Original Article Knowledge and Practice of Family Planning Methods among Married Women of Reproductive Age of Chepang Community of Dhading District Prem Prasad Panta¹, Prativa Tripathi², Kapil Amgain³, Deepak Sharma⁴

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Corresponding Author: Prem Prasad Panta, Email: <u>pantaprem7@gmail.com</u> **ABSTRACT**

Background: Knowledge of family planning plays a significant role in public health to control birth and maintain the health of women. The Chepang, a backward and deprived indigenous group of Nepal, heavily experiences teenage pregnancies, high fertility and high mortality of infants and mothers, which are largely due to lack of knowledge on family planning. So, the objective of this study was to find knowledge and practice regarding family planning among married women of reproductive age.

Methods: A cross sectional descriptive study was conducted among married women of the Chepang community, Benighat, Dhadnig, Nepal from January 1 to February 12, 2014. A simple random probability sampling technique was used to collect 80 respondents.

Results: The mean age of the respondents was (30.7 ± 7) years, ranging from 17 to 47, with majority being 25-29 years. The average marital age, and average age at first pregnancy were (16.7 ± 2) years and (17.7 ± 2.33) years respectively. Ninety-two percent of the respondents were aware of family planning. The major sources of information were health workers (79.2%) and radio/television (57.1%). The most known methods of contraception were Depo- provera (87.3%) and pills (85.7%), whereas least known methods were copper T (31%) and Norplant (31%). The contraceptive prevalence was 49.9%, among which pills and Depo provera were used maximum by the respondents (41.1%). One third (33.8%) of the respondents had the adequate knowledge. Education, spousal communication, current contraceptive users, married age, number of children, and age at first pregnancy were the significant factors affecting the knowledge and practice of family planning (P < 0.05).

Conclusion: Literacy status, spousal communication, marital age, size of children, and age at first pregnancy are the associated factors of knowledge. Whereas, practicing of family planning was associated to cultural taboos, self-decision, literacy status, and spousal communication.

Keywords: family planning, knowledge, practice, contraception, Chepang, Nepal

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INTRODUCTION

Family planning is a smart, sensible, and a vital component of global health and development. It can bring a wide range of benefit to women, their families and the societies as a whole.¹ An International Conference on Population and Development (ICPD) Cairo, 1994 and the fourth world conference on women Beijing, 1995 emphasized women empowerment including reproductive and sexual rights as the basic tool for development.² Knowledge of contraceptive methods has good impact on reproductive health. The ability to spontaneously name or recognize a family planning method when it is described is a simple test of respondent's knowledge, but not necessarily an indication of the extent of knowledge. The Family Planning Association of Nepal (FPAN), in 1959, first introduced family planning program in Nepal. In fact, Nepal was one of the first countries of South Asia, where family planning program was available through a non-government organization. Since 1968 government of Nepal has been actively involved in providing family planning services with the establishment of Nepal Family Planning Association.³

Family planning is a priority program of the Government of Nepal. Despite political instability in the last two decades, Nepal has achieved remarkable progress in the overall status of reproductive health, including family planning. Married women of reproductive age have been increasingly using contraceptive 1996 to 2016. However, Nepal from Demographic Health Survey 2011 has shown unexpected results on the contraceptive prevalence rate. There had been a notable decline in the prevalence rate between 2006 and 2011. Over the past 20 years, any method of family planning by married women has nearly doubled from 29% in 1996 to 53% in 2016. Similarly, modern method use has increased from 26% to 43% during the same time period, but has not changed since 2006. Trends in current use of family planning can be used to monitor and evaluate the success of family planning programs over time.^{4,5}

Knowledge, attitude and practices towards the family planning are the basic indicators of achieving the targets and success of family planning of national and international organizations. Regarding the higher prevalence of contraceptive use, knowledge of family planning plays the most important role.⁴ The introduction of modern contraceptive techniques over the recent decades and the increasing availability of safer and more effective methods of preventing pregnancy have permitted people around the world to exercise their choice, make responsible

decisions with respect to their reproduction and enjoy the benefits of family planning.⁶ Chepang is one of Nepal's most backward indigenous Tibeto-Burman ethnic groups, mainly inhabiting the rugged ridges of the Mahabharat mountain range of central Nepal. According to the 2011 Census, their population stands at 68,399. They are spread across Makawanpur, Dhading, Chitwan. Gorkha. Lamjung and Tanahu districts. Only 15 percent are literate and almost 90 percent are below the poverty line. They have often been regarded as the poorest, deprived and marginalized ethnic groups in the country. Lack of poor access to health facilities primarily makes them more vulnerable. Because of illiteracy, they were unaware of the benefits of family planning.^{7–10} The population size of Dhading district was 336,067 in 2011, 3 percentage of them were Chepang – toal of 330 families⁴. In Chepang community, forced teenage pregnancies are common. Due to poverty, geographical difficulties, and illiteracy, girls of this seminomadic community are forced for marriage at their early age, i.e. 13 to 26 years. Lack of health facilities has risked the lives of newborn and new mothers.¹¹

A lack of awareness of family planning options in rural communities often leads to more births than women say their bodies can bear. In the Chepang community, the trend of giving more children with very short intervals, has lead to greater chances of child deaths. They have experienced up to 20 births in 30 years of time. The government and nongovernmental organizations have started to disseminate family planning knowledge, implication and importance to rural communities. Even if the community acquires knowledge on family planning; social and cultural taboos deep rooted in the community, have restricted the use of contraceptives, and people do not fully accept the family planning methods¹². So, the aim of this study is to determine the status and factors of knowledge and practice of family planning among married women of reproductive age of the Chepang indigenous group.

MATERIALS AND METHOD

This was a community based cross sectional study done in Benighat VDC of Dhading District from January 1 to February 12, 2014. A descriptive quantitative study method was used.

Inclusion Criteria: Married women of reproductive age.

A simple random sampling technique was carried out to collect the respondents. The sample size was calculated using:

$$n = \frac{z^2 p q}{d^2} = 76$$

(The minimum sample size was 80) Z = 1.96 (5% level of significance) P= 80% (Knowledge about family planning)¹⁶ =95% and q=100 - 80 = 20% d= allowable error = 9%

Data were collected through interview techniques by using pre tested semi-structured questionnaire. Verbal consent was taken before data collection. Confidentiality was assured and maintained. And ethical clearance was taken from the Nepal Institute of Health Sciences, Kathmandu with IRC No. Stupa-IRC-01/2070. The data were coded, entered and cleaned in Epidata. Then the data were analyzed by using SPSS 20.0, and both descriptive and inferential statistics were used. Results were presented as mean \pm standard deviation (SD) for quantitative variables, and count (percentage) for qualitative variables. During analysis of knowledge score, 1 score was given to the right answer and 0 for the wrong answer. The total score of the knowledge was 16. The median of the total score was taken as a cutoff point so those respondents whose score more than median value were considered adequate knowledge and below the median value inadequate. Qualitative variables were compared by using chi-square equivalents test or where appropriate. Unadjusted odds ratios (OR) with 95 % confidence intervals were used to examine the impact of contraception on various outcomes. Results were considered statistically significant if *P* value < .05.

RESULTS

Eighty participants enrolled in this study. Table 1 depicts the main socio-demographic characteristics of the study population. The age varied between 17 and 47, with a mean of 30.39 ± 6.98 years. The majority (30%) of the respondents were found to be in the age group 25-29 years. Nearly two third (63.8%) were from nuclear type of family. Eighty-seven percent (n=70) had the family size 5 and more with average family size 7.44±2.94 and varied from 2 to 18 (Table 3). The monthly household income of the respondents (40%) was between Rs.6000 and Rs.10000, with mean of Rs.10087.5 \pm 4472.68 and varied from Rs. 3000 to Rs. 20000 (Table 3). Regarding age at marriage and age at first pregnancy, the majority (80.5%) had got the marriage at the age below 18 years and eighty percent were pregnant before the age 20 years. The average married was 16.76 ± 2 years with the range of 13 to 22 years. Similarly, the average first pregnant age was 17.78 ± 2.33 years with the variation of 14 to 25 years.

Table 1:	Demographic	Characteristics	of	the
responde	nts			_

respondentes		
Age of the respondents (Years)	Number (n=80)	Percent
Below 20	3	3.8
20-24	12	15.0
25-29	24	30.0
30-34	17	21.3
35-39	13	16.3
40 and above	11	13.8

Family type		
Nuclear	51	63.8
Joint	27	33.7
Extended	2	2.5
Family size		
Below 5	10	12.5%
5 and more	70	87.5%
Monthly Income (NPR)		
Below 5000	18	22.5%
6000-10000	32	40%
10000-15000	25	31.3%
15000 and above	5	6.2
Age at marriage (years)		
18 and below Above 18 Years	67 13	83.8% 16.3%
Age at first pregnancy		
Below 20 Years Above 20 Years	62 15	80.5% 19.5%

The table 2 shows that more than half the respondents (52.5%) were literate and about one in ten (11.2%) of their husbands were illiterate. Among which 30.9% women and one fourth (24.1%) of their husband had competed the secondary level. More than three fourth respondents had the occupation of housewives and more than 50% of their husband had the occupation of agriculture.

Table 2: Demographic characteristics ofrespondents and husbands

Literacy status	Wife	Husband
Literate	42 (52.5%)	71(88.8%)
Illiterate	38(47.5%)	9(11.2%)
Education level(n=42)		
Read and write	18(42.9%)	29(40.8%)
Primary	11(26.2%)	25(35.2%)

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Secondary	10(23.8%)	14(19.8%)
Higher secondary	3(7.1%)	3(4.3%)
Occupation		
Housewife	63(78.8%)	-
Agriculture	14(17.5%)	45(56.3%)
Labor	2(2.5%)	17(21.2%)
Shopkeeper	1(1.2%)	-
Driver		6(7.5%)
Teacher		5(6.3%)
Shopkeeper		4(5%)

Table	3:	Descriptive	characteristics	of	the
respon	den	ts			

Variables	N	Minimu	Maximu	Mean	SD
		m	m		
Age of the Respondent	80	17	47	30.69	6.98
Age at marriage	80	13	22	16.76	2.00
Age at first pregnancy	80	14	25	17.78	2.33
Number of the sons	76	1	6	2.61	1.27
Number of daughter	68	1	5	2.07	1.05
Total number of children	77	1	8	4.40	2.02
Family size	80	2	18	7.44	2.94
Income(RS)	80	3000	20000	10087.5 0	4472.6 8

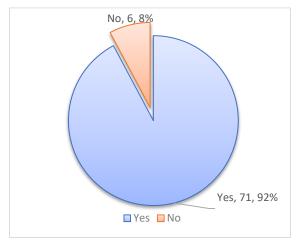
Figure 1 and 2 shows the knowledge about family planning. The majority (92.2%) of the married women of reproductive age had heard about the family planning methods. The major source of information was from health workers (79.2%), radio/television (57.1%), friends (41.6%) and; poster and pamphlet (18.2%). Regarding types of family planning (table 4), they had heard about Depo-Provera (87.3%), pills (85.7%), and followed by permanent methods (69%), condom (42.3%), copper T (31%) and Norplant (31%).

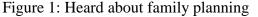
About availability of the family planning methods, majority (85.7%) answered that the methods are available in health post and

followed by hospital (63.6%) and private clinics (56.8%). Regarding overall knowledge (table 6) of study participants, 27(33.8%) had adequate knowledge towards family planning and rest 53 (66.3%) had inadequate knowledge (Table 4).

Regarding perceived advantages of using family planning, 42.5% were responding on the advantages. Among which 61.7%, 29.4% and 8.9% of the participants were responding decrease birth rate, improve mothers' health and reduce in maternal mortality rate respectively (Table 4).

About half (49.4%) of the study participants ever used contraceptive methods (Figure 3). The main types were pills (31%) and depo Provera (31%) followed by Norplant (10.5%) and condom (5.3%) (Figure 4)





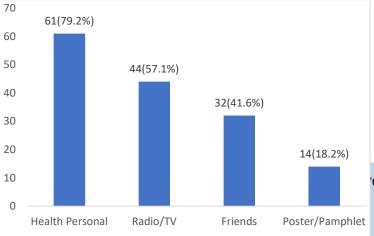


Figure 2: Source of Information about FP (Multiple response)

Table 4: Knowledge about family planning

Heard about types of FP methods (n=71)	Number	Percent
Dipo Provera	62	87.3
Pills	61	85.7
Condom	30	42.3
Copper T	22	31
Norplant	22	31
Permanent	49	69
Knowledge on availability of F	P methods(n	=77)
Health post	66	85.7
Sub health post	17	22.1
Private clinics	36	46.8
Hospital	49	63.6
Advantage of FP(n =80)		
Yes	34	42.5
No	46	57.5
Advantages(n = 34)		
Help to decrease birth rate	21	61.7
Help to improve mothers' health	10	29.4
Help to control maternal	3	8.9
mortality rate	5	8.9
Knowledge Level		Percent
Inadequate	53	66.2
Adequate	27	33.8
Total	80	100.0
10(a)	00	100.0

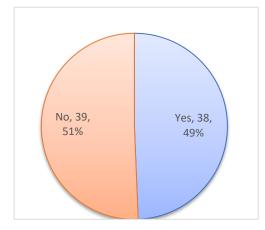


Figure 3: Use of family planning

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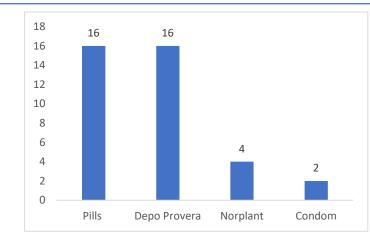


Figure 4: Types of used FP methods

Table 5 shows the association between the selected variables and level of knowledge. Women who were literate had the adequate knowledge than those who were illiterate ($\chi^2 = 10.44$, *d.f.* = 1, *P* = .001). The chance of adequate knowledge having literate women is about 5.33 (95% CI: 1.8 - 15.4) times the chance of inadequate knowledge of illiterate women. Similarly, there is significant association between communication between spouse, use of FP methods at present, marriage age and size of children with the level of

knowledge ($\chi^2 = 7.54$, *d.f.* = 1, *P* = .006, OR= 3.8, CI: 1.4 - 10.4), ($\chi^2 = 7.35$, d.f. = 1, p = .007, OR= 3.87, CI: 1.4-10.5), (Fisher exact test, *d.f.* = 1, *P* = .036) and ($\chi^2 = 4.17$, *d.f.* = 1, *P*= .041, OR= 3.09, CI: 1.01-9.39) respectively.

Table 6 depicts the association between selected variables with practice about FP. Women who were literate had more use of family planning method than those who were illiterate ($\chi^2 = 14.34$, *d.f.* = 1, *P* = < .001). The chance of using family planning method having literate women is about 6.44 (95% CI: 2.36 – 17.5) times than the illiterate women. Similarly, there is significant association communication between spouse about FP , cultural taboos and decision maker about FP with use of family planning ($\chi^2 = 6.48$, d.f. = 1, p = .03, OR= 2.75, CI: 1.08 – 6.94), ($\chi^2 = 3.89$, *d.f.* = 1, *P* = .048, OR= 0.4, CI: 0.15-1.0) and ($\chi^2 = 12.88$, *d.f.* = 2, *P* = .002) respectively.

Variables	Level of knowledge of FP		χ^2 value	P	OR (CI: 95%)
Literacy status	Adequate	Inadequate		value	
Literate(n=42)	21(50%)	21(50%)	10.44	.001	5.33 (1.8 – 15.4)
Illiterate(n=38)	6(15.8%)	32(84.2%)			
Literacy status of Husbar	nd				
Literate(n=42)	23(32.4%)	48(67.6%)	0.519	.471	.59 (0.14 – 2.4)
Illiterate(n=38)	4(44.4%)	5(55.6%)			
Income					
Above 10000	11(40.7%)	16(59.3%)	.891	.345	1.5 (0.60 – 4.17)
Below 10000	16(30.2%)	37(69.8%)			
Television/Radio					
Yes	17(38.6%)	27(61.4%)	.575	.448	1.44(0.55 - 3.7)
No	10(30.3%)	23(69.7%)			
Poster/Pamphlets					
Yes(14)	6(42.9%)	8(57.1%)	.499	.545 1.5(0.46 – 4.	1.5(0.46 - 4.8)
No(63)	21(33.3%)	42(66.7%)			
Friends/Relatives					

Table 5: Association between level of knowledge of FP and other variables

Yes(32)	12(37.5%)	20(62.5%)	.143	.706	1.2(0.46 - 3.0)
No(45)	15(33.3%)	30(66.7%)			
Health Workers					
Yes(61)	22(36.1%)	39(63.9%)	.129	.719	1.2 (0.38 – 4.0)
No(16)	5(31.2%)	11(68.8%)			
Spousal Communication	on FP				
Yes(35)	18(51.4)%	17(48.6%)	7.54	.006	3.8(1.4 - 10.4)
No(42)	9(21.4%)	33(78.6%)			
Current users of FP					
Yes(38)	19(50%)	19(50%)	7.35	.007	3.87 (1.4 – 10.5)
No(39)	8(20.5%)	31(79.5%)			
Married age of the respon	ndent				
>= 20 years (3)	3(100%)	0(0%)	Fisher exact	0.036	
< 20 Years (77)	24(31.2%)	53(68.8%)	test		
Size of children					
<= 2 children(17)	9(52.9%)	8(47.1%)	4.17	.041	3.09(1.01 - 9.39)
>2 children(60)	16(26.7%)	44(73.3%)			
Age at first pregnancy					
>= 20 years (15)	10(66.7%)	5(33.3%)	9.93	.002	6.26(1.84 - 21.24)
< 20 years(62)	15(24.2%)	47(75.8%)			

Table 6: Association between use of family planning and selected variables

	Yes	No	χ² value	P value	OR (CI: 95%)
Literacy status(n=77)					
Literate	29(69.0%)	13(31%)	14.34	< .001	6.44(2.36 - 17.5)
Illiterate	9(25.7%)	26(74.3%)			
Literacy status of husband	(n=77)				
Literate	36(52.2%)	33(47.8%)	Fisher	0.263	3.27(0.61 - 17.36)
Illiterate	2(2.05%)	6(75.0%)	exact test		
Spousal Communication (n	=77)			·	
Yes	22(62.9%)	13(37.1%)	4.68	0.03	2.75(1.08 - 6.94)
No	16(38.1%)	26(61.9%)			
Cultural taboos regarding	FP (77)				
Yes	12(36.4%)	21(63.6%)	3.89	0.048	0.4 (0.15 – 1.00)
No	36(59.1%)	18(40.9%)			
Decision maker of using of	FP(n=77)				
Husband	2(14.3%)	12(85.7%)	12.88	.002	-
Self	31(64.6%)	17(35.4%)			
Couple	5(33.3%)	10(66.7%)			
Using FP against religion(n	=77)				
Yes	9(38.1%)	13(61.9%)	1.4	0.226	0.533 (0.19 - 1.48)
No	30(53.6%)	26(40.4%)			
Having children (74)					
<= 2 children	9(52.9%)	8(47.1%)	0.76	0.78	1.16 (0.39 – 3.44)
>2 children	28(49.1%)	29(50.9%)			

DISCUSSION

We had interviewed 80 women of the Chepang community for the assessment of their knowledge and practice regarding family planning. The highest proportion of respondents (30%) belonged to the age group 25-29 years. The mean age of the study population was 30.39 years with standard deviation 6.98 years, which was almost in the line with a study done in Eastern Nepal.¹³ The

majority (87.5%) of the respondents was found to have family size more than 5. The average monthly income of the households was Rs.10087 with standard deviation Rs.4472. More than three fourth of the women were house-wives (78.8%) followed by occupation and more than half (52.5%) were literate. Regarding marriage age and first pregnancy age, majority (80.5%) had got the marriage at the age below 18 years and eighty percent were pregnant before the age of 20. The average age at marriage was 16.76 ± 2 years, ranging from 13 to 22 years. Similarly, the average age at first pregnant was 17.78 ± 2.33 years with the variation of 14 to 25 years.

In our study, 92.2% of the women had heard about family planning, this result is similar to study conducted in Nepal and India.^{14,15} The finding of this study is also supported by study conducted in Chitwan, Nepal which showed 89.2%.¹⁶. Another study in Eastern Nepal also matched the findings in which 98% of the respondents had heard about family planning.¹³ Likewise, another study done in Western Nepal to find the knowledge and prevalence of family planning measures, supports the findings of this study showed 95.85% of respondents had heard about family planning.¹⁷

The main sources of information about family planning are health personal (79.2%), radio/TV (57.1%), friends (41.6%) and poster (18.2%). This finding validates that of where health personals were the main source of information. ^{6,18–20} Another study conducted in Uganda also supports the main source of information about family planning of this study.²⁰ But a study conducted in India, media (53.2%), friends & relatives (24.6%) and health professionals (22.2%) were the main sources of information.²¹ Therefore the primary health care providers have a major role to play in improving the women's knowledge of family planning and awareness of different contraceptive methods.

In our study Depo Provera (87.3%) was the most well-known method followed by pills (85.7%), permanent method (69%), condoms (42.3%), and both copper T and Norplant (31%). Similar results were seen in other studies. ^{14,16,22} Although this study found the higher knowledge about family planning, they could not respond properly about the advantages and benefit of family planning, in contrast to this it was higher in another study. ¹⁶

This study revealed that out of 80 participants, 49.4% used contraceptive methods. This finding supports the DHS report conducted in Nepal in 2016.⁴ Likewise, studies conducted in and Ethiopia (50.4%) Cambodia (56%) showed the same kind of result. respectively.^{23,24} In contrast, a study conducted in the Sidhupalchok district of Nepal showed that 85.7% were currently using the contraception at the time of study.¹⁴

In this study, the most common was pills, followed by Depo Provera, Norplant and condoms. Similar findings are also shown by NDHS.⁴ The main reason for not utilizing contraceptives may be the desire of more children, cultural barrier, socioeconomic status, husband's objection, ignorance of free availability of contraceptives and educational status of women.

The result of the present study showed that 33.8% of the study participants had adequate knowledge in overall knowledge of contraceptive methods. This finding was lower than the study conducted in Ethiopia that showed 42.3% good knowledge towards family planning.²⁴ and study conducted in Fiji showed 45.5% of participants had a good level of knowledge towards family planning. ²⁵

This study showed that education of the participants, communication between spouses, current users of family planning method, age at marriage of respondents, number of children, and age at first pregnancy were associated with knowledge of family planning. Those women who were literate had more knowledge level than the illiterate women. Like-wise, those couples who interacted between them, they had more level of knowledge about FP. Women having less number children, married age more than 20 years and those women who were pregnant after 20 years had more proportion of level of knowledge.

The study revealed that women's education status. communication between spouse. cultural taboos and decision maker in the household were associated with their FP practicing habits. This study shows that the women who were literate had a more proportion of practicing the habit of FP. Similarly, the use of family planning was more among the women who were kept in the communication about FP in their husband and others, self-decision makers in the household and ignoring the cultural taboos and religious belief. Therefore, these associated factors may play the vital role to enhance the knowledge of family planning among the married women of reproductive age and increased the practicing habits. addition, In family planning professionals should prioritize further research and development into maximizing the knowledge and practice of FP.

Because of small population size of the study area, the sample size was small. Male were not directly involved. As the data collection technique was direct face-to-face interview method, women might be hesitant, and reported information might be overestimated or underestimated. The finding of this study cannot be generalized to the other settings.

CONCLUSION

The overall knowledge about family planning methods was low, while the practice of FP methods was average. Literacy status, spousal communication, age at marriage, age at

pregnancy, cultural taboos, and decisionmaking process are the factors of knowledge and practice of family planning methods. Information about family planning methods should extensively be promoted through health personals, radio, television, newspaper and increase knowledge FCHV to so that utilization of family planning will be enhanced.

List of abbreviations used

FP: Family planning, MWRA: Married women of reproductive age OR: odds ratio. CI: confidence interval, NDHS: Nepal Demographic Health Survey, FCHV: Female Community Health Volunteer, FPAN: Family Planning Association of Nepal

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