

Awareness, Acceptance And Reasons of Refusal of PPIUCD in A Tertiary Care Hospital

SAIMA CHAUDHARY¹, ASMAA JABEEN DAR², SHAMSA HUMAYUN³, SARA HUMAYUN⁴, UMMARA ZAFAR⁵

¹Assistant Professor, Department of Obstetrics and Gynecology, Fatima Jinnah Medical University, Lahore.²Assistant Professor, Department of Obstetrics and Gynecology, Fatima Jinnah Medical University, Lahore. ³Professor, Department of Obstetrics and Gynecology, Fatima Jinnah Medical University, Lahore. ⁴Final year student. ⁵Final year student.

Correspondence: Dr. Saima Chaudhary, drsaimach@gmail.com, Cell No: 03218487697

ABSTRACT

Objective: To determine the awareness, acceptance and the reasons of refusal of PPIUCD in antenatal women.

Study Design: Cross sectional study

Place & duration of study: The study was conducted in Gynae unit 1 Sir Ganga Ram Hospital Lahore for the period of 1 year (Jan 2015 to Dec 2015).

Methodology: After approval from the ethical committee of the Sir Ganga Ram Hospital Lahore, 505 eligible pregnant women attending the OPD and labour room were enrolled in the study. Informed consent was taken. Non-probability convenience sampling technique was used. Afterwards they were counseled for PPIUCD and a validated questionnaire including age, parity, educational and socioeconomic status, awareness of PPIUCD, willingness for PPIUCD insertion and reasons of refusal was used to collect data. Logistic regression analysis was used to find out significance of the above-mentioned factors.

Results: The mean age of women was 27.7 years \pm SD 4.4. Only 22.38% females were aware of PPIUCD. Acceptance rate of PPIUCD was 53.27% and 38.42% women refused PPIUCD, while 8.32% women were convinced but wanted to discuss with family. The most frequent reason of rejection identified was husband and family disagreement (28.9%) followed by desire of permanent contraceptive method, requirement of short-term contraception, fear of side effects, satisfaction with previous method, myths and religious beliefs. Acceptance rate was highest (58.5%) amongst P2-4. Acceptance rate was higher (71%) in women who were already aware of PPIUCD.

Conclusion: The awareness about availability of PPIUCD is quite low because it is recently introduced in the family planning methods. The acceptance rate of PPIUCD after dedicated counseling is good despite low awareness. The most frequent reason of refusal is husband and family disagreement. The acceptance can further be enhanced by dissemination of information and appropriate counseling in antenatal clinic.

Key words: Awareness, Acceptance, Reasons Of Refusal, PPIUCD

INTRODUCTION

Pakistan is sixth most populous country in the world having an estimated population of 184.35 million. It is expected that Pakistan would become fifth most populous country by 2050.¹ The population boom is not only responsible for economic upheaval but it is leading us into an era of shortage of health & education facilities, shortage of drinking water, over crowding, poverty, crime and environmental degradation.² Other than population explosion short inter-pregnancy is associated with abortion, premature labor, postpartum hemorrhage, low birth weight babies, fetal loss and maternal death.³ Reduction in population growth needs to be one of our top

priorities to attain a balance between country's resources and population leading to sustainable fetomaternal health improvement and socioeconomic development¹. Recognizing the potential impact of improved family planning, a sustainable and effective family planning program is desperately required.

The present total fertility rate (TFR) in Pakistan is 3.2 births, which lags behind the target of 2.1 according to MDG goal to be attained by 2015. The contraceptive prevalence rate (CPR) in Pakistan is 35%. Most commonly used methods are condoms and sterilization. The practice of all modern methods is far lower, in the range of 2-3%. The unmet need for family planning is 1 in 5

married women.⁴ The slower decline in TFR is due to the sluggish uptake of family planning methods because of lack of awareness, fear of side effects and poor access to family planning services.¹

Recognizing the potential impact of effective family planning program Pakistan government made FP2020 commitment in London Summit 2012 to take modern contraceptive prevalence rate to 55% by 2020.⁵ To ensure that we are able to fulfill this commitment and don't lag behind the set target as in MDGs, an effective and forgetful contraceptive method needs to be promoted.

In our country delivery might be the only time a healthy women comes in contact with health personnel. The postpartum period is a critical window of opportunity to address unmet family planning need. PPIUCD is the best choice for noncompliant populations like ours; as it enables the lady leave hospital with a safe, effective, long acting, and reversible method already in place.⁶ In Pakistan PPIUCD has been introduced in health care system since 2012 and efforts are being put by green star, NCMNH, Jhpiego and USAID to institutionalize the service. Keeping in view the recent entry of this service in our health system, awareness and acceptance are expected to be low.

Awareness of PPIUCD was found to be 5.7% in a study done by Geeta Katheit⁷. Acceptance rate for PPIUCD is quoted to be 70.5% by an Indian study and the most common reason of refusal was disagreement of family.⁸ A Turkish study has shown acceptance rate of 28.9% with main reasons of refusal as planning next pregnancy, preference to LAM or complications or previous IUCD use⁹. Farhat Arshad et al has reported acceptance rate of 51% with main reason of refusal being planning pregnancy in near future, preference to other methods or complication from previous IUCD¹⁰. In spite of the skilled counseling about the effectiveness, safety & benefits of PPIUCD insertion, lack of enthusiasm of patients towards IUCD insertion led us to explore the magnitude of awareness and acceptance rate of PPIUCD and reasons behind hesitancy of patients to accept PPIUCD in our population. Although international literature related to the issue is available but country based data is limited. Due to different social background, myths and religious beliefs the dynamics of PPIUCD refusal may differ in our country. Knowing the reservations, myths and fears of our population, we may address them

better in counseling sessions to improve the acceptance and satisfaction rate.

OBJECTIVE

To determine the awareness, acceptance and the reasons of refusal of PPIUCD in antenatal women presenting in OPD, antenatal ward or labour room.

METHODOLOGY

It was a cross sectional study conducted in Gynae unit 1 Sir Ganga Ram Hospital Lahore for the period of 1 year (Jan 2015 to Dec 2015). Having approval from the ethical committee of the Sir Ganga Ram Hospital Lahore, 505 eligible pregnant women attending the OPD and labour room were included in the study after taking informed consent. Non-probability convenience sampling technique was used. Women of 18 to 45 years age, with any parity, desiring contraception and eligible for IUCD according to WHO medical eligibility criteria (MEC) were enrolled in the study.¹¹ Women who had chorioamnionitis, prolonged leaking (>18 hours), puerperal sepsis, postpartum hemorrhage, dai handling or any other contraindication according to WHO MEC criteria were not included in the study. Women were counseled on postpartum contraception during antenatal care visits in OPD, antenatal ward or during their admission to labour room in early labour. Dedicated PPIUCD counselors and postgraduate trainees who got standardized training for PPIUCD counseling interviewed and counseled the patients. Patients were asked about awareness of PPIUCD, afterwards they were counseled about PPIUCD and offered the service, those who rejected were interviewed about reasons of refusal. A validated questionnaire including age, parity, educational and socioeconomic status, number of sons, awareness of PPIUCD, willingness for PPIUCD insertion and reasons of refusal was used to collect data. Data was entered and analyzed in SPSS version 22. Mean and standard deviation was calculated for quantitative variable like age of the women. Qualitative variables like acceptance, reasons for rejection of PPIUCD, socioeconomic and education status and awareness of PPIUCD were analyzed as frequencies and percentages. Stratification for age, parity, number of sons, socioeconomic and education status was done to address the effect modifiers. Post stratification chi-square test was applied with p-value < 0.05 taken as significant.

PPIUCD insertion (postpartum intrauterine contraceptive device) was defined as insertion of IUCD within 48 hours of birth. Acceptance rate was defined as the number of ladies who agreed to have postpartum IUCD placement after counseling. Awareness was defined as knowing IUCD insertion in first 48 hours after delivery as a contraceptive option.

RESULTS

A total of 505 women were interviewed and counseled. Table 1 shows the demographic characteristics of the women enrolled in the study. The mean age of women was 27.7 years \pm SD 4.4. The majority of women (64.6%) were in age group 26-35 years. Most women were para 2-4 (56.8%). Overall 27.5 % women were uneducated while rest of them had education to different levels. Majority belonged to lower socioeconomic class (54.1%). Only 22.38% females were aware of PPIUCD. Acceptance rate was found to be 53.27% and 38.42% women refused PPIUCD (figure 1 & 2). Moreover 8.32% women were convinced to get PPIUCD insertion but they further wanted to take opinion of family.

Table 1: Demographic characteristics of patients

Characteristics	Number N=505	% Age
Age (Years)		
15-25	160	31.6
26-35	326	64.6
36-45	19	3.8
Parity		
> P5	40	7.9
P (2-4)	287	56.8
P ₁	114	22.6
P ₀	64	12.7
Educational Status		
Above	37	7.3
Matriculation	139	27.5
Primary	190	37.6
Un-educated	139	27.6
Socio Economic Status		
Lower	273	54.1
Middle	220	43.5
Upper	12	2.4

The main reason of refusal of PPIUCD after counseling was disagreement of husband and family. Other factors leading to refusal are shown in table 2. Effect of different factors like age, parity,

education, socioeconomic status, awareness of PPIUCD and number of sons was evaluated on acceptance of PPIUCD as shown by table 3.

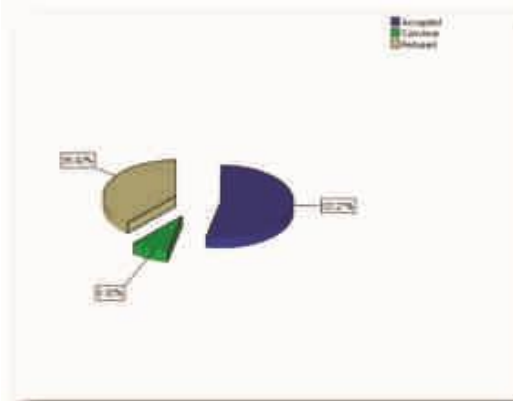


Figure 1: Acceptance rate

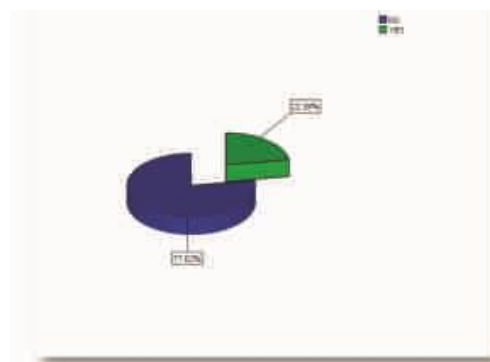


Figure 2: Awareness

Table 2: Reason For Refusal of PPIUCD

Reason For Refusal of PPIUCD (N= 194)	Frequency	Percentage
1 Husband/ Family Disagree	56	28.9%
2 Wants permanent method like BTL	47	24.2
3 Short Term Spacing Required	32	16.5%
4 Fear of side effects	26	13.4%
5 Satisfied with Practiced Contraceptive Method	22	11.3%
6 Myths Like Getting Fat	6	3.1 %
7 Religious beliefs	5	2.6 %
Total	194	100%

Table 3: Acceptance according to socio demographic and obstetrical characteristics

Characteristics	Counseled		Accepted	Convinced		Refused	
	N=505	N=269	N(%)	N=42	N (%)	N=194	N(%)
Age (Years)							
15-25	160	84	52.5	14	8.8	62	38.7
26-35	326	179	54.9	27	8.3	120	36.8
36-45	19	6	31.6	1	5.3	12	63.1
Parity							
> P5	40	16	40	3	7.5	21	52.5
P (2-4)	287	168	58.6	19	6.6	100	34.8
P ₁	114	64	56.1	11	9.6	39	34.3
P ₀	64	21	32.8	9	14.1	34	53.1
Educational Status							
Above	37	20	54.1	2	5.4	15	40.5
Matriculation	139	64	46	16	11.5	59	42.5
Primary	190	106	55.8	11	5.8	73	38.4
Un-educated	139	79	56.8	13	9.4	47	33.8
Socio Economic Status							
Lower	273	144	52.7	25	9.2	104	38.1
Middle	220	120	54.5	16	7.3	84	38.2
Upper	12	5	41.7	1	8.3	6	50
Awareness of PPIUCD							
Yes	113	81	71.7	3	2.7	29	25.6
No	392	188	48	39	9.9	165	42.1
Number of boys							
0	175	87	49.7	12	6.9	76	43.4
1 or more	330	188	57	18	5.5	124	37.5

Acceptance rate was highest (58.5%) amongst P2-4 (p value=0.004). Previous awareness played a positive influence on acceptance rate, being 71% in women who were aware of PPIUCD (p value=0.00). Age, education status and socioeconomic status did not affect acceptance rate (p value=0.52, 0.32 and 0.855 respectively). Similarly having a male child also did not affect the acceptance rate.

DISCUSSION

WHO medical eligibility criteria states PPIUCD as a safe, convenient, reversible, long term contraceptive method, which is acceptable even during lactation. An additional advantage is that it is in place before the delivered women leaves hospital and does not require repeated health care visits for contraceptive refills⁴. Reliable data exists to support the safety and efficacy of PPIUCD¹². However, as the service is new to our health system, we have a long way to increase the awareness and acceptability of PPIUCD. International data exists exploring awareness, acceptance and reasons of refusal of PPIUCD

showing diverse results in different communities. The greatest barrier to acceptance is myths, fears and beliefs of people about copper T and PPIUCD. Local literature surveying our population's chief concerns about PPIUCD need to be produced so that while counseling the patients the identified issues may be addressed.

In the present study 505 eligible women were interviewed and counseled for PPIUCD insertion. Table 1 shows the demographic characteristics of the women enrolled in the study. The mean age of women was 27.7 years \pm SD 4.4. Out of 505 women only 22.38% females were aware of PPIUCD and the acceptance rate was 53.27% moreover 8.32% women were convinced by the counselors but they wanted the opinion of family to make the decision (figure 1 & 2). Gunjan Goswami et al counseled 600 women and have shown acceptance rate of 66.7%, which is higher than ours¹². Neelima Agarwal et al in her study also revealed higher acceptance rate of 70.5% in antenatal women. One possible reason of high acceptance may be that 46% of women enrolled in her study made their independent decision without

family consultation, which is a major cause of unwillingness in the rest of literature⁸. In comparison another study showed low acceptance rate as 18.8% possibly because of very low awareness level of 5.7%⁷. Safwat A Mohamed et al have shown acceptance rate of 28.9% in a study done on 3541 women in Turkey⁹. Similarly low acceptance rates found in various studies were 36%, 21.7%, 14.4% and 9.1%^{4, 14, 15, 16}. Low awareness in women, husband and family and myths about PPIUCD explain the low acceptance rate in these studies. Acceptance rate in our study compared to these was fairly good despite low awareness.

We stratified demographic characteristics of study population including age, parity, education, socioeconomic status, awareness of PPIUCD and number of sons to evaluate their influence on acceptance rate. Acceptance rate was highest (58.5%) amongst P2-4 (p value=0.004). This finding is consistent with study done by Gunjan Goswami, which also shows highest acceptance in 2nd and 3rd gravida¹³. The possible explanation for which is that women with parity >4 usually prefer a permanent method. On the other hand women with parity <2 are not willing for IUCD due to either short-term contraception or the fear of infection affecting their future fertility.

In the present study previous awareness was found to influence acceptance rate positively, acceptance being 71% in women aware of PPIUCD (p value=0.00). This is supported by the study done by Sibatian MP who found a significant increase in contraceptive use after an educational campaign¹⁷. Aruna Nigam et al found in a study that low awareness rate of 10% was associated with low acceptance rate (9.1%). Geeta Katheit also noted acceptance rate of only 18% with awareness level as low as 5.8%.

In our study age, education, socioeconomic status and having a male child did not affect acceptance rate (p value=0.52, 0.32 and 0.855 respectively), which is in contradiction with the literature. Neelima Agarwal et al and Rajya Lakshmi Bai Gujju et al stated that literacy contributed well to increase the acceptance rate^{8, 18}. Age above 30 has also been associated with increased acceptance in the literature by Rajya Lakshmi Bai Gujju et al and R. Vidya Rana^{12, 18}, which is contrary to our results. This may be explained by the lack of female autonomy in decision making in our country regardless of female age and education. Here decisions are

mostly made by husbands under influence of their family, thus its very important to educate the husband about PPIUCD and involve them actively in counseling.

In the literature the most frequent causes of refusal are diverse in different studies. According to R Vidyarama et al most women refused PPIUCD because of negative thoughts of relatives (60%) followed by preferring alternative method (25%), and side effects like heavy bleeding and abdominal pain (15%)¹². Another study done by Neelima Agarwal et al also support the above mentioned research revealing family refusal as the most frequent reason of unwillingness (62.7%), followed by unawareness (11.9%), no reason (12.7%), fear of side effects, preference to other method and religious belief (3.4%)⁸. Our results were in accordance with Neelima Agarwal and R Vidyarama et al.

In our study the most frequent reason of rejection was found to be husband and family disagreement (28.9%) followed by desire of permanent contraceptive method (24.2%), short term contraception (16.5%), fear of side effects (13.4%), satisfaction with previous method (11.3%), myths (3.1%) and religious ground (2.6%).

Anjali Vivek et al reported different results. Inclination for other contraceptive method was the most frequent reason for declining PPIUCD (32%) reported by them followed by permanent method (20%), no contraception (14%), fear of side effects (13%), no reason (10%), family pressure (9%), and fear of future fertility (5%)⁴. Family pressure was a very minor factor contributing to refusals in this study.

An Egyptian study documented planning another pregnancy as most common cause of refusal (36.9%), followed by preference for interval IUCD (23.4%), preferring an other method (13.3%), previous IUCD complication (10%), intention to postpone decision (11.4%) and husband absent (5%)⁹. According to Aruna Nigam et al refusal by husband (69%) was the most predominant cause of refusal. Other than this women had myths of PPIUCD causing malignancy and heavy menstrual bleeding¹⁶. According to Priya et al most frequent cause of low acceptance was lack of awareness, predominant son preference and fear of effect on future fertility were other less frequent causes¹⁹. Partner refusal has been only responsible for 9% refusals in a study done by Rajni Gautam. The chief cause according

to him has been preference to other contraceptive method or satisfaction with previous tried method¹⁴. Gunjan Goswami mentioned in his study that most common reason of declining PPIUCD was fear of side effects (41%) followed by need of discussion with husband (35%), preferring other method (22%), fear of cancer, no reason and religious belief (1%)¹³.

The most important fact to be highlighted is that awareness about PPIUCD is still quite low in our population. The commonest factor leading to declination of PPIUCD in the current study is husband refusal, which is consistent with most of studies from India. This emphasizes that awareness needs to be propagated not only among pregnant women but also husbands and mothers in law, as in our society most of couples are not independent in decision making, family influences decision making directly or indirectly.

CONCLUSION

The awareness about availability of PPIUCD is quite low because it is recently introduced in the family planning methods. The acceptance rate of PPIUCD after dedicated counseling is good despite low awareness. The most frequent reason of refusal was husband and family disagreement. The acceptance can further be enhanced by dissemination of information and appropriate counseling involving husband in antenatal clinic.

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