

Determinants of Intrauterine Contraceptive Device Use Among the Women of Urban Areas of Nepal

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Aims: This study aimed to identify the determinants of Intrauterine Contraceptive Device (IUCD) use among the married women of reproductive age group living in urban areas of Nepal.

Methods: This study was an analytical cross-sectional study which aimed to compare different factors between 110 IUCD users and 110 non-users. Both groups were selected randomly and interviewed by using semi-structured questionnaire. Chi-square test was used to detect the difference between two groups and corresponding odds ratios with 95% confidence intervals were also computed.

Results: When the IUCD users were compared to non-users, religion, occupational status of women, occupational status of the husbands, total number of children, sources of information about IUCD, having wrong beliefs about IUCD, availability of IUCD services, reproductive intention and spousal communication were significantly associated with the use of IUCD. The main reason for using IUCD was due to the effectiveness for longer duration and for not using IUCD was due to the feeling of no need.

Conclusions: Wrong beliefs about the device discouraged women from using IUCD, hence, awareness programs are strongly recommended.

Keywords: intrauterine contraceptive device, reproductive intention, spousal communication.

INTRODUCTION

Intra Uterine Contraceptive Device (IUCD) is proven to be effective worldwide.¹ However, IUCD is one of the least used devices in Nepal and it is often ignored by the women especially living in the urban areas.^{2,3} On the other hand, women lack adequate information about health services including family planning which is contributing to high burden of reproductive morbidities in Nepal.⁴⁻⁷

Several studies done in other countries revealed that factors like education, place of residence, culture, religion, literacy, occupation, income, reproductive intention, spousal communication and service related factors influence women's behavior to use IUCD.⁸⁻¹⁶ Studies had shown that the reason for non-use is the fear of side effects.^{17,18} However, studies from Nepal did not provide adequate reliable information about the factors for use and non-use of the device.^{2,4,19-21}

IUCD program in Nepal needs information related to women's socio-demographic and behavioral factors which influences their decision to use IUCD and there is a strong need for research in this area. Hence this study was carried out to identify the information regarding determinants of IUCD use among the women living in urban areas of Nepal.

METHODS

This analytical cross-sectional study was carried out among married women of reproductive age group in three districts namely Kathmandu, Bhaktapur and Lalitpur. These areas have been selected purposively due to the presence of a large number of samples and representing the most developed areas in Nepal. The study population included women having at least one child who are currently using IUCD as IUCD users and currently not using IUCD as IUCD non-users.

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The sampling frame containing the name list of IUCD users and non-users was collected from district public health offices in Kathmandu, Bhaktapur and Lalitpur. Both the IUCD users and IUCD non-users were randomly selected proportionate to the selected districts. Semi-structured interview was carried out to collect the data using a questionnaire. The questionnaire was pre-tested among the women attending Gokarna primary health care center to insert IUCD. The required sample size to detect the difference between IUCD users and non-users was 110 for users and 110 for non-users by taking level of significance of 5% and power of 95%.²² All analyses were done using SPSS version 18.0 for windows. Chi-square statistics was used to identify the difference between users and non-users. Crude Odds ratio and 95% confidence interval were also calculated.

RESULTS

Table 1 shows the socio-demographic and family planning related characteristics of both groups. The mean age of IUCD users and non-users was 31 years (SD 6.0 years) and 30 years (SD 6.4 years) respectively (p value >0.05). A majority of women from both groups were Hindu (76.4% of users and 62.7% of non-users). Regarding the literacy status of the women, 93.6% of the users and 92.7% of non-users were literate. Similarly, 13.6% of users and 4.5% of non-users were engaged in farming.

Having illiterate husbands comprised only 7% in both groups. A majority of the women in both groups (72.7% in users and 85.5% in non-users) had one or two children. Similarly, 65.5% of users and 60.9% of the non-users had a male child in the last pregnancy. Among 65.5% of users and 52.7% of non-users, the per-capita income was lower than the median income that was computed as US\$ 13.3.

Wrong beliefs about IUCD was found among 13% of the users and 35% of the non-users. Availability of the IUCD services was positively associated with IUCD use. A great majority of users (94%) had IUCD service available in nearby center. Accessibility to nearby family planning center was slightly higher among non-users (90.4% in users and 93.9% of non-users). A majority of users (82.7%) and non-users (69.1%) had an intention to limit the child birth. Similarly, 75.5% of users discussed about using IUCD with the husband.

Table 1. Socio-demographic and family planning related characteristics of the women and association with IUCD use (n=220).

	IUCD Users		IUCD Non-users		Odds ratio 95% CI
	Number	Percent	Number	Percent	
Literate	79	71.8	80	72.7	1 (Reference)
Illiterate	31	28.2	30	27.3	1.04(0.58-1.88)
≤ 2 children	80	72.7	94	85.5	1 (Reference)
>2 children	30	27.3	16	14.5	2.20(1.12-4.32)*
Sex of the last child					
Female	38	34.5	43	39.1	1 (Reference)
Male	72	65.5	67	60.9	1.21(0.70-2.10)
> Non-poor	38	34.4	52	47.3	1 (Reference)
≤ Poor	72	65.5	58	52.7	1.69(0.987-2.92)
Wrong beliefs about IUCD (Users, n= 79 and non users, n=42)					
Yes	11	13.9	15	35.7	1 (Reference)
No	68	86.1	27	64.3	3.43(1.40-8.40)*
Availability of IUCD services in the nearest family planning centers					
No	6	5.5	24	26.7	1 (Reference)
Yes	104	94.5	66	73.3	6.30(2.44-16.23)*
Accessibility to the nearest family planning center					
Not accessible	10	9.6	4	6.1	1 (Reference)
Accessible	94	90.4	62	93.9	0.60(0.18-2.02)
Birth spacing	19	17.3	34	30.9	1 (Reference)
Birth limiting	91	82.7	76	69.1	2.14(1.13-4.06)*
Spousal communication					
No	27	24.5	44	40	1 (Reference)
Yes	83	75.5	66	60	2.04(1.15-3.65)*

* Significant association (P value<0.05)

Regarding the source of information about IUCD, the most popular source for users was female community health volunteers (FCHV){72.7%} followed by radio (57.3%). On the other hand, radio (63.3%) and health personnel (56.7%) were the most popular sources of information in non-users.

Table 2. Reasons for using or not using IUCD by the women (n=220).

	Number	Percent
Reasons for using IUCD (multiple response; n=110)		
Highly effective	42	38.2
Long acting method	88	80
Easy to insert and remove	13	11.8
Fewer side effects	36	32.7
Convenient to use	6	5.5
Encouraged by FCHVs	70	63.6
Reasons for not-using IUCD (multiple response; n=110)		
Fear of side-effects	33	30
No need	63	57.3
Husband disapproval	7	6.4
Desire for a child	13	11.8
Lack of information	35	31.8

Table 2 shows reasons for using and not using IUCD. When the women were asked about the reason for using IUCD, believing in long-term effectiveness of the method (80%) was the most popular reason followed by encouragement by FCHV (70%). In addition, fewer side-effects (32.8%) as compared to other hormonal devices and its high effectiveness (38.2%) were also found as some important reasons behind using IUCD. On the other hand, more than the half of the non-users (57.3%) mentioned that IUCD use was not necessary followed by lack of information (31.8%). Nearly one third of IUCD non-users reported side-effects as a reason for not using IUCD. About one fifth of non-users (18%) were not aware about IUCD as a method of contraception. Desire for a child and disapproval from husband were also noted as a reason for not using IUCD.

DISCUSSION

This study identified that religion, occupational status of women, occupational status of the husbands, total number of children, having wrong beliefs about IUCD, availability of IUCD services, reproductive intention and spousal communication and sources of information being FCHV and health worker were significantly associated with the use of IUCD.

Similar to Ozyurda's study²³ in Turkey, this study also corroborated the fact that women belonging to the religions other than Hindu were more unlikely to use IUCD. A possible explanation could be that the majority of people in Nepal are Hindu and there are no restrictions for family planning matters by religion.

The report of Nepal Demographic Health Survey showed that income has a positive correlation with IUCD use.⁵ Women earning more could consult the health workers more and could get access to health information more than those who earn less. However, this study found no relationship between income and IUCD use. This might be due to the fact that the study has been done in urban areas of Nepal where living status of women is relatively better. Besides, women and their husbands involved in farming were more likely to use IUCD. This suggests that women and their husbands who are involved in works needing more physical effort and time, mostly prefer IUCD.

FCHVs are the backbone of the health system of Nepal. Their role in improving the maternal health status of the country has been well appreciated by the international community as well.¹² Similarly, this study also highlighted that the FCHVs as the source of information has a positive significant association with IUCD use. This association might have been attributed due to the fact that the Government of Nepal has provided incentive for FCHVs for tracking the client to increase the use of IUCD.²⁰ On the other hand, this study added information that FCHVs were also working actively in the urban areas especially in the field of family planning.

Geographical access seemed not to be associated with IUCD use in this study, however it had already been found that the distance from home to the health facility is strongly negatively associated with the use of IUCD.¹⁰ This is also due to the fact that health services in urban areas are available closely. This study found that availability of services were determining the women's choice of family planning devices. IUCD services are not available in sub-health posts and in most health posts, as there are no IUCD trained staff and IUCD insertion equipment in both the rural and urban areas.^{19,20} There are more private health care providers in urban areas who do not provide IUCD services specifically.

This study corroborated with a study in Egypt¹⁵ that reproductive intention has a significant association with IUCD use. It is also logical that reproductive intentions are governed by the total number of children.

Two child norm has been established as a family planning policy led by the Government of Nepal. However, this study found an association between a high number of children and IUCD use, which shows that two child norm has not been strictly followed by most of the couples. Similarly, communication of contraceptive use with husband was positively associated with the use of IUCD in this study. This finding is in agreement with a study conducted by Engender Health,²¹ which found that 86.2% of IUCD users had discussed about using the method with their husbands. A study in Bangladesh¹⁶ pointed out that one of the reasons for using IUCD were attractiveness of having a long-acting contraceptive which was also similar to finding of this study. The most common reason for not using IUCD was lack of information regarding the method and side-effects which was in line with the result shown by a study in England.¹⁷ In addition, having wrong beliefs about IUCD was also found to be negatively associated with IUCD use. This emphasizes that awareness programmes are very essential to make women aware about IUCD use and also to change the negative attitude toward the device.

Regarding the limitations of this study, this cross-sectional study cannot identify the temporality of cause and effect relationship. As the study area and the study population were selected purposively, generalizations should be considered cautiously. Recall bias could also have affected the true associations between the variables. Similarly some important findings like having female child in the last pregnancy, accessibility and income were not shown significantly associated with IUCD use. This might be due to the selection of the study area purposively. Further, no correction has been carried out to correct the effect of multiple testing in the observed associations. However consistent findings with other studies justifies that the results shown by this study are still valid and applicable.

CONCLUSIONS

Given the socio-demographic factors like- religion, occupational status of women, occupational status of the husbands and total number of children, and family planning-related factors like- having wrong beliefs about IUCD, availability of IUCD services, reproductive intention, spousal communication and sources of information being FCHV and health worker are mostly determining using IUCD in our analysis, several recommendations can be made. First, awareness programs through mobilization of FCHVs can be conducted to increase awareness in

general and more specifically to change the negative beliefs of women about IUCD. Second, the health centers in urban areas need to be supported to make IUCD insertion services easily available. And lastly, to comprehensively explore information related to social as well as behavioural contexts involved in making choices of family panning methods, further research specifically of mixed method research design is required.

ACKNOWLEDGEMENT

The authors thank all the members of the district public health office of Kathmandu, Bhaktapur and Lalitpur for helping through providing the list of users and non-users of IUCD.

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