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A STUDY OF FACTORS AFFECTING ACCEPTANCE & CONTINUATION OF PPIUCD

Dr. Prof R. Chauhan	Department of Obstetrics & Gynecology,N.S.C.B Medical College , Jabalpur , Madhya Pradesh , India
Dr. Sonal Sahni*	Department of Obstetrics & Gynecology,N.S.C.B Medical College , Jabalpur , Madhya Pradesh , India *Corresponding Author
Dr. Shaily Hanumantaiya	Department of Obstetrics & Gynecology,N.S.C.B Medical College , Jabalpur , Madhya Pradesh , India

ABSTRACT

Background: India is presently the second most populous country in the world , soon to be on the top.[1,2] The modern intrauterine contraceptive device (IUCD) is one of the most cost effective method of contraception with fewer side effects still underused in India.[3,4]

Aim: To evaluate factors affecting acceptance & continuation of PPIUCD in the Department of Obstetrics and Gynecology , N.S.C.B Medical College , Jabalpur.

Methods: Questionnaire based prospective study (March 2016 -17) on all antenatal and post partum patients who fulfilled the WHO Medical Eligibility criteria for PPIUCD.

Results: Acceptance was 53.3%, highest amongst 21-30 yrs age group (85.1%),in primi women(66.1%) & in patients counseled during antenatal period(53.1%).Continuation rate was 77.7%.Most common reason for discontinuation was bleeding .

Conclusions: Antenatal counseling holds most important role. Reassurance & awareness about the safety and efficacy of PPIUCD should be emphasized.

KEYWORDS : PPIUCD, Awareness, Contraception.

INTRODUCTION

India's population of over 1.3 billion is slated to overtake China as the world's most populous country. Family planning is not only important for population stabilization, but is also central for improvement of maternal and newborn health.[5]

India contributes to 20% of maternal deaths worldwide according to a 2012 report of World Bank, UNFPA, WHO.[6] Family planning can avert more than 30% of maternal deaths and 10% of child mortality if couples spaced their pregnancies more than 2 years apart.[7] There is shift of focus of India's Family Planning Program from mere population control to ensuring healthy timing and spacing of pregnancy to improve health of mother and newborn. Government of India offers IUCD services free of cost as it is one of the most effective, reversible and safe contraceptive method.[5]

Despite many advantages of the IUCD , it is unpopular in India. Use of modern contraceptive methods in the India is limited to about 48 % and that of IUCD is as low as 1.5 % (NFHS 2015-16) .[8]

Increased institutional deliveries after introduction of JSY(Janani Suraksha Yojana) in India provides an opportunity to offer family planning services to the women, who have just delivered and want to prevent unintended pregnancies or delay having more children. Taking advantage of the immediate postpartum period for counseling on family planning and IUCD insertion, overcomes multiple barriers to service provision.[5]

METHODS

A prospective questionnaire based study conducted between 1st March 2016 to 31st March 2017 in the department of Obstetrics & Gynecology, Netaji Subhash Chandra Bose Medical College & Hospital, Jabalpur (M.P.)

WHO Medical Eligibility criteria was followed as a guide line. It has four categories.[9] :-

1. No restriction for the use.
2. Advantages of using method outweigh the risks.
3. Risks outweigh the advantages of using method.
4. Unacceptable health risk if method used.

INCLUSION CRITERIA:

All antenatal patients admitted for delivery and post partum patients in our hospital were counselled for PPIUCD. Consent was obtained from those, who opted for insertion.

Those who fulfilled the following criteria were considered for inclusion :

- 18–45 years old.
- Desire to have CuT after counselling before insertion.
- No local infections.
- Hb>10gm%

EXCLUSION CRITERIA:

- Fever during labor and delivery.
- Having active STD(Sexually Transmitted Disease) or other lower genital tract infection or high risk for STD.
- Known to have ruptured membranes for more than 18hrs prior to delivery.
- Known uterine abnormalities e.g., Bicornuate/septate, uterine myomas.

Post partum IUD (PPIUCD) insertion : It is the insertion of IUD within 48 hours after delivery. It is of 3 types on the basis of insertion time.

a. Post placental insertion : insertion within 10 minutes following delivery of the placenta following a vaginal delivery.

b. Intra cesarean Insertion: Insertion that take place during a cesarean delivery, after removal of the placenta and before closure of the uterine incision.

c. Post partum before discharge: insertion of IUD within 48 hours after delivery and before the women leaves the facility where she delivered.

Steps of IUCD insertion :

An informed consent taken and woman's records checked to ensure that she is an appropriate client, ruling out conditions which prevent IUCD insertion . Client explained about the

procedure and her queries answered . Under all aseptic precautions IUCD inserted with aid of PPIUCD inserting forceps using a 'no-touch technique'. Confirmation that the end of PPIUCD insertion forceps has reached the fundus is done by the resistance offered and the thrust of the instrument felt at the fundus of the uterus with left hand placed on the abdomen. PPIUCD insertion forceps after releasing IUCD at fundus is swept to the right along the side wall of the uterus ensuring they are away from the IUCD and thus removed from uterine cavity, keeping it slightly open. Particular care taken not to dislodge the IUCD as PPIUCD insertion forceps are removed. Cervix examined to ensure there is no bleeding and IUCD is properly inserted. Woman provided with post insertion instructions. Information regarding the PPIUCD insertion in the woman's record and in the PPIUCD register recorded.

At discharge women informed about the side effects, warning signs and follow up schedule and advised to report immediately in case of untoward signs. At follow up examination patient's satisfaction assessed and complications like bleeding, pain and infection were treated appropriately. In case of discomfort due to long thread , cutting short of thread was done. The women in whom the procedure was uneventful were requested to follow up at 6 months.

RESULTS

The study was conducted to evaluate PPIUCD as a family planning method and the observations were as follows :-
After counselling of 1800 clients total 961 women accepted for PPIUCD as method of contraception (53.3%).

Table 1

Parity	No. of cases (n= 961)	%	Follow up cases (n=492)				
			Continued		Discontinued		Total (492)
			No. of cases	%	No. of cases	%	
<20 yrs	93	9.7%	32	66.7%	16	33.3%	48
21-30 yrs	818	85.1%	330	78.9%	88	21.1%	418
31-40 yrs	44	4.6%	18	78.3%	5	21.7%	23
>40 yrs	6	0.6%	2	66.7%	1	33.3%	3

Table no. 1 shows that maximum acceptance was among 21- 30 years age group while continuation was high among 21 to 40 years aged patients.

Table 2
Impact of parity on acceptance and continuation rates PPIUCD

Parity	No. of cases (n= 961)	%	Follow up cases (n=492)				
			Continued		Discontinued		Total (492)
			No. of cases	%	No. of cases	%	
Primi	635	66.10%	250	77.6%	72	22.4%	322
Second	260	27.10%	105	76.6%	32	23.4%	137
Multi	66	6.90%	27	81.8%	6	18.2%	33

Table no. 2 shows that acceptance was highest among primi para clients while continuation rates were marginally raised among the multipara clients.

Table 3 Impact of Socio-demographic characteristics on acceptance of PPIUCD as a method of Contraception

Characteristics		No. of cases (n= 961)	%	Follow up cases (n=492)				
				Continued (382)		Discontinued (110)		Total (492)
				No. of cases	%	No. of cases	%	
Religion	Hindu	894	93%	362	77.2%	107	22.8%	469
	Muslim	53	5.5%	17	85%	3	15%	20
	Others	14	1.5%	3	100%	0	0.0%	3
Locality	Rural	602	62.6%	282	77.5%	82	22.5%	364
	Urban	359	37.4%	100	78.1%	28	21.9%	128
Type of family	Nuclear	410	42.7%	212	77.7%	61	22.3%	273
	Joint	551	57.3%	170	77.6%	49	22.4%	219
Socio-economic status	Lower	479	49.8%	186	79.8%	47	20.2%	233
	Middle	437	45.5%	172	74.5%	59	25.5%	231
	Upper	45	4.7%	24	85.7%	4	14.3%	28
Education of client	No formal Education	186	19.4%	87	82.1%	19	17.9%	106
	Primary	254	26.4%	102	85%	18	15%	120
	High School	476	49.5%	175	72%	68	28%	243
	Graduate	45	4.7%	18	78.3%	5	21.7%	23
Education of partner	No formal Education	74	7.7%	35	85.4%	6	14.6%	41
	Primary	204	21.2%	89	79.5%	23	20.5%	112
	High School	532	55.4%	194	76.7%	65	23.3%	259
	Graduate	151	15.7%	64	80%	16	20%	80
Occupation of client	Home Maker	751	78.1%	294	76.7%	92	23.8%	386
	Farmer	14	1.5%	6	85.7%	1	14.3%	7
	Labourer	133	13.8%	58	86.6%	9	13.4%	67
	Govt Servant	17	1.8%	7	77.7%	2	22.3%	9
	Business	46	4.8%	17	73.9%	6	26.1%	23
Occupation of partner	Unemployed	15	1.6%	3	37.5%	5	62.5%	8
	Farmer	53	5.5%	25	80.6%	6	19.4%	31
	Labourer	593	61.7%	234	78%	66	22%	300
	Govt Servant	82	8.5%	39	86.7%	6	13.3%	45
	Business	218	22.7%	81	75%	27	25%	108

Table no. 3 shows that PPIUCD acceptance was highest in Hindu women , those belonging to joint families and women from rural areas . Acceptance was good in lower and middle socioeconomic classes. It rose with the level of education of the patients & their partners. Majority of the women accepted were homemakers and their partners were laborers mostly . It was also observed that the rates of continuation of PPIUCD did not vary much with the different socio-demographic characteristics , as nearly all had comparable rates of continuation .

Table 4

Impact of Timing of counselling on acceptance continuation rates

Time of counselling	No. of cases (n= 961)	%	Follow up cases (n=492)				
			Continued		Discontinued		Total
			No. of cases	%	No. of cases	%	
ANC Period	510	53.1%	253	78.1%	71	21.9%	324
Early Labor or Preparation for LSCS	349	36.3%	104	76.5%	32	23.5%	136
After delivery	94	9.8%	22	88%	3	12%	25
Postpartum Stay	8	0.8%	3	42.9%	4	57.1%	7

Table no.4 reveals that acceptance was highest in clients who were counselled during antenatal period. And at follow up , continuation rates were poor amongst the cases who were counselled during postpartum period.

Table 5

Follow up study for complaints at follow up and their correlation with desire for IUCD removal

Symptoms	Follow up cases (n=492)	%	Desire for removal			
			Yes	%	No	%
Pain	82	16.7%	39	47.60%	43	52.40%
Hanging Tail	28	5.7%	5	17.90%	23	82.10%
Bleeding irregularities	12	2.4%	10	83.30%	2	16.70%
Foul Smelling Discharge	6	1.2%	0	0%	6	100.00%
No Symptoms	364	74%	8	2.20%	356	97.80%

Table no.5 shows that most common complaint of cases at follow up was that of pain i.e. 16.7% , followed by discomfort due to hanging tail , heavy bleeding and foul smelling discharge respectively . Amongst the clients who desired for removal bleeding irregularities was most important complaint.

DISCUSSION

In the our study out of 1800 cases counseled for PPIUCD insertion , 961 cases (53.3%) accepted it by choice and with informed consent .Acceptance in study conducted by Runjun Doley et al [10] (36.6%) , and by Mishra S et al [11] (17.17%) was lower while Gunjan goswamy et al [12] found higher (66.6%) acceptance.

In our study, majority (85.1%) of the PPIUCD acceptors belonged to younger population(age group of 21- 30 yrs) which is comparable with other studies done by Runjun Doley et al and Katheki G et al [13] whereas in a study by Maluchuru S et al [14] from Guntur, the highest rate of acceptance was among age group of 30-39 years. In the present study continuation was high and comparable among 21-30 yrs and 31-40 yrs age groups and results are comparable in study conducted by Vilvapriya et al [15].

Most of the studies[11, 16] observed higher acceptance rate in primi para which is in line with our study. Study done by Sudha C.P et al[17] shows comparable acceptance between primi(36.7%) and multi para (38.3%) women. Gunjan Goswamy et al. and Sonali Deshpande et al [18] found highest acceptance among second para and multipara patients respectively . This suggests that the mothers with a recent first experience of delivery were receptive to this spacing method as a semi-permanent method of contraception. In this study although acceptance rate is highest (66%) among primi para yet the continuation rate was comparable among primi para and second para patients. Also acceptance rate is low in multi para patients due to preference for permanent sterilization methods but continuation rate is high showing it can serve as a good alternative to permanent sterilization methods. In the study done by Vilvapriya et al ,continuation rate was high among primipara clients.

In our study 93% of the acceptors were Hindu ,49.8% of the acceptors belonged to lower socioeconomic group and 62.6% from rural localities. 49.5% clients and 55.4% of the partners were educated upto high school .78.1 % were homemaker and 61.7% of the partners were labourer .Similar findings were observed by Maluchuru S et al and Mrs. Suchitra A. Rati et al [19] .With context to the type of family, 83.7% of women were from joint family. Majority (89.9%) of women were housewife, 57.3% of husbands were semiskilled workers. Most of the families (62%) had income less than Rs. 3000 per month. Similar findings were reported by Sonali Deshpande et al while in a similar study done in Telangana by Sangeetha Jairaj et al [20] majority were from urban area (79.75%). Acceptance was more in those who completed their secondary school level education (23.3%)

In the current study acceptance and continuation rates were high in the cases who were counseled for PPIUCD insertion during their antenatal period which is similar to studies by Zeroi et al[21] , Soliman et al [22] & Duong et al [23] which emphasize the need of counseling in antenatal period. The antenatal ,intranatal & Immediate postnatal periods are the most suitable time to counsel the patients about the benefits of PPIUCDs . It is relevant to emphasize over here , that when the patients are going through various physical & mental stress during antenatal span as well as extreme agony of labor pains/post operative pain,their receptivity and understanding of the usefulness of contraception overall is at its peak.later on in the late postnatal phase and interval period ,the influence of family & friends ; social myths ;religious beliefs ; over engagement in domestic routine activities hamper the acceptance & continuation of contraceptive advice.

In our study we found out of 961 cases 492(51.2%) cases had follow up visit after discharge. 77.7% was the continuation rate after first follow up (6 weeks) which is comparable with the study conducted by Kittur S et al[24] & less than vilvapriya s et al.

Satyavathi et al found reasons for removal were bleeding (27.27%), menstrual disturbances (18.18%), pressure from family (27.27%) other problems (18.18%) and pain (9%) . Majority of the studies including our study observed pain and bleeding as the main problems for removal of IUCD.

Although pain was the commonest complaint at follow up but

bleeding was the leading cause where clients sought removal of IUCD (83.3%). RunjunDoley et al found the continuation rate to be 90.84%.

Summary

To summarize the evaluation of PPIUCD , we observed that acceptability rate was 53.3%. Higher in the lower socioeconomic status directly proportional to the literacy levels and in primiparas. Antenatal counseling was most beneficial. 77.7% of the clients continued using IUCD as the method of contraception. Bleeding irregularities was most important cause for desire to discontinue.

CONCLUSION

To conclude , we found average acceptance rate , good continuation rate and no major complication with PPIUCD.the initial counseling include information on the changes likely to occur in bleeding pattern, in particular the adaptation period lasting 3-6 months. Inserting IUCD with in 10 minutes after placental delivery and during cesarean section is one time , long term , coitus independent , reversible , demonstrably safe and effective method of contraception having low expulsion rate and has no effect on breast feeding.

The government needs to develop strategies to increase public awareness for PPIUCD along with continuous training and enhancement of the knowledge and skills of the health care providers .

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DECLARATIONS

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