

Use of Family Planning Methods among Postpartum Mothers in Bharatpur Metropolitan City

Susila Pokharel¹, Gayatri Khanal^{2*}, Sakuntala Chapagain², Kishor Adhikari²

¹Ministry of Social Development, Karnali Province, Nepal.

²School of Public Health and Department of Community Medicine, Chitwan Medical College (CMC), Bharatpur, Chitwan, Nepal.

ARTICLE INFO

Article history:

Received: 01 January 2022

Revised: 14 March 2022

Accepted: 22 May 2022

*Correspondence:

Gayatri Khanal
School of Public Health and
Department of Community
Medicine, Chitwan Medical
College (CMC), Bharatpur,
Chitwan, Nepal.

E-mail:

khanalgayatri2@gmail.com

Citation:

Pokharel S, Khanal G,
Chapagain S, Adhikari K. Use of
Family Planning Methods
among Postpartum Mothers in
Bharatpur Metropolitan City.
MedS. J. Med. Sci. 2022;2(3):39-43

ABSTRACT

INTRODUCTION: Low utilization of modern contraceptives immediately after birth remains low in Nepal. Hence the Government of Nepal has given significant importance on postpartum family planning to address the unmet need of family planning in Nepal. The aim of the present study was to assess the prevalence of postpartum family planning Utilization among women and its associated factors. **MATERIALS AND METHODS:** A descriptive, cross-sectional, study was conducted among 133 mothers who had one year of children. The data collection tool was a semi structured interview schedule. Data were entered using Epi data 3.1 software and analyzed using SPSS 16. The statistical analyses carried out were descriptive (frequencies and percentages) and bivariate (chi-square test). **RESULTS:** The current utilization of family planning methods was 23.3% and utilization of family planning in the past year was 28.6%. The Depo-Provera (38.7%) is the most commonly used family planning method among respondents. About half of the respondents (45.9%) did not get family planning counselling during ANC Visit. Husband Occupation (p-value =0.004), family planning counselling during ANC Visit (p-value =0.017), Knowledge on appropriate birth space (p-value =0.017) and IUCD use (p-value=0.042) **CONCLUSIONS:** Contraceptive utilization among postpartum mothers was found to be extremely low which ultimately increases health risk to maternal health due to chances of unintended pregnancies.

Keywords: Family Planning, Post-Partum Family planning, Post-Partum Mother.

INTRODUCTION

Postpartum family planning (PPFP) has a huge role to prevent unintended and closely spaced pregnancies to ensure good health outcomes. However, in developing countries, postpartum contraceptive uptake is low [1].

Post-partum women have one of the greatest unmet need for family planning which led to unintentional pregnancy and unsafe abortion [2]. The World Health Organization estimates that about 830 women die daily from complications of pregnancy and childbirth worldwide [3]. An estimated one fourth (25%) of maternal mortality could be prevented using PPFP [4, 5]. The family welfare Division of Nepal Government has been promoting PPFP services to address the FP need of postpartum mothers in Nepal [5]. However, due to various barriers, constraint and limited knowledge of PPFP, the utilization of PPFP methods after birth remains low [6, 7, 8]. Hence this study was conducted to

explore the magnitude of utilizing family planning methods among mothers.

MATERIALS AND METHODS

Study design and setting

A descriptive, cross-sectional study was conducted among 113 married women of reproductive age of Bharatpur Municipality. Bharatpur Municipality Chitwan district of Nepal was the study site. Chitwan is one of the high-density districts of Nepal. There are 6 municipalities in Chitwan and among them Bharatpuris one [9, 10]. The study period was from 22 April to 10 October, 2018.

Participants, sample size and sampling technique

Only those mothers who had less than 1 year of children were selected as respondents. Those mothers who were not available in the date of data collection and/or did not give informed consent were excluded from the study. Sample size calculation was done by using Cochrane method for

finite study population [11]. Study population size (n): $N = z^2pq/d^2$. Where, Z= Standard normal deviate =1.96 for 95% confidence interval. Contraceptive prevalence rate in Chitwan, Nepal is 41.12% (Annual report, 2071/72). Therefore, $p = 0.4112$ $q = 1 - 0.4112 = 0.5888$, $d =$ allowable error i.e. 5% = 0.05. So, $n = (1.96)^2 * 0.4112 * 0.5888 / (0.05)^2 = 372.04$. Again, we found (N=179) postpartum mothers in selected wards of Bharatpur Metropolitan City during study period. Sample size = $n / (1 + n/N) = 121$ after finite correction for known population. Additionally, 10% of respondents were added for non-response rate. The total sample size was 133 postpartum mothers.

Simple random sampling was performed to select participants. To perform simple random sampling, in the first stage, two wards of the Bharatpur municipality were selected on the basis of convenience. The selected wards were 10 and 12. In the second stage, a list of mothers having children less than one year's age in the selected wards of Bharatpur Municipality was obtained from the local health post. To select the sampling unit, a simple random sampling technique was used. We used a random number table to select the participants.

Data collection procedure and study variables

The data collection tool was a semi structured interview schedule (prepared in Nepali language on the basis of a review of the relevant literature) [12,13] and the data collection method was face-to-face interview. Data was collected by the researcher herself. The questionnaire included information on socio-demography, reproductive health, health service provision, and knowledge on family planning. Pilot testing was done on 10 % of sample size of Ratnanagar Municipalities of Chitwan district. The feedback from the pilot testing was incorporated and a revised questionnaire module was formulated. Modifications included reordering of questions as well as changes in words and additions/deletions of some answer categories

Statistical analysis and data management

Collected data were entered in Microsoft Excel 2007 and after cleaning the data, it was converted into Statistical Package for Social Sciences (SPSS) 11.5 version for statistical analysis. Frequency and percentage were calculated. Chi square test was applied to find out the association between private or public healthcare facility utilization and $p < 0.05$ is

considered significant. The questionnaires were checked for completeness and accuracy of data before feeding data on Epi data 3.1. Data were entered using Epi data 3.1 software and analyzed using SPSS 16. The statistical analyses carried out were descriptive (frequencies and percentages), bivariate (chi-square test). Those variables whose values were ($p \leq 0.05$) were considered as significant.

Ethical considerations

The Institutional Review Committee of Chitwan Medical College (IRC-CMC) granted (CMC-IRC/074/075-025) an ethical clearance before carrying out this study. Verbal informed consent was obtained from the women before starting the interview. Confidentiality and privacy of the information were ensured

RESULTS

Most of the respondents (87.2%) fell under the age group of 20-30 years. Teenage mothers were also found which account for 7.5% of the total respondents. The overall mean age of the respondent was 24.34 years, minimum age being 17 years and maximum 35 years. Among the total respondents, more than half (60.2 %) were married before the age of 20 years. Among the total respondents 35.3% were Dalit, 23.3% were Janajati and 30.8% were Bramhin. Majority of respondents (78.2 %) were Hindu. Most of the respondents were literate with 36.1% having SLC or above education. Similarly, almost all of the respondent's husbands were literate (36.8 % having Secondary education) and 1.5 percent were illiterate.

More than half (59.4%) of the respondents discussed with their husbands regarding use of family planning methods and among them, 48.9% of respondents mentioned that both of the partners made final decisions regarding the use of family planning methods. While asking about appropriate birth space between two children, more than half (69.9%) of the respondents mentioned at least 4-5 years space as the appropriate spacing between two children. Similarly, while asking about the question related to resumption of menses, 60.2% respondents mentioned that women get pregnant before the resumption of menses. Postpartum women were asked whether they had heard about any modern methods of family planning. It was found that 98.5% of mothers knew at least one modern method

of contraception and only 1.5% didn't know any modern contraceptives. Out of 133 respondents, 14.7% of respondents had heard of Condom and Depo, 13.2 % heard of Oral pills, 12.5% heard of IUCD and 11.4% heard of Implant. Two out of 133 respondents did not know/can't say any type of family planning methods.

Table 1 | Utilization of FP methods (n=133)

Variables	Frequency/Percentage (n=133)
Current Utilization of family planning methods	
Yes	31(23.3)
No	102 (76.7)
Utilization of FP in the past year	
Yes	38(28.6)
No	95(71.4)
Current FP Methods used(n=31)	
Laparoscopy/Minilap	2(6.5)
Oral pills	3(9.7)
Condom(male)	8(25.8)
IUCD	4(12.9)
Depo-Provera	12(38.7)
Implant	2(6.5)

Table 2 | Women autonomy/involving in decision making regarding family planning utilization (n=133)

Variables	n(%)
Discussion with husband regarding family planning	
Yes	79(59.4)
No	54(40.6)
Partner who did final decision regarding use of family planning (n=79)	
Respondent	8(6)
Husband	6(4.5)

Use of family planning was significantly associated with husband occupation (p-value=0.004), FP counselling during ANC (p-value=0.017), knowledge on appropriate birth space (p-value=0.017) and ICUD use (p-value=0.042).

DISCUSSION

Contraceptive use during the postpartum period is critical for the health of the mother and child [14]. The present community based cross-sectional study was an attempt to assess the utilization of family

Table 3 | Service utilization during pregnancy (n=133)

Variables	N (%)
ANC visit	
Yes	133(100)
Family planning counselling during ANC visit	
Yes	61(45.9)
No	72(54.1)
PNC visit during last child birth	
1 time	26(19.5)
2 times	82(61.7)
3 times	25(18.8)
Counselling during PNC visit	
Yes	54(40.6)
No	79(59.4)

Table 4. Predictors of family planning utilization (n=133)

Characteristics	Use of PFP		P Value
	n(%)	n(%)	
Husband Occupation			
Migrant worker	5(9.3)	49(90.7)	
Self employed	19(36.5)	33(63.5)	0.004*
Service	7(25.9)	20(74.1)	
FP counselling during ANC visit			
Yes	20(32.8)	41(67.2)	
No	11(15.3)	61(84.7)	0.017*
Knowledge on appropriate birth space			
At least 2-3	4(10)	36(90)	
At least 4-5	27(29)	66(71)	0.017*
ICUD use			
Yes	21(19.6)	86(80.4)	
No	10(38.5)	16(61.5)	0.042*

*p-value: <0.05

planning among postpartum women. In this study, less than 1/4th 31(23.3%) of the participants reported using family planning methods during the postpartum period. This finding was consistent with National Demographic Health Survey report of Nepal (22%) [12] However, the finding was lower than the studies conducted in Nepal (32.8%), Ethiopia (31.7%) and Uganda (28%) [13, 14, 15] and higher than the study conducted in India (13.8%)[16]. The difference might be due to improvement in health service delivery, difference in study period as well as socio-economic status,

socio-cultural status of the study participants and availability and accessibility of health services.

Low rate of using family planning methods in postpartum women in this study may be the fact that more than fifty percent of the women in this study did not get family planning counseling in their PNC visit. Low percentage of PNC utilization ultimately increases maternal deaths, stillbirths and larger children exposed to the risk of mortality [17]. In this study, the current utilization of family planning methods (23.3%) is lower as compared to past year (28.6%). This scenario may be due to the fact that migration for foreign work is increasing thus husband and wife living separately which ultimately decreases the need for family planning among couples.

The postpartum women who are currently using family planning methods mentioned that the most preferred family planning methods are Depo-Provera 38.7% and IUCD 12.9%. This finding was consistent with the national data of 37% [18]. A possible explanation for the lucrative usage of Depo-Provera injections is that it is simple to get, convenient and private, doesn't need daily dose, may result in pregnancy once used no longer, and generate consistently favorable feedback from women who use it [19]. More than half (59.4%) mothers who went for a PNC visit did not get family planning counseling during the PNC visit. This clearly represents the scenario of low postpartum contraceptive usage in the study areas. It is well known evidence that awareness regarding Postpartum family planning is directly associated

with the uptake of postpartum contraception use [13, 18].

Utilization of postpartum family planning was significantly associated with husband occupation, family planning counseling during ANC, Knowledge on appropriate birth space and IUCD use. The similar results were found in the other studies [6, 14, 15, 16]. It is important to explore the strength of association between husband occupations, family planning counseling during ANC, Knowledge on appropriate birth space and IUCD use with postpartum contraception use.

The present study was conducted only two wards of the Bharatpur municipality so the result generated from this study may not exactly represent the postpartum contraceptive usage scenario of Bharatpur municipality and the chitwan district.

CONCLUSIONS

Contraceptive utilization among postpartum mothers was found to be extremely low which ultimately increases health risk to maternal health due to chances of unintended pregnancies. Husband occupation, family planning counseling during ANC, Knowledge on appropriate birth space and ICUD use were found to have a significant influence on utilization of family planning methods among postpartum mothers. Proper counseling and education on postpartum family planning use is very crucial during antenatal, postnatal period to enhance uptake of postpartum contraceptive use.

ADDITIONAL INFORMATION AND DECLARATIONS

Acknowledgements: Authors wish to thank all the participants for all their supports during this study.

Competing Interests: The authors declare no competing interests.

Funding: Self-funded

Author Contributions: Concept and design: K.P.Y, SU, and NJ; Statistical analysis: K.P.Y, B.K.Y., Writing of the manuscript: K.P.Y, R.M., B.K.Y, S.U; Data collection: K.P.Y; Revision and editing: K.P.Y., RM, BKY, SU, NJ. All authors have read and agreed with the contents of the final manuscript towards publication.

Data Availability: Data will be available upon request to corresponding authors after valid reason.

REFERENCES

- Moore Z, Pfitzer A, Gubin R, Charurat E, Elliott L, Croft T. Missed opportunities for family planning: an analysis of pregnancy risk and contraceptive method use among postpartum women in 21 low- and middle -income countries. *Contraception*. 2015; 92(1):31-9.
- Apanga PA, Adam MA. Factors influencing the uptake of family planning services in the Talensi district, Ghana. *Pan Afr Med J*. 2015; 20:1-9.
- WHO and HRP. Maternal mortality: fact sheet. 2014. Available on : https://apps.who.int/iris/bitstream/handle/10665/112318/WHO_RHR_14.06_e
- Collumbien M, Gerressu M, Cleland J. Non- use and use of ineffective methods of contraception. IN: Ezzati M, Lopez A, Anthony R, Murray C,(eds). Comparative Quantification of Health Risks: Global and Regional burden of disease attributable to selected major risk factors. *WHO*. 2004. [ng.pdf](#)

- 1255-1320.
5. Blencowe H, Cousens S, Jassir FB, Say L, Chou D, Mathers C, et al. National, regional, and worldwide estimates of stillbirth rates in 2015, with trends from 2000: a systematic analysis. *Lancet Glob Heal*. 2016; 4(2):e98-108.
 6. Puri MC, Maharjan M, Pearson E, et al. Delivering postpartum family planning services in Nepal: are providers supportive? *BMC Health Serv Res*. 2018; 18:1-9.
 7. Ackerson K, Zielinski R. Factors influencing use of family planning in women living in crisis affected areas of Sub-Saharan Africa: a review of the literature. *Midwifery*. 2017; 54:35-60.
 8. Cleland J, Bernstein S, Ezeh A, Faundes A, Glasier A, Innis J. Family planning: the unfinished agenda. *Lancet*. 2006; 368(9549):1810-1827.
 9. National Population Census 2011. Household and Population by sex. Central Bureau of Statistics. November, 2012.
 10. National Population and Housing Census 2011: Village Development Committee/ Municipality. Central Bureau of Statistics. March, 2014.
 11. Cochran, W. G. 1963. Sampling Techniques, 2nd Ed., New York: John Wiley and Sons, Inc. Available on <https://hwbdocuments.env.nm.gov/Lo%20Alamos%20National%20Labs/Ge%2014447.pdf>
 12. MOHP. Nepal Demographic and Health Survey 2006. Macro International Inc. Calverton, Maryland, U.S.A. May 2007. Available on: <https://dhsprogram.com/pubs/pdf/FR191/FR191.pdf>
 13. Joshi KA, Tiwari PD, Poudyal A, Shrestha N, Acharya U, Dhungana PG. Utilization of Family Planning methods among Postpartum Mothers in Kailali District, Nepal. *International Journal of Women's Health*. 2020; 12:487-494.
 14. Dona A, Abera M, Alemu T, Hawaria D. Timely initiation of postpartum contraceptive utilization and associated factors among women of child bearing age in Aroressa District, Southern Ethiopia: a community based cross-sectional study. *BMC Public Health*. 2018; 18(1):1100.
 15. Rutaremwa G, kabagenyi A, Wandera SO, Jhamba T, Akiror E, Nviiri HL. Predictors of modern contraceptive use during the postpartum period among women in Uganda: a population-based cross sectional study. *BMC Public Health*. 2015; 15(1):262.
 16. Mahmood SE, Srivastava VP, Shaifali I, Mishra P. Postpartum contraceptive use in rural Bareilly. *Indian J Community Health*. 2011; 23(2):56-57.
 17. WHO. Technical Consultation on Postpartum and Postnatal Care: Department of making pregnancy safer; Switzerland; World Health Organization. 2008. Available on: http://apps.who.int/iris/bitstream/handle/10665/70432/WHO_MPS_10.03_eng.pdf?sequence=1
 18. Government of Nepal. Ministry of Health and population. Department of health services. Annual report 2076/2077 (2018/2019).
 19. Newzland Family Planning. Depo Provera Injection (Internet). Available on: <https://www.familyplanning.org.nz/advice/contraception/depo-provera-injection>

Publisher's Note

MJMMS remains neutral with regard to jurisdictional claims in published materials and institutional affiliations.



CCREACH will help you at every step for the manuscript submitted to MJMMS.

- We accept pre-submission inquiries.
- We provide round the clock customer support
- Convenient online submission
- Plagiarism check
- Rigorous peer review
- Indexed in NepJOL and other indexing services
- Maximum visibility for your research
- Open access

Submit your manuscript at:
 Website: www.medspirit.org
 e-mail: editormjms@gmail.com

