ORIGINAL ARTICLE

Providers' perceptions on postpartum IUCD as an option of postpartum family planning services in India

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Abstract

Background: With high unmet need for family planning in postpartum period new methods like postpartum intrauterine contraceptive device (PPIUCD) can reduce the gap between demand and supply. Role of providers is critical in facilitating a client's decision to choose an appropriate contraceptive method during her postpartum status. **Aims & Objectives**: To assess the role of providers in facilitating client's decision to choose an appropriate contraceptive method during her postpartum status. **Material & Methods:** This descriptive study was conducted as a multi-centric post-training PPIUCD follow up study of providers in eight states of India. From February 2012 to July 2012, 124 PPIUCD trained providers of sixteen hospitals were interviewed with a standardized questionnaire after informed consent. The providers were interviewed for their perceptions on timing and benefits of family planning counseling, procedure ease, side effects and complications of PPIUCD and their perception of client satisfaction of the method. Proportions and mean (SD) were calculated. **Results:** 66 doctors, 42 nurses and 16 counselors were interviewed. 95% providers felt IUCD is a suitable method for postpartum women. According to 94% doctors, 55% nurses and 88% counselors, antenatal period was the most preferred period for counselling clients. 89% doctors and 69% nurses felt that ideal time of insertion was immediately after delivery of placenta and most preferred Kelly's placental forceps for insertion. Expulsion was the commonest perceived complication. More than 70% providers felt that clients were satisfied with their decision of choosing PPIUCD as a method with reasons. **Conclusions:** The results of this descriptive study on providers' perceptions for IUCD use during the postpartum period showed a positive inclination of the interviewed PPIUCD trained doctors, nurses and counselors towards the method which will help improve access and availability to this service.

Keywords

Postpartum intrauterine contraceptive device (PPIUCD); Postpartum family planning (PPFP); Provider's perspectives; Counseling services; India

Introduction

Globally, postpartum intrauterine contraceptive device (PPIUCD) emerged as a reliable, safe and effective long term contraceptive option in 1960s. In India interval IUCD was available as a spacing option under the government's National Family Welfare program since 1952. But the use of IUCD continued

to remain below 2% out of the total couple protection rate of 48.5% for modern methods and the preference was skewed to female sterilization. (1) The providers had misconceptions relating several side effects and complications due to its insertion and use. These misconceptions of the providers also propagated myths and misconceptions related to IUCD use among the potential clients. Inadequate counseling and addressing clients' myths and concerns appropriately and correctly affected the method use adversely. District level household and facility survey (DLHS)-3, India, in 2007-2008 estimated that the total unmet need for family planning among currently married women was 22.2% including 8.4% unmet need for spacing. The Government of India's National Family Welfare Program provides the options of combined oral contraceptives (COCs), condoms and intrauterine contraceptive device (IUCD) for spacing and female and male sterilizations for limiting pregnancies free of cost at all public health facilities to reduce the unmet need and thereby the fertility rate. Institutional deliveries in India increased from 739,000 in 2006 to more than 11.38 million in 2011 due to Government's conditional cash benefit scheme of Janani Suraksha Yojna for care during delivery. (2) High fertility rate of 2.4, (4) low utilization of IUCD services and increased institutional deliveries paved the way for innovative approaches like including IUCDs for postpartum family planning (PPFP) in the basket of choices and capacity building of service providers. This can minimize the opportunity cost and expand access to a wider range of spacing options to women during their stay postpartum at health facility. Availability of postpartum IUCD will provide these women with immediate, safe, effective, reliable and a long acting reversible contraceptive (LARC).

Recent evidence on PPFP and PPIUCD reported in the literature as well as developments in India rekindled interest in PPIUCD services among various stakeholders including the ministry of health and family welfare, government of India (MoHFW, GoI).

Government of India initiated PPIUCD services in 3 facilities in the state of Uttar Pradesh in 2008. In 2009, 6 more facilities from 3 additional states were added. Subsequently the services were scaled up to district level facilities of 19 states having high fertility rate.

Jhpiego, an international not-for-profit organization with its headquarters at Baltimore USA, works globally to save lives of mothers and families worldwide. Jhpiego's India office provided technical support to the government to introduce and scale up PPIUCD services as a part of postpartum family planning services in India. One of the initial challenges in introducing PPIUCD services was the common misconception among providers about their outdated knowledge that the rate of spontaneous expulsion of IUCD inserted postpartum is unacceptably high, there is a high possibility of uterine perforation during the procedure and high rate of post-insertion infection. Recent evidences including a Cochrane review have concluded that PPIUCD is a safe and effective postpartum contraceptive method and expulsion rates are minimal with proper training on insertion techniques. (5) The proportion of expulsion among women who had PPIUCD insertion was 3.6% and infection was 5%.

Since the role of providers is important in provision of PPIUCD services, they were trained in counseling, insertion techniques and follow-up services. This training included the sharing of recent evidence-based literature indicating PPIUCD as an effective PPFP method. Hence, a study was planned for creating an in-country evidence of providers' perceptions, practice and experience on PPIUCD service provision across 16 facilities in 8 states of India. Sharing perceptions of service providers towards PPIUCD at various forums will be informative for other peer providers to understand the pros and cons of this new approach. This will facilitate them to decide to provide PPIUCD services. This in the long term can improve access and availability of IUCD and family planning services to postpartum women with high unmet need thereby helping reduce high fertility rates in India.

Aims & Objectives

To assess the role of providers in facilitating client's decision to choose an appropriate contraceptive method during her postpartum status.

Material & Methods

This descriptive study was undertaken between February 2012 to July 2012 in 16 government health facilities across 8 states of India namely Assam, Bihar, Delhi, Jharkhand, Maharashtra, Rajasthan, Uttarakhand, and Uttar Pradesh. These were the states where Government had already started providing PPIUCD services after competency-based training and post-training supportive supervision

and mentoring by Jhpiego. The facilities included 6 medical college hospitals and 10 district level hospitals. These were the facilities where the PPFP/PPIUCD program was in place and the services were available. Doctors and nurses providing postpartum family planning services and nurses and counselors providing counseling services were interviewed with a pre-tested standardized interview schedule after obtaining verbal informed consent. At the study sites, doctors and nurses posted in the labor room provided PPIUCD services as and when the women opted for it. Nurses and counsellors were providing PPFP counseling services at all the 16 facilities. All the providers who counseled for PPFP or inserted PPIUCD in the previous month were included for the interview. These providers were also involved in all other FP services including interval IUCD services. But only providers who were available during the time of study and who gave consent to participate were included in the study. All interviewers were Jhpiego staff and were trained by Jhpiego investigators for interviews with standard questionnaires. The providers were interviewed about their choices of postpartum family planning methods for women clients, timing for counseling and benefits of postpartum insertion of intrauterine contraceptive device. The perception of providers about ease of insertion and clients' perception about pain before and after insertion of PPIUCD, their knowledge and experience about complications and side effects of PPIUCD were noted. The providers' perceptions of ease of insertion and complications of PPIUCD were also compared to those for interval IUCD. This study was approved by institutional review board of Johns Hopkins Bloomberg School of Public Health. The data was entered and cleaned in Microsoft excel 2013 and analyzed in SPSS version 20.0 (IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp). Mean and standard deviation was used to describe continuous data and proportions were used to describe the categorical data. This observational study was done with permission from Government and the approval of institutional review board (IRB) of Johns Hopkins Bloomberg School of Public health, Baltimore, USA.

Results

Characteristics of service providers who were interviewed:

In total 124 providers were interviewed of which 66 (53%) were Doctors, 42 nurses (34%) and 16 (13%) counselors. All the providers who were approached for the interview agreed to participate in it. Mean years of experience of doctors in providing family planning services was 15.2 years (SD 12 years) and for nurses it was 7 years (SD 7 years). 58 doctors (88%) and 11 nurses (26%) performed interval IUCD insertions. 63 doctors (96%) and 7 nurses (18%) reported that they performed PPIUCD insertions as part of their routine work. Other 35 nurses and 16 counselors interviewed provided PPFP counseling services. 79% doctors (49 out of 62 who reported) and 86% nurses (19 out of 22 who reported) and 50% of counselors had undergone in-service training on PPIUCD counseling and service delivery. The interviewed doctors on an average inserted 9 PPIUCDs and nurses 6 insertions in the past 30 days and in total had performed 596 insertions in a period of one month before the interview. According to the providers, all the facilities included in the study had round the clock PPIUCD services).

Perceptions, attitudes and behaviors of providers about PPIUCD: Among the multiple options suggested by providers to their preference of PPFP method, more than 95% of the providers preferred IUCD as a suitable family planning method for postpartum women. Female sterilization was also preferred by about 50% of the providers. About 63% counselors felt that male condoms were also a preferred method for postpartum women. (table 1). 89% of the doctors and 69% of the nurses and counselors felt that ideal time for IUCD insertion is within 10 minutes of delivery of placenta. The reasons stated for preferring this time was that clients are highly motivated for preventing the next pregnancy during labor and just after delivery. Hence, there is better acceptance, post-placental insertion is easy, it is less painful and there is no need for frequent revisits by the client after insertion. Most of the doctors (92%) and all nurses who performed PPIUCD insertions preferred Kelly's placental forceps for insertion compared to insertions manually or by ring forceps. They preferred this instrument as they felt that risk of infection is minimal, proper fundal placement of IUCD is ensured, the procedure is less painful and there is lower risk of expulsion and perforation.

Most of the providers (92%) felt that PPIUCD insertion was easier when compared with interval IUCD. During interviews, expulsion was the foremost

complication of PPIUCD as said by 71% doctors and 24% nurses. Bleeding was next common complication as perceived by 67% of doctors and 74% of nurses (Table 2). 86% of the doctors and 82% of the nurses who inserted interval IUCDs felt that the complications were less in PPIUCD when compared to interval IUCD.

Providers' attitudes and behaviors about counseling: 94% of doctors, 95% nurses and 100% counselors reported that they counsel pregnant/postpartum women on family planning. 95 % doctors, 85% nurses and 81% counselors reported that they regularly talk about IUCD when they counsel pregnant/postpartum women on family planning. Antenatal period was preferred as the first choice for family planning counseling by 94% doctors, 55% nurses and 88% counselors, whereas the period immediately after delivery was preferred secondly for PPIUCD counseling by 76% of the doctors, 62% nurses and 81% counselors. Respondents reported preferring the antenatal period because the clients had enough time to discuss and decide with family and husband and the counselors get adequate contact time to explain about contraceptive methods, and address the clients' concerns and queries to help her make an informed decision.

Perception of providers about client perception and client satisfaction: According to 44% of the interviewed doctors and 70% of the nurses and counselors, there was current demand from clients for PPIUCD following PPFP counseling. Client awareness about spacing methods, their satisfaction about PPIUCD, effective counselling and understanding of the advantages of the methods were the common reasons stated for demand in PPIUCD. None of the providers felt that PPIUCD insertion was painful for the clients. The reasons stated were that pain was minimal when compared to labor pains and the insertion is easy due to the soft cervix and open cervical os. The doctors felt that on an average 78% of clients were satisfied with the decision of getting PPIUCD inserted. Nurses felt that 79% of their clients and counselors felt that 70% of their clients are satisfied with their decision for getting a PPIUCD inserted. The reasons for client satisfaction stated by providers were that it is a long term protection against unwanted pregnancy, it is a reversible method, frequent revisits are not required and it is easy to insert with no problems. The providers stated that as the women have cramping and bleeding as routine postpartum symptoms, they will not perceive these common side effects of IUCD. The reasons mentioned by the providers for the clients not being satisfied with the decision were due to bleeding, cramping and family pressure from husband and mother-in-law against her decision. The providers felt that 80% of clients use PPIUCD for spacing and 20% for limiting.

Discussion

This is the first study to understand the perspectives of trained service providers in India offering PPIUCD services post training at their worksites. This study highlights the perception of providers about PPIUCD as a postpartum method and their knowledge and practices in general about PPFP. The findings of the study show the positive perceptions of the providers about PPIUCD which can be a critical advocate for this method among family planning providers in India.

Most of the participants of this study were comfortable counselling the clients about postpartum family planning which is similar to the findings of a descriptive study conducted by Rupley et al in a teaching hospital in Ghana. (6) Our study states that most providers (> 80%) talked about IUCD when they counseled pregnant/postpartum women on family planning whereas, the Ghana study points out that more than 90% of providers discussed IUCDs occasionally or not at all during prenatal or postpartum care. This difference may be due to the fact that the service providers participating in this study took a competency-based training on PPFP and PPIUCD which stressed the correct and complete technical overview and addressed myths and misconceptions related to IUCD/PPIUCD using humanistic and simulated demonstration and client practice as compared to only some training on contraceptives mentioned in the Ghana study.

Antenatal period was preferred as the time for counseling the woman for PPFP including PPIUCD by almost all the cadres of providers of this study. The reasons stated for this preference was that it gave time to the provider for reinforcement of messages and allowed enough time to the client for discussion with family to arrive at an informed decision and choose a PPFP method after delivery. A qualitative study on African American adolescent mothers in United States noted that the strong provider recommendations and planning for IUCD during pregnancy were important facilitators for

intrauterine device uptake. (7) Another descriptive study conducted in State Hospital in Turkey also suggested that health professionals should focus on postpartum contraception during antenatal care programs. (8) In our program the service providers experienced a time constraint between counseling women during antenatal period and examination of other waiting clients. To compliment the counseling efforts of the service providers in our program, additional resource persons such as dedicated PPFP counselors were deployed at the project facilities. These counselors provided quality PPFP counseling services to pregnant women during antenatal care and during the immediate postpartum period to facilitate informed choice by the clients.

However, more than half of the doctors and nurses and majority of the counselors felt that the immediate postpartum period within first 48 hours of delivery was also suitable for counseling as the woman is most receptive for family planning during this period. A study by Glazer et al also reported that both the prenatal visits and postpartum period provides an opportunity to discuss family planning options and contraception. The implications of counseling a woman during the immediate postpartum period are that she is more likely to accept a family planning method as she does not want to get pregnant soon and provision of a reliable contraceptive ensures that the woman leaves the hospital safe and protected from pregnancy in the near future. Out of the different postpartum periods for IUCD insertion, post placental time i.e., within 10 minutes of child birth was considered as the most convenient for IUCD insertion for both the provider and the client. While the post placental time of 10 minutes is mentioned by the providers, it actually means that the IUCD is inserted after the delivery of the placenta and before the woman is shifted from the delivery table which may be longer than 10 minutes. The findings from study by Glazer et al also confirmed the acceptability of post placental IUCD placement among clients/mothers and reported that post placental IUCD increased continued contraceptive use up to six months postpartum (9) A cost effectiveness analysis also revealed immediate PPIUCD placement as a dominant strategy to prevent unintended pregnancies. (9) The woman is at the hospital and receives the contraceptive during the post placental period when the provider is also with her. This prevents a future visit by the woman in the postpartum or interval period for IUCD services later. Ease of performing the procedure and minimal pain to the client are the perceived reasons in favor of this time. However, there is a challenge for post placental insertion that the provider needs to assure that the woman has been counselled during the antenatal period and made the informed choice of post placental IUCD insertion. This choice also requires proper and clear documentation on the client's antenatal records to alert and inform the labor room staff to be prepared for it at the time of delivery. Our study points out that more than 95% of providers preferred IUCD as a suitable family planning method for postpartum women while Rupley et al in the KATH study report 36% providers thought that it was safe to insert an IUCD in immediate postpartum period. However, most of the providers in KATH study stated recommending IUCD after 6 weeks of delivery. The opinions of doctors, nurses and counselors of our study were similar regarding the suitability of IUCD during the postpartum period which is comparable to the opinions of doctors and midwives of Rupley KATH study. There was limited literature or research on provider experience and perceptions for postpartum IUCD contraception for comparison.

Since PPIUCD is a provider dependent method of family planning, positive perceptions of providers can go a long way in optimal utilization of the opportunity created by increased institutional deliveries in the country, by counseling and providing PPIUCD services to women delivering at the facilities. The results of this study can be helpful in increasing interest of new providers and addressing their apprehension regarding PPIUCD, during further scale up of these services to sub-district level facilities in the country. It seems that competency based training and post-training support included in the program addressed the lack of knowledge and confidence in the providers for safe and effective provision of PPIUCD services post training. However, we recommend that further studies are designed, they can capture knowledge, skills, attitudes and perceptions before and after capacity building in PPIUCD services.

The present study had certain limitations. It did not have a pre-post design or controls to compare the perceptions as the program had already scaled up. The interviews were conducted by Jhpiego staff due to the feasibility. Since few of the interviewers were involved earlier in training of these providers, there might be a potential information bias. However, this

bias was minimized by standardized procedures and informed consent process.

Conclusion

The results of this descriptive study on providers' perceptions for IUCD use during the postpartum period showed a positive inclination of the interviewed PPIUCD trained doctors, nurses and counselors towards the method and convenience of timing of insertion both for the client as well as the provider. Providers were convinced that antenatal period is the most optimum time for PPFP counseling. Post-training, providers were motivated to counsel for PPFP including PPIUCD and provide the services without fear of perforation of the uterus, infection or expulsion.

Authors Contribution

All authors have contributed equally in this article.

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Tables

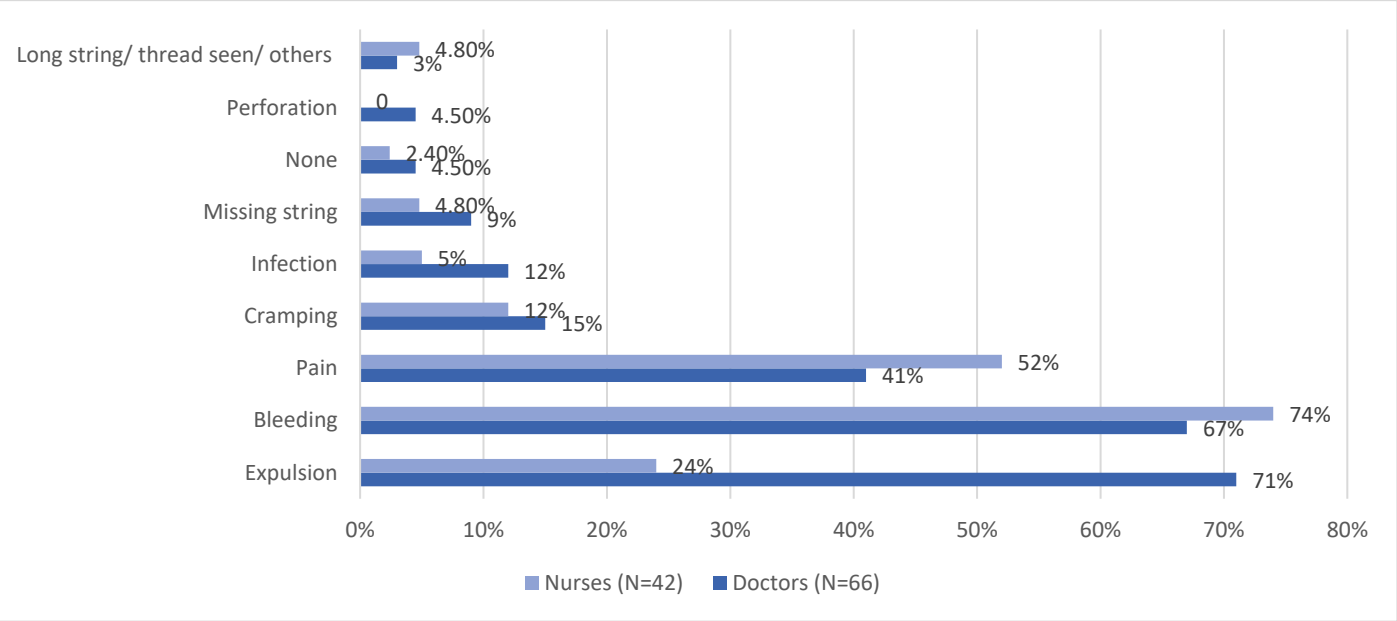
TABLE 1 FAMILY PLANNING METHODS MOST SUITABLE FOR POST-PARTUM WOMEN AS REPORTED BY PROVIDERS*

Type of contraception	Doctors (N=66)	Nurses (N=42)	Counselors (N=16)
IUCD	98.50%	97.60%	100%
Female sterilization	56%	48%	31%
LAM	32%	19%	31%
Male sterilization	29%	21%	6.30%
Male condoms	27.30%	35.70%	62.50%
Oral pills	19%	16.70%	12.50%
Injectables	16.70%	11.90%	0
Implants	1.50%	2.40%	0

*multiple responses allowed

Figures

FIGURE 1 PROBLEMS/COMPLICATIONS POSSIBLE WITH PPIUCD AS REPORTED BY THE PROVIDERS*



*multiple responses allowed