

TO STUDY THE IMPACT OF COUNSELING THROUGH PRE-MADE VIDEO ON KNOWLEDGE, ATTITUDE AND PRACTICE OF POST PARTUM INTRAUTERINE CONTRACEPTIVE DEVICES

Archana Bharti¹, Gargi Agarwal², Isha Bansal¹, Richa Kansal³, Janhvi Yeolekar⁴

Received : 04/12/2023
Received in revised form : 23/01/2024
Accepted : 05/02/2024

Keywords:

Counseling, Intra-uterine device, Post partum contraception.

Corresponding Author:

Dr. M. Chelladurai,

Email: drinchelladurai@gmail.com

DOI: 10.47009/jamp.2024.6.1.223

Source of Support: Nil,

Conflict of Interest: None declared

Int J Acad Med Pharm
2024; 6 (1); 1123-1127



¹Associate Professor, Department of Obstetrics & Gynaecology KCGMC, Karnal, Haryana, India
²Assistant Professor, Department of Obstetrics & Gynaecology, KCGMC, Karnal, Haryana, India
³Professor & Head, Department of Obstetrics & Gynaecology, KCGMC, Karnal, Haryana, India
⁴Secondary DNB Resident, Department of Obstetrics & Gynaecology, KCGMC, Karnal, Haryana, India

Abstract

Background: In our country, the unintended pregnancies resulting from non-use of contraception in postpartum period have been reported as high as 86%. The postpartum intrauterine contraceptive devices (PPIUCD) is a long-acting, reversible method of contraception that can be used safely and effectively in the immediate postpartum period. The aim is to evaluate the impact of counseling through pre-made video on knowledge, attitude and practice of PPIUCD. **Materials and Methods:** Group A antenatal women, 36 weeks or more, motivated for postpartum IUCD insertion via premade video on 1:1 basis. Group B antenatal women, 36 weeks or more, motivated for postpartum IUCD insertion via personal counseling. This pilot study was conducted between November 2021 and July 2022 and 50 eligible women were recruited in each arm through random allocation. A validated self-structured questionnaire was used to assess knowledge of the participants. Attitude and acceptance rate was noted. Chi square test was used for analysis and p value <0.05 was considered statistically significant. **Result:** The pre-counseling knowledge scores of group A and group B were 1.200 ± 0.926 and 1.180 ± 0.941 respectively (P =0.915). The post-counseling knowledge scores of personal counseling and video method were improved to 3.74 ± 2.57 and 3.48 ± 2.053 respectively (p value = 0.578). The two groups did not differ with respect to attitude towards PPIUCD (p=0.115). 52% participants (n=26) underwent PPIUCD insertion in each arm(p=1.00). **Conclusion:** Pre made video is an effective tool to improve knowledge, attitude and practice of postpartum intrauterine contraceptive devices and may be utilized in hospitals with huge obstetrics burden. However, larger studies with sufficient power are warranted to draw definite conclusion.

INTRODUCTION

In our country, the unintended pregnancies resulting from non-use of contraception in postpartum period have been reported as high as 86%.^[1] These unintended pregnancies lead to induced abortions in most of the cases and consequently, increase maternal mortality and morbidity. WHO defines family planning as a way of thinking and living that is adopted voluntarily upon the basis of knowledge, attitude, and responsible decisions by individuals and couples to promote health and welfare. The postpartum IUD (PPIUD) is a long-acting, reversible method of contraception that can be used

safely and effectively in the immediate postpartum period and even while the mother is breastfeeding.^[2] By avoiding obstetric difficulties like maternal and newborn mortality and other health-related issues related to closed spaced pregnancy, the PPIUCD has demonstrated that when it is started after delivery, it can enhance maternal and infant health. Moreover, it is a convenient contraceptive option to women who cannot return for follow-up visits because of distance, travel costs, and time constraints, or other barriers to access.

Counseling has an important role for bridging the knowledge, attitude and practice gap for adoption of family planning methods. It is a great opportunity

for PPIUCD service providers to counsel and offer the contraceptive during the immediate postpartum period, especially in a situation when it is challenging for women to meet with healthcare providers owing to geographic limitations. Ideally the couple should receive personal counseling for family planning services. However, in developing countries like India with huge obstetric burden, this method may not be always feasible. On the other hand, the window of opportunity for counseling and motivating the woman for postpartum family planning services should not be missed. Women may be sensitized and motivated through a pre-made video which seems a practical and feasible solution to the inadequate manpower for counseling the large number of antenatal women visiting the outpatient clinics.

Aim

To evaluate the impact of counseling through pre-made video on knowledge, attitude and practice of PPIUCD.

Objective

To compare the knowledge, attitude and practice of PPIUCD among women motivated through pre-made video versus personal counseling.

MATERIALS AND METHODS

Study area: A pilot study was done in Outpatient Department of Obstetrics & Gynaecology, Kalpana Chawla Government Medical College, Karnal from November 2021 and July 2022. Approval was obtained from Institutional Ethical committee wide letter no KCGMC/IEC/2021/100 dated 02.09.2021. Written, informed consent was obtained from all the participants.

Study Population

Inclusion Criteria

Group A: Antenatal women, 36 weeks or more, visiting Outpatient Department of Obstetrics & Gynaecology, Kalpana Chawla Government Medical College for routine antenatal care and; motivated for postpartum IUCD insertion via pre-made video on 1:1 basis.

Group B: Antenatal women, 36 weeks or more, visiting Outpatient Department of Obstetrics & Gynaecology, Kalpana Chawla Government Medical College for routine antenatal care and, motivated for postpartum IUCD insertion via personal counseling.

Exclusion Criteria

1. Women belonging to medical eligibility category 3 and 4 for IUCD by WHO
2. Women willing for permanent sterilization following delivery
3. Women willing for PPIUCD prior to counseling

Participant's selection

Written informed consent to enter the study was sought from all eligible participants. Women were then randomly allocated to either the video method

or personal counseling group. The randomization schedule was computer generated. To conceal group allocation, a researcher not involved in participant recruitment was allowed access to the randomization schedule via a password-protected computer program. Randomization was done in a ratio of 1:1 (for every 1 participant randomized to video group, 1 was randomized to the personal counseling group).

The researcher and the data analyst were blinded to group allocation.

Group A (Premade Video group): A video was prepared in Hindi (common language spoken in this region) for sensitizing and motivating women for postpartum IUCD insertion. The video was validated by Departmental Scientific Research Committee. The content of the video included information on various family planning methods, benefits and risks of PPIUCD, Govt's scheme for postpartum IUCD, procedure details and answers to frequently asked questions. Group A participants were motivated for PPIUCD by displaying this video to them on 1:1 basis.

Group B (Personal counseling group): These patients were counseled for PPIUCD via personal counseling. For this method, one staff nurse was training in PPIUCD counseling and a checklist was provided to her to standardize the personal interaction. All the participants in group B were counseled by the same person.

The participants were administered a questionnaire to assess woman's knowledge of PPIUCD. It was a self-structured questionnaire, validated by the Departmental scientific research committee. The questionnaire had eight questions to assess knowledge. Each correct answer scored one and each incorrect answer scored zero. The knowledge score ranged from 0-8. Pre and post counseling knowledge was assessed and score noted. The subjects with score of >4/8 correct answers were considered to have adequate knowledge. Assessment of the participants' attitude towards PPIUCD insertion was also done and responses were recorded.

These patients were followed following delivery and details regarding PPIUCD insertion were recorded in the proforma.

Sample size & statistical analysis:

This was a pilot project and 50 eligible women were recruited in each arm. Categorical variables were presented in number and percentage (%) and continuous variables were presented as mean \pm SD. Categorical variables were compared using Chi-Square test. A p value of <0.05 was considered statistically significant.

The data was entered in MS EXCEL spreadsheet and analysis will be done using Statistical Package for Social Sciences (SPSS) version 21.0.

RESULTS

A total of 100 participants were included in the final analysis, 50 subjects in each arm. Both groups were matched with respect to socio-demographic characteristics [Table 1] and pre-counseling knowledge scores (group A =1.200 ± 0.926 and Group B =1.180± 0.941; p=0.915) [Table 2].

The post-counseling knowledge scores of video and personal counseling groups were improved to 3.74 ± 2.57 and 3.48 ± 2.053 respectively (p value = 0.578) [Table 2]. The mean pre-counseling and post-counseling knowledge scores of the total population were 1.19±0.947 and 3.74 ± 2.57 respectively and an overall improvement of 31.8% was recorded.

In the video counseling arm, 66.7% women (n =33) had positive attitude towards PPIUCD insertion. On

the other hand, 80% (n=40) women in personal arm had positive attitude for PPIUCD insertion. The difference was statistically insignificant (p=0.115) [Table 3].

PPIUCD insertion details of the participants were recorded following delivery in [Table 4]. It was observed that 52% participants (n=26) underwent PPIUCD insertion in each arm(p=1.00).

[Table 5] highlights the comparison of post counseling knowledge scores in subjects who refused PPIUCD insertion (n=48) and who accepted PPIUCD insertion(n=52). 75% of the mothers who refused insertion of PPIUCD were shown to have inadequate knowledge, which re-emphasizes the importance of repeated counseling, directed towards addressing the doubts and fears of patients.

Table 1: Socio-demographic characteristics of the study population

Characteristic	Counseling using Pre made Video (Group A) (n=50)	Personal Counseling (Group B) (n=50)	P value
Age (Mean ±SD) years	26.84 (±5.42)	26.46 (±4.79)	0.711
Geographic area			
Rural	34	39	0.260
Urban	16	11	
Occupation			
Housewife	47	45	0.461
Employed	03	05	
Parity			
Primipara	06	03	0.295
multipara	44	47	
Education			
Completed high school and obtained additional education.	25	28	0.547
Socioeconomic status			
Lower and Upper lower class (Class IV & V)	30	25	0.312

Table 2: Pre and Post counseling Knowledge scores of the study groups

Knowledge score	Pre made Video (Group A) (n=50)	Personal Counseling (Group B) (n=50)	P value
Pre counseling Knowledge score (Mean± Std. Deviation)	1.200±0.926	1.180±0.941	0.915
Post counseling Knowledge score (Mean± Std. Deviation)	3.740±2.569	3.480±2.052	0.578

Table 3: Post counseling Attitude of the study groups

Post counseling Attitude	Pre made Video (Group A) (n=50)	Personal Counseling (Group B) (n=50)	P Value
Positive Attitude	33	40	0.115
Negative Attitude	17	10	

Table 4: Post counseling PPIUCD insertion Practice in Group A & Group B

PPIUCD insertion	Pre made Video (Group A) (n=50)	Personal Counseling (Group B) (n=50)	P Value
Yes	26	26	1.000
No	24	24	

Table 5: Comparison of Post-counseling knowledge in subjects refusing PPIUCD insertion (n=48)

Post-counseling knowledge	Group A (24)	Group B (24)	Total	Percentage	P value
Adequate knowledge	7	5	12	25%	0.505
Inadequate knowledge	17	19	36	75%	

DISCUSSION

Family planning is widely recognized as a life-saving and health-improving intervention for women and children.^[3,4] Because of the woman's frequent contact with the health system over a

relatively long period of time that makes an opportunity for counseling women about the adoption of family planning methods.^[5] Closely spaced pregnancies within the first-year post-partum are the riskiest for mother and child, resulting in an increased risk of adverse outcomes.^[6]

Post-partum IUD insertion is an ideal family planning methods for post-partum period to achieve the recommended pregnancy spacing. It is safe and effective up to 48 h insertion after placental delivery.^[7,8] Intra-uterine device (IUD) insertion during the post-partum period is an ideal method for some women because it does not interfere with breastfeeding, is convenient for both women and their health care providers, and allows women to obtain safe, long-acting, highly effective contraception while they are already in the medical system.^[9,10]

With increased institutional deliveries, Postpartum Intrauterine Contraceptive Devices (PPIUCD) can play an important role in addressing the unmet needs of spacing methods in India.^[11] To utilize this opportunity, the Government of India launched Postpartum IUCD (PPIUCD) services in the year 2000. It was initiated in selected states and was universalized in all the states by the year 2010.^[12] IUCD is freely available in Government Institutes under National Family Planning Programme and incentives are also given to acceptors, motivators and providers.

PPIUCD is still emerging as a relatively new contraception choice in India. There are various myths and misbeliefs associated with the use of intra uterine copper devices. Counseling has an important role to play in addressing these issues and hence, improving the knowledge, attitude and practice of the intra uterine devices. In the present study, an improvement of 31.8% was observed in women's knowledge score post counseling.

Studies have shown that counseling the couple during antenatal period is significantly associated with the use of PPIUCD.^[13-15] Knowledge builds an attitude and knowledge and attitude together carve a behavior.

In the present study, 73% women had positive attitude towards PPIUCD post counseling. Women counseled during antenatal care have shown increase in demand and uptake of PPIUCD because this creates an opportunity to have the mothers and their partners together. Furthermore, the antenatal counseling also allows the client to have enough time to discuss about the family planning methods and also to have access to information from health care providers. As women may have more information on the benefits of initiating postpartum contraceptives utilizations on a timely manner, this can increase their intention to use them immediately after delivery.^[15]

Overall PPIUCD acceptance in the current study was 52 % which is quite remarkable. Gupta S et al reported that 60% of women accepted PPIUCD as a method of contraception during their postpartum period.^[16] Agarwal N al et al. and Gautam R et al. reported an acceptance rate of 41.1% and 21.8% respectively.^[17,18]

Health-promoting video content is an acceptable and feasible method of health promotion.^[19] Kumar N et al found Community-led Video Education as an

effective means for information generation, dissemination, and assimilation.^[20] Dal Santo et al explored the feasibility and acceptability of video library tool to support community health worker counseling and found it to be a highly acceptable tool for relaying health information.^[21]

In the present study, counseling had improved the mean knowledge score in pre-made video and personal counseling groups by 31.75% and 28.5% respectively. The difference in post counseling knowledge score of the two groups was found to be insignificant (p value = 0.578). Thus, video method was found comparable to personal counseling in improving the knowledge of the patients regarding PPIUCD. The two groups did not differ with respect to attitude towards PPIUCD (p=0.115) also. Moreover, PPIUCD acceptance rate was similar among the two methods (p value=1.00). Hence, pre-made video was found to be an effective tool to educate and motivate women for adoption of post-partum intrauterine contraceptive devices. It may be utilized in hospitals with huge obstetrics burden, to address the unmet needs of family planning. The small sample size is a limitation of the present study. Therefore, larger studies with sufficient power are warranted to draw definite conclusion.

CONCLUSION

Pre made video is an effective tool to improve knowledge, attitude and practice of post-partum intrauterine contraceptive devices. However, larger studies with sufficient power are warranted to draw definite conclusion.

REFERENCES

1. Y.M. Huang, R. Merkatz, J.Z. Kang et al. Postpartum unintended pregnancy and contraception practice among rural-tourban migrant women in Shanghai. *Contraception*, vol. 86, no. 6, pp. 731–738, 2012.
2. Kapp N, Curtis KM. Intrauterine device insertion during the postpartum period: a systematic review. *Contraception*. 2009;80(4):327–36. doi: 10.1016/j.contraception.2009.03.024. [PubMed] [CrossRef] [Google Scholar]
3. Singh S, et al. Adding it up: the costs and benefits of investing in family planning and maternal and new born health. New York: Guttmacher Institute; 2009. [Google Scholar]
4. Cates W, et al. Family planning and the millennium development goals. *Science*. 2010; 329(5999):1603–1603. doi: 10.1126/science.1197080. [PubMed] [CrossRef] [Google Scholar]
5. Organization WHO. Programming strategies for postpartum family planning, 2013. Geneva: WHO; 2014. [Google Scholar]
6. DaVanzo J, et al. Effects of interpregnancy interval and outcome of the preceding pregnancy on pregnancy outcomes in Matlab Bangladesh. *BJOG*. 2007;114(9):1079–1087. doi: 10.1111/j.1471-0528.2007.01338.x. [PMC free article] [PubMed] [CrossRef] [Google Scholar]
7. Grimes DA, et al. Immediate post-partum insertion of intrauterine devices. *Cochrane Database Syst Rev*. 2010 doi: 10.1002/14651858.CD003036. [PubMed] [CrossRef] [Google Scholar]

8. Sonalkar S, Kapp N. Intrauterine device insertion in the postpartum period: a systematic review. *Eur J Contracept Reprod Health Care.* 2015;20(1):4–18. doi: 10.3109/13625187.2014.971454. [PubMed] [CrossRef] [Google Scholar]
9. Alvarez F, et al. New insights on the mode of action of intrauterine contraceptive devices in women. *FertilSteril.* 1988;49(5):768–773. doi: 10.1016/S0015-0282(16)59881-1. [PubMed] [CrossRef] [Google Scholar]
10. Dagnew GW, et al. Modern contraceptive use and factors associated with use among postpartum women in Ethiopia; further analysis of the 2016 Ethiopia demographic and health survey data. *BMC Public Health.* 2020;20:1–9. doi: 10.1186/s12889-020-08802-6. [PMC free article] [PubMed] [CrossRef] [Google Scholar]
11. Lall J, Nagar O. Comparative study of post placental cut insertion following vaginal and caesarean delivery. *IntJReprodContraceptObstetGynecol.*2017;6(3):901-6.
12. Kant S, Archana S, Singh AK, Ahamed F, Haldar P. Acceptance rate, probability of follow-up, and expulsion of postpartum intrauterine contraceptive device offered at two primary health centers, North India. *Journal of family medicine and primary care.* 2016 Oct;5(4):770.
13. Polonia G. Analysis of sample size in consumer surveys. *GfK Poland.* 2013;6–9.
14. Brunson MR, Mph DAK, Drph CHO, Weir LF, Mph TAR. A large universal healthcare system. *Am J Obstet Gynecol.* 2017;217(1):55 e1–55.e9. <https://doi.org/10.1016/j.ajog.2017.02.036>.
15. Kanakuze, C.A., Kaye, D.K., Musabirema, P. et al. Factors associated with the uptake of immediate postpartum intrauterine contraceptive devices (PPIUCD) in Rwanda: a mixed methods study. *BMC Pregnancy Childbirth* 20, 650 (2020). <https://doi.org/10.1186/s12884-020-03337-5>
16. Gupta S, Bansal R, Shergill HK, Sharma P, Garg P. Correlates of post-partum intra-uterine copper-T devices (PPIUCD) acceptance and retention: an observational study from North India. *Contracept Reprod Med.* 2023 Mar 28;8(1):25. doi: 10.1186/s40834-023-00222-2. PMID: 36978137; PMCID: PMC10045498.
17. Agarwal N, Gupta M, Agrawal A, Sharma A. Efficacy and safety of Post-Partum Intrauterine Contraceptive device (PPIUCD) insertion-A prospective study. *Santosh Univ J Heal Sci.* 2017;3:20–3. [Google Scholar]
18. Gautam R, Arya KN, Kharakwal S, Singh S, Trivedi M. Overview of immediate PPIUCD application in Bundelkhand region. *J Evol Med Dent Sci.* 2014;3:9518–26. doi: 10.14260/jemds/2014/3230. [CrossRef] [Google Scholar]
19. Coetzee B, Kohrman H, Tomlinson M, Mbewu N, Le Roux I, Adam M. Community health workers' experiences of using video teaching tools during home visits-A pilot study. *Health Soc Care Community.* 2018 Mar;26(2):167-175. doi: 10.1111/hsc.12488. Epub 2017 Sep 5. PMID: 28872210; PMCID: PMC7534510.
20. Kumar N, Perrier T, Desmond M, et al. Projecting health: Community-led video education for maternal health. In: *Proceedings of the Seventh International Conference on Information and Communication Technologies and Development.* Singapore; 2015. <https://portalparts.acm.org/2740000/2737856/fm/frontmatter.pdf>
21. Dal Santo, L.C., Rastagar, S.H., Hemat, S. et al. Feasibility and acceptability of a video library tool to support community health worker counseling in rural Afghan districts: a cross-sectional assessment. *Confl Health* 14, 56 (2020).