

Women's Choice of Immediate Postpartum Reversible Contraceptives Visiting a Tertiary Hospital of Nepal

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ABSTRACT

Introduction

Long-acting reversible contraceptives (LARC, Intrauterine contraceptives devices and Implants) stand on 1st regards to safety and effectiveness. It is an easily accessible variety for spacing birth as well as preventing unintended pregnancy soon after childbirth in Nepal due to free supply by the Government under safe motherhood program of Reproductive health policy. Despite free supply, LARC is not routinely implemented in practice among immediate post-partum lady as single approach contraceptives concern to unintended pregnancy due to unmet need. To find out the choice of LARC by antenatal and immediate postpartum women after delivery.

Methods

A descriptive cross-sectional study was conducted among 200 women in antenatal clinic and obstetric ward of College of Medical Science and Teaching Hospital using non probability convince sampling technique. Ethical approval was taken form Institutional Review Committee of College of Medical Sciences and Teaching Hospital and data was analyzed using descriptive statistical tools in SPSS.

Results

Twenty eight percent of antenatal and 42% of postnatal women had induced abortion for unintended pregnancy in past. All women had knowledge about modern method of contraception but only 47 percent antenatal and 58 percent postnatal women adopted contraception in past. Implant was chosen by 44% antenatal and 46% postnatal women; whereas IUCD was chosen by 45% antenatal and postnatal women as LARC. Jadelle was the choice of LARC in both group due to its convenient duration (5 years) for birth spacing and its safety profile during breastfeeding. Twenty women refuse for LARC in immediate postpartum period.

Conclusions

Single approach immediate post-partum LARC in is chosen by women who had induced abortion for unintended pregnancy in past for its long action, convenience during breast feeding and reliability. Maximum antenatal women prefer IUCD compared to Implants among postnatal women.

Keywords: Copper T, Immediate post-partum, Jadelle, long-acting reversible contraceptives, Puerperium, Unintended pregnancy

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INTRODUCTION

World Health Organization describes the postnatal period is a period starting immediately after childbirth & yet the most neglected phase in the lives of mothers due to various factors.¹ It is also termed as 4th stage of labor, 4th trimester, puerperium, immediate postpartum period or puerperal period.^{2,3} Conception is possible during the artificially defined 6 weeks puerperium due to different factors i.e. uncertain ovulation and menstruation date; infrequent/improper/no breast feeding patterns, no use of contraception, etc.⁴ During the period, who do not desire pregnancy with sexual activity should initiate contraception; which is a known fact but less in practice. Immediate long acting reversible contraceptive placement [Intrauterine contraceptive device or Implant], is recommended from post-natal ward before discharge to decrease the risk of losing follow up with using no contraceptive methods & consequence of unintended pregnancies.⁵ Ignoring the contraceptive needs of postpartum women are missed opportunities in health service delivery to ensure that every woman and her family can enjoy the health, social, and economic benefits of family planning in lower middle income countries, like Nepal.^{6,7} Making a post-partum woman ready to adopt family planning method in single approach (before discharge) with lower failure rate benefits her to better health outcomes, plan future pregnancy, avoid unintended pregnancy with unmet need and its consequences.^{8,9} For this purpose, LARC stands on 1st place (highly effective, 1st tier) compared to contraceptive pills, patches or rings; and works well regardless of age and is safe during breastfeeding, an added convenience to clients and a recommendation of CHOICE project.¹⁰⁻⁶ We have very little evidence regarding use of immediate postpartum LARC in Nepal except IUCD. Making a postpartum women adopt LARC is definitely a step to reach SDG 2030.¹⁷ The objectives of this research is to study the socio-demographic profile of antenatal and postnatal women choosing LARC and to find out

the choice of LARC after delivery by antenatal and immediate postpartum women.

METHODS

A descriptive analytical cross-sectional study was conducted in antenatal clinic and obstetric ward of College of Medical Science and Teaching Hospital. Sample size was calculated using $n = Z^2 P (1-P)/M^2$ formula, where Z is the z-score value at 95% confidential interval i.e.1.96, P is prevalence of the Contraceptive used (taken from National demographic health survey 2016 cumulating current use of family planning methods i.e. IUCD (1%) and Implants (4%) among married women of reproductive age (15-49 years).¹⁸ The margin of error (M) was taken 5%. So, $Z=1.96$, $P=0.05$, $M=.05$. So, the sample size is 73. If 5% of population had non-response, our sample size=77. Sample was taken by using non probability convenience sampling technique. The study population was explained about LARC benefits compared to other postpartum contraceptives in preventing unintended pregnancies, its side effects & its consequences and inquired about their choice of LARC. IUDs can be placed within 10 minutes of placental delivery (vaginal/ instrumental/ cesarean), while implants can be placed any time after delivery and before discharge. These methods are considered safe to be placed during the immediate postpartum period – after delivery (normal/operative/cesarean) and before discharge from the hospital as single approach. Antenatal women once participated at ANC period were excluded in postpartum period and women who refuse LARC were also excluded. Exclusion criteria for IUCD (Cu-T 380 A) were ruptured membranes of > 24 hours prior delivery, uterine anomalies, active lower genital tract infection, post-partum hemorrhage (PPH) requiring additional management, unexplained vaginal bleeding, symptomatic untreated Sexually Transmitted Infections and reproductive tract tumors. Exclusion criteria for Implant (Jadelle) were recent thromboembolic event, allergic to the

Levonorgestrel component documented women, acute liver disease, benign or malignant hepatic tumor and known or risk of breast cancer or progestin sensitive cancer. The ethical approval was taken from the Institutional Review Committee of College of Medical Sciences (COMSTH-IRC/ Ref: 2020-057). The raw data were entered and analyzed in SPSS 20 software. Categorical variables were

presented in the form of tables with frequency and percentage. For continuous variables, mean and Standard deviation was calculated after checking the normality of data.

RESULTS

This research was conducted among 200 (100 antenatal & 100 immediate postpartum) women.

Table 1. Sociodemographic profile of women under study. (n=200)		
Socio-demographic characters	Antenatal women	Postnatal women
	Frequency(percentage)	Frequency(percentage)
Age:		
15-24 yrs	52(52)	61(61)
25-34 yrs	39(39)	38(38)
>35 years	9(9)	1(1)
Ethnicity:		
Chhetri & Brahmins	46(46)	34(34)
Janajati	33(33)	53(53)
Dalit	16(16)	14(14)
Muslim	2(2)	0(0)
Madhesi	3(3)	0(0)
Others	0(0)	0(0)
Parity:		
Nullipara	7(7)	0(0)
Primipara	30(30)	50(50)
Multipara	57(57)	48(48)
Grandmultipara	6(6)	2(2)
Place of residence		
Urban:	39(39)	20(20)
Rural:	61(61)	80(80)
Educational status		
Illiterate	8(8)	5(5)
Primary level	51(51)	59(59)
Secondary	16(16)	13(13)
Higher sec and above	25(25)	13(13)
Work status:		
Yes	32(32)	72(72)

The socio-demographic profile of the respondents is shown in Table 1. The mean age of antenatal and postpartum women was 25.1(SD 5.25) ranging from 16-37 and 25.2(SD 4.94) ranging from 16-38 years. Highest number of antenatal women was of age 15-24yrs (52%), Chhetri and Brahmin (52%), multipara (57%), reside in rural area (61%), primary level of education (51%), and unemployed (68%) while highest frequency among postnatal women was of age group 15-24 yrs (61%), Janajati (53%), primipara (50%), from rural area (81%), primary level of education (59%), and working (72%).

In our study, all women were aware about the various modern methods of contraceptives. Despite 100% knowledge of contraceptive methods, 28% of antenatal and 42% of postnatal women had history of abortion for unintended pregnancy. Higher number of postnatal women had spousal communication (83%) compared to antenatal women (79%). Forty-seven percentage of antenatal women & 58% postnatal women used the modern methods of contraceptives in past. Among the various modern methods, condom being the commonly used method and television is the common source of information.

knowledge of Contraceptives	Antenatal women Frequency(percentage)	Postnatal women Frequency (Percentage)
H/o unintended pregnancy ended to abortion	28(28)	42(42)
Spousal communication for contraceptive use:		
Yes	79(79)	83(83)
Knowledge of contraceptives	100(100)	100(100)
H/O past contraceptive use:	47(47)	58(58)
Modern method used in past		
Pills	15(15)	16(16)
IUCD	2(2)	2(2)
Depot Injection	10(10)	13(13)
Condoms	18(18)	26(26)
Implants	2(2)	1(1)
Others	0(0)	0(0)
Source of Information for contraception		
Television	32(32)	34(34)
Radio	14(14)	25(25)
Hospital/clinic/ healthpost	25(25)	8(8)
Printed materials	19(19)	21(21)
Husband	5(5)	1(1)
Others	5(5)	11(11)

Choice of LARC	Cu-T	Jadelle	Not willing to use
Antenatal	45	44	11
Post-natal			
Operative vaginal delivery	3	3	0
Normal delivery	39	35	7

Eighty-nine percentage (Copper-T380A: 45 & Jadelle: 44) of antenatal and 91% (Copper-T380A:45 & Jadelle: 46) of postnatal women verbally consented for immediate postpartum contraceptives use. Maximum number of postnatal women opted for LARC after normal delivery. Eleven women of antenatal and nine women of postnatal period were unsure for Immediate LARC placement in single approach.

Highest number of women of 25-34 years age group chose Copper-T in antenatal and postnatal period. Jadelle were opted by 65.9% in antenatal period among 15-24 age group and 78.3% in postnatal women among same age group. Highest percentage (77.8%) of ANC women choosing Cu-T was multipara and highest percent of PNC women choosing Jadelle was primipara. Overall, immediate LARC was chosen maximum by women of rural

Variable	Antenatal women (Percent)			Postnatal women(percent)		
	IUCD	Jadelle	Non-User	IUCD	Jadelle	Non-User
Age:						
15-24	17(37.8)	29(65.9)	6(54.5)	19(42.2)	36(78.3)	6(66.7)
25-34	20(44.4)	14(31.8)	5(45.5)	25(55.6)	10(21.7)	3(33.3)
>35	8(17.8)	1(2.3)	0(0)	1(2.2)	0(0)	0(0)
Parity						
Grand multiparty	4(8.9)	2(4.5)	0(0)	2(4.4)	0(0)	0(0)
Multiparty	35(77.8)	18(40.9)	4(36.4)	32(71.1)	11(23.9)	5(55.6)
Nulliparity	2(4.4)	5(11.4)	0(0)	0(0)	0(0)	0(0)
Primiparity	4(8.9)	19(43.2)	7(63.6)	11(24.4)	35(76.1)	4(44.4)
Place of residence						
Rural	21(46.7)	32(72.7)	8(72.7)	36(80.0)	36(78.3)	8(88.9)
Urban	24(53.3)	12(27.3)	3(2)	11(24.4)	10(21.7)	1(11.1)
Work status						
Working	15(33.3)	15(34.1)	2(18.2)	36(80.8)	32(69.6)	4(44.4)
Unemployed	30(66.7)	29(65.9)	9(81.8)	9(20.0)	14(30.4)	5(55.6)
Education						
Illiterate	6(13.3)	2(4.5)	0(0)	3(6.7)	1(2.2)	1(11.1)

Primary level	23(51.1)	22(50.0)	6(54.5)	27(60.0)	27(58.7)	5(55.6)
Secondary	8(17.8)	7(15.9)	1(9.1)	2(4.4)	10(21.7)	1(11.1)
Higher secondary and further	8(17.8)	13(29.5)	4(36.4)	13(28.9)	8(17.4)	2(22.2)
Spousal communication						
Yes	39(86.7)	31(70.5)	9(81.8)	42(93.3)	34(73.9)	7(77.8)
No	6(13.3)	13(29.5)	2(18.2)	3(6.7)	12(26.1)	2(22.2)
Past abortion (If yes,)						
Comprehensive Abortion Care (surgical abortion)	4(8.9)	1(2.3)	0(0)	3(6.7)	5(10.9)	0(0)
Medical Abortion	11(24.4)	10(22.7)	2(18.2)	19(42.2)	12(26.1)	3(33.3)
Spontaneous Abortion	9(20.0)	9(10.5)	2(18.2)	7(15.6)	8(17.4)	2(22.2)
If, No						
No abortion in past	21(46.7)	24(54.5)	7(63.6)	16(35.6)	21(45.7)	4(44.4)
Knowledge of contraceptives in past						
Yes	44(97.8)	43(97.7)	11(100)	45(100)	46(100)	9(100)
No	1(2.2)	1(2.3)	0(0)	0(0)	0(0)	0(0)
knowledge of side effects of LARC						
Yes	35(77.8)	41(93.2)	11(100)	45(100)	46(100)	9(100)
No	10(22.2)	3(6.8)	0(0)	0(0)	0(0)	0(0)

area, working women, with primary level of education and with spousal communication. Women with h/o induced abortion in past had chosen immediate LARC in higher number compared to past spontaneous abortion. Those who practiced modern method of contraception in past chose immediate LARC and maximum of them knew the common side effects of its use.

The most antenatal women plan to choose

IUCD in immediate postnatal period for its long acting and reversible nature and Jadelle for its convenient birth spacing action of 5 years compared to IUCD and safe nature during breast feeding. The reason for adopting IUCD in postnatal women is mostly due to its long acting and reversible property and Jadelle for its shorter duration with convenient & safe profile during breast feeding.

Table 5. Reason for choosing LARC. (n = 200)

Reason for LARC	Antenatal		Postnatal	
	IUCD	Jadelle	IUCD	Jadelle
To plan for next pregnancy with time	6(13.3)	12(27.3)	4(8.9)	10(21.7)
Family is complete	13(28.9)	1(2.3)	9(20)	0(0)
Convenient and safe during breast feeding	8(17.8)	25(56.8)	12(26.7)	27(58.7)
Long acting and reversible	18(40)	6(13.6)	20(44.4)	9(19.6)

DISCUSSION

Given the high level of unmet need for contraception (23.7%)¹⁹ among married women and the large proportion of pregnancies that are unintended (68 per 1000 women of reproductive age); ultimately either terminated (62%)²⁰ or continued, while both options have got deleterious impact on maternal and child health, making it a public health issue globally and specially to developing countries like ours.^{18,19} In our study, 28% of antenatal women and 42% of postnatal women had induced abortion for unintended pregnancy in past. So, improvements in access to and quality of contraceptive services are needed urgently in view of induced abortion for unintended pregnancy and its associated outcomes counting more of unwanted consequences even due to its legalization with some terms and conditions in all regions of Nepal.²¹

Two third (65%) of postpartum women who desired to use LARC did not receive it in post-partum period and used less effective contraceptives due to 2 visit protocols for LARC insertion and lack of supply.^{22,23} So, we focused on one step approach of making a woman practice better contraceptive i.e., immediate LARC preparing her from the time of antenatal visits and before discharge from hospital just after delivery, as recommended by studies. In our studies, 47% of antenatal women and 58% of postnatal women had history of use of family planning method in past. Regarding LARC, implants was chosen by 44% ANC and 46% PNC & IUCD was chosen by 45% ANC as well as 45% PNC women in our study. In scenario of Nepal, only postpartum IUCD studies were published. Regarding postpartum Implants, our study might be the pioneer one assessing the choice.

The cost and assess were two barriers noted by the study conducted by Paul R. and colleagues²⁴

for the uptake of immediate post-partum LARC. Considering the study, LARC is similar with permanent family planning method, yet reversible and abiding with the free supply of Cu-T 380 A and Jadelle by Nepal government, it is boon to our women under study to decide her next pregnancy with ease and a step near to reach sustainable development goal of Nepal.^{19,25}

In the present study, despite 100% women had knowledge of various modern method of contraception; less number had adopted contraception in past (47% antenatal & 58 % postnatal) and those who had adopted, maximum used less reliable method like barriers (condoms) with less LARC user (IUCD: ANC 2%, PNC 2% group & Jadelle: ANC 2%, PNC 1%) similar to the study in Nepal by Bajracharya.²⁶ According to study of postpartum IUCD in Nepal, healthcare providers knowledge, attitude and Practice towards PPIUCD counseling had biasness & misconceptions which can be improved with further in-depth training and making them understand the importance of birth spacing and improvement in service provider level.²⁷

The maximum women were of younger age group in our study and with past history of use of less effective contraceptives (least use: LARC) might be the result for high rate of pregnancy among the age group and so are the unintended pregnancy and its consequences with result similar to study by Secura,¹² Bajracharya²⁷ and Bhandari.²⁸ Women were Chhetri and Brahmin & spousal communication were highest in our study similar to study by Bhandari & his colleagues²⁸ but our study women had high percentage from rural area, primary level of education and lesser number refer husband as source of information contrary to their results.

CONSLUCION

Single approach immediate postpartum LARC is chosen by women who had induced abortion for

unintended pregnancy in past for its long action, convenience during breast feeding and reliability. Maximum antenatal women prefer IUCD compared to Implants among postnatal women.

Limitations of the study

There is no retrievable and published data regarding the immediate long-acting reversible contraceptives use of Nepal and due to lack of

trained PPIUCD provider, we had to refer the clients to nearby family planning center, so the data regarding the practice of the immediate LARC is not possible in our center.

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