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Knowledge, Attitude and Practices of Contraception among the Married Women of Reproductive Age Group in Selected Wards of Dharan Sub-Metropolitan City

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Abstract

Background: It is very critical to understand that awareness of family planning and proper utilization of contraceptives is an important indicator for reducing maternal and neonatal mortality and morbidity. It also plays an important role in promoting reproductive health of the women in an underdeveloped country. According to NDHS 2011 the knowledge of at least one contraceptive method was universal in Nepal but only 49.7% of the married women aged 15-49 years were currently using any method.

Materials and Methods: A cross sectional descriptive study was conducted among 209 married women of reproductive age in selected wards of Dharan Sub-Metropolitan City. Simple random sampling was used to select the wards and population proportionate sampling for selecting the sample numbers from each ward. Semi-structured self-prepared questionnaire was used to collect data. Descriptive and inferential statistics were used to interpret the data considering p-value 0.05.

Results: Most (53.1%) of the respondents were of the age group 20-34 years. Majority (92.3%) of the respondents had ever heard of contraception. Popular known method was Inj. Depo-provera (92.7%). Mass media (85.8%) was the major source of information. Mean percentage score of knowledge was 45.23%. Majority (90.4%) of the respondents had positive attitude and only (64.6%) were using contraceptives currently. Education, occupation and total income of the family was associated with knowledge regarding contraceptives. Logistic regression showed significant correlates of attitude with distance to the nearest health centre, education and age group whereas that of practice showed significant association with education, encouragement from husband, women's participation in decision making, distance to nearest health centre and type of family. A positive correlation was found among knowledge, attitude and practice of contraception.

Conclusion: The study concludes that contraceptive practice is relatively low. Improved education on contraception and counselling are needed to solve these problems.

Keywords: Attitude; Contraception; Knowledge; Practice

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Introduction

Amongst the various challenges faced by human beings, the most important one today is not infectious disease but population. Over time, family planning program has been changed considerably. Globally; Family Planning is promoted as a mechanism to address

the reproductive health needs of men and women, as well as the crucial challenge of rapid population increase [1]. Family planning is a practice by which a couple space the number of years between each child they want to give birth to through the use of contraceptive methods [2].

Contraception is the deliberate use of artificial methods or other techniques to prevent pregnancy as a consequence of sexual intercourse. The major forms of artificial contraception are: barrier methods, of which the commonest is the condom or sheath; the contraceptive pill, which contains synthetic sex hormones which prevent ovulation in the female; intrauterine devices, such as the coil, which prevent the fertilized ovum from implanting in the uterus; and male or female sterilization.

“The truth is women use contraception not only as a way to prevent unintended pregnancies, but also to improve their health and health of their families. Increased access to contraception is directly linked to declines in maternal and infant mortality”.

Each year, more than 208 million pregnancies occur worldwide; 185 million occur in the developing world alone. Worldwide, almost two in five women who become pregnant have either an abortion or an unplanned birth. More than 40% of pregnancies worldwide are unintended. An estimated 222 million women in developing countries would like to delay or stop child bearing but are not using any method of contraception. An estimated 18 million unsafe abortions take place each year in less developed countries contributing high rates of maternal deaths, and injuries in these regions. In addition, unwanted birth poses risks for children at health and wellbeing and contributes to rapid population growth. Family planning is one of the fundamental pillars of safe motherhood and a reproductive right [3].

Measuring the level of awareness of contraception provides a useful measure of the success of information, education and communication activities and help to identify the areas that need to be strengthened. Involvement of men regarding use of family planning is a must among the couples for consistent and effective result. Men are considered to be a neglected potential consumer of family planning method. Their involvement is found to be very low [4].

Materials and Methods

A descriptive cross-sectional study design was used for the study. A total of 209 married women of reproductive age group (15-49) mothers were selected from randomly selected four wards of Daharan Sub-Metropolitan City by population proportionate sampling technique. Semi-structured self-prepared interview questionnaire was used to assess knowledge, five point Likert scale for attitude and interview checklist for practice regarding contraception. Data were collected from 16th Dec to 15th Jan, 2016 and entered IBM SPSS version 11.0 and analysis was done by using descriptive and inferential statistic. Logistic regression was used only among the variables which were significantly associated in univariate analysis with attitude and practice.

Above **Table 1** depicts that most (53.1%) of the respondents belong to the age group 20-34 years. The mean \pm SD age of the respondents was 30.01 \pm 8.124 years. Majority (81.3%) of the respondents were Hindu. Most (64.1%) of the respondents belonged to disadvantaged janajati followed by (26.8%) upper caste and few (9.1%) Dalit. Most (72.7%) of the respondents were literate. Regarding the occupation, majority (80.3%) of the respondents were housewives. Two-third (64.1%) of the respondents was from nuclear family. Most (64.5%) of the

Table 1 Socio-demographic Characteristics of Respondents (n=209).

Characteristics	Category	Frequency	Percent (%)
Age in years	15-19	14	6.7
	20-34	111	53.1
	35-49	84	40.2
Religion	Hindu	170	81.3
	Buddhist	17	8.2
	Kirant	22	10.5
Education	Illiterate	57	27.3
	Primary	72	34.4
	Secondary	55	26.3
	Higher	25	12
Occupation	Agriculture	16	7.7
	Service holder	25	12
	Housewives	168	80.3
Type of family	Nuclear	134	64.1
	Joint	75	35.9
Income of the family/Month	<15000	135	64.5
	\geq 15000	74	35.5
Parity	Nulliparous	29	13.8
	<3	122	58.4
	\geq 3	58	27.8
Age of the last child	<5 years	100	55.9
	\geq 5 years	79	44.1
Gap between 2 last children	1-2 years	13	11.5
	2-4 years	62	54.9
	4 or more	38	33.6
History of abortion	Yes	12	5.7
	No	196	94.3
Distance of health care centre	< 30 minutes	161	77
	\geq 30 minutes	48	23

respondents had a family income of less than Rs. 15,000 per month. Most (67.5%) of the respondents were married for more than five years and few (11.0%) were married for less than 2 years. About (58.4%) had parity less than 3. Regarding age of the last child, (55.9%) of the respondents had children of less than 5 years. Most (54.9%) of the respondents had age gap of the last two children in the range of 2-4 years. Only few (5.7%) respondents had a history of abortion. Regarding the distance, majority (77%) had walking distance of less than 30 minutes from their home to the nearest health centre.

Table 2 reveals that majority of the respondents (92.3%) had heard about the contraception while (7.70%) had not. Injection Depo-Provera was the most (92.7%) known method of contraception, 91.7%, 89.6% had heard about pills and condom respectively.

Above **Table 3** shows that majority (85.8%) of the respondents had got information of contraception through mass media and few (24.7%) through relatives.

Table 4 shows that avoiding unwanted pregnancy was the most (79.3%) known benefit of contraception. However, only (46.6%) respondents knew that it also decreases the economic burden of the family.

Table 5 reveals that majority (90.4%) of the respondents had

Table 2 Awareness regarding Contraception and Different Methods of Contraceptives among the Respondents (n=209).

Methods	Yes		No	
	Frequency	Percent (%)	Frequency	Percent (%)
Heard about contraception	193	92.3	16	7.7
Methods heard (n=193)				
Pills	177	84.68	32	8.3
IUCD	134	69.4	75	30.6
Injection Depo-Provera	179	92.7	30	7.3
Condom	173	89.6	36	10.4
Norplant	134	69.4	75	30.6
Female sterilization	121	62.7	88	37.3
Male sterilization	111	57.5	98	42.5
Abstinence	76	39.4	133	60.6
Withdrawal	68	35.2	141	64.8
Rhythm	22	11.4	187	88.6
Lactational Amenorrhea	17	8.8	192	91.2
Emergency contraception	45	23.3	164	76.7

Table 3 Sources of Information of Contraception among the Respondents (n=193).

Source of Information*	Frequency	Percent (%)
Health worker	138	72.6
Husband	70	36.8
Friends	72	37.9
Relatives	47	24.7
Mass media	163	85.8

*Multiple Responses

Table 4 Knowledge Regarding Benefits of Contraception (n=193).

Benefits of Contraceptives	Frequency	Percent (%)
Yes	193	92.3
No	16	7.7
If Yes*		
Avoid unwanted pregnancy	153	79.3
Maintain birth spacing	138	71.5
Limit the number of births	133	68.9
Decrease the economic burden of family	90	46.6
Improve the health of mother and child	115	59.6

*Multiple Responses

Table 5 Overall Attitude of the Respondents towards Contraception (n=209).

Characteristics	Response			
	Positive Attitude (≥ 60%)		Negative Attitude (<60%)	
	Frequency	Percent (%)	Frequency	Percent (%)
Attitude regarding contraception	189	90.4	20	9.6

a positive attitude and few (9.6%) respondents had negative attitude regarding contraception.

Above **Table 6** shows that 70.8% of the respondents had ever practiced contraception whereas only (64.6%) of the respondents were currently practicing it. Majority (35.6%) of the respondents were using Injection Depo-Provera followed by

Table 6 Contraceptive Practice among the Respondents (n=209).

Practice of Contraceptive	Frequency	Percent (%)
Ever practiced		
Yes	148	70.8
No	61	29.2
Currently using contraception		
Yes	135	64.6
No	74	35.4
Methods used (n=135)		
Pills	19	14.1
IUCD	8	6
Inj. Depo-Provera	48	35.6
Condom	19	14.1
Norplant	6	4.4
Female sterilization	25	18.5
Male sterilization	3	2.2
Abstinence	1	0.7
Withdrawal	6	4.4

female sterilization (18.5%); Abstinence (0.7%). Male sterilization was found to be least (2.2%) practiced.

Above **Figure 1** shows that maximum (48.3%) respondents believed that use of contraception causes damage to the uterus, (41.7%) had a fear of side effects and (36.7%) believed that it causes infertility.

Only (25.7%) of the respondents experienced side effects with the use of contraceptives. The commonest (31.8%) side effects experienced were weight gain and menstrual irregularities each followed by heavy bleeding (20.5%) and amenorrhea (18.2%) (**Table 7**).

Table 8 reveals that the mean percentage score of knowledge, attitude and practices of the respondents was 45.23, 77.40 and 71.15 respectively.

The above **Table 9** illustrates that there was statistically significant association of knowledge with education, occupation, and total income of the family at p-value < 0.05. There was no statistically significant association of the knowledge with the other variables.

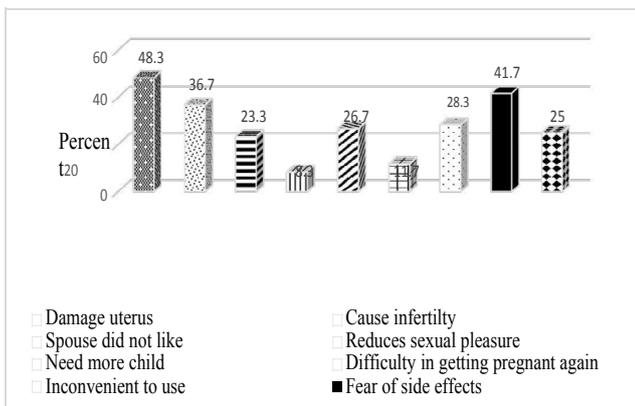


Figure 1 Reason for Not practicing Contraceptives by the Respondents (n=61).

Table 7 Side Effects of the Contraceptives Experienced by the Respondents (n=148).

Side Effects*	Frequency	Percent
No Side effects	110	74.3
Nausea, vomiting	6	13.6
Spotting between the periods	7	15.9
Amenorrhea	8	18.2
Menstrual irregularities	14	31.8
Weight gain	14	31.8
Heavy bleeding	9	20.5

*Multiple Responses

Table 8 Knowledge, Attitude and Practice of Contraception of the Respondents (n=209).

Characteristics	Mean	Standard Deviation	95% CI for Mean	
			Lower Bound	Upper Bound
Knowledge Score	45.23	24.83	41.84	48.62
Attitude score	77.4	12.17	75.73	79.06
Practice Score	71.15	45.41	64.95	77.36

Table 10 depicts that distance to the nearest health facility (OR=7.975, 95% CI=2.15-13.32, p=0.002), education (OR=0.24, 95% CI=0.06-22.55, p=0.034) and age group (20-34 years) (OR=0.03, 95% CI=0.004-0.315, p=0.003) remained the significant correlates of attitude.

Above **Table 11** reveals that education (OR=5.98, 95% CI=2.41-14.80, p<0.001), type of family (OR=4.96, 95% CI=2.05-12.00, p<0.001), distance to the nearest health facility (OR=3.34, 95% CI=1.30-8.56, p=0.012), women's participation in decision making (OR=5.23, 95% CI=2.01-13.63, p=0.001), and encouragement from husband (OR=9.05, 95% CI=3.69-22.21, p<0.001) remained the significant correlates of practice.

Above **Table 12** reveals that there was statistically significant correlation of attitude and practice with knowledge of contraception at p-value <0.01.

Table 13 depicts that there was statistically significant correlation between practice of contraception and attitude towards contraception at p value <0.01.

Table 9 Association of Knowledge with Selected Socio Demographic Variables (n=209).

Characteristics	Category	Mean ± SD	Mean rank	p value
Age in years**	15-20	41.71± 28.31	94.64	0.162
	20-35	48.47 ± 23.90	112.47	
	35-50	41.90 ± 25.28	96.85	
Religion**	Hindu	45.11 ± 25.03	104.42	0.632
	Buddhist	51.29 ± 28.15	117.56	
	Kirant	42.91 ± 20.99	99.7	
Education**	Illiterate	27.44 ± 20.42	62.11	<0.001
	Primary	46.56 ± 21.14	107.92	
	Secondary	53.67 ± 24.21	124.85	
	Higher	64.64 ± 20.52	150.7	
Occupation**	Agriculture	60.50 ± 28.50	137.34	0.004
	Business	54.88 ± 21.43	129.72	
	Household	42.52 ± 24.23	98.24	
Type of family*	Nuclear	46.75 ± 25.18	108.33	0.287
	Joint	42.93 ± 24.25	99.05	
Income of the family/ month*	<15000	42.13 ± 23.74	97.67	0.018
	≥15000	51.30 ± 25.90	118.38	
Duration of marriage**	<2 years	53.04 ± 27.32	122.65	0.119
	2-5 years	40.44 ± 24.06	91.58	
	≥ 5 years	45.70 ± 24.52	106.4	
Parity**	Nulliparous	51.72 ± 29.43	120.07	0.287
	< 3	45.31 ± 24.32	104.53	
	≥ 3	42.34 ± 23.32	98.46	
History of abortion*	Yes	42.67 ± 21.25	105.31	0.766
	No	45.54 ± 25.10	99.96	
Distance of health care center from home*	< 30 min	46.81 ± 23.39	108.33	0.145
	≥ 30 min	40.58 ± 29.02	93.84	

*Mann-Whitney Test; ** Kruskal-Wallis Test

Discussion

Knowledge of the respondents regarding contraception

In the present study, information on knowledge of contraception was collected by asking respondents whether or not they have heard about different contraceptive methods including traditional as well as modern methods. The knowledge of contraception was widespread with the respondents and at least one contraceptive method was nearly universal in the study which is similar to the study finding of NDHS, 2011. The majority (92.3%) of the respondents had heard about contraception. Despite the wide social marketing of contraceptive method still 7.7% of the respondents had not heard about the contraception and the finding is similar to a study done in Dhankuta District of Nepal [4]. This clearly shows that the messages about the importance of contraceptives have not yet reached to the distant places though they have been already included in Sub-Metropolitan City. Concerning the methods known, most (92.7%) popular method known was Injection Depo-Provera followed by oral contraceptive pills and condom. Least (8.8%) known method was LAM. Emergency contraceptives was also least (23.3%) known by the respondents. The corresponding findings from NDHS 2011

Table 10 Logistic Regression on Socio-Demographic Variables, having Significant Relationship with Attitude (n=209).

Variables	B	S. E	Wald	df	Sig.	Exp (β)	95% C.I.	
							Lower	Upper
Age								
15-19 years			15.15	2	0.001			
20-34 years	-3.3	1.09	9.08	1	0.003	0.03	0.004	0.31
35-49 years	1.35	0.89	2.26	1	0.132	3.87	0.66	22.55
Education	-1.42	0.67	4.48	1	0.034	0.24	0.06	22.55
Age of the last child	1.07	0.77	1.92	1	0.166	2.92	0.64	0.9
Distance to the nearest health facility	2.08	0.67	9.69	1	0.002	7.97	2.15	13.32
Constant	1.03	0.75	1.89	1	0.168	2.8	29.48	

Table 11 Logistic Regression on Socio-demographic Variables, having Significant relation with Practice (n=209).

Variables	B	S. E	Wald	df	Sig.	Exp(β)	95% C.I.	
							Lower	Upper
Education	1.79	0.46	14.93	1	<0.001	5.98	2.41	14.8
Type of family	1.6	0.45	12.59	1	<0.001	4.96	2.05	12
Distance to the nearest health facility	1.21	0.48	6.3	1	0.012	3.34	1.3	8.56
Woman's participation in decision making	1.65	0.49	11.49	1	0.001	5.23	2.01	13.63
Encouragement from husband for using contraceptives	2.2	0.45	23.17	1	<0.001	9.05	3.69	22.21
Constant	-4.45	0.81	30.02	1	<0.001	0.01		

Table 12 Correlation of Knowledge with Attitude and Practice (n=209).

Characteristics	Knowledge of Contraception		P-value*
	Mean ± SD	Mean Rank	
Attitude			
Positive attitude	48.87 ± 22.76	113.2	<0.001
Negative attitude	12.40 ± 19.33	27.48	
Practice			
Contraception practicing	52.03 ± 22.12	121.2	<0.001
Contraception not practicing	29.25 ± 23.88	65.69	

*Mann-Whitney U Test

Table 13 Correlation between Attitude and Practice (n=209).

Characteristics	Positive Attitude		Negative Attitude		P-value*
	Frequency	%	Frequency	%	
Practice					
Yes	145	98	3	2	<0.001
No	44	72.1	17	27.9	

*Chi-square Test

shows Female sterilization (99%), Injection Depo (98%), male sterilization (95%), the pill (93%), condoms (98%) and emergency contraception is known by a relatively smaller (29%). percentage of women. With respect to abstinence and withdrawal, (39.4%) and (35.2%) of the respondents revealed to be hearing these methods in the present study which varies from the data of NDHS 2011 that states withdrawal and the rhythm method heard by 58% and 46% of the respondents respectively. NDHS report also states that overall women knew 7.9 contraceptive methods on average and a similar finding was found in the present study that showed 7 methods known on average by the respondents.

A question related to the benefits of contraceptives to the respondents, avoiding unwanted pregnancy (79.3%), maintaining birth spacing (71.5%), limiting number of births (68.9%),

improving the health of mother and child (59.6%) and decreasing the economic burden of the family (46.6%) were identified as the main benefits of contraception. Similar findings were discovered in a study done in Sunsari, Nepal [3]. While the respondents of the study done in Bharatpur also revealed further benefits like anaemia can be reduced by using OCP and STDs can be prevented by using contraceptives like condoms [5]. Non contraceptive benefits were also identified in other studies.

In this study among the respondents who had heard about pills, only (91.0%) knew that pills must be taken on same time every day, only (68.4%) knew to take pill immediately as soon as possible if had missed a pill, whereas few (9.60%) knew that it also contains anaemia-preventing capsules. Only (59%) knew the exact duration of IUCD as 10 years, about one-third (32.9%) knew the best time for the insertion of IUCD (5th to 7th day of menstruation), and only (32.83%) could identify the major side effect of IUCD as heavy bleeding. Only (76.9%) of the respondents knew that Norplant is inserted under the skin of upper arm. About half (53.6%) of the respondents knew that condom prevents both STI and HIV. Only (47.2%) identified condom as the best method for newly married couple. Very few (17%) respondents knew about LAM and its protection duration as 6 months. Only (53.4%) knew that permanent sterilization prevents pregnancy forever and majority (95%) identified that it is not the cause for back pain. Majority (88%) identified that it is pill is an emergency contraceptive whereas only (16%) identified IUCD as emergency contraceptive. Only (84.4%) knew that it should be taken within 72 hours of unprotected sex whereas only (28.9%) knew the effective timing for getting IUCD for using it's as emergency contraceptive. These results shows that though the majority of the respondents had heard about the different methods of contraception, but the knowledge regarding specific methods were deficient among the respondents.

Attitude towards contraception

Attitudes are not gained by birth, they are learned and adopted by experiences and culturally gained during socialization. Attitude of women towards contraceptives are influenced by education and experiences such as pregnancy. In the present study, almost half (49.3%) of the respondents strongly agreed that contraceptive use is beneficial for women and its use can prevent unwanted pregnancy which is supported by the study conducted in India [6]. Almost two fifth (43.1%) of the respondents were neutral on advantage of modern contraceptives over traditional and natural methods. This may be due to inadequate dissemination of information regarding contraception among the respondents. More than 45% of the respondents were not sure about contraceptives causing malformation to the baby, which shows prevalence of ignorance among the respondents due to misinformation or misbeliefs. Only (11.5%) and (12%) strongly disagreed the statement that sexual pleasure is reduced on using contraceptives and it can cause infertility respectively. Only (22.5%) strongly agreed on the fact that contraceptive methods have more benefits than side effects. So there is still need of propagating the benefits of contraceptives that outweighs the negative side effects of contraception. Nearly half (47.8%) of the respondents agreed that men should share the equal responsibility of contraceptive use and (48.8%) agreed that standard of life is raised on using contraceptives. Nearly 50% of the respondents strongly disagreed the misbelief of pregnancy as the God gifted phenomena and having son as an important thing in a family. Most (52.2%) of the respondents agreed that they advise other women to use contraceptive methods. Only (21.5%) agreed that IUCD works a quite long time. This shows people have less knowledge regarding implants. Most (62.2%) of the respondents had neutral views regarding sterilization if they want to stop child bearing forever. Only (15.8%) disagreed the fact that sterilization is an unnecessary health burden. Approximately half (46.4%) of the respondents agreed on having appropriate gap between births, which is further supported by the study conducted in Kenya [7].

Overall, majority (90.4%) of the respondents in the present study had a positive attitude which was similar to the findings of the study carried out in Ethiopia, whereas study carried out in Kathmandu Medical College Teaching hospital revealed only (68.50%) of the respondents with positive attitudes [8,9].

Practice of using contraception among the respondents

Importantly, it was found that 70.8% of the women reported of having ever used any type of contraceptives. Other studies have already described similar findings, i.e., high promotion but low utilization of contraceptives, making this situation a serious challenge in developing countries [10]. Annual report 2013/2014 reported (89.8%) contraceptive user in Eastern development region in which the finding of this study shows a lower (64.6%) percentage. Although there is a noticeable proportion of a respondent ever using contraceptive, however, there was a substantial drop-out from having ever used of contraception (70.8%) to (64.6%).

With respect to the methods specific, Injectable (Inj. Depo) (35.6%), female sterilization (18.5%), and pills and condom were the main methods used. Compared to NDHS 2011, a noteworthy finding in this study is the low use of implants, suggesting that health facilities in the study area are not being able to deliver the service. Injection Depo-Provera was most popular, as one shot of it worked for 3 months and most of the respondent's expressed that, it was easy to use and most of their circle friends were using it. Abstinence and male sterilization was found to be least practiced, 0.7% and 2.2%, respectively which is similar to the findings of many other studies which show a high rate of sexual activities and male dominance over female in regards of contraceptives [4].

Among the respondents, only (79.9%) of the respondents were participating in the decision making of the household and fertility related choices, whereas only (60.8%) got encouragement and support from their husband with regards to use of contraceptives. Most (56.0%) of the respondents were sharing information of contraception usage and its benefits with others.

Informed choice is an important tool for assessing, monitoring and evaluating the quality of family planning services. Informing about the side effects that might have with a method, what to do if they experienced side effect and informing about the other methods they could use are the components of informed choice. In the present study, among the users only (16.2%) told that they were informed about the side effects and only (14.2%) were informed about what to do if they ever experienced side effects. This is in contrast to the data obtained from NDHS, 2011 where 63% were informed about potential side effects of the methods they use and 59% were informed about what to do if they experienced side effects. It shows providers of the study area must know how to communicate and disseminate the full information with clients such that they are facilitating care rather than just prescribing the contraceptive methods.

Among the respondents with at least one child, only one-fourth (24.9%) of the respondents had a planned pregnancy previously which shows more knowledge regarding the benefits of planned pregnancy and benefits of contraceptives in it has been seen to be focused in the national family planning program. Only about two-third (67.9%) of the respondents knew that FCHV provide contraceptive services and information. This suggests that there is need of more energetic participation of the FCHVs to promote the information and services. Amongst the people aware of FCHVs, (96%) of the respondents said that FCHV do counselling about the contraception, (36%) said that they distribute condom, (32%) said that they distribute pills and (29.6%) said that they refer for family planning services. The rate of pills distribution by FCHV in Siraha District is (51.61%) as per Annual report 2013/2014.

Information on where women obtain their contraceptive method is important for program managers and implementers in designing family planning policies and programs. When asked the contraceptive users about the source of availability of contraceptive methods, health institution remained the major source of contraceptive methods as responded by majority (79.6%) of the respondents followed by medical shop/pharmacy

to (31.3%), NGO (18.4%) and FCHV 15.6%. NGOs include FPAN, Bhotepool, Dharan. This result has similar findings from the study done in Tanzania with hospital being the major source. Furthermore, result of the present study shows that (25.7%) had ever experienced side effects, the commonest (31.8%) being the weight gain and menstrual irregularities each followed by heavy bleeding (20.5%) and amenorrhea (18.2%) which is similar to the findings of the study done in Kathmandu [11,12].

Respondents overall knowledge, attitude and practices of contraception

The overall mean percentage score for knowledge was nearly 45.23, which is much lower as compared to 81.0% in Karachi and 97.4% at Lahore. However similar score was found in an Indian study. Regarding attitude and practice, study revealed the mean percentage score as 77.40% and 71.15% respectively which is nearly similar to the study conducted in India [13]. Whereas in contrary to the findings, the findings of the study carried out in Gambia had more reduced scores [14].

Association between knowledge scores on contraception with the variables

In the present study, there was a significant association of knowledge scores with education ($p < 0.001$), occupation ($p = 0.004$), and total income of the family ($p = 0.018$). Respondents with higher education had more knowledge (mean \pm SD, 64.64 \pm 20.52) than with the others reaffirming that access to education as an influential method in designing better habits. Women doing agriculture (mean \pm SD, 60.50 \pm 28.50) were more knowledgeable than other like business and house hold. Respondents of nuclear family had more knowledge score (mean \pm SD, 46.75 \pm 25.18) than the respondents belonging to a joint family joint. About the total income of the family, respondents with more than Rs.15,000 income per month had more knowledge scores (mean \pm SD, 46.75 \pm 25.18) and regarding the women's participation in decision making, women with decision making power had more knowledge scores (mean \pm SD, 48.69 \pm 23.18). This finding is in line with the findings of the study carried out in Udupi [15].

There was association between age of the respondents ($p = 0.022$), education ($p = 0.008$), age of the last child ($p = 0.021$) and distance of health care centre from home ($p < 0.001$) with attitude of the respondents towards contraception. Respondents of age group 20-34 years had more positive attitude than among the other age group, high education, having the last child less than 5 years and having less distance to the nearest health centre from home had increased chance of having positive attitude. Contradicting to this finding a study carried out in Karnataka revealed that there was no association between the attitude and the selected variables [15].

Significant variables in bivariate analysis were subjected to binary logistic regression analysis which showed that having less than 30 minutes walking distance from home to the near health centre (OR=7.975, 95% CI=2.158-13.318, $p = 0.002$), being literate (OR=0.242, 95% CI=0.065-22.559, $p = 0.034$) and age group (20-34 years) (OR=0.037, 95% CI=0.004-0.315, $p = 0.003$) had significant

correlation with attitude. Findings from the similar study done in Ethiopia showed that being literate was one of the factor associated with more positive attitude towards contraception (OR=1.89; p value= 0.002) [8].

Association between practices of contraception with the variables

In our present study, education ($p = 0.001$), type of family ($p = 0.027$), distance of health care centre ($p = 0.04$), women's participation in decision making ($p < 0.001$), encouragement from husband ($p < 0.001$), FCHV providing contraceptive information and services ($p < 0.001$), share of information about practice with others ($p < 0.001$) and facing side effects ($p < 0.001$) was found out to be statistically significant with the practice of contraception, whereas a study done in Kohat revealed that the practice was significant with only parity, age, occupation and education. However, study conducted in India showed that practice was significantly influenced by respondent's age and education level, distance to the near health facility, number of living children, husband wife communication on family planning, women's participation in decision making, husbands approval and encouragement, and if ever encountered side effects [11].

Being literate was associated with increased likelihood of being current user of contraceptives (OR=5.98, 95% CI=2.41-14.80, $p < 0.001$). This finding is in accordance with the results from several previous studies conducted in other parts of Africa as well as Asian countries [16]. Some of these authors also argued that education provides new outlook and freedom from traditions and further that highly educated women have more decision making power within marriage, including decisions about reproductive health. Regarding type of the family, respondents with nuclear family had increased chances of using contraceptives (OR=4.96, 95% CI=2.05-12.00, $p < 0.001$). Regarding distance from nearest health facility versus contraceptive use, results showed that decreased distance from nearest health facility was associated with increased likelihood of being current user of modern contraceptives (OR=3.34, 95% CI=1.30-8.56, $p = 0.012$), which is similar to the findings of the study done in Tanzania [11].

Women's participation in decision making has been indicated in several studies to be associated with practice of contraception [16]. Consistent with the results of these previous studies, result of this study indicate that women who reported participation in decision making were more likely to use contraceptives compared to the counterpart (OR=5.23, 95% CI=2.01-13.63, $p = 0.001$). Likewise, women who had a support and encouragement from their husbands regarding contraceptives use were also more likely to be the current users of contraceptives (OR=9.05, 95% CI=3.69-22.21, $p < 0.001$). These observations imply that campaign to empower women such emphasis on their education and encouraging gender balance by changing community attitude towards position/status of women in a household and in a society as a whole, as currently they are given lower position, specifically in patriarchal society could improve use of contraceptives in a study population [17].

Correlation among knowledge, attitude and practices of contraception

Present study shows statistically significant positive correlation of attitude regarding contraception and practice of contraception with knowledge of contraception at p-value <0.01. Attitude and practice were significantly associated (p value=0.05), and it was

observed that majority of the people with positive attitude were practicing contraception and only a few with negative attitude were practicing contraception. This clearly confirms that if knowledge is improved then attitude will also be good and if there is improved knowledge and good attitude, practice will be good eventually.

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