

ORIGINAL RESEARCH

Assessment of acceptability and safety of IUCD among Postpartum women at a tertiary centre: A Cross-Sectional Study

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Received Date: 11 August, 2021

Accepted Date: 18 September, 2021

ABSTRACT

Background: Contraception methods are used to prevent pregnancy and can be broadly categorized into several types based on their mechanism, duration, and form. **Aim & objectives:** The present study was conducted to assess the acceptability and safety of IUCD among study population. **Materials & Methods:** 400 Women delivering vaginally or by caesarean section, counselled for IUD insertion in pre-natal period or in labour were recorded. IUCD was inserted after 3rd stage labour management that is after placental removal. An outpatient follow-up was conducted after six weeks. Symptom, education, SES, parity was recorded. **Results:** 400 Women delivering vaginally or by caesarean section, counselled for IUD insertion. IUCD was accepted by 50 and declined by 350. Age was 24.17 ± 2.95 and 23.80 ± 3.25 among accepted and declined subjects respectively. The difference was nonsignificant ($P > 0.05$). People from urban locality more often accepted PPIUCD and that was statistically significant ($P < 0.05$). Education was primary in 15 and 91, secondary in 18 and 189 and upto college in 17 and 70 among accepted and declined subjects respectively. Occupation was employed in 11 and 30 and unemployed in 39 and 320 among accepted and declined subjects respectively. Socio economic status was upper in 4 and 32, middle in 32 and 130 and lower in 14 and 188 among accepted and declined subjects respectively. Parity was Primi in 21 and 160, 2 pregnancies in 19 and 169 and >3 pregnancies in 10 and 21 among accepted and declined subjects respectively. The difference was significant ($P < 0.05$). The mode of delivery was vaginal in 8 accepted and 290 declined cases and caesarean in 42 accepted and 60 declined cases. The difference was significant ($P < 0.05$). Reason for not accepting IUCD was partner not accepted in 58, religious belief in 38, fear in 39, don't want contraception in 45 and want some other method in 170 cases. The difference was significant ($P < 0.05$). **Conclusion:** Less educated, lower- class and unemployed women did not accept PPIUCD as a means of meeting unfulfilled needs or controlling the population.

Keywords: Contraception, IUCD, Women.

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INTRODUCTION

Contraception methods are used to prevent pregnancy and can be broadly categorized into several types based on their mechanism, duration, and form.¹ An intrauterine contraceptive device (IUD) is a small, T-shaped device inserted into the uterus to prevent pregnancy. There are two main types of IUDs: copper IUDs and hormonal IUDs. Both types are highly effective and long-acting, but they work in different ways and have different characteristics.² Copper IUD is a non-hormonal IUD wrapped in copper wire. The copper ions released from the IUD create an inflammatory reaction in the uterus that is toxic to sperm, preventing fertilization.³ Additionally, copper

IUDs can alter the lining of the uterus, making it less suitable for implantation. It is effective for up to 10-12 years, over 99% effective in preventing pregnancy.⁴ With 120 million people as of the 2011 census, India is the second most populous country in the world, accounting for approximately 25 million births annually. Of these, 65% of women have unmet family planning needs in the first year postpartum. Until two years after giving birth, a woman is not physically prepared for conception and delivery.⁵ Research has shown that getting pregnant within two years of giving birth can result in unfavourable outcomes such as abortion, early labor, postpartum hemorrhage, low birth weight babies, foetal loss, and

occasionally maternal deaths. Accordingly, counselling and using contraception during this time is beneficial for women's health.⁶

AIM AND OBJECTIVES

The present study was conducted to assess the acceptability and safety of IUCD among Postpartum women.

MATERIALS AND METHODS

The present cross-sectional hospital based analytical study was conducted on 400 Women delivering vaginally or by caesarean section, counselled for IUD insertion in pre-natal period or in labour. All were informed regarding the study and their written consent was obtained. The study was conducted by the Department of Preventive and Social Medicine, Sri Krishna Medical College, Muzaffarpur, Bihar, India in collaboration with Department of Obstetrics & Gynaecology, Sri Krishna Medical College & Hospital, Muzaffarpur, Bihar, India, for a period of nine months (July 2019– March 2020). The Institutional Ethics Committee gave the study its approval. Data such as name, age, etc. was recorded.

Inclusion Criteria

- Women delivering vaginally or by caesarean section, counselled for IUD insertion in the prenatal period or in labour, and willing to participate in the study
- Women to give written informed consent
- Available for follow up.

Exclusion Criteria

- Women not give written informed consent
- Haemoglobin <10 g/dl
- Patients who had fibroid, congenital malformation of uterus, PPH, with premature

rupture of membranes >18 hours, obstructed labour, lower genital tract infection

- Allergy to copper
- Those unable to attend follow-up.

Patient counselling: Before giving birth, and during admission, women were informed about the benefits and significance of family planning. The PPIUCD's advantages and disadvantages were explained. In order to ascertain acceptance and rejection, a pretested questionnaire was filled out, and reasons for a preference for other approaches were also noted.

IUCD was inserted after 3rd stage labour management, which is after placental removal. IUCD was inserted cautiously and aseptically into the uterine fundus. An outpatient follow-up was conducted after six weeks. Symptoms, education, SES, and parity were recorded.

Six-week follow-up was conducted in the outpatient setting. There have been reports of discharge, bleeding, and abdominal pain as symptoms and signs of adverse effects following IUCD insertion. Inspected for threads; if threads were not found, pelvic ultrasound and x-ray pelvis were done. The questionnaire was meticulously filled out by women who came for follow-up and requested to have IUCD removed.

Statistical Analysis

The data thus obtained were subjected to statistical analysis. The data was analysed using descriptive statistics such as mean, standard deviation, percentages, and proportions. The Chi-square test was used to assess categorical data. The findings were obtained by using suitable statistical tests utilising Microsoft Excel and the Statistical Package for Social Sciences (SPSS). A P value < 0.05 was considered significant.

RESULTS

Table I: Assessment of age

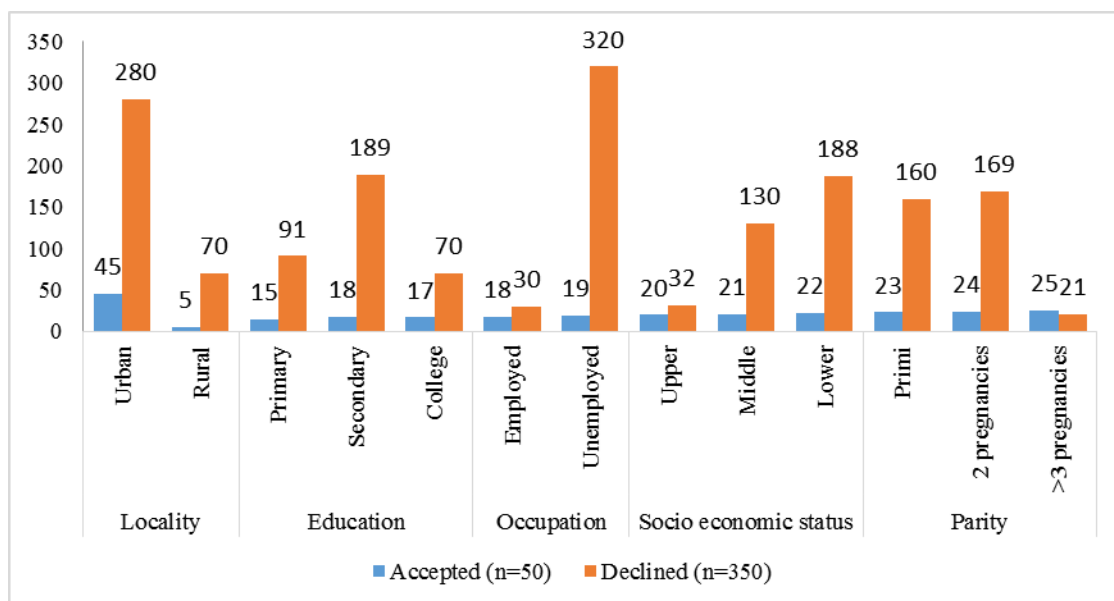
Parameter	Accepted (n=50)	Declined (n=350)	P value
Age	24.17±2.95	23.80±3.25	>0.05

Table I shows that age was 24.17±2.95 and 23.80±3.25 among accepted and declined subjects respectively. The difference was non-significant (P>0.05).

Table II: Assessment of socio demographic parameters

Parameters	Variables	Accepted (n=50)	Declined (n=350)	Total	P value
Locality	Urban	45(90%)	280(80%)	325(81.25%)	<0.05
	Rural	5(10%)	70(20%)	75(18.75%)	
Education	Primary	15 (30%)	91 (26%)	106(26.5%)	0.031
	Secondary	18 (36%)	189 (54%)	207(51.75%)	
	College	17 (34%)	70 (20%)	87(21.75%)	
Occupation	Employed	11 (22%)	30 (8.57%)	41(10.25%)	0.007
	Unemployed	39 (78%)	320 (91.43%)	359(89.75%)	
Socio economic status	Upper	4 (8%)	32 (9.14%)	36(9%)	0.001
	Middle	32 (64%)	130 (37.14%)	162(40.5%)	
	Lower	14 (28%)	188 (53.72%)	202(50.5%)	

Parity	Primi	21 (42%)	160 (45.71%)	181(45.25%)	0.0023
	2 pregnancies	19 (38%)	169 (48.28%)	188(47%)	
	>3 pregnancies	10 (20%)	21 (6.01%)	31(7.75%)	



Graph I: Assessment of socio-demographic parameters

Table II and Graph I shows that People from urban locality more often accepted PPIUCD and that was statistically significant ($P < 0.05$). Education was primary in 15 and 91, secondary in 18 and 189 and upto college in 17 and 70 among accepted and declined subjects respectively. Occupation was employed in 11 and 30 and unemployed in 39 and 320 among accepted and declined subjects respectively. Socio economic status was upper in 4 and 32, middle in 32 and 130 and lower in 14 and 188 among accepted and declined subjects respectively. Parity was Primi in 21 and 160, 2 pregnancies in 19 and 169 and >3 pregnancies in 10 and 21 among accepted and declined subjects respectively. The difference was significant ($P < 0.05$).

Table III: Assessment of mode of delivery

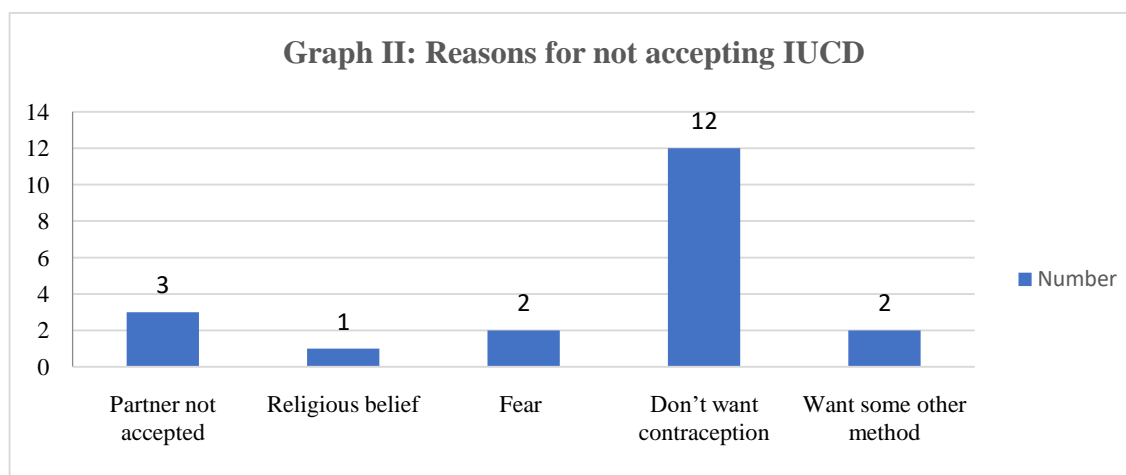
Mode of delivery	Accepted	Declined	Total	P value
Vaginal delivery	8 (16%)	290 (82.85%)	298	0.01(<0.05)
Caesarean section	42 (84%)	60 (17.14%)	102	

Table III shows that mode of delivery was vaginal in 18 accepted and 290 declined cases and caesarean in 42 accepted and 60 declined cases. The difference was statically significant ($P < 0.05$).

Table IV: Reasons for not accepting IUCD

Reasons	Number	P value
Partner not accepted	58 (16.57%)	0.01(<0.05)
Religious belief	38 (10.85%)	
Fear	39 (11.14%)	
Don't want contraception	45 (12.85%)	
Want some other method	170 (50%)	

Table IV, graph II shows that reason for not accepting IUCD was partner not accepted in 58, religious belief in 38, fear in 39, don't want contraception in 45 and want some other method in 170 cases. The difference was significant ($P < 0.05$).



DISCUSSION

Family planning is a vital human right that is necessary for the wellbeing of each individual, their family, and society at large. India now has 1,21,05,69,573 people living there (2011 census). India is the second-biggest nation on Earth, home to 17.5% of global population.⁷ More than any other nation, India currently accounts for one-fifth of the global population growth, with over 25 million births each year.⁸ In India, the demand for family planning is unmet for 65% of women in the first year after giving birth. Lack of knowledge and concern over the potential negative consequences of contraceptive methods are typical causes of unmet needs.⁹ According to studies, there is an increased chance of unfavourable outcomes, such as abortion, early labor, postpartum hemorrhage, low birth weight babies, fetal loss, and mother mortality, in pregnancies that occur within 24 months of a previous birth.¹⁰ The present study was conducted to assess the acceptability and safety of IUCD among study population.

We found that people from urban locality more often accepted PPIUCD and age was 24.17 ± 2.95 and 23.80 ± 3.25 among accepted and declined subjects respectively. Education was primary in 15 and 91, secondary in 18 and 189 and upto college in 17 and 70 among accepted and declined subjects respectively. Occupation was employed in 11 and 30 and unemployed in 39 and 320 among accepted and declined subjects respectively. Socio economic status was upper in 4 and 32, middle in 32 and 130 and lower in 14 and 188 among accepted and declined subjects respectively. Parity was Primi in 21 and 160, 2 pregnancies in 19 and 169 and >3 pregnancies in 10 and 21 among accepted and declined subjects respectively. The difference was significant ($P < 0.05$). Kanhere AV et al.¹¹ studied acceptability, feasibility & complications of immediate PPIUCD. Out of 200 eligible postpartum patient counselled, 72 (36%) women underwent PPIUCD insertion which was significantly low as compared to preference to use of other methods of contraception at a later date (66%). Acceptance of PPIUCD was higher in the age group

of 21-29 years (35%), para-1 (48%), and educated (60%) clients. Expulsion rate was 22%. There was no case of perforation or any other major complication. 52 cases (72%) reported for follow up. 43% of cases were comfortable with PPIUCD at 6 weeks. There was no case of perforation, PID reported. Only one patient reported with intrauterine pregnancy at 6 months with IUCD in place. We found that mode of delivery was vaginal in 8 accepted and 290 declined cases and caesarean in 42 accepted and 60 declined cases. We also found that reason for not accepting IUCD was partner not accepted in 58, religious belief in 38, fear in 39, don't want contraception in 45 and want some other method in 170 cases. Jairaj et al.¹² examined the safety and acceptability of IUCD in the study population. The acceptance age was 23.70 ± 2.95 years on average. 797.75 percent of them were from metropolitan areas. The percentage of people who finished secondary school (23.3%) had higher acceptance. PPIUCD was being accepted by women undergoing cesarean sections more often than by women having a typical vaginal delivery. The majority of accepters (67.12%) stated that the reversible nature of IUCD is the reason they accepted it. The most common reported side effects were abdominal pain (17.14%) and bleeding (14.28%). 6.8% of people were expelled. The most frequent explanation (40%) for IUCD removal was a preference for alternative techniques.

Limitation of the study

The shortcoming of the study was small sample size and Follow up was done at 6 weeks only.

CONCLUSION

It was found that less educated, lower- class and unemployed women did not accept PPIUCD as a means of meeting unfulfilled needs or controlling the population.

Acknowledgement

I am immensely grateful to all faculties and co-workers of department, Department of Preventive and

Social Medicine (PSM), Sri Krishna Medical College, Muzaffarpur, Bihar, India and Department of Obstetrics and Gynaecology, Sri Krishna Medical College & Hospital, Muzaffarpur, Bihar, India, for their support and valuable suggestions.

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