

Trends of Contraceptive Choices — 6 Years Study In a Tertiary Care Hospital

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ABSTRACT

Introduction : Unmet need of contraception is an ongoing global concern. Rapid increase in population contributes to the rising of poverty and hampers development of a country. Adoption of small family norm is beneficial not only to the family but to a country's wellbeing. Although most of the family planning services are offered free of cost by government the acceptance is variable and depends on the user's choice. The aim of this study was to find the change in trends of contraception through years.

Methods : The study background is a tertiary health care facility in a semi urban area. Data of different methods of contraception provided and implemented was obtained from computerised data entry register of the institution. Different methods of Contraception methods provided in the institution between January 2014 to December 2019 was taken into account.

Result : Interval sterilization started declining from 2016 (85) and was maximum declined in 2018 (6), whereas post-partum (post LUCS or vaginal delivery) sterilization showed an increasing trend with maximum in 2019(621). More women opted for Post-Partum IUCD with a declining trend in interval IUCD with lowest in 2019(21). Demand and need of Oral contraceptive Pills also showed a gradual declining trend over years as other newer methods became available.

Conclusion : Change in trends in adopting to a newer available methods of contraception is noted in the study.

Key words: choices, contraception, trends

INTRODUCTION

The World's population is estimated to be 7.6 billion and one third of this population is under the age of 15 years. Within a short time this one third will enter the

reproductive age group and the population will further increase.¹

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India is also a country with a large population of 1.3 billion.² The total fertility rate of India as per world Data bank is 2.2 as of 2017. India's current target has set a target of fertility rate of 2.1. Proper Contraceptive measures can prevent unwanted pregnancies and help in proper family planning. In India, the family planning program was first started in 1952 as a national population control policy to control the rapid growth of population and reduce poverty.³ In the beginning many modern methods were implemented including permanent sterilizations. But later it was seen that the attempts to complete sterilization targets, incentives, poor standards of implementation and forcing to accept the contraceptive methods for the sake of program created a negativity and a poor impression among population in the country.³ Until the mid-1990s, almost all reproductive and child health programs focused mostly on women in India.⁴

Unmet need for family planning is determined by the proportion of sexually active women who does not want pregnancy but are not using any method of contraception. Enforcement of safe and effective family planning services is likely to reduce an estimated 100,000 maternal deaths and prevent 67 million unintended pregnancies.⁵

The choices of contraceptive methods among Indian women depend on several factors. Though the most important is personal choices, and partner related factors but they are also influenced by the different misconceptions relating to side effects or methods.⁶ The limited choices due to lack of proper information and minimal access to family planning services, poor quality of available services in different places of country, cultural and religious opposition, misconception of adverse effects giving rise to fear and gender-based barriers are the causes of unmet need for contraception in low-resource countries such as India.⁷

The aim of this study is to analysis the choices and uses of contraception among the women attending a tertiary care centre from 2014 to 2019.

MATERIAL AND METHODS

The study is a retrospective Cohort observational study conducted at the College of Medicine and JNM Hospital, WBUHS, Kalyani, Nadia. The study period was from January 2014 to December 2019. The data was obtained from the computerized Data entry register of the institution. The hospital is located in a semi-urban locality. Every women attending family planning outdoor or admitted in indoor were counselled about different methods of contraception if applicable as a routine practice in the institution. They sought contraceptive methods as per their choices. Sample size of the study was as per the data obtained from the registry. Many different methods of contraception were practiced by the patient according to the availability in the institution - oral contraceptives pills (OCPs), condoms, female sterilization operations, intra uterine devices (IUCD), injectable contraceptives. IUCD inserted within 48 hours of delivery or during delivery was marked as PPIUCD. Female sterilization if done during caesarean operations or in puerperium was included as puerperal sterilization (PP sterilization) and others as interval sterilization. No vasectomy was done. Contraceptive implants were not provided in the institution. The types of contraception used was plotted in x axis and years and months in y axis in an excel sheet. Data was then evaluated by total uses per year of each types and monthly average per year. Considering the total contraceptives uses of a specific type, throughout the study time, yearly percentage of use was also calculated to find out increasing or decreasing trends. Scarcity of supply of OCPs, condoms or IUCD in the hospital was seen a few times which prevented the patients to acquire

their chosen methods from hospital for that time.

RESULTS

Analysing the available data it was found that there was total 3198 female sterilization operations done during the entire period which includes 740 interval and 2458 postpartum sterilizations. Total IUCD insertion was 13185 which 457 interval IUCD and 12901 PPIUCDs. OCP cycles were calculated as 1 strip equal to 1 cycle. Total OCP strips distributed were 50314. Male condoms as barrier contraception distributed were 152560 in total number. Depot Medroxy Progesterone Acetate (DMPA) injectable contraception 513 injections were given which started implementing from 2018 in the hospital. (Table 1)

Analysing the average monthly utilization of each year it was seen there was an average decrease in interval sterilization from 23.4 in 2014 to 1.08 in 2019. At the same time PP Sterilization yearly average was increased from 34.4 in 2014 to 51.7 in

2019. There is seen a steady decline in yearly average of interval IUCD from 11.5 in 2014 to 1.75 in 2019. PPIUCD insertion was not done in 2014(0). It started from 2015 and showed an increasing trend till 2017(3911) then started declining in 2018(3623) and 2019(1156). Yearly average demand of OCP cycle was also seen to be declining from 2014 (1298.7) to an average of (37.0) in 2019. Higher rates of condom distributions was done in 2016 (43585) and 2017 (42297). Injectable contraception uses started from 2018(194) and 2019 (319) in the institution. (Table 1)

The percentage of use per year while comparing the total usage throughout the study maximum sterilization (interval and PP) was on 2014(21.7%). Maximum utilization of long acting reversible sterilization (LARC) was on 2016(30.9%) and other temporary methods was also seen maximum used in 2016(26.04%) (Table 2)

DISCUSSION

Contraceptive uses utterly depends on choices of the user. India is the second most

Table 1: Total yearly contraceptive uses with (Monthly Average per year)

year	Interval sterilization	PP sterilization	IUCD	PPIUCD	OCP cycle	Condom	injectable
2014	281 (23.4)	413(34.4)	138(11.5)	0	15585 (1298.7)	10755 (896.2)	0
2015	306 (25.5)	346(28.8)	93(7.75)	147 (12.2)	14360 (1196.6)	22617 (1884.7)	0
2016	85(7.08)	307(25.5)	69(5.75)	4064 (338.6)	9397 (738.0)	43585 (3632.0)	0
2017	49(4.08)	336(28)	85(7.08)	3911 (325.9)	6077 (506.4)	42297 (3524.7)	0
2018	6(0.05)	435(36.2)	51(4.2)	3623 (301.9)	4451 (370.9)	25078 (2089.8)	194(16.1)
2019	13(1.08)	621(51.7)	21(1.75)	1156 (96.3)	444 (37.0)	8228 (685.6)	319(26.5)
Total	740	2458	457	12901	50314	1,52560	513

Table 2: Total yearly contraception trends with percentage of use per year.

year	Sterilization	LARC	Temporary methods
2014	694 (21.7%)	138(1.03%)	26340(12.9%)
2015	652(20.3%)	240(1.79%)	36977(18.18%)
2016	392(12.25%)	4133(30.9%)	52982(26.04%)
2017	385(12.0%)	3996(29.9%)	48374(23.7%)
2018	441(13.7%)	3674(27.5%)	29723(14.6%)
2019	634(19.8%)	1177(8.81%)	8991(4.4%)

a. LARC – long acting reversible contraceptives.

NB : Total uses of a method from 2014 to 2019 was calculated and then percentage was calculated per year. Sterilization includes both Post partum and interval sterilization. LARC includes interval IUCD and PPIUCD and temporary methods includes OCP, Condoms and injectable contraceptives.

populous country of World. Around 20% of world's eligible couple with unmet need of contraception lives in India.⁸

Throughout this current study there is observed a change in choices with the availability of newer methods in the institution. The estimates from a community based cross sectional study in Kerala from January 2015 to March 2015 show that the current usages of any contraceptive method and a reversible method among 18–28-year-old women were 58% and 21.7% respectively. These estimates are high compared to NFHS3 estimates. In that study in Kerala, one out of five married women in the age group of 25–28 years opted for female sterilization (20%), but only 2.6% of 18–24-year-old married women were sterilized. Female sterilization was less preferred by higher education group. Male condoms were predominantly preferred as reversible methods whereas IUCD was least desirable.⁹ According to the data obtained from this institution sterilization was a constant procedure with a yearly average of 533 and Standard deviation (SD) 141.79.

During early years of the study choices were mostly oral contraceptive pills and condoms as PPIUCDs and

injectable contraceptives were not available then in the institution.

Long acting reversible contraceptives (LARC) are also effective methods. These include copper-T, Levonorgestrel intrauterine system (LNG IUS) and hormonal implants which are effective for many years like up to 10 years. In the US increases in the prevalence of Long acting reversible contraceptives or LARC uses was observed even among sexually experienced nulliparous women [2008 to 2012 (0.8% vs. 3.8%) $p < 0.0001$ and 2012 to 2014 (3.8% vs. 5.7%) $p = 0.09$].¹⁰ According to the National Family Health Survey-3 (NFHS3), current usages of any contraceptive method and a modern reversible method among 20–24-year-old married young women were 33.0% and 14.9%, respectively.¹¹

Since 2008, Government of India had started to give emphasis to PPIUCD services. Cu-T 380A is supplied by Government for PPIUCD insertion. The overall acceptance rate among women those eligible for PPIUCD was 39% (CI - 35.1-42.9).¹² In this current study PPIUCD was increased to a maximum monthly average of insertion in 2016 (338.6), then showed a declining

pattern on 2019(96.3). This was possible due to FIGO-FOGSI Project which took place in the institution (2015-2018) and the effect of counselling every day. The yearly mean PPIUCD insertion in 6 years was 2150 with a standard Deviation (SD) of 1926.4.

Based on a study conducted among women in urban Mysuru for a year from Jan 2018 to Dec 2018 the prevalence of contraception was 55.1%. The most common terminal method used was tubectomy with a prevalence of 39.4% and most common temporary was condom followed by IUCD.¹³ In the current study condom distribution was more than OCP strips, though one OCP strip is effective for one cycle. In the current study it is also seen there is a declining pattern of demand of condoms and oral contraceptive Pills in recent years with emergence of availability of injectable hormonal contraception. From March 2016 the Family Planning Division of Ministry of Health and Family Welfare had started injectable contraceptive (Antara) project through National Health Mission.¹⁴ In this institution injectable contraceptive uses started from 2018 (194) and is increasing in trends 2019(319). It is also known that the quality of care in sterilization service at the public health facilities in India is associated with facility infrastructure and the socio-economic status of the user. There is a significant correlation between family condition, wealth and the quality of care received.¹⁵

CONCLUSION

Changes in trends with availability of newer methods were seen in the study. With time couples opted for newer available methods like PPIUCD and injectable contraceptives. Availability of more choices of different types of contraceptives thus can result in better family planning and cause betterment of the society.

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