Satisfaction Assessment among Intrauterine Device (IUD) Users: A Community Based Study

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Abstract: The intrauterine device (IUD) is the world's most widely used spacing method of reversible birth control. Though it has too many advantages still its use not reaches up to mark. A lot of client was not satisfied with this method and seeks for early removal. This study principally aims to satisfaction level among the beneficiaries. A cross sectional study of 12 month duration was conducted in Indore district of Madhya Pradesh. Total 400 clients for assessment of satisfaction level were selected for this study. Semi structured questionnaire was tool and systematic random sampling was method to choose the study population. Mann Whitney Test was applied. In assessment of satisfaction level, 21% and 45.25% clients were dissatisfied with availability of nurses and doctors, respectively. 64.5% clients were not satisfied with the information given to them. 44% were dissatisfied with maintenance of appropriate privacy. In the study most of the insertion was done by health worker female (ANM). Satisfaction level was relatively low among the clients regarding availability and attentiveness of doctors, necessary information of IUD.

Keywords: Contraception, Copper T, Intra uterine devices, Satisfaction, health Facility.

INTRODUCTION

The population problem is a concern that has gained prominence both in the developed as well as developing countries because of its inter-relationship between health and economic development[1].

The current approach in Family Planning emphasizes on offering high quality contraceptive services among eligible clients on a voluntary basis[2]. In developing countries, an unmet need of family planning was too high and this is fueled by growing population and shortage of family planning services[3].

In India, Couples are faced with conflicting goals of achieving satisfying sex life and keeping a small family, failure to do so results in unwanted pregnancy and abortions[4, 5]. In India, in order to achieve demographic targets the stress is on terminal surgical methods, applicable to women who have finished their child-bearing. On the other hand, women who did not complete their child birth, have their reproductive carrier ahead, need is to postpone or space pregnancies, which requires reversible and noninvasive methods. There is a shift from terminal to reversible methods[6].

The intrauterine device (IUD) is the world's most widely used spacing method of reversible birth control[2]. There are too many advantages associated with IUD use but still its use is not free from side effect hence lot of clients seeks for early removal. One of reason for this was excess workload on health provider so that they can't give sufficient time to clients in explaining the method. Lack of sufficient knowledge among providers was also a potential reason[7-10]. It is often found that the advantages are understated, the disadvantages tend to be exaggerated and many myths and misconceptions are prevalent in the community and among the providers too[11]. The present work tries to evaluate satisfaction level amongst the clients.

MATERIALS AND METHODS

A Cross section study was conducted in Indore district of Madhya Pradesh. The study was conducted at all levels of health care delivery system. There are four block under Indore district and in these four blocks, there are four community health centers and 25 primary health centers. At the tertiary level health care level, Government Medical College &

Hospital, Indore, was selected for the study. At secondary level (Urban), District Hospital Indore and secondary level (Rural) all the four community health centres (CHC), where IUCD insertion takes place was selected. At primary level, two primary health care centers (PHCs) were selected from each CHC, which included 1 highest performing PHC and 1 lowest performing PHC in terms of IUD insertion. In order to assess client satisfaction amongst the IUD beneficiaries, a list of all the beneficiaries who had undergone IUD insertion in past 5 years before the onset of study was obtained from the selected centers and systematic random sampling was done to choose the study population. Clients who had IUD insertion at least 3 months prior to the data collection and gave informed consent were included in study irrespective of their history of IUD removal.

Study duration
12 months (November 2013 to October 2014)

Sample Size
Sample size for beneficiary assessment was calculated using formula[12] SS= z^2 (p) (1-p)/d^2. Here SS, is sample size for indefinite population, Z = Z value (e.g.1.96 for 95% confidence level and 5% precision) p = percentage of occurrence of event, expressed as decimal (0.5 used for sample size needed) d = confidence interval (error), expressed as decimal= 0.05. With considering the fact that 50% clients were satisfied with IUD sample size comes out to be 384 rounded as 400.

Study tool
For assessment of satisfaction level among beneficiaries pretested semi structured questionnaire was developed in Hindi. There were two parts in the questionnaire. 1st part was containing questions regarding demography of clients and 2nd part containing questions regarding assessment of satisfaction level. In 2nd part satisfaction level was measured in 5 points Likert`s scale (i.e. from very dissatisfied to very satisfied). A number of ascending order was given to likert's scale starting from 1 to very dissatisfied and 5 was given to very satisfied. For further evaluation very dissatisfied, dissatisfied and neutral was considered as dissatisfied and satisfied and very satisfied was considered to satisfied. Questionnaire was administered through interpersonal interview. Little explanation was given to illiterate clients for their better understanding.

STATISTICAL ANALYSIS
Data was entered in Microsoft office excel work sheets then analyzed using appropriate statistical software, Software Package for Social Sciences (SPSS) version 21. Mann Whitney U test were applied. P value less than 0.05 was considered significant.

Ethical consideration
The study was approved by Institutional review board of MGM Medical College Indore.

RESULTS
Out of total 400 clients, 253 clients belong to rural area and 147 clients belong to urban area. In this study maximum clients 348 (87%) belonged to age group of 21 to 30 years. 47 (11.8%) clients were illiterate, 285 (71.3%) clients were unemployed/ housewife and 53.5% belonged to lower socioeconomic class and 45.3% of middle socioeconomic class. 59% clients had interval IUD insertion. As finding of this study suggested that most of the clients (52.8%) choose IUD after their first child as spacing method and 38.3% clients were chose this method after their second child as terminal method of contraception.

75.2% clients were satisfied with reputation of hospital/health center. 62.3% and 68.75% clients were satisfied with queuing system in hospital and arrangements of proper waiting area, respectively. 64.5% clients were not satisfied with the information given to them about all contraceptive methods. 69.75% clients were satisfied with knowledge about insertion process and follow up visits. 40.25% and 44% were dissatisfied with the time given to them for medical examination and maintenance of appropriate privacy during the procedure, respectively.

In this study 63% clients were thought that IUD is a good contraceptive device. 48.25% and 43.25% clients were of opinion that checking of IUD tail is problematic during daily routine and its insertion increases their hospital visit, respectively. 46% clients were satisfied with statement that out of pocket expanses has increase with IUD insertion. There was statistically significant difference (0.000) found between rural and urban clients in queuing system in hospital/ health center is trouble free. Rural clients were more satisfied with queuing system than urban clients. Rural clients were more satisfied with the availability of doctors than urban clients while more number of doctors was available in urban area. There was significant difference found in between rural and urban area in both sufficient time for insertion (p= 0.027) and appropriate privacy (p= 0.009). More number of rural females was satisfied with time given to them for medical examination.

Table-1: Demographic variable distribution among the clients

Variables	Age Group	Number of clients (n=400)	Percentage
Age Group	Less than 20 years	28	7
	21 to 30 years	348	87
	31 to 40 years	24	6
Education status	Illiterate	47	11.8
	Primary	64	16
	Secondary (8th)	102	25.5
	High school	89	22.2
	Higher secondary	56	14
	Graduate	34	8.5
	Postgraduate	8	2
Occupation Status	Professional	5	1.3
	Semiprofessional	22	5.5
	Clerical Shop owner Farmer	20	5.0
	Skilled worker	13	3.3
	Semi-skilled worker	14	3.5
	Unskilled worker	41	10.2
	Unemployed housewife	285	71.2
Socio economic Status	Lower Socioeconomic	12	3
	Upper Lower Socioeconomic	202	50.5
	Lower Middle Socioeconomic	109	27.2
	Upper Middle Socioeconomic	72	18
	Upper Socioeconomic	5	1.3

Table-2: Menstruation, Gravid and Contraceptive history of Clients

		Number of clients (n=400)	Percentage
Age of Menarche	< 12 Years	56	14.0
	12 - 15 Years	273	68.3
	> 15 years	71	17.7
Regularity	Regular	234	58.5
	Irregular	166	41.5
Bleeding	Light/Spotting	156	39.0
	Moderate	219	54.7
	Heavy	25	6.3
Pain	With Pain	210	52.5
	Without Pain	190	47.5
Number of pregnancies	<2	312	78
	>2	88	22
Number of Living Children	<2	364	91
	>2	36	9
History of Abortion	Yes	102	25.5
	No	298	74.5
Type of IUD Insertion	Interval insertion	236	59.0
	Post Abortion	94	23.5
	Post partum	70	17.5
Health Care Provider	Doctor	188	47.0
	ANM	131	32.7
	Nurses (LHV/ Staff nurse)	81	20.3

Table-3: Beneficiary satisfaction level assessment using Likert's scale (n= 400)

Beneficiary Assessment	Dissatisfied No. (%)	Satisfied No. (%)
Hospital/Health Center has good reputation	99 (24.8)	301 (75.2)
Queuing system in hospital is trouble free	151 (37.8)	249 (62.3)
Arrangements of proper waiting area for patients	125 (31.25)	275 (68.75)
Availability of nurse assistance for consultation	84 (21)	316 (79)
Clear sign and direction to indicate where to go in service area	115 (28.75)	285 (71.25)
Availability of doctors for consultancy	181 (45.25)	219 (54.75)
Friendliness and courteous manner of medical staff	115 (28.75)	285 (71.25)
Attentiveness of doctor/nurse while answering your questions	172 (43)	228 (57)
Give information about all the contraceptive of choice available	258 (64.5)	142 (35.5)
Give detail information about IUD how it work its risk and benefits	139 (34.75)	261 (65.25)
Information about insertion process of IUD was clearly told and dates for post insertion follow up given	121 (30.25)	279 (69.75)
Clearly told about the checking string of IUD	53 (13.25)	347 (86.75)
Provide sufficient time for medical examination	166 (40.25)	239 (59.75)
Quality of instruments used during the procedure was good	68 (17)	332 (83)
Maintain Privacy appropriately while doing procedure	176 (44)	224 (56)
Medical personnel took all aseptic precautions and hygiene maintenance	137 (34.25)	263 (65.75)
Insertion process was painful	143 (35.75)	257 (64.25)
IUCD is a good contraceptive device	148 (37)	252 (63)
Checking of IUD tail is problematic during daily routine	207 (51.75)	193 (48.25)
IUCD insertion has increase your hospital visit	227 (56)	173 (43.25)
Out of pocket expanses has increase with IUCD insertion	216 (54)	184 (46)
Utilize all facilities available at health center regarding IUD insertion	77 (19.25)	323 (80.75)

Table-4: Beneficiary satisfaction level assessment using Likert's scale (n= 400)

	Rural (n=256)		Urban (n=147)		P value
	Dissatisfied No. (%)	Satisfied No. (%)	Dissatisfied No. (%)	Satisfied No. (%)	
Hospital/Health Center has good reputation	75 (29.7)	178 (70.3)	24 (16.3)	123 (83.7)	0.360
Queuing system in hospital is trouble free	78 (30.8)	175 (69.2)	73 (49.7)	74 (50.3)	0.000*
Arrangements of proper waiting area for patients	81 (32)	172 (67)	44 (29.9)	103 (70.1)	0.545
Availability of nurse assistance for consultation	51 (20.2)	202 (79.8)	33 (22.4)	114 (77.6)	0.479
Clear sign and direction to indicate where to go in service area	71 (28.1)	182 (71.9)	44 (29.9)	103 (70.1)	0.857
Availability of doctors for consultancy	110 (43.5)	143 (56.5)	71 (48.3)	76 (51.7)	0.023*
Friendliness and courteous manner of medical staff	71 (28.1)	182 (71.9)	44 (29.9)	103 (70.1)	0.857
Attentiveness of doctor/nurse while answering your questions	117(46.2)	136 (53.57)	55 (37.4)	92 (62.6)	0.675
Give information about all the contraceptive of choice available	172 (68)	81 (32)	86 (58.5)	61 (41.5)	0.275
Give detail information about IUD how it work its risk and benefits	87 (34.4)	166 (65.6)	52 (35.4)	95 (64.6)	0.804
Information about insertion process of IUD was clearly told and dates for post insertion follow up given	68 (26.9)	188 (74.3)	53 (36.1)	94 (63.9)	0.257
Clearly told about the checking string of IUD	42 (16.6)	211 (83.4)	11 (7.5)	136 (92.5)	0.183
Provide sufficient time for medical examination	90 (35.5)	163 (64.4)	71 (48.3)	76 (51.7)	0.027*
Quality of instruments used during the procedure was good	36 (14.2)	217 (85.8)	32 (21.8)	115 (78.2)	0.095
Maintain Privacy appropriately while doing procedure	100 (39.5)	153 (60.5)	76 (51.7)	71 (48.3)	0.009*
Medical personnel took all aseptic precautions and hygiene maintenance	92 (36.4)	161 (63.6)	45 (30.6)	102 (69.4)	0.767
Insertion process was painful	93 (36.8)	160 (63.2)	50 (34)	97 (66)	0.313
IUCD is a good contraceptive device	94 (37.2)	159 (62.8)	54 (36.7)	93 (63.3)	0.689
Checking of IUD tail is problematic during daily routine	127 (50.2)	126 (49.8)	80 (54.4)	67 (45.6)	0.375
IUCD insertion has increase your hospital visit	145 (57.3)	108 (42.7)	82 (55.8)	65 (44.2)	0.851
Out of pocket expanses has increase with IUCD insertion	150 (59.3)	103 (40.7)	66 (44.9)	81 (55.1)	0.009*
Utilize all facilities available at health center regarding IUD insertion	42 (16.6)	211 (83.4)	35 (23.8)	112 (76.19)	0.682

*Statistically Significant, Mann Whittney Test was applied

DISCUSSION

In this study maximum clients 348 (87%) were belong to age group of 21 to 30 years. These finding denotes that IUD was contraceptive of choice for women of most potential reproductive age group. 47 (11.8%) clients were illiterate, 64 (16%) were educated up to primary and 102 (25.5%) up to secondary class. 285 (71.3%) clients were unemployed/ housewife and 53.5% belonged to lower socioeconomic class and 45.3% were of middle socioeconomic class according to modified kuppuswamy scale [13]. All above mentioned findings clearly denotes that IUD was a preferred choice of poor, unemployed/housewife, rural and below 30 year women. This is similar to finding of Van Zijl et al. [14] done in South Africa.

64.5% clients were not satisfied with the information given to them about all contraceptive methods while this percentage was decrease in case of information about the IUD how it work, risks and benefits. Costales *et al*. [15] quoted that counseling about expected changes in bleeding patterns before IUD insertion correlates with satisfaction and continuation rates after 1 year of use. In study of Backmann *et al*. [16], The amount of satisfaction with the LNG-IUD appears to correlate with how well informed patients are about the possible side effects associated with it.

In this study 63% clients were satisfied with quotes that IUD is a good contraceptive device while 48.25% and 43.25% clients were satisfied with quoted that checking of IUD tail is problematic during daily routine and its insertion increases their hospital visit. 46% clients were satisfied with statement that out of pocket expanses has increase with IUD insertion with significant difference between urban and rural clients. Patel S.K. et al (2012)[17] quoted that the retention of IUD among acceptors in rural India are largely associate with acceptor's satisfaction for quality of services and facility received during the insertion, visit and counseling of female health care worker, and other socio-demographic factors. According to Forest JD et al (1996)[18] concluded that overall satisfaction with IUD was much higher than other methods. Overall, 99% of IUD users who continue with the method beyond 1 year report being "very satisfied" or "somewhat satisfied" with the method.

Due to time constraints, no Sub Health Centers were observed in the study which was also an important focal point for IUD insertion. There is an urgent need to address these programmatic concerns by improving infrastructure, updating guidelines that include evidence-based practices and increasing the pool of trained providers and creating awareness among women of reproductive age group about the Intra Uterine Devices. Importance must be given to counseling and communication skill focusing on health education at the centers. Newer modern IUDs made available at each and every center, which required less skills and also had more compliance of beneficiaries. Periodical performance assessment of service providers should be done at the various levels of centers.

CONCLUSIONS

The finding of this study revealed that most of females chose interval insertion. This showed that there was increasing trend of interval IUD insertion. But along with it, need for proper counseling and selection of the appropriate candidate also increases. Most of the insertion was done by health worker female (ANM). This finding showed that implementation of effective contraceptive measure solely depends on basic level workers so there is strong need of strengthening of knowledge and skills of basic

level workers[19]. Clients were generally satisfied with hospital reputation, its infrastructure, nursing staff and quality of services. Satisfaction level was relatively low among the clients regarding availability and attentiveness of doctors, necessary information of IUD.

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