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Original Research Article

## Study of knowledge, attitude and practice of copper T as a method of contraception among antenatal women

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### ABSTRACT

**Background:** Family planning is defined by WHO as a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples, in order to promote the health and welfare of family groups and thus contribute effectively to the social development of a country. The main objective was to assess the knowledge, attitude and practice regarding family planning and the practice of contraceptives among the antenatal women.

**Methods:** A hospital based, cross sectional study was conducted in obstetrics and gynaecology department of SGT medical college, hospital and research institute over a period of 6 months. Convenient sampling was used to identify and interview 500 pregnant women, using a semi structured questionnaire. Data was entered and analysed with SPSSv21.

**Results:** In our study, 74.2% participants have the knowledge about Cu-T as a method of contraception and 39% participants considered it a safe and economical method of contraception, 16.2% participants used PPIUCD and 40.2% considered it as unsafe method. Uses of PPIUCD was significantly associated with increasing age, illiteracy and non-working participants. Around one third participants were having uncertain attitude towards use of PPIUCD.

**Conclusions:** In our study we observed that uses of PPIUCD is still lower side and there is a need to be motivate the people for effective and appropriate use of contraceptives when required and arrest the trend towards unwanted pregnancy.

**Keywords:** Cu-T, Birth spacing, Interval contraception, Short inter-pregnancy interval

### INTRODUCTION

Family planning is defined by WHO as a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples, in order to promote the health and welfare of family groups and thus contribute effectively to the social development of a country.<sup>1</sup>

Contraceptive methods are, by definition, preventive methods to help women avoid unwanted pregnancies. It is including all temporary and permanent measures to prevent pregnancy resulting from unprotected coitus. It is noticed that there can never be an ideal contraceptive that is, contraceptive that is safe, effective, acceptable, inexpensive, reversible, simple to administer, independent of coitus, long-lasting enough to obviate

frequent administration and requiring little or no medical supervision.<sup>2</sup>

Currently, in family planning programmes is to provide a cafeteria choice approach that is to offer all the available methods from which an individual can choose according to his needs and wishes and to promote family planning as a way of life. The most commonly used method for contraception in India is condoms, copper T, oral contraceptives and sterilization, in that order.<sup>4</sup> We tried to explain to women that Cu-T has several advantages for use in postpartum period as it is an effective, long term reversible contraception, is coitus independent and does not interfere with breastfeeding.

According to NFHS 4, 51.8% of married women use any kind of family planning method, female sterilization method is used by 48.6% of married women, IUD by just 0.8% of the women, pills by 0.4% of women and condom by 1.3% women. Out of all the users, 41.5% have talked about side effects of using family planning method.<sup>4</sup>

In India, the population will reach about 1.52 billion by 2036, according to the final report of the technical group on population projections, constituted by national commission of population (NCP) under ministry of health and family welfare (MOHFW) dated July 2020.<sup>5</sup> India is likely to overtake the population of China around 2031. An average educated woman who expects to have no more than one or two children spends most of her reproductive years trying to avoid pregnancy. The literacy rates of women in our country are 64.6% and that of our state, Haryana are 55.73%. This is directly related to the limited knowledge, attitude and practice (KAP) of contraception.<sup>3</sup> Therefore, we have taken up this study in our region so that we can assess knowledge of the patients about the use of copper T, improve their knowledge and bust local myths regarding it. Most women do not desire pregnancy soon after delivery but still end up with a pregnancy because of early resumption of sexual activity, unpredictable ovulation, lack of knowledge and lack of preparedness for contraception. Women start thinking about the need for contraception after her next unwanted pregnancy. Hence, it will be very beneficial if we can divert her attention to the importance of family planning during the antenatal period itself. Doing this study during antenatal check-up gives the patient ample time to consider all available methods of contraception by cafeteria approach. We tried to explain to women that Cu-T has several advantages for use in postpartum period as it is an effective, long term reversible contraception, is coitus independent, and does not interfere with breastfeeding.

## METHODS

A hospital based descriptive cross-sectional study was conducted from the month of January 2020 to July 2020, in obstetrics and gynaecology department of SGT

medical college, hospital and research institute over a period of 6 months.

The present study was conducted among pregnant women attending antenatal clinic. A complete enumeration was done for the sample size and we have selected one day per week (tuesday) conveniently and total 500 antenatal woman were recruited for the current study in 6 month duration of study. As on an average around 30-50 pregnant women attend antenatal clinic. A consecutive sampling technique was used for selecting the woman for the study. Pregnant women who were having complications or seriously ill and had relatives in the hospital were excluded.

A semi structured, pretested, semi open-ended, interviewer administered, bilingual questionnaire was used to collect information regarding socio-demographic profile like age, sex, marital status, education, occupation, obstetric history, knowledge, attitude and practice of PPIUCD in antenatal woman.

Statistical analysis was done using a licensed version of SPSS 21. Descriptive analysis was done by calculating proportions, means and standard deviation. Chi square/Fisher's exact test for qualitative and t-test for quantitative variable were applied. The ethical clearance was obtained from institutional ethics committee.

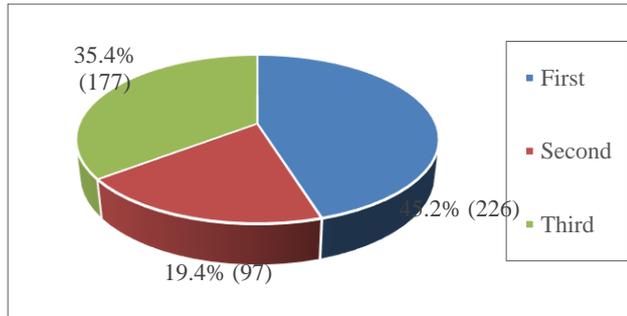
## RESULTS

A total of 500 pregnant women attending ANC at SGT medical college, hospital and research institute were studied.

**Table 1: Sociodemographic profile of study participants (N=500).**

	Numbers	Percent
<b>Age group (in years)</b>		
Upto 20	48	9.6
21-25	292	58.4
25-30	108	21.6
>30	52	10.4
<b>Mean age: 24.63±3.75 years</b>		
<b>Education</b>		
Illiterate	128	25.6
Upto primary school	72	14.4
Upto secondary	44	8.8
Upto higher secondary	107	21.4
Graduate and above	149	29.8
<b>Occupation</b>		
Housewife	460	92
Working	40	8

The mean age of the study participants was 24.63 years with SD of 3.75 years. Out of 500, 292 (58.4%) belonged to the age group of 21 to 25 years, 149 (29.8%) were educated up to graduate and above and 128 (25.6%) were illiterate. Most of participants were housewife by occupation 460 (92%) (Table 1).



**Figure 1: Distribution of participants according to trimester.**

In our study 322 (64.4%) participants were multigravida. Among all woman 45.2% were in first trimester (Figure 1).

In current study, 81(16.2%) women used PPIUCD ever while rest were did not practised PPIUCD at all. Out of 500 woman, 356 (71.2%) were agreed that contraception is important for your health after delivery and 371 (74.2%) have the knowledge about PPIUC as contraception (Table 2). 69 (13.8%), 71 (14.2%), 54 (10.08%) and 63 (12.6%) were strongly believe that copper T is an unsafe method of contraception, cause perforation and may reach to heart, cause pain , bleeding and did not suit them (Table 3). In our study uses of PPIUC was significantly associated with age, education and occupation. Increasing age and housewife by occupation were significantly associated factors to PPIUCD uses. (Table 4).

**Table 2: Knowledge about PPIUCD during ANC period.**

Statement	True n (%)	False n (%)	Don't know n (%)
Contraception is important for your health after delivery.	356 (71.2)	42 (8.4)	102 (20.4)
Exclusive breastfeeding for 6 months is also a method of contraception.	306 (61.2)	125 (25)	69 (13.8)
Chances of pregnancy increase after resumption of menstruation after delivery.	326 (65.2)	78 (15.6)	96 (19.2)
You have heard of Cu T as a method of contraception available.	371 (74.2)	35 (7)	94 (18.8)
It is harmful for you to conceive immediately after delivery.	319 (63.8)	70 (14)	111 (22.2)
It is safe to use copper T for contraception after delivery when you breastfeed.	196 (39.2)	68 (13.6)	236 (47.2)
Copper T is a safe and economical method of contraception.	195 (39)	68 (13.6)	237 (47.4)
Copper T can be used after a caesarean delivery.	162 (32.4)	111 (22.2)	227 (45.4)

**Table 3: Attitude about PPIUCD during ANC period.**

Statement	Strongly agree n (%)	Agree n (%)	Strongly disagree n (%)	Disagree n (%)	Uncertain n (%)
Copper T is an unsafe method of contraception	69 (13.8)	132 (26.4)	45 (9)	80 (16)	174 (34.8)
Copper T will cause perforation and may reach my heart	71 (14.2)	132 (26.4)	70 (14)	71 (14.2)	156 (31.2)
Copper T will cause pain	71 (14.2)	167 (33.4)	44 (8.8)	36 (7.2)	182 (36.4)
Copper T will cause excessive bleeding or discharge	54 (10.8)	123 (24.6)	61 (12.2)	45 (9)	217 (43.4)
Copper T will not suit me	63 (12.6)	79 (15.8)	27 (5.4)	69 (13.8)	262 (52.4)

**Table 4: Association of PPIUCD uses.**

Age group (in year)	PPIUCD used n (%)	Not used n (%)	P value
Upto 20	0	48 (100)	0.001
21-25	27 (9.2)	265 (90.8)	
25-30	36 (33.3)	72 (66.7)	
>30	18 (34.6)	34 (65.6)	

Continued.

	PPIUCD used n (%)	Not used n (%)	P value
<b>Education</b>			
Illiterate	27 (21.1)	101 (78.9)	0.001
Upto primary school	27 (37.5)	45 (62.5)	
Above primary	27 (9)	273 (91)	
<b>Occupation</b>			
Housewife	81 (17.6)	379 (82.4)	0.001
Working	0	40 (100)	

## DISCUSSION

The present study was a descriptive, cross-sectional, hospital-based study conducted amongst pregnant females. The study aimed to find out the knowledge, attitude and practice of PPIUCD among antenatal women.

In current study, 81 (16.2%) women used PPIUCD ever while rest were did not practiced PPIUCD at all and 371 (74.2%) have the knowledge about PPIUC as contraception. Similar results were reported by Pattnaik T et al study and revealed that 19% of the woman used PPIUCD as contraception.<sup>4</sup> In contrast to this Ajay Kumar in Uttar Pradesh, wherein it was observed that knowledge of contraception was almost universal, with 98% of currently married women having knowledge of at least one contraceptive method in the study.<sup>5</sup>

In another KAP study done in rural Haryana results showed that the overall knowledge about any method of contraception was 97.2% (98.4% in men and 96.0% in women). The knowledge was higher for female sterilization (93.2%) and low for spacing methods (86.8%, 77.6% and 91.2% for oral pills, IUCD and condom respectively) and male sterilization (86.2%). It was also seen that 59.2% of study population used contraceptive among which female sterilization was the most common chosen method used by 46.0% of couples.<sup>6</sup>

In another study conducted in Lucknow it was observed that the acceptance of family planning methods both temporary and permanent methods increased with level of literacy of women. About 53.40% adopted IUCD, 38.83% OC pills and only 7.77% of their partners used condoms. More number of illiterate and primary educated accepted permanent method after 3 or more children than higher educated who accepted it after 1 or 2 children.<sup>7</sup>

In another cross-sectional study conducted in Maharashtra, contraceptive prevalence was 70.25%. Acceptors of terminal method of contraception was more (80.07%) than spacing methods (19.93%) amongst contraceptive users.<sup>8</sup>

In our study 69 (13.8%), 71 (14.2%), 54 (10.08%) and 63 (12.6%) were strongly believe that copper T is an unsafe method of contraception, cause perforation and may reach to heart, cause pain, bleeding and did not suit.

There are studies that have mentioned about side effects due to usage of contraceptive, a secondary analysis conducted in USA by David H et al mentions that side effects like excess bleeding during menses or pain during menses decreases over time and serious side effects that prompted either a clinic visit or IUD removal had a varied pattern over time, depending on the type of problem.<sup>9</sup> In another study on satisfaction, early removal and side effects associated with long acting reversible contraception, has shown that, out of 132 respondents (response rate 61.4%), 58.3% had IUDs and 41.7% had SDIs placed. Early removal occurred in 24.2% of women. Pain (more commonly reported with the IUD) and increased frequency in bleeding (more commonly reported with the SDI) were associated with early removal rates.<sup>10,11</sup>

### Limitations

A large sample size could have been taken but due to shortage of time and manpower we could not do so.

## CONCLUSION

Present study revealed that around 75% participants had the knowledge about PPIUCD as contraception and 16.2% participants used PPIUCD. Uses of PPIUCD was significantly associated with increasing age, illiteracy and nonworking participants. Around one third participants were having uncertain attitude towards use of PPIUCD.

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## REFERENCES

1. WHO. Fact sheet: family planning/contraception, 2016. Available at: <http://www.who.int/mediacentre/factsheets/fs351/en>. Accessed on 28 March 2020.
2. Kulier R, Nathalie K, Gulmezoglu AM, Hofmeyr GJ, Cheng L, Campana A. Medical method of first trimester abortion. *Concrane Database System Rev.* 2011;2011(11):CD002855.
3. Ministry of health and family welfare. National Family Health Survey-4, 2015-16. Available at:

<http://www.nfhsindia.org>. Accessed on 13 February 2021.

4. Pattnaik T, Samal S, Behuria S. Obstetric admissions to the intensive care unit: a 5-year review. *Int J Reprod Contracept Obstet Gynecol.* 2015;4(6):1907-13.
5. Kerketta S, Kumar A. Knowledge of family planning and current use of contraceptive methods among currently married women in Uttar Pradesh, India. *Int J Community Med Public Health.* 2015;2(4):449-55.
6. Saluja N, Sharma S, Choudhary S, Gaur D, Pandey S. Contraceptive knowledge, attitude and practice among eligible couples of rural Haryana. *Int J Health.* 2011;12(1).
7. Kumar A, Bhardwaj P, Shrivastava JP, Gupta P. Family planning practices and methods among women of urban slums of Lucknow City. *J Commun Heal.* 2011;23(2):80-7.
8. Bendhari M L, Korade R S, Haralkar S J. Contraceptive prevalence and usage of different contraceptive methods and its correlates in an urban slum area of western Maharashtra - a cross sectional study. *Ind J Matern Child Heal.* 2015;17(2).
9. Hubacher D, Chen P, Park S. Side effects from the copper IUD: do they decrease over time? *Contracept.* 2009;79(5):356-62.
10. Dickerson LM, Diaz VA, Jordon J, Davis E, Chirina S, Goddard JA, et al. Satisfaction, early removal, and side effects associated with long-acting reversible contraception. *Fam Med.* 2013;45(10):701-7.
11. Sharma R. Revised Kuppaswamy's Socioeconomic Status Scale: Explained and updates. 2017;54:867-70.

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