Evaluation of Patient's Perspective Regarding Usage of Post Partum Intra Uterine Contraceptive Device (PPIUCD) at a Tertiary Care Hospital

Dr Rajal V Thaker[1], Dr Vaishali P Panchal[2], Dr Pratibha V Jikadra[3], Dr Kavyakumari S Patel[4*], Anilkumar K Charel[5]

1. Professor, Department of Obstetrics and Gynaecology, S C L Hospital, Smt N H L Municipal Medical College, Ahmedabad
2. Assistant Professor, Department of Obstetrics and Gynaecology, S C L Hospital, Smt N H L Municipal Medical College, Ahmedabad
3. Resident, Department of Obstetrics and Gynaecology, S C L Hospital, Smt N H L Municipal Medical College, Ahmedabad
4. Resident, Department of Obstetrics and Gynaecology, S C L Hospital, Smt N H L Municipal Medical College, Ahmedabad
5. Resident, Department of Obstetrics and Gynaecology, S C L Hospital, Smt N H L Municipal Medical College, Ahmedabad

Corresponding Author: Dr Kavyakumari S Patel

Email: rvtpds@gmail.com

Abstract

Background and Aims: Despite many advantages of post partum intra uterine contraceptive device (PPIUCD), it generally suffers from unpopularity either because of ignorance or fear of associated side effects and inadequate knowledge. This study was aimed to determine proportion of women accepting PPIUCD, to assess knowledge, and attitude toward contraception and to determine and analyze reasons for refusal of PPIUCD. **Material and Methods:** After permission from Institutional Review Board, this prospective study was carried out over a period of 2 months. Patients who refused PPIUCD were enrolled after taking written informed consent. A questionnaire was administered to assess their socio-demographic profile, knowledge, attitude and acceptability of various family planning methods and reasons for refusal of PPIUCD. **Results:** Majority of the patients (99, 47.6%) were in age group of 20-24 years and 96 (46.1%) had primary education. Only 7 (3.3 %) were employed. PPIUCD was denied under family pressure and due to worries about side effects in 58 (27.8%) cases each. PPIUCD was denied as 44 (21.1%) patients wanted to use other type of contraception, 34 (16.3%) were scared and 23(10.7%) had misconceptions regarding PPIUCD. **Conclusions:** Counseling for postpartum contraception should start from antenatal period and should include information, and correction of myths associated with PPIUCD. Not only the woman but counseling of family members should be done as they play major role in deciding whether the woman should use any contraception or not. Education status and occupation play a direct role in women's decision regarding use of contraception. Hence, education and empowerment of women should be promoted.

Keywords: Contraception, family planning

Introduction

Unplanned and undesired pregnancies can lead to increased rate of legal and illegal abortion and consequently increased maternal morbidity and mortality. Continuation of such pregnancies is also associated with increased maternal and perinatal morbidity and mortality. Hence, pregnancy should be planned so that complications can be prevented and there is improvement in maternal and perinatal outcome.

When there is an institutional delivery, we can counsel the patient for contraception methods that are available in the immediate postpartum period. When the patient is discharged, she can be counseled for methods that are suitable to her. Post partum intrauterine contraceptive device (PPIUCD) is one of the Long Acting Reversible Contraceptive (LARC) method that provides effective contraception for an extended period without requiring user action. It can bring profound change as one of the methods of postpartum contraception in India.[1] As per National Family Health Survey 5 (NFHS 5), current use of IUCD/PPIUCD stands at just 3.1% where as current use of any method of contraception is 65.3%.[2]

Despite the many advantages of IUCD, it is not well accepted amongst women in India. Social norms, family pressures, myths and misconceptions regarding reversible methods of contraception limit its demand.[3] This study was aimed to estimate proportion of women accepting PPIUCD, to assess the knowledge, and attitude of women refusing PPIUCD toward contraception and to determine and analyze reasons for refusal of PPIUCD

Material and Methods

After taking due permission from Institutional Review Board (NHLIRB/2018/AUGUST/01/No1), this prospective study was carried out at Department of Obstetrics and Gynaecology of a tertiary care teaching hospital over a period of 2 months from November 2019 to December 2019.

All the women delivered at our institute, vaginally or by caesarean section and willing to take part in the study were counseled regarding different postpartum contraceptive methods along with their advantages and disadvantages. PPIUCD was inserted in those patients who were willing for it. Patients who refused PPIUCD were included in the study after taking written informed consent. A questionnaire was administered amongst the participants to assess their socio-demographic profile, obstetric history, details of current delivery, knowledge, attitude and acceptability of various family planning methods, awareness about IUCD and PPIUCD and reasons for refusal of PPIUCD. Data was analyzed for frequency and percentages.

Results

At our institute, PPIUCD program was started in the year 2014-15 and rate of insertion of PPIUCD was 1.2%. Insertion rate of PPIUCD increased in successive years and in year 2015-16, 2016-17 and 2017-18, rate of PPIUCD insertion was 2.6%, 4.1% and 8% respectively. In the year 2018-19, there was a decline and rate of PPIUCD insertion was 4.4% as per our hospital data.

During the study period, out of 220 patients, 208 patients refused PPIUCD and 12 accepted PPIUCD. Data of 208 patients who refused insertion of PPIUCD are as follows.

Table 1: Socio-Demographic Characteristics of Patients refusing PPIUCD at a tertiary care hospital in Gujarat, India (N = 208)

Socio-Demographic characteristics	N= 208	Percentage (%)
Age (Year)		
<20	9	4.3
20-24	99	47.6
25-29	68	32.7
30-34	27	13
≥35	5	2.4
Education Status		
Illiterate	49	23.5
Primary	96	46.1
Secondary	41	19.7
Higher Secondary	17	8.2
College	3	1.4
Post-graduation	2	0.9
Occupation		
Housewife	201	96.6
Self employed	7	3.3
SE Status		
Lower	145	69.7
Middle	63	30.3
Type of Family		
Joint	155	74.5
Nuclear	53	25.5
Parity		
Primi	57	27.4
Second	82	39.4
Multi	69	33.1

Socio-demographic characteristics of patients who refused PPIUCD are presented in Table 1.

Table 2:Previous History of Contraception in Patients refusing PPIUCD at a tertiary care hospital in Gujarat, India (N = 208)

Previous History of Contraception	Number	Percentage
Condom	38	18.2
OC pills	26	12.5
IUCD	21	10.1
DMPA Injection	2	0.9
No use of contraceptives	121	58.1

As shown in Table 2, out of all patients who refused PPIUCD, majority of patients (121, 58.1%) had no history of contraceptive usage.

Out of 208 patients, 97 (46.6%) women had prior knowledge of IUCD and 71 (34.1%) had knowledge of both IUCD and postpartum intrauterine contraceptive device (PPIUCD) as methods of contraception. Knowledge about IUCD/PPIUCD as one of the contraceptive methods was lacking in 40(19.2%) of patients. Reasons for refusal of PPIUCD are shown in Table 3.

Table 3: Reasons for refusal of PPIUCD by participants (N = 208)*

Reasons for refusal of PPIUCD		Total
Family Pressure	Mother in law	35 (16.8%)
	Husband	20 (9.6%)
	Mother	3 (1.4%)
	Total	58 (27.8%)
Worry About Side Effects	Menstrual Irregularities	42 (20.1%)
	Pain	16 (7.7%)
	Total	58 (27.8%)
Willingness for other method of contraception		44 (21.1%)
Fear/ Apprehension		34 (16.3%)
Misconception	Sexual Discomfort due to Thread, Hair fall, Change in skin Complexion	7 (3.3%)
	Migration of Cu-T in Other Viscera	6 (2.8%)
	Weight Gain	5 (2.3%)
	Dyspareunia	5 (2.3%)
	Total	23 (10.7%)
Not likely to start Sexual Activity in near future		18 (8.6%)
Natural Contraception due to Lactation		12 (5.7%)

* More than one reason were mentioned by some patients

Of 208 patients who refused PPIUCD, 129 (62%) patients had undergone normal delivery while 79 (37.9%) patients had undergone cesarean section. Out of 34 patients who refused PPIUCD, as they were scared/ had procedure related

apprehension, 32 (94.1%) were from normal delivery group.

Discussion

PPIUCD has a huge potential and abundant scope in India and if widely used it will have a strong impact on population control and prevention of unplanned pregnancy.[4]

During the study period i.e. 2019, a total of 220 patients were recruited for the study, of whom 208 patients refused PPIUCD insertion, while 12 accepted PPIUCD, giving the acceptance rate of 5.4%. Kirigia C et al5 have reported PPIUCD uptake of 3.4%. They reported that non use of PPIUCD was due to socio-demographic characteristics and non willingness of younger patients to use it.

In the present study, 47.6% of patients who refused PPIUCD were in the age group of 20-24 years. Nigam A et al[6] have also reported that 39.6% of patients who refused PPIUCD belong to the same age group. Kirigia C et al[5] also concluded that, there was a significant relationship between non-use of PPIUCD and young age, as the highest number of PPIUCD users (70%) was above 30 years of age and multipara, while only 30% were aged between 20 to 30 years.

In the present study, refusal of PPIUCD in illiterate patients and those having primary education was 23.5% and 46.1% respectively. Nigam A et al[6] have reported 7.4% patients who refused PPIUCD were illiterate, where as basic schooling, high school, senior secondary, graduate and post graduate education was present in 13.4%, 37.4%, 18.4%, 15.6% and 7.8% patients respectively. Wulifan et al[7] have found that educational status of the women influence the usage of contraceptives among womenof reproductive age. Kirigia C et al[5] have reported that women who had education below secondary level, did not accept PPIUCD. Katheit G et al[8] have also found out that women who had higher education, had higher acceptance of PPIUCD.

In the present study, lower and middle socio-economic class patients were 69.7% and 30.3% respectively. Nigam A et al[6], have reported 16% and 73% patients from lower and middle socio-economic class respectively. The discrepancy observed can be attributed to the fact that we receive more patients from lower and middle socio-economic class since ours is a general hospital.

In the present study, 96.6% of patients who refused PPIUCD were housewives. In the study by Nigam A et al6, 60.6% were housewives and 39.4% were working. Study by Kirigia C et al[5] had reported that, employment status influences the acceptance of PPIUCD and self-employed women more readily accepted PPIUCD. Islam AZ et al[9] and Wulifan JK et al[7] have concluded that the contraceptive use was higher among employed women than unemployed women. Ochako R et al[10] too, concluded that nonuse was significantly influenced by woman's status as a housewife.

In the present study, refusal of PPIUCD was more in joint families (74.5%) compared to nuclear families (25.5%) which is contrary to the study by Nigam A et al[6], who reported that refusal of PPIUCD was higher in nuclear families than joint families (57.8% vs 42.2%). Refusal of PPIUCD was more in patients staying in joint families in the current study since there are many decision makers in joint family who influenced patient's choice of contraception.

Out of those patients who refused PPIUCD, primi, second and multi para were 27.4%, 39.4% and 33.1% respectively. This suggested the need for usage of temporary methods of contraception like PPIUCD amongst primi and second para, whereas multipara patients needs to be counseled for permanent methods and if they refuse permanent methods, then they should be counseled for temporary methods such as PPIUCD. Nigam A et al[6] have reported that patients with one, two and three or more deliveries who refused PPIUCD were 44%, 34% and 22% respectively.

In our study, information regarding IUCD/PPIUCD as one of the methods of contraception was lacking in 19.2% patients and only 34.1% of patients were aware of both IUCD and PPIUCD. As per study by Katheit G et al[8], awareness about immediate postpartum insertion of IUCD was significantly low (5.59%) as compared

to interval IUCD (73.55%). Hence, efforts for awareness and information regarding various methods of contraception are required. Counseling of patients during antenatal period can increase the rate of acceptance of PPIUCD. Kirigia C et al[5] concluded that, 70% of users of PPIUCD had heard about family planning during their antenatal visits as health care providers introduced PPIUCD to them during the antenatal visits. Awareness of specific family planning services can play a role in high uptake. Introduction of sex education early in schools and family planning counseling services in antenatal clinics were found to increase community awareness regarding contraception.[11] Wulifan JK et al[7] found that optimal contraceptive use among women of reproductive age was influenced by high knowledge status of women about family planning use.
In our study, women refused PPIUCD in 27.8% cases due to family pressure. Refusal by mother-in-law, husband and patient's own mother was reported in 16.8%, 9.6% and 1.4% respectively. In the study by Nigam A et al[6], women refused PPIUCD in 41 % cases, while husband and mother-in-law did so in 59 % cases. Yadav S et al[12] have concluded that, among non-acceptors of PPIUCD, in 20% of cases, their partner did not approve PPIUCD. Steinfeld RL et al[13]concluded that, husband played a vital role in decision making regarding family planning. Katheit G et al[8] also found out that PPIUCD acceptance was influenced by marital status. According to Ajong AB et al[14], lack of discussion regarding contraception amongst couple and decision by mother in law regarding contraception usage were the two major reason for non use of contraception.

Alemayehu M et al[15] found that there was a significant role of parents and husband in majority of those who didn't use any contraception. They found that married women required more time to discuss with their partners to decide whether to use any contraception or not. Nigam A et al[5] have also found the role of husband and mother-in-law in 40% and 19 % of patients respectively in deciding contraception. Role of other family members in taking decisions on contraceptive choices, especially in the Indian families is very vital. Being a dominant member of the family, husband's attitude regarding usage of contraception is an important factor both in urban and rural areas. Therefore, counseling of couple together can help to achieve the goal better. The best time of counseling is during the antenatal period.[16.]

In our study, other reasons for non-acceptance of PPIUCD were fear of side effects like menstrual irregularities in 20.1% and pain in 7.7% cases. Vidyarama R et al[17] reported that women refused PPIUCD due to negative influence of family members in 60% cases and fear of heavy bleeding in 10% and abdominal pain in 5% of women. Fear of malignancy and menorrhagia were the most common reasons for non-acceptance of intrauterine contraceptive device in 38% and 36.4% women respectively as reported by Nigam A et al.[6]

In our study, refusal rate was higher in patients of normal delivery (62%) than patients who were delivered by cesarean section (37.9%). Jairaj S et al[18] have reported that 93.7% of patients who underwent normal delivery and 56.1% of cesarean section patients didn't accept PPIUCD. In present study also, PPIUCD insertion procedure related apprehension was higher in patients of normal delivery than those who had undergone cesarean section.

In our study, 16.3% of patients were scared or apprehensive of PPIUCD and 10.7% had misconceptions about PPIUCD. Sexual discomfort due to thread, hair fall and change in complexion was reported misconceptions in 3.3% cases. About 2.8% of patients refused PPIUCD because of the misconception of migration of Cu T in other viscera. Misconception about weight gain and painful intercourse was present in 2.3% cases each. Also, 8.6% patients refused PPIUCD as they were not likely to start sexual activity in near future and 5.8% patients thought that lactation would be helpful for natural contraception since they were aware of Lactational Amenorrohea Method (LAM)

In our study, 21.1% patients were willing for contraceptive methods other than PPIUCD. About 25%, and 60% of patients wanted to use methods of contraception other than PPIUCD as reported by Vidyarama R et al[17] and Yadav S et al[12] respectively. Willingness to use other method of contraception, fear of complications and refusal by family members were the major reasons for non-acceptance of PPIUCD in the study by Maluchuru S et al[19] (46.68%, 32.89% and 20.42% respectively). Kanhere A et al[20] reported that, willingness to use another

method of contraception, fear of complications and no specific reason were present in 32%, 18% and 8% women respectively. Goswami G et al[21] reported refusal of PPICD due to fear of complications in 41%, partner refusal in 35%, preference of other methods in 22%, no specific reason in 5% and religious reasons in 1% of patients. Jairaj S et al[18] have reported the reasons for non-acceptance of PPIUCD as preference of use of other methods of contraception (63.97%), refusal by partner (17.17%) , religious grounds (4%) and fear of side effects (4.3%).

The findings of the study implies that the awareness regarding PPIUCD is still less and it needs to be increased. Health education and counseling of patient and family members including spouse from the antenatal period should be conducted. Community awareness to bust the myths and misconceptions regarding PPIUCD should be increased.

Conclusion

Lack of awareness and inadequate counseling remain the main reasons behind high rates of PPIUCD refusal. Counseling for postpartum contraceptionshould start from antenatal period. Information and correction of myths and misconceptions regarding PPIUCD should be provided during counseling. Not only the woman but counseling of husband, mother-in-law and family members should be employed as they also play major role in deciding whether the woman should use any contraception or not. Education status and occupation play a vital role in women's decision regarding her health and usage of contraception. Hence,education and empowerment of women should be promoted.

Conflict of Interest: None

Limitations: Small sample size, but it is reflective of patients' perspective regarding usage of post partum intra uterine contraceptive device (PPIUCD)

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