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Perception of PPIUCD amongst Parturient and Providers and Factors Affecting its Acceptability

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ABSTRACT

Introduction: PPIUCD program provided the opportunity of reaching to beneficiaries directly with minimal cost of spacing options during their postpartum stay and provide with safe, effective contraception choice. Though its acceptance rate is not up to optimum because of various misbeliefs and myths. Various misapprehensions are also there in case of providers.
Aim: To assess perception and factors affecting acceptability for practicing PPIUCD in women and providers.
Materials and methods: A prospective cross sectional study was conducted involving a sample size of 305 parturient admitted and 50 providers of AVBRH, Wardha district, Maharashtra using a PPIUCD questionnaire to know about the precipitance of it in parturient and providers and factors affecting its acceptability. Further data was analysed from descriptive studies.
Results and discussion: As per our study, more than half of the women fall under age group 20-24, of which maximum are already having their first child which makes them ideal for PPIUCD insertion for spacing between child. Our study also reveals that the highest reason for refusal of CuT from parturient is non-supportive family member who directly tells about the importance of counselling among pregnant woman and their family members. As per providers, the highest reason for CuT refusal among providers is lower backache followed by various complications.
Conclusion: This study will be very beneficial in order to make PPIUCD plan more effective since it provides various evidences of its fewer acceptances. It will also be helpful in fulfilling the vision of family planning, 2020.

Key words: Acceptability, Perception, PPIUCD, CuT

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INTRODUCTION

Appropriate couple protection rate is amongst one of the continuing unmet goal of national family welfare program of India [1]. Although availability of interval IUCD was there in India since 1952 but its uses continue to remain below 2% and contraceptive preferences were skewed to permanent method of female sterilization mainly. The Government's conditional cash benefit scheme of Janani Shiksha Yojnana (JSY) for care during deliveries has increased the number of institutional deliveries from 7,39,000 in 2006 to more than 11.38 million in 2011 [2].

PPIUCD program launched in 2010 provided the opportunity of reaching to beneficiaries directly with minimal cost of spacing options for women during their postpartum stay at health facility and provide with immediate, safe, effective, reliable and Long Acting Reversible Contraceptive (LARC) choice [3]. As a LARC method, the IUD provides reversible contraception which is highly effective for several years, safe and easy to use by the majority of patients, and is associated with satisfaction rates significantly higher than for short term methods (eleven). IUDs are categorized in the top tier of contraceptive effectiveness by the Centers for Disease Control and prevention (CDC) which includes both, non-hormonal and hormonal types [4]. Also, initiation of ovulation is unpredictable after delivery which can be overcomed, in view of contraception after applying PPIUCD [5]. Although, there are some contraindications to IUD use too: known or suspected cervical or intrauterine

infection, known or suspected genital malignancy, or uterine cavity significantly distorted by fibroids or an anomaly.

Despite of many advantages of PPIUCD, the acceptance rate of it is not up to optimum, because of various misbeliefs of it in case of parturients due to their inappropriate knowledge and busting myths associated with CuT. The misapprehensions in case of a provider maybe the fear of uterine perforation, post insertion infection, loss of string and displacement of CuT-380A, or its spontaneous expulsion etc [6]. However, in case of parturient, lack of awareness, improper counseling and their scaredness of complications associated with the use of it might contribute for its non-acceptance [7].

With this background, we proposed this study to explore various determinants of inadequate utilization of PPIUCD, especially at this rural hospital of central India by parturients as well as by providers (doctors and trained nurses).

Background

- The global rate of unintended pregnancy came out to be 44% of all pregnancies between 2010 and 2014, corresponding to approximately 62 unintended pregnancies per 1000 women which are in the age group of 15-44 years old [8]. Among this, those who are at most risk include women with: low socioeconomic status, low education level, minority status, and younger age [9]. Now this no. can be dropped by increasing use of effective contraception among adolescents and adults.
- There are various contraceptive methods available which are presented to a couple by an approach called “cafeteria approach” with a “basket of choices”. In this patients are given full information about all options and guided to methods that are safe to use in their circumstances and best fit their lifestyle needs and desires. It has been said that, the most effective implementation of a postpartum contraception program occurs with shared decision making [10]. This approach includes five official methods female sterilisation, male sterilisation, Intra Uterine Contraceptive Device (IUCD), oral contraceptives, and condoms.
- Although the ideal time to discuss family planning has not been provided, but as per analysis of the pregnancy risk assessment monitoring system, patients who received contraceptive counseling either prenatally or postpartum were twice as likely to choose an effective method of contraception postpartum, especially if counseling occurred both prenatally and postpartum, compared to patients who received no such counseling [10].
- Timings for PPIUCD insertion are immediate postpartum placement occurs within 10 min of delivery of the placenta. Early postpartum placement is placement that occurs after 10 min and before 4 weeks after placental delivery. Interval placement is anytime 4 weeks or later after delivery [11].
- Within the scope of this article, we will focus on perception of various group of society towards PPIUCD and factors affecting its acceptability and therefore will not discuss the timing and circumstances in which a variety of contraceptive options are safe to use postpartum.
- IUCD that is intrauterine contraceptive device is a temporary type of contraception. It is a small object that is inserted through cervix and placed in uterus to prevent pregnancy. It includes copper T which is a medicated IUD and acts by various ways like interfering with reproductive process before ova reach uterine cavity, changes endometrial lining, thickens cervical mucus and interferes with ability of sperm to pass through uterine cavity. It can be kept in a place for 5-10 years. These all changes are temporary and once placed it act for a long period which makes it an appropriate contraceptive device and also for spacing between children.
- Despite of all these advantages, there is very less acceptability of it among women because of their different perceptions regarding it which is making it not as acceptable as it is expected to be. So this study will be helpful in understanding and knowing about these perceptions of women, of society and factors leading to it are under rated use with proper statistics and working on them in order to increase its acceptability.
- Also, it was seen that even among providers CuT is not very acceptable because of their lack of knowledge and skills, lack of training sessions and their experiences regarding its insertion and related complications. So this study will also be helpful in understanding providers’ perceptions, factors playing major role there with the statistics and working on those factors to increase acceptability of PPIUCD.

MATERIALS AND METHODS

Study design: Prospective cross sectional.

Study site: A tertiary care teaching hospital having 1526 number of beds of rural vidarbha area of central India where round the clock PPIUCD services are available.

Duration of study: Two months after the approval from Institutional Ethics Committee (IEC).

Tool of assessment: Interview of parturients and providers (doctors and trained nurses) will be taken with pretested, validated and semi structured questionnaire, after obtaining verbal informed consent, in their local language from both parturients and providers of AVBRH by a single interviewer (Figure 1).

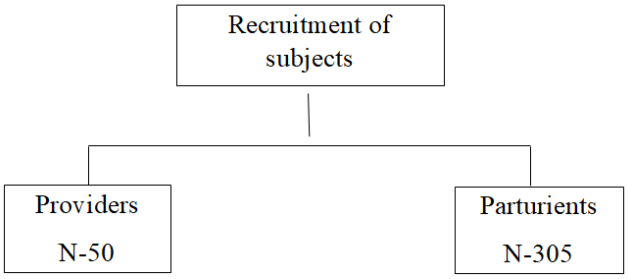

Figure 1: Sample size.

Thus, a total of 355 subjects were included among which 50 were providers and 305 were parturients.

Selection criteria

Inclusion criteria: Parturients

- Desire to participate in study.
- Women in latent phase of labor or having EDD within one week.
- Women of any age who will deliver by vaginal or by caesarean section.
- Women who will agree for the insertion of CuT within 10 minutes of expulsion of placenta.

Providers: Faculty of department of OBGY of JNMC Sawangi. Health care workers of dept OBGY of JNMC Sawangi, whosoever willing to participate in the study

Exclusion criteria: Following subjects will be excluded from the study

- Woman in active labor having any medical disorder like diabetes mellitus, heart disease and severe anemia or having any surgical issue.
- Woman having any kind of uterine anomaly like uterine myoma or premature rupture of membrane.
- Woman having HB<8 gm% recorded by HB estimation, temperature >38°C (axillary temperature taken during and after labor).
- Woman planning to go delivery in any other health facility, and is here only for general check-up.
- Woman with uncontrolled postpartum hemorrhage.
- Woman having allergy to Cu.
- Subjects not willing to participate in this study will be also excluded.

Study procedures: A pretested, validated and semi structured questionnaire was prepared for both parturient and providers *i.e.* doctors and trained nurse for collecting information regarding PPIUCD. For parturients, it was prepared in their local language (Marathi/Hindi) including questions regarding their knowledge, source of knowledge, myths and various fears regarding it. For providers, it was prepared in English to understand their knowledge, misconceptions, patient's approachability, time effectiveness, their experience, insertion feasibility and risk of complications.

Quality control: Quality control of the questionnaire and the data management was maintained throughout the study. Data collected from the study, after questionnaire, was kept blinded on observer side and was analyzed by statistician only.

Confidentiality: The confidentiality of all the participants, subjects was strictly maintained during data collection and compilation.

Plan of analysis/statistical tools: The data will be entered and cleaned in Microsoft excel 2013 and analyze in SPSS version 20.0.

RESULTS AND DISCUSSION

Contraceptive methods are helpful in reducing rapid population growth, which is a critical issue worldwide. Slower population growth conserves resources, improves health and living standards. IUCDs are safe and reversible method of contraception. It is effective contraception method with failure rate of 0.5-2 HWY. Their efficacy is comparable with surgical sterilization. It is also the most effective method of emergency contraception. It has almost no interference with lactation.

A Demographic and Health Survey (DHS) conducted in 52 developing countries revealed that there was one to two times (1.1–2.3) higher risk of infant mortality in second baby when spacing between children was less than 24 months compared to 36-47 months [12].

Now keeping this and other factors in mind, we have done this study and come up with a statistics of factors leading to PPIUCD failure in different groups of society.

As per Table 1 of this study, more than half of the women are of age 20-24 (56.67%) and maximum of them is having their first child (40%) which makes them ideal for PPIUCD insertion for spacing between child. Among them, mostly have studied till high school (66.67%) and are working, mainly as farmer (53.33%). Also, most of them have completed 2-5 years of their marriage (58.67%) (Table 2).

Table 1: Demographic details of parturient=300.

SR No.	Parameter	N (total-300)	%
1	Age (years)	27	9
	<20	170	56.67
	20-24	79	26.33
	25-29	22	7.33
	30-34	2	0.67
	>35		

2	Literacy status	22	7.33
	Illiterate	66	22
	Primary school	200	66.67
	High school	12	4
	Graduate and above		
3	Occupation	140	46.67
	Housewife	160	53.33
	Working		
4	Religion	288	96
	Hindu	12	4
	Muslim		
5	Duration of marriage	45	15
	<2 years	176	58.67
	2-5 years	79	26.33
	>05 years		
6	Parity	120	40
	0	88	29.33
	1	52	17.33
	2	40	13.34
	>2		

Table 2: Details of providers n=50.

SR No.	Qualification	N (n-50)	%
1	MD	10	20
2	DGO	6	12
3	MBBS	10	20
4	Nurses	14	28
5	Interns	10	20

As per Table 3, the highest reason for refusal of CuT from parturient section is 'non-supportive family member' (61.67%) which plays important role in PPIUCD insertion [13,14] which implies that family support plays an important role in decision making regarding PPIUCD insertion and thus family members education is suppose to have positive effect and might increase its acceptability. After non-supportive family members, reasons for refusal are myth of not being able to conceive later (59%) and other complications like interference in day to day life, interference with bleeding or have no idea about it and thus don't want to use it. All these reasons give strong suggestion that health care providers should counsel women from their very first visit to hospital about every contraception method, including CuT, their efficacy, benefits, side effects. Also, primary health centres and ASHA workers should give counseling session to women of rural area since there are at front line for villagers, are more approachable, more trusting issues and also cause every woman cannot come for each and every visit to the hospital. They should cover every aspect of CuT in that counseling session. Also, government needs to develop various strategies in order to increase public awareness of PPIUCD through various media platforms like forming official sites, pages, podcast, television, various small play and acts in villages etc.

Table 3: Perception of PPIUCD among parturients n=300.

SR No.	Parameter	Answer	N (no.)	%
1	Are you aware of contraceptive methods?	Yes	290	96.7
		No	10	3.3
2	Are you aware of contraceptive method–CuT?	Yes	202	67.3
		No	98	32.7

3	What was your source of awareness?	Relatives/friends	131	43.67
		Heath worker	110	36.67 12.33
		Hospital	37	7.33
		Media/TV	22	
4	What is your opinion	Not able to conceive later	177	59
	Regarding CuT?	Interference in day to day Life	88	29.33
	(Myth regarding CuT?)	Interference with breastfeeding	21	7
	Family Member	No myth/have no idea	14	4.67
	(husband and mother in law)	Acceptability	185	61.67
		No	115	38.33
		Yes		
5	Would you like to prefer PPIUCD? (after providing them awareness and counseling session)	No	249	83
		Yes	51	17

As per Table 4, highest reason for CuT refusal among providers is lower backache (56%) which is followed by other complications like infection, chronic cervicitis, menorrhagia, loss of tail, expulsion, perforation, failure of contraception (in descending order). This tells us that even in providers there is less acceptability of CuT which can be overcome by increasing knowledge and skills among healthcare providers by arranging various training sessions, taking workshops on mannequins, arranging seminars, sharing experience sessions etc. This will also further help in promoting PPIUCD use, increasing its acceptability and reducing its expulsion rate. The "SPIRES post-partum IUD insertion training demonstration" video is available on youtube.com is one example of a video that provides instructions for building a postpartum uterine model and explains the technique for postpartum placement. The implementation of postpartum IUD placement can be successfully accomplished in hospitals using a team based approach and self-monitoring of outcom es[15].

Table 4: Perception of PPIUCD among providers (n-50).

SR No.	Question	Answer	N (no.)	%
1	Witness/performed PPIUCD insertion		Total–42	19.04
	MD		8	9.53
	DGO		4	19.04
	MBBS		8	47.62
	Nurses		20	4.77
	Interns		2	
			(Remaining 8 have neither witnessed or performed)	
2	Practice of contraception by providers?	Sterilization	16	32
		Male	15	(1)
		Female	11	(31)
		Condom	7	30
		OCPs	1	22
		Interval IUCD		14
		Injectable		2
3	Is PPIUCD not preferred cause of risk of complications?	No	10	20
		Yes	40	80
4	What are the complications that you have encountered during PPIUCD insertion? (multiple answers)	Low backache	28	56
		Fever/infection	26	52.3
		Menorrhagia	21	42
		Loss of tail	17	34.1
		Expulsion	16	32
		Perforation	7	14
		Failure of contraception	3	6

CONCLUSION

To make PPIUCD plan more effective, this study can create evidence of provider's perception, practice and experience as well as hindrance, myths and misconception of pregnant woman in order to improve highly unmet need of national policy and thereby may help in better strategies for appropriate utilization of it. This will also help in reducing high fertility rate and maternal mortality and morbidity of Indian woman. The evidence of degree of acceptance of PPIUCD insertion is still inconclusive and there is paucity of data in existing literature. This study may also prove helpful in fulfilling the vision of family planning, 2020.

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