Original Research Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20184579

Assessment of knowledge and attitude regarding intrauterine devices among auxiliary nurse midwife in two districts of North Bengal

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Received: 14 August 2018 Revised: 18 September 2018 Accepted: 20 September 2018

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ABSTRACT

Background: Despite being one of the most easily available and reversible methods of family planning, IUD utilization continue to remain low, as evident in the nationwide surveys. One of the reasons was poor knowledge and skills on IUD provision among health care providers. This study examined factors related to providers, by examining their IUD-related knowledge, and their attitudes toward recommending or inserting the IUD.

Methods: A descriptive cross sectional study was conducted among 503 ANMs from Uttar Dinajpur and Darjeeling Districts using a semi-structured questionnaire exploring the service providers' knowledge, current practices and experience with IUD insertion. Attitudes regarding IUDs were assessed by asking how much they agreed with a number of hypothetical statements about the IUD.

Results: The proportion of good knowledge and favourable attitude was 57.5% and 60% respectively. The knowledge was found to be significantly higher among ANMs aged less than 30 years and who had graduate education than their counterparts. Better knowledge and favourable attitude was found among the ANMs posted in Darjeeling and had service experience of more than 5 years.

Conclusions: The knowledge and attitude of the ANMs were found to be less than satisfactory. Addressing IUDs and other newer contraceptives in pre-service curriculum, within job training and peer group education in both public and private areas may help the situation.

Keywords: IUD, Knowledge, Attitude, ANM, Districts

INTRODUCTION

Intrauterine devices (IUDs) are long-acting methods of family planning, which are cost-effective and viable ways of reducing unmet need and unintended pregnancy, especially in low income countries. They are safe, convenient and highly efficacious, and their use is advocated as an ideal option for all women, including nulliparous women.¹

In 1952, India was the first country in the world to have launched a National Programme for Family Planning, but still the proportion of women using any modern method of contraception is far from satisfactory.² The two most commonly used reversible contraceptives in India: the oral contraceptive pills and condoms, are highly user-dependent. Despite requiring less motivation and offering cost-effective long-term protection, the latest NFHS 4 reports suggest that only 1.5% women use IUDs as preferred method of contraception.³

Evidence suggest that the possible reasons of less utilization of IUD may be due to lack of trained staffs at peripheral centers, limited supply, limited provision of IUD services, reluctance of providers in recommending IUDs, and poor counseling skills regarding the IUD's advantages and disadvantages.⁴

The key explanation of why IUD provision is underutilized in India is that many health service providers and potential clients lack accurate, up to date information about it. It is often found that the advantages are understated, the disadvantages tend to be exaggerated and many misconceptions are prevalent in the community and among the providers. The discontinuation rate of IUDs in the clients may be due to deficient provider's knowledge and skills leading to improper selection of clients, not following suggested steps of insertion, poor counseling and absence of follow up, all resulting in reduced quality of services.⁵

In the Indian healthcare system, ANMs are the peripheral level of health workers and are therefore, the backbone of health care delivery system. A study in Turkey and Philippines concluded that auxiliary nurse midwives can provide clinical services comparable to those provided by doctors, and may give better continuity of care because they are more accessible and acceptable to clients. Hence assessing their knowledge and attitude in proving IUD services is necessary to provide quality family planning services, which will consequently contribute in improvement of maternal and child health.

The present study aimed in examining the factors related to ANMs, by determining their IUD-related knowledge and current practice, and their attitudes toward recommending or inserting the IUD. The information generated can help the policy makers in developing interventions which can help increase IUD usage in this population.

METHODS

A descriptive cross sectional study was conducted among all ANMs from Uttar Dinajpur and Darjeeling districts in community setting for 1 year (April 2017-March 2018). Participants who refused to give consent and who were not available even after 3 visits, were excluded. The study participants were approached in their respective sub-centers for data collection after obtaining informed consent.

Date collection was done using a semi-structured questionnaire in the local vernacular, following extensive literature search and discussion with experts (gynecologists, IUD trainers). In addition to multiple-choice questions, there were open ended questions exploring the service providers' current practices and experience with IUD insertion. Attitudes regarding IUDs

were assessed by asking how much they agreed with a number of hypothetical statements about the IUD.

Knowledge regarding IUD was assessed by using two multiple choice and six true-false questions on efficacy, mechanism, and the appropriate time of insertion. Perceptions of IUD side effects were recorded via an open-response question that asked providers to name all of the side effects and adverse events they associate with the IUD (i.e. excessive bleeding, cramping, risk of ectopic pregnancy).

Questionnaires were administered in local vernacular by a trained interviewer over a period of six weeks in each provider's facility. The questionnaire took about 50 minutes to administer. Ethical approval to conduct the study was received from the Institutional Ethics Committee. All providers were consented prior to questionnaire administration.

The collected data were checked for completeness and consistency and were then entered in SPSS version 20.0 software. Data were analysed using principles of descriptive and analytical statistics. Binary logistic regression was used to find out the predictors of knowledge and attitude and expressed as adjusted odds ratio with 95% confidence interval.

RESULTS

Of all the study participants, 29.8% of the ANMs belonged to less than 30 years, 83.1% were Hindus and 72.9% had passed higher secondary level of education. 59.8% of them belonged to Uttar Dinajpur district and the rest were from Darjeeling district and 64.6% had working experience of more than five years.

In 32.2% of the sub-centres, no IUDs were inserted by the ANMs in last one month whereas in 42.2% of the sub centres, 2-5 IUDs were inserted to the prospective client. In only 1.6% of the sub-centres, more than 6 IUDs were provided to the clients (not shown in table). The majority of all respondents gave correct answers to factual questions about the effectiveness of the IUD and its duration of effectiveness.

The knowledge and attitude was assessed among the ANMs regarding IUDs and it as found that 57.5% had better knowledge and 60% had favorable attitude. Better knowledge was found in ANMs aged less than 30 years, Hindu by religion, belonging to Darjeeling district and had working experience more than 5 years. Significantly better knowledge was found in ANMs whose education level was graduate or above.

The proportion of favorable attitude was found higher who were more than 30 years of age (61.1%), Hindus by religion, had education level of graduation and above had their place of posting at Darjeeling district and had more than 5 years of working experience.

Table 1: Variables associated with knowledge and attitude of ANMs with respect to IUDs.

Variables	Knowledge			Attitude		AOR (95% CI)	
	Poor knowledge N (%)	Good knowledge N (%)	AOR (95% CI)	Unfavourable attitude N (%)	Favourable attitude N (%)		Total N (%)
Age (in years)							
30 and less	41 (27.2)	110 (72.8)	1 (Referent)	64 (42.4)	87 (57.6)	1 (Referent)	151 (100.0)
More than 30	173 (49.1)	179 (50.9)	0.384 (0.25, 0.59)	137 (38.9)	215 (61.1)	1.14 (0.77, 1.69)	352 (100.0)
Religion							
Hindu	39 (45.9)	46 (54.1)	1 (Referent)	35 (41.2)	50 (58.8)	1 (Referent)	85 (100.0)
Others	175 (41.9)	243 (58.1)	1.110 (0.68, 1.81)	166 (39.7)	252 (60.3)	1.11 (0.68, 1.81)	418 (100.0)
Highest educational qualification							
Higher secondary	170 (46.3)	197 (53.7)	1 (Referent)	152 (41.4)	215 (58.6)	1 (Referent)	367 (100.0)
Graduate and above	44 (32.4)	92 (67.6)	1.659 (1.08, 2.54)	49 (36.0)	87 (64.0)	1.28 (0.85, 1.93)	136 (100.0)
Place of posting							
Uttar Dinajpur	136 (45.2)	165 (54.8)	1 (Referent)	115 (38.2)	186 (61.8)	1 (Referent)	301 (100.0)
Darjeeling	78 (38.6)	124 (61.4)	1.252 (0.86, 1.83)	86 (42.6)	116 (57.4)	1.252 (0.86, 1.83)	202 (100.0)
Duration of service (in years)							
Less than 5	81 (45.5)	97 (54.5)	1 (Referent)	79 (44.4)	99 (55.6)	1 (Referent)	178 (100.0)
5 and more	133 (40.9)	192 (59.1)	1.279 (0.86, 1.90)	122 (37.5)	203 (62.5)	1.38 (0.94, 2.03)	325 (100.0)
Total	214 (42.5)	289 (57.5)		201 (40.0)	302 (60.0)		503 (100)

DISCUSSION

Provision of quality IUD services is the cornerstone of Government of India to provide spacing methods of family planning to the clients which will in turn lead to the improvement in the maternal and child health care scenario. Appreciating the ANM knowledge and attitudes regarding family planning is essential when introducing a cost-effective reversible method among beneficiaries.⁸

Inspite of being one of the most easily available and reversible method of family planning, IUD insertions continue to remain low, as evident in the nationwide surveys. One of the reasons was poor knowledge and skills on IUD provision among health care providers. The present study examined factors related to their IUD-related knowledge, and their attitudes toward recommending or inserting the IUD.

Knowledge of ANMs regarding various aspects of IUD is vital in order to improve accessibility and acceptability of this safe and effective contraceptive method. IIn the present study, knowledge of the IUD's mechanism and timing of insertion were found to be generally high, with providers scoring over 70% on the combination of questions. The results from this study correspond to studies done in Nepal and South Africa, where 20-35% of providers were not skilled enough to manage the common side effects of painful menstruation, cramping and excessive bleeding. I2,13

Attitude toward IUD insertion may be generally a question of a subjective personal position, which may or may not be based on effective knowledge. ¹⁴ Capacity building workshops may liberalize their attitudes about IUD use as well as improve their technical competence, which in turn, could stimulate providers to include IUDs

more frequently in their counseling of patients and thereby increase demand for the method. The present study revealed an overall favorable attitude, which is similar to the study done in Navajo HS.¹⁵ Age may be an important factor to account for people's relative openness to attitude change through the life cycle. The attitudes of older people may change in response to their personal experiences as did those of younger people. 16 Our survey revealed significant discrepancy in knowledge and attitude with age as ANMs with higher age had less knowledge but favourable attitude; this disparity is important, because beneficiaries receive counseling and services from these ANMs. This can be explained by the fact that the attitude of the younger age group may depend on their less work experience and work-related values.

Educational level can determine the participants knowledge and attitude. In this study, higher educational level was associated with better knowledge and favourable attitude. This suggests that level of education could be related to the degree of empowerment. These results are consistent with those observed in other studies in which the level of education was shown to be an independent predictor of attitudes and practices. Expression of the participants are consistent with those observed in other studies in which the level of education was shown to be an independent predictor of attitudes and practices.

CONCLUSION

Addressing intra uterine device in nursing curriculum, within job training and capacity building should be incorporated in both public and private areas. Counseling and continued motivation should be done by the nurses to use IUDs safely by the women of the community. Accurate and adequate information regarding IUD must be targeted to all levels of health care providers including the clients.

Funding: No funding sources Conflict of interest: None declared

Ethical approval: The study was approved by the

Institutional Ethics Committee

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Cite this article as: Biswas R, Bhattacherjee S, Ray K, Roy JK, Sarkar TK, Chakraborty M. Assessment of knowledge and attitude regarding intrauterine devices among auxiliary nurse midwife in two districts of North Bengal. Int J Community Med Public Health 2018;5:4831-4.