

Original Research Article

PPIUCD-A STUDY ON THE FACTORS AFFECTING ACCEPTANCE AND REFUSAL IN A TERTIARY CARE CENTRE IN CENTRAL GUJARAT

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ABSTRACT

Introduction: The immediate postpartum period is an ideal time to guide women towards appropriate family planning methods in order to prevent unintended pregnancy^[1]. PPIUCD is a long-lasting method of contraception, convenient, safe, effective, reversible, coitus user friendly option available to the postpartum mothers^[2]. Despite all these benefits, the acceptance rate and utilization of immediate PPIUCD have been found to be very low. The aim of the present study was to find out the rate of utilization of post-partum intra uterine contraceptive device and factors associated with the acceptance and refusal among women delivering at a tertiary care hospital located in the district of Anand in Central Gujarat.

Materials and Methods: This was a prospective analytical study conducted in the Department of Obstetrics and Gynaecology, Pramukh Swamy Medical college in Karamsad, Gujarat, India between Oct 2020 to June 2021. The study included 350 pregnant women, full filling the WHO medical eligibility criteria, who were admitted to the labour room of our hospital. All women enrolled in the study were interviewed using a pre-designed questionnaire.

Results: In our study, majority of cases were primipara. Out of 350 participants, only 19 (5.4%) have accepted PPIUCD. The univariate analysis shows that parity has a significant correlation with the acceptance of PPIUCD but the level of education did not show a significant correlation. The main reason for acceptance of PPIUCD was given as spacing of pregnancy. Most common reason for refusal was denial by husband (33.53%).

Conclusion: The study highlights the impact of husband and parents in law in the acceptance of PPIUCD. Public health programmes for PPIUCD should target not only the postpartum female but also her husband and family. Counselling during antenatal visits may help to increase the uptake of PPIUCD.

Keywords: PPIUCD, tertiary care hospital Central Gujarat, factors affecting acceptance and refusal of PPIUCD.

INTRODUCTION

India faces a huge problem of population explosion. It is expected that India will overtake China in less than one decade as the world's most populous country, Hence, there is an urgent need to promote utilization of family planning services.^[1]

Effective Family planning services, by helping couples space their pregnancies, can prevent nearly 10% of childhood and 30% of maternal deaths.^[2]

There is a very high rate of unintended pregnancy in our country, and there as an urgent need for reliable, effective, long-term contraception such as intrauterine device (IUD), specially in post-partum women. The immediate postpartum period is an ideal time to guide women towards appropriate

family planning methods in order to prevent unintended pregnancy.^[3]

IUCD is convenient, safe, effective, reversible, coitus user friendly option available to the postpartum mothers. It is a long lasting method of contraception with high continuation rate.^[4] Being hormone free, there is also less chance of any adverse effect on lactation.

During immediate postpartum period the female is more receptive to family planning as she has suffered from severe pain in recent past and it has no adverse effects on lactation. It has been reported that inserting CuT 380A within 10 min after placental delivery is safe and effective, has high retention rate with a low expulsion rate.^[5]

Postpartum Intrauterine Contraceptive device (PPIUCD) can serve both for spacing as well as limiting pregnancy.^[6]

Despite all these benefits, the acceptance rate and utilization of immediate PPIUCD have been found to be very low in our district of Anand in Central Gujarat. Therefore, we decided to study the factors associated with utilization and refusal of PPIUCD among women delivering at a tertiary care center in the rural district of Anand.

Aims and objectives

The aim of the present study was to find out the rate of utilization of post partum intra uterine contraceptive device and factors associated with the acceptance and refusal among women delivering at Pramukh Swamy Medical college and Shree Krishna Hospital, Karamsad. This hospital is a tertiary care hospital located in the district of Anand in Central Gujarat.

MATERIALS AND METHODS

This is a prospective analytical study conducted in the Department of Obstetrics and Gynecology, Pramukh Swamy Medical college in Karamsad, Gujarat, India. It was conducted over 8 months from Oct 2020 to June 2021, after getting approval from Institutional Ethics Committee.

The study included 350 pregnant women, full filling the WHO medical eligibility criteria, who were admitted to the labour room of our hospital and delivered vaginally or by cesarean section. Prior informed consent was taken from the patients.

The women were divided into 2 groups.

Group A- Women who accepted the PPIUCD insertion and reason for their acceptance.

Group B- Women who did not accept the PPIUCD insertion and reason for their refusal

All women enrolled in the study were interviewed using a pre-designed questionnaire. Questionnaire was filled for each women with help of resident doctors. The Questionnaire included details of demography, obstetrics characteristics, prior knowledge of available contraceptive measures and the reason for acceptance or refusal of IUCD.

RESULTS

Our study included 350 patients who delivered in our hospital over 8 months from Oct 2020 to June 2021.

The mean age was 26.2 ± 4.8 years. Majority (71.71%) patients belonged to the age group of 21 to 30 years. [Table 1]

In our study 10.8% cases were illiterate while 46.8% cases had studied upto primary education, 30% studied upto secondary education and 12.2% were graduate. [Table 2]

In our study, 73% of cases were primipara and 25% were multiparous. 3 patients had parity more than 5. [Table 3]

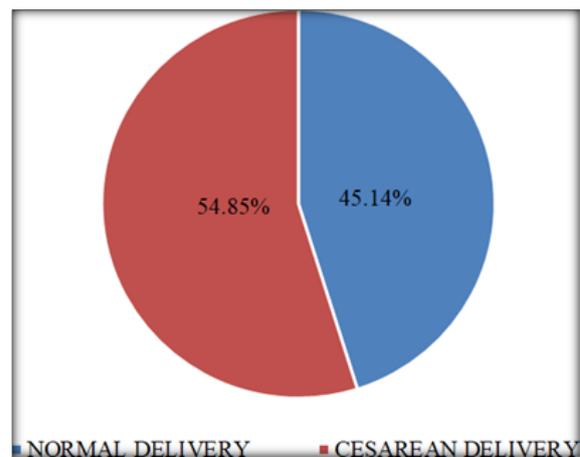


Figure 1: Distribution of mode of delivery

Out of 350 cases, 158 cases (45.14%) delivered by vaginal delivery with or without episiotomy and 192 cases (54.85%) delivered by cesarean section.

70% of patients had never used any form of contraception before. Among them majority had used barrier method for family planning Out of 350 participants, only 19 have accepted PPIUCD. [Figure 4]

Out of 350 participants, only 19 (5.4%) have accepted PPIUCD. [Figure 5]

The univariate analysis shows that parity has a significant correlation with the acceptance of PPIUCD but the level of education did not show a significant correlation. [Figure 6]

The main reason for acceptance of PPIUCD was given as spacing of pregnancy (73.68%). 5 women (26.3%) had accepted PPIUCD because they did not want further child bearing. [Figure 7]

94 % of patients refused PPIUCD. The most common reason (33.53%) was refusal by the partner. 28.39% of patients refused due to fear of complications, 14.80% patients had a preference for other methods and 7.55% wanted to have another child in near future.

7.55% of females refused due to religious reasons, 0.3% believed that it interferes with sexual intercourse and 7.85% did not give any reason. [Figure 8]

Table 1: Age wise distribution (N = 350)

AGE (in years)	NO. OF CASES	% OF CASES
≤ 20	38	10.86
21 to 30	251	71.71
31 to 40	57	16.29
>40	4	1.14

Table 2: Distribution of educational status of women (N = 350)

EDUCATION LEVEL	NO. OF CASES	% OF CASES
ILLITERATE	38	10.86
PRIMARY EDUCATION	164	46.86
SECONDARY EDUCATION	105	30.00
GRADUATE	43	12.29

Table 3: Distribution OF Parity (N = 350)

PARITY	NO. OF CASES	% OF CASES
1	258	73.71
2-4	89	25.43
≥5	03	0.86

Table 4: Prior Use of Family Planning Methods(N=350)

	NO. OF CASES	% OF CASES
YES	103	29.42
NO	247	70.57

Table 5: Acceptance of PPIUCD(N=350)

PPIUCD Accepted	NO. OF CASES	% OF CASES
Yes	19	5.4
No	331	94.6

Table 6: Univariate logistic regression showing the association of factors with the acceptance of PPIUCD. (N = 350)

FACTORS	ACCEPTANCE OF PPIUCD		P- VALUE
	YES (n=19)	NO (n=331)	
PARITY			
PRIMI-PARA	0	64	0.031
MULTI-PARA	19	267	
EDUCATION			
ILLITERATE	0	38	0.363
PRIMARY	12	152	
SECONDARY	05	100	
GRADUATE	02	41	

Table 7: Reason for acceptance of PPIUCD (N = 19)

	NO. OF CASES	% OF CASES
FOR SPACING OF PREGNANCY	14	73.68
PREVENTION OF FUTURE PREGNANCY	05	26.32

Table 8: Factors responsible for refusal of PPIUCD (N = 331)

	NO. OF CASES	% OF CASES
SATISFIED WITH ANOTHER METHOD OF CONTRACEPTION	49	14.80
HUSBAND / FAMILY DISAPPROVES	111	33.53
AFRAID OF SIDE EFFECTS	94	28.39
WANTED TO HAVE ANOTHER CHILD	25	7.55
INTERFERES WITH SEXUAL INTERCOURSE	1	0.30
RELIGIOUS BELIEF	25	7.55
NO REASON	26	7.85

DISCUSSIONS

In our study, total 350 cases were offered PPIUCD services which included all patients delivered at our institute in a period of 8 months.

The maximum number of patients were in the age group of 21 to 30 years and the mean age of the women in our study was 26.2 ± 4.8 years. Similar

findings were reported by a study conducted by S.Chattopadhyay et al in a Tertiary care institute in Eastern India, where maximum patients were in the age group of 21 to 25 years.^[7]

The educational status of the mother plays an important role in their acceptance of any contraception. Majority of women who accepted PPIUCD had completed primary education, while

none of the uneducated women accepted PPIUCD. Similar to our study Pandher DK et al reported 89% mothers who accepted PPIUCD had completed primary education.^[8] Kittur et al in their study found 52.38% mothers had completed primary schooling.^[9]

Acceptance of PPIUCD was higher among women with Primary and secondary education (28.56 % and 13.88), than those with no formal or higher education (7.75 and 8.21 %). This study, highlighting the importance of education in PPIUCD acceptance was conducted at a tertiary care hospital by Mishra et al in Orissa.^[10]

Nearly all the studies have proven that education plays an important role in acceptance of PPIUCD and the rate of PPIUCD coverage can be enhanced by improving the educational status of women.

In our study, there was a 100% acceptance in multiparous women. In contrast 57% of PPIUCD users were primigravidas in a study conducted at a tertiary level institute in Delhi by Lal et al.^[11] This was also seen in study conducted at a tertiary care institute in Orissa by S. Mishra where the acceptance of intrauterine contraceptive device was more common among primipara patients (20.73 %) as compared to multiparous patients where it was 13.76 %.^[10] This finding was contrary to our study where we found higher acceptance in multiparous clients.

Gaur SS et al in their study, also reported a higher acceptance (54.3%) in multiparous women.^[12]

In our study the acceptance rate of PPIUCD was 5.43% which is similar to study conducted by Abhinaya valliappan,^[13] at Puducherry (8.6%) and Sudha C.P,^[14] at Karnataka (7%). It was still lower in a study by Sharma et al at Kota where the acceptance rate was 2.94%.^[15]

In contrast, there was a 51% acceptance rate in a study conducted at Bangalore by Pradeep M.R.^[16] and a 43 % acceptance rate in another study conducted at Lucknow by Asnani et al,^[17] This maybe because of a higher level of education and awareness in the target population.

Out of 19 mothers who accepted PPIUCD, 14 mothers (73.6%) preferred PPIUCD for spacing of pregnancy. 5 mothers (26.3%) preferred PPIUCD for prevention of future pregnancy.

Anjali et al, in a study done in a tertiary care hospital in Central India, showed that 28% women accepted PPIUCD for the long term contraception, 20% preferred PPIUCD as it needed less follow up, 17% as it is reversible, and 10% due to less side effects because it is, 11% accepted PPIUCD as it required minimal attention.^[18]

In our study, 12 women (63.15%) following normal labour, 7 women (36.84%) following cesarean section preferred PPIUCD usage. In contrast, many studies have shown a higher acceptance following Caesarean section. Vidyarama et al found acceptance of PPIUCD in 83.73% women following cesarean section and 16.26% women following vaginal delivery.^[19] Manju et al too reported an

acceptance rate of 60.87% following cesarean section and 39.13% following normal labour (20). PPIUCD usage was more following vaginal delivery rather than cesarean section in our study as most mothers were multi para and preferred PPIUCD for spacing of pregnancy.

On studying the reasons for women refusing to accept PPIUCD, the most common reasons were refusal by the partner in 33.43% of cases and due to fear of complications in 28.31% of cases. Partners play an important role in acceptance family planning measures. Educating and counseling the partners, specially in the antenatal period, can go a long way in improving the rates of PPIUCD acceptance.

But in our setup, in the antenatal clinic, women are not accompanied by their partner. This makes educating the couple about PPIUCD benefits difficult. And the short postpartum stay makes more difficult to explain about the benefits of PPIUCD.

Anjali et al study showed 32% cases preferred another method of contraception and 18% refused due to fear of complication.^[18]

In the study by S. Chattopadhyay et al, majority of females refused PPIUCD insertion because of fear of complications.^[7]

CONCLUSION

According to a WHO report, better family planning and birth spacing services lead to better maternal and neonatal outcome. Promotion and acceptance of these services in developing countries help to reduce high birth rates and consequently bring down rates of maternal and neonatal mortality.^[21]

This is a study from a Medical College in central Gujarat catering to a predominantly rural population belonging to the lower and middle class, with relatively low literacy rate. Our study highlights the impact of husband and parents in law in the acceptance of PPIUCD.

PPIUCD insertion is a safe, convenient and effective method of contraception. Despite this form of contraception being widely available, there is poor acceptance of this method of contraception.

The government and the managers of public health program need to devise strategies to increase public awareness of PPIUCD through different media. These programmes should target not only the postpartum female but also her husband and family. Counselling during antenatal visits may help to increase the uptake of PPIUCD.

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