst the women undergoing sterilization, 57.0% of women were in the age group of 25 - 29 years. Study done in Maharashtra in 2003 also reported the age of women undergoing tubectomy as 25-29 years.^{1,5} In relation to the parity it was observed that nearly half (55.5%) of the women underwent sterilization after the second child and 37.0% after the third child. Similar results were also found in the study done in 2011 in Bangalore city.^{8,9}

In the present study, 60.0% of the beneficiaries were below the poverty line (BPL). Similar results were shown by NFHS III, in Karnataka (55.3%) and the study done in Maharashtra.^{5,13} Study of family-based characteristics revealed that adaptation of permanent sterilization method in Muslim families is far lower than Hindu families. NFHS-3 survey, also revealed that nearly four fifth of the beneficiaries were Hindus.¹³ Comparable results were also observed in a study done in 2012 with 85.6% of Hindus and 14.4% of Muslims adopting tubectomy.^{7,11}

58.0% of the beneficiaries had one male child who adopted sterilization, which shows that the sterilization behaviour is also influenced by son preference. Similar results were obtained by the study done in Nepal.¹⁰ None of the women having one child opted for tubectomy. Responses of the women included in the present study to questions concerning their family planning practices, indicated that nearly two thirds of the beneficiaries undergoing tubectomy and 56.0% of husbands had studied till secondary education. Similarly one study showed that among acceptors, 63.1% of husbands and 54.3% of wives were literates.¹² Educational status of both the parents emerged as an influencing factor in deciding the size of the family.

Although there was an increase in the direct acceptors of female sterilization, the majority of them were 'late' direct

acceptors (interval tubectomy), similar results were shown in the study done in Maharashtra.⁵ Majority were Hindus. Nearly two third of them belonged to BPL families. More than half of them had two living children and were motivated by ASHA workers. Majority of them underwent interval tubectomy. The study being record based study; all the data about tubectomy beneficiaries could not be collected. Studies including other family planning methods and reasons for accepting particular family planning methods including larger populations can be done. The education of both the parents is very influential in deciding the size of family.

CONCLUSION

More than half of tubectomy beneficiaries belonged to age group of 24-29 years. Among them two third belonged to the BPL group and half were motivated by ASHA workers under the programme NRHM (National Rural Health Mission) played a major role in motivating people about the acceptance of family planning methods and same should be continued. Majority of the beneficiaries underwent interval tubectomy as the risks associated with postpartum tubectomy are higher.

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