A study to assess the factors related to non-acceptance of intra uterine contraceptive devices (IUCDs) among eligible women and to develop and evaluate the effectiveness of structured teaching programme on IUCDs in terms of knowledge, attitude and outcome among eligible women in selected urban health centre ofDelhi

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Abstract
A study was conducted to develop and evaluate the effectiveness of structured teaching programme on IUCDs in terms of knowledge, attitude and outcome amongeligible women in selected urban health centre of Delhi in partial fulfilment of degree of Master of Nursing at RajkumariAmrit Kaur College of Nursing, University of Delhi during the period 2019-2021.

The objectives of the study were: 1.) To determine the factors associated with non- acceptance of IUCDs as a family planning method among eligible women in selected urban health centre of Delhi. 2.) To develop structured teaching programme for eligible women on IUCDs. 3) To assess and evaluate the knowledge and attitude about IUCDs among eligible women before and after administration of structured teaching programme. 4.) To assess and evaluate the outcome regarding IUCD among eligible women after administration of structured teaching programme. 5.) To seek relationship between knowledge and attitude, knowledge and outcome, outcome and attitude among eligible women after administration of structured teaching programme. 6.) To seek association of knowledge, attitude and outcome with selected variables among eligible women after administration of structured teaching programme in termsof: age, educationalstatus, occupation, religion,prior information aboutIUCD.

The conceptual model adopted for the study was based on Health Belief Model developed by Rosenstock. A pre-experimental approach was adopted for the present study with one group pre- test-post-test design. The study was conducted in Maternal and Child Health Centre, Sriniwaspuri . The study consisted of 60 eligible women with purposive sampling technique.

The tools developed and selected for data collection were checklist to assess the factors related to non-acceptance of IUCD, structured knowledge interview schedule, structured attitude scale and outcome performa. The pilot study was conducted from 09th November, 2020 to 21st November 2020 and the final study was conducted from 4th January, 2021 to 23rd January, 2021. The data collected was analysed using both descriptive and inferential statistics. The study participants were given a pre-test to assess their knowledge and attitude toward IUCDs on day 1, followed by a session on structured teaching programme on IUCDs. On day 8, the study participants were again given post-

test to assess gain in their knowledge and attitude towards IUCDs. The outcome related to IUCD was checked after 1 month of administration of structured teaching programme.

The major findings of the study revealed that a structured IUCD teaching programme was effective in enhancing the knowledge, attitudeof eligible women on IUCD as evident from the significant 't' value.

The study concludes that majority of participants (17.30%) hadfear of pain during insertion and removal of IUCD as reason for non-acceptance of IUCD as a preferred method of contraception, followed by fear of bleeding (16.40%). 21.67% had no prior information on IUCDs. The mean post-test knowledge score (14.21) was higher than mean pre-test knowledge score (9.66)of study group.The mean post-test attitude score (49.23) was higher than mean pre-test attitude score (39.93)of study group. The findings revealed that due to the change in knowledge, the attitude also changed towards IUCDs,but to a very smallextent. It was seen that there was no significant association between post-test knowledge scores of eligible women with selected variables i.e. age, education, occupation and religion, except for prior information about IUCD.There was a significant gain in knowledge and attitude related to IUCDs after administration of structured teaching programme as evident from the significant 't' value.There was no significant association between post-test attitude scores of eligible women with selected variables i.e. age, education, occupation and religion, except for prior information about IUCD. There was no significant association betweenpost-test scores of eligible women with selected variables i.e. age, education, occupation, religion and prior information about IUCD.

The study has various implications in nursing education, administration, practice and research and public and community health education. The study recommends that it can be replicated on a larger sample using standardized tools and follow up study could be undertaken to find out the continuity with the use of IUCD.

INTRODUCTION

Intrauterine Contraceptive Device (IUCD) is one of the most commonly used reversible methods of contraception among women of reproductive age worldwide. Results of recent studies and literature have confirmed that IUCDs provide very effective, safe and long-term protection against pregnancy and the health risks associated with the method are negligible.

India is the second most populated country in the world and is expected to surpass China by 2022. [1]Many Indians avoid using contraceptives to control their family size, despite the dire need for it, due to ignorance, traditional religious customs, etc. [2] Today, contraceptives are classified into two types: modern and traditional methods. Modern methods include Oral Contraceptive Pills (OCP), IUDs, injectables, etc. Traditional methods include periodic abstinence, rhythm and withdrawal method. [3]

IUCDs have proven to be the most effective long term temporary method of contraception with a <0.5% failure rate. [4] Despite this, the use of IUD is not prevalent in India. Female sterilisation (36%) is preferred the most. This is followed by condoms (5.6%), OCPs (4.1%) and only 1.5% of the population uses IUDs. [5] Women use it as a temporary spacing device and get it removed as soon as they feel the slightest discomfort or pain. [6]Ignorance about IUDs is a prevalent problem too, with 31.2% of women and 49.5% of men having never heard of them. [7]

NEED OF THE STUDY

In 2006, Government of India (GoI) launched "Repositioning IUCD in National Family Welfare Programme" with the objective to improve the contraceptive services and had adopted diverse strategies including advocacy of IUCD at various levels; community mobilization of IUCD; capacity building of public health system staff to provide quality IUCD services and intensive IEC activities to dispel myths about IUCD. Currently, increased emphasis is given to promote IUCD insertion as a key spacing method under Family Welfare Programme. [8]

Many studies have analysed the misperceptions mostly among women related to female anatomy and

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contraceptive methods such as the IUD. Most rural women did not know where the IUD is inserted in the body, what it does, or how it works. They had limited understanding of the relationship between the reproductive and gastrointestinal systems. They expressed fear that the IUD could ascent into their chest or be lost in the abdomen. Other commonly expressed concerns were that the IUD causes heat, could lead to loss of weight & energy, and that when in place, the woman's partner could become stuck during sexual intercourse and would require a physician's intervention.

Though the people have understood the importance of small family norm and have widely accepted the terminal method as a solution for this, but they have still not accepted spacing methods especially IUDs as a temporary solution. The major reason for non-acceptance of IUD were lack of knowledge, demand of more children in a short period, domination of husband and elder people, fear of post IUD physiological changes, and absence of universal acceptance of the said method in the community.

REVIEW OF LITERATURE

The review of literature was organized under following headings:

1. Literature related to unmet need of contraception
2. Literature related to factors of non- acceptance of IUCD
3. Literature related to knowledge and attitude towards IUCD among eligible women
4. Literature related to development and effectiveness of structured teaching programme

The review of literature helped the researcher to establish the need for the study, develop conceptual framework, adopt research design, develop tools and PPIUCD counselling programme, decide about data collection procedure and plan for data analysis.

STATEMENT OF THE PROBLEM

"A study to assess the factors related to non- acceptance of Intra Uterine Contraceptive Devices (IUCDs) among eligible women and to develop and evaluate the effectiveness of structured teaching programme on IUCDs in terms of knowledge, attitude and outcome among eligible women in selected urban health centre of Delhi."

OBJECTIVES OF THE STUDY

1. To determine the factors associated with non-acceptance of IUCDs as a family planning method among eligible women in selected urban health centre of Delhi.
2. To develop structured teaching programme for eligible women on IUCDs
3. To assess and evaluate the knowledge and attitude about IUCDs among eligible women before and after administration of structured teaching programme.
4. To assess and evaluate the outcome regarding IUCD among eligible women after administration of structured teaching programme.
5. To seek relationship between:
   - Knowledge and attitude,
   - Knowledge and outcome,
   - Outcome and attitude among eligible women after administration of structured teaching programme.
6. To seek association of knowledge, attitude and outcome with selected variables among eligible women after administration of structured teaching programme in terms:
   - Age
   - Educational status
   - Occupation
   - Religion

- Prior Information About IUCD

RESEARCH HYPOTHESIS

H_1: There will be significant difference in mean pre-test and post-test knowledge scores of eligible women after administration of structured teaching programme as measured by structured knowledge interview schedule at 0.05 level of significance.

H_2: There will be significant difference in mean pre-test and post-test attitude scores of eligible women after administration of structured teaching programme as measured by structured attitude scale at 0.05 level of significance.

H_3: There will be a significant relationship between mean post-test knowledge score and post-test attitude scores of eligible women after administration of structured teaching programme as measured by structured knowledge interview schedule and structured attitude scale at 0.05 level of significance

H_4: There will be a significant relationship between mean post-test knowledge score and outcome (in terms of actual number of insertion) of eligible women after administration of structured teaching programme as measured by structured knowledge interview schedule and outcome performa at 0.05 level of significance

H_5: There will be a significant relationship between mean post-test attitude score and outcome (in terms of actual number of insertion) of eligible women after administration of structured teaching programme as measured by structured attitude scale and outcome performa at 0.05 level of significance

H_6: There will be a significant association between mean post-test knowledge score and selected variables(age, educational status, occupation , religion, prior information about IUCD)
of eligible women as measured by structured knowledge interview schedule at 0.05 level of significance.

H_7: There will be a significant association between mean post-test attitude scores and selected variables (age, educational status, occupation , religion, prior information about IUCD)
of eligible women as measured by structured attitude scale at 0.05 level of significance.

H_8: There will be a significant association between outcome (in terms of actual number of insertions) and selected variables (age, educational status, occupation , religion, prior information about IUCD) of eligible women as measured by outcome performa at 0.05 level of significance.

OPERATIONAL DEFINITIONS

1. **FACTORS:** In this study, factors refer to those determinants which influence the usage of IUCDs as a method of contraception. These include:
   i. **Demographic factors**- age of women, education, socioeconomic status, family structure
   ii. **Socio-cultural factors** – may include husband's support, desire for more children, family pressure, societal pressure
   iii. **Physiological factor:** Refer to the immediate or late post insertion of IUCD changes in the reproductive system as expressed by the respondents
   iv. **Behavioural factors:** pre-conceived myths and misconceptions
   v. **Religious factors.**

2. **NON ACCEPTANCE:** In this study, it refers to all available eligible women who are not motivated/do not want to use IUD as method of contraception at the time of data collection.

3. **IUCD:** Intrauterine Contraceptive Device

4.**ELIGIBLE WOMEN:** Women who are married and within the reproductive age group of 18-45 years.

4. **EVALUATE:** In this study, it refers to judge the worth of structured teaching programme regarding IUCDs.

5. **EFFECTIVENESS:** In this study, it refers to the power to bring change by a particular action i.e. to bring change in knowledge and attitude using structured teaching programme, as measured by gain

in post-test knowledge and attitude scores in study participants.

6. STRUCTURED TEACHING PROGRAMME: In this study, it is a systematically developed programme with teaching aids, designed to impart knowledge regarding IUCDs, its advantages and side effects as a temporary method.

8. KNOWLEDGE: In this study, It refers to ability of women to respond to the questions related to facts about IUCDs, its advantages and side effects as a temporary method.

9. ATTITUDE: In this study, it refers to the way of thinking and perception about IUCDs and its use as a spacing and contraceptive method.

10. OUTCOME: in this study, outcome refers to the actual number of IUCD insertions.

ASSUMPTIONS

- Demographic and socio-economic variables have direct impact on the level of knowledge and have an influence on individual behaviour (towards acceptance of intrauterine device)
- Knowledge about a particular health measure is an enabling factor towards compliance.
- In culture where women are under subordination to the husband, the wife may not feel free to give the actual reason for non-acceptance of family planning methods.
- The eligible women may be hesitant to accept IUCD due to limited knowledge and misconceptions.
- Structured teaching programme regarding IUCDs may help in gaining knowledge and improving attitude and outcome towards IUCD as family planning method.

DELIMITATIONS

- Women in reproductive age-group (18-45 years)
- Women who are married.
- Women who are not using any contraceptive methods currently.
- Women who have at least one child.
- Women who will be availing services from selected maternity centre.
- Women who are available during data collection period and who are willing to participate in the study.
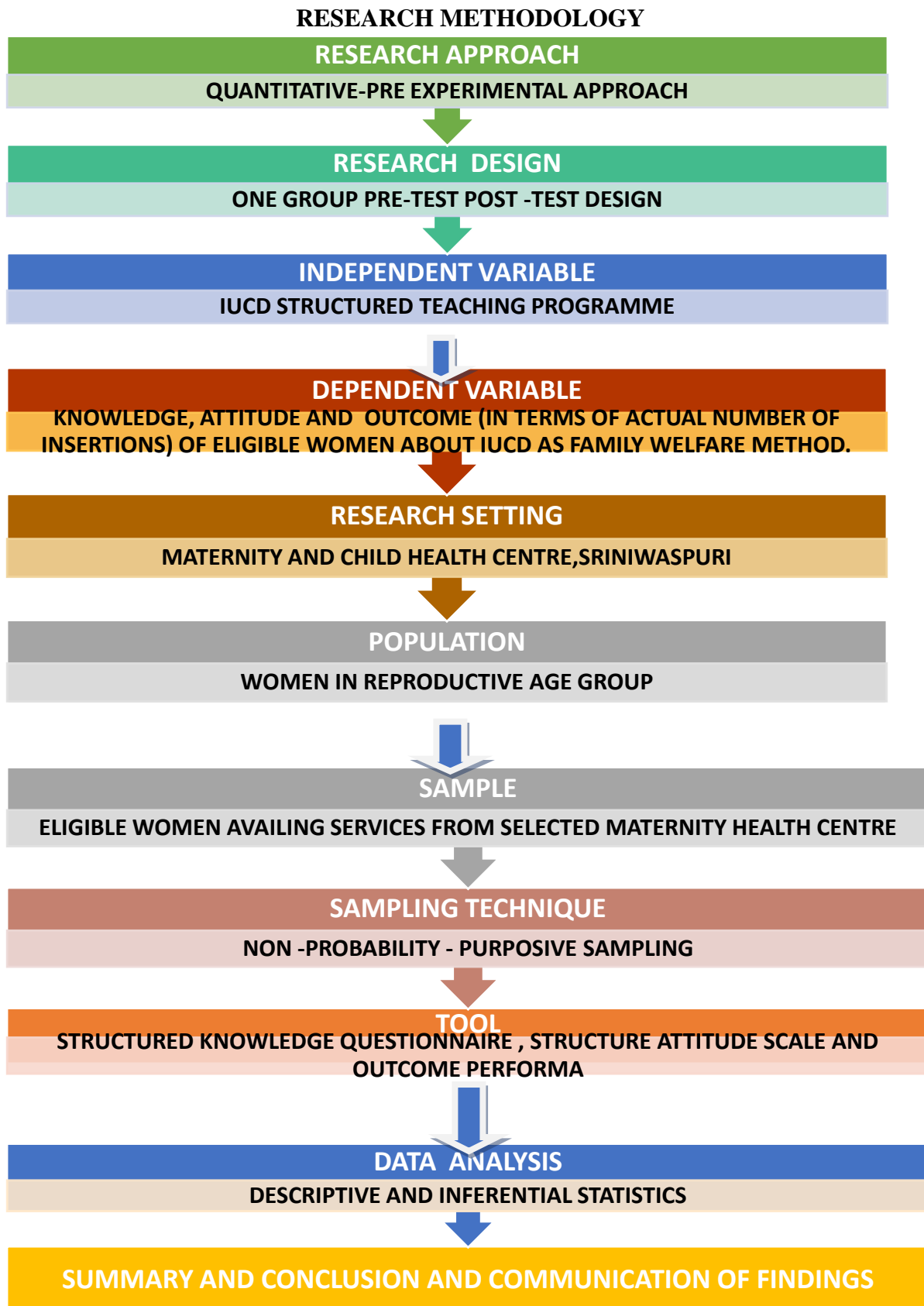
SAMPLING CRITERIA

INCLUSION CRITERIA:

1. Eligible women who will be availing services from selected maternity centre.
2. Eligible women who are currently not using any contraceptive method.
3. Eligible women who have at least one living children.
4. Eligible women who are available during the data collection period.
5. Eligible women who are willing to participate in the study.

EXCLUSION CRITERIA:
Women with the following condition would be excluded-

1. H/o irregular bleeding pv, menorrhagia, PID, valvular heart diseases
2. Women who have undergone permanent family planning method
3. Eligible women who are NOT availableduring data collection period and
4. Eligible women who are NOT who are willing to participate in the study.

RESEARCH METHODOLOGY

RESEARCH APPROACH

QUANTITATIVE-PRE EXPERIMENTAL APPROACH

RESEARCH DESIGN

ONE GROUP PRE-TEST POST -TEST DESIGN

INDEPENDENT VARIABLE

IUCD STRUCTURED TEACHING PROGRAMME

DEPENDENT VARIABLE

KNOWLEDGE, ATTITUDE AND OUTCOME (IN TERMS OF ACTUAL NUMBER OF INSERTIONS) OF ELIGIBLE WOMEN ABOUT IUCD AS FAMILY WELFARE METHOD.

RESEARCH SETTING

MATERNITY AND CHILD HEALTH CENTRE,SRINIWASPURI

POPULATION

WOMEN IN REPRODUCTIVE AGE GROUP

SAMPLE

ELIGIBLE WOMEN AVAILING SERVICES FROM SELECTED MATERNITY HEALTH CENTRE

SAMPLING TECHNIQUE

NON -PROBABILITY - PURPOSIVE SAMPLING

TOOL

STRUCTURED KNOWLEDGE QUESTIONNAIRE , STRUCTURE ATTITUDE SCALE AND OUTCOME PERFORMA

DATA ANALYSIS

DESCRIPTIVE AND INFERENTIAL STATISTICS

SUMMARY AND CONCLUSION AND COMMUNICATION OF FINDINGS

DATA COLLECTION TOOLS AND TECHNIQUES

Tool 1- Structured Interview Schedule
Part I- Sample characteristics
A structured interview schedule consisting of questions to collect the background data sample characteristics of the study participants
Part II –Interview schedule to assess factors related to non-acceptance of IUCD as family welfare method
A structured interview schedule to assess factors related to non-acceptance of IUCD as family welfare method
Part III- Knowledge Interview Schedule
A structured interview schedule consisting to assess the knowledge of the sample on IUCD as family welfare method for spacing
Tool 2- Structure Attitude Scale
A structured attitude rating scale against which the sample has to give response on a five-point rating scale to assess their attitude towards IUCD.
Tool 3: Structured Outcome performa
It consists of questions related to the outcome (actual number of insertions) after 1 month of administration of structured programme from data available in the maternity centre.

PROCEDURE FOR FINAL DATA COLLECTION

Formal administrative approval to conduct the final study was obtained Director (Hospital Administration) from South Delhi Municipal Corporation. The data was collected from 4th January 2021 to 23rd January 2021 from 60 eligible women using purposive sampling technique.
Day1 (Pre -Test): the investigator met all the eligible women present in the setting during the period of the study, and explained them about the nature and purpose of the study. The study participants were assured of confidentiality of their response to obtain free and frank opinion. An informed consent was obtained. The researcher administered the structure interview schedule and structured attitude scale to assess the pre-test knowledge and attitude of eligible women regarding IUCD which took 30-40 minutes per client.The structured teaching programme was administered on same day to the study participants. The administration of structured teaching programme took 40-45 minutes.
**Day 7(Post-Test):** a post-test was conducted on day 7 using the same tools for assessment of knowledge and attitude. The outcome (in terms of actual number of insertions) was found out after 1 month of administration of post-test.

MAJOR FINDINGS
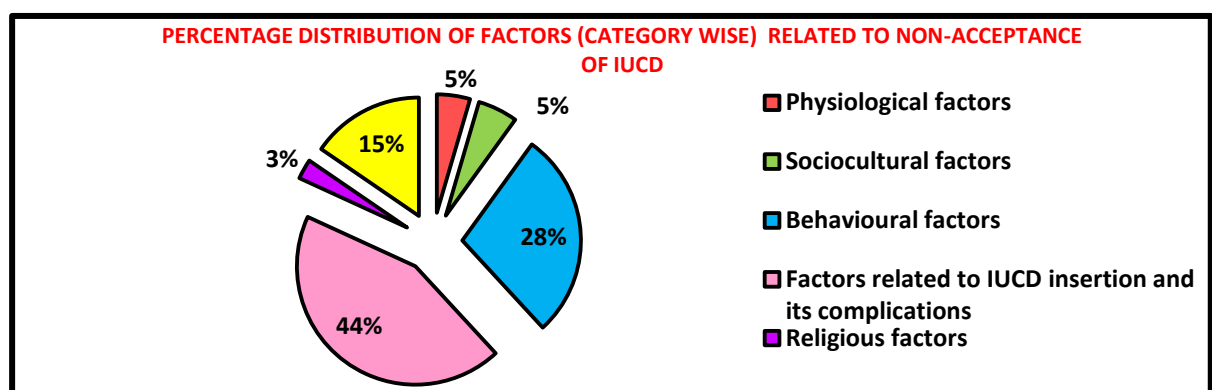**Section I : Findings Related To Description Of Sample Characteristics**

☑ Majority of eligible women (51.67%) in the study group were in the age group of 25-35 years.
☑ Most (30%) of the study participants had studied upto primary level.
☑ In terms of occupation, majority of women were housewives (90%)
☑ Majority of women (55%) had monthly income of upto 10000.
☑ In the sample group majority of women (85%) belonged to Hindu religion.
☑ In terms of type of family, majority of women (56.67%) lived in nuclear families.
☑ 33.34% of the women in the study group had more than 10 years of duration of marriage,
☑ In the study group 35% of women had 2 living children.
☑ Majority of women (63.33%) did not use any contraceptive in the past
☑ In terms of type of contraceptive used, 18.33% had used IUCD, followed by condom (13.33%).

☑ Majority of the samples (78.33%) had some previous information about IUCD .
☑ Out of the samples who had prior information about IUCD, 50% received information from health care provider.

PERCENTAGE DISTRIBUTION OF FACTORS RELATED TO NON-ACCEPTANCE OF IUCD
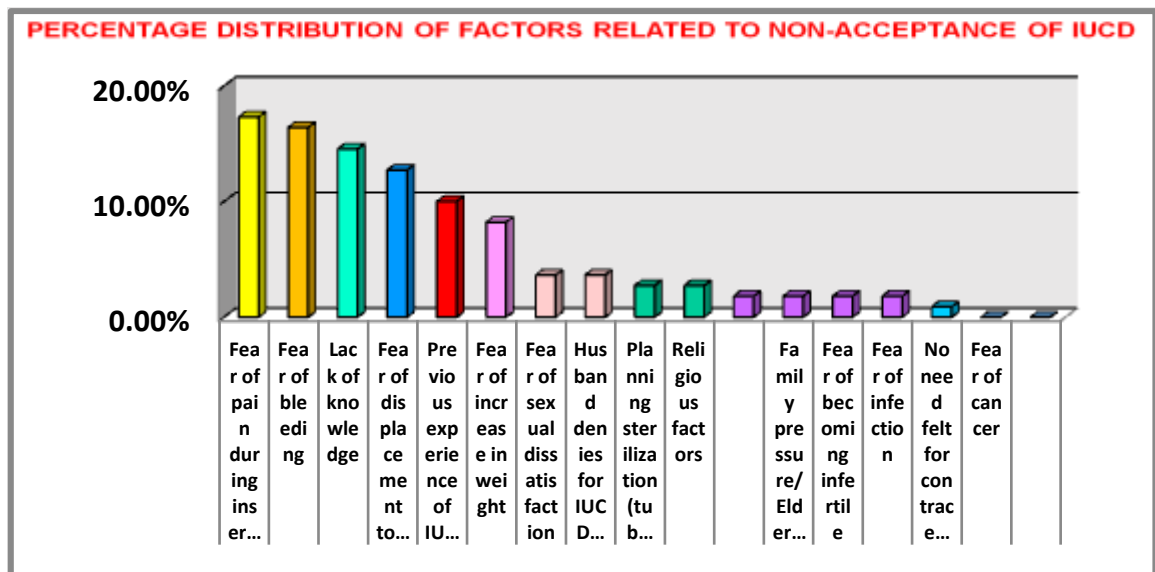
Section II : Description Of Factors Related To Non-Acceptance Of IUCD As Family Welfare Method

➢ According to the responses given by the study participants, factors related to IUCD insertion and its complications (43.70%) ,Behavioural factors (28.17%), Other factors (15.44%) , Socio-cultural factors (5.44%) , Physiological factors (4.53%) and Religious factors (2.72%) had direct or indirect influence on IUCD usage as spacing method.
➢ Fear of pain during insertion and removal of IUCD accounted for 17.30% of all the factors related to non-acceptance of IUCD , followed by fear of bleeding (16.40%) .
➢ Lack of knowledge related to IUCD accounted for 14.54% of all the factors, followed by fear of displacement to other organs of body like 'heart', 'brain' or 'liver'(12.72%).
➢ Previous experience of IUCD related complications like pain/bleeding/backache accounted for 10% , followed by fear of increase in weight (8.2%) and husband's denial for IUCD insertion and fear of sexual dissatisfaction (3.63% each).
➢ Out of all the factors of non-acceptance of IUCD, 2.72% were planning for sterilization and religious factors each.
➢ Fear of interference with regular day to day activities , family pressure/elder's influence, fear of becoming infertile, fear of infection were 1.81% each of all the factors.
➢ No need felt for contraception was 0.9% of the factors.

PERCENTAGE DISTRIBUTION OF FACTORS (CATEGORY WISE) RELATED TO NON-ACCEPTANCE OF IUCD

- Physiological factors
- Sociocultural factors
- Behavioural factors
- Factors related to IUCD insertion and its complications
- Religious factors

Section III: Findings Related To Knowledge Scores of Sample Population

The mean post-test knowledge score (14.21) is higher than mean pre-test knowledge score (9.66) of the study group. Post-test median score (14) is higher than pre-test median score (9). The standard deviation for the pre-test knowledge scores were 4.21 and that of post-test scores were 3.10. This indicates that the group became more homogenous after the administration of structured teaching programme.
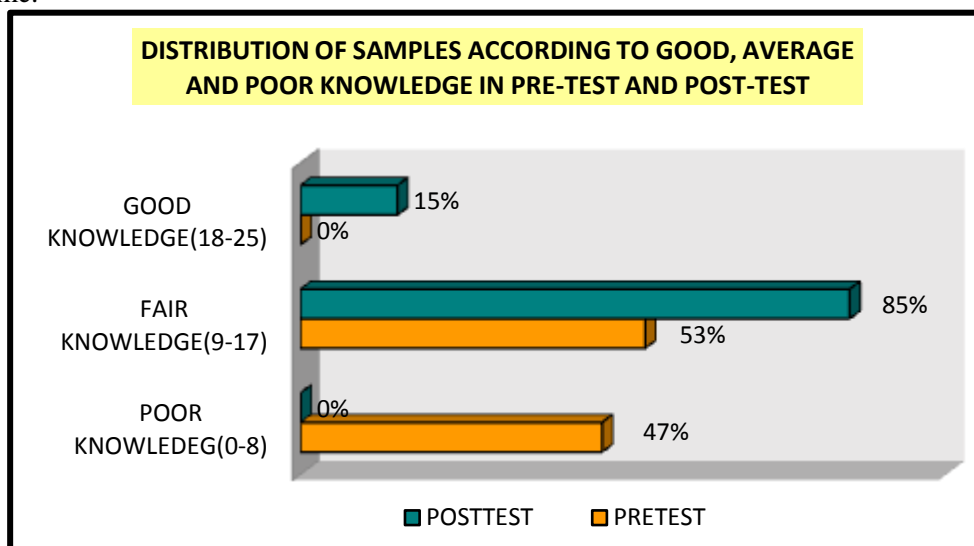

Fig 17 : Bar diagram showing percentage of samples with good, fair and poor knowledge in pre-test and post-test.

Table 11 : Computing 't' value to find out the significant difference between mean pre-test and post-test knowledge scores of women on IUCD   N=60
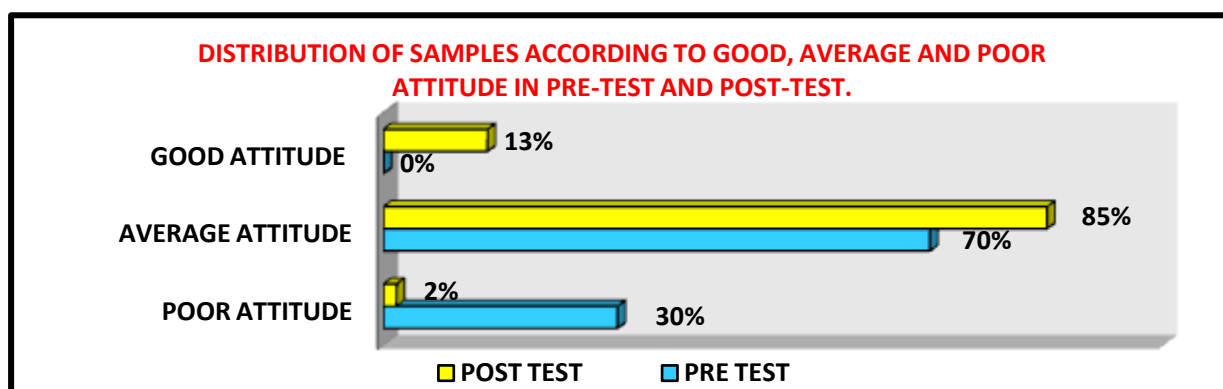
Knowledge scores	Mean	Mean difference	S.E._M.D	't' Value
PRE-TEST	9.66	4.55	0.261	17.37
POST -TEST	14.21			

't' value df(59) level= 2.00 , P>0.05= significant at 0.05 level

The data given in **table 11** , shows that the mean post-test knowledge score (14.21) is higher than mean pre-test knowledge score(9.66) of the study group. The mean difference (4.55) between pre-test and post-test scores of the study group was found to be statistically significant as evident from the 't' value (17.37) at 0.05 level. The calculated 't' value (17.37) is higher than table 't' value(2.00). Therefore the mean difference was a true difference and not by chance. The research hypothesis (H_1) is accepted and the null hypothesis (H_0) is rejected, which indicates that there is a significant difference in mean pre-test and post-test knowledge scores of eligible women after administration of Structured Teaching Programme as measured by structured knowledge interview schedule at 0.05 level of significance.

Section IV: Findings Related To Attitude Scores of Sample Population

The mean post-test attitude score (49.23) is higher than mean pre-test attitude score(39.93) of the study group. Post-test median score (49) is higher than pre-test median score (40). The standard deviation for the pre-test attitude scores were 5.48 and that of post-test scores were 5.03. This indicates that the group became more homogenous after the administration of structured teaching programme.

Fig 21: Bar Diagram Showing Percentage Distribution Of Samples With Good, Average And Poor Attitude In Pre-Test And Post-Test.

Table 15 : Computing 't' value to find out the significant difference between mean pre-test and post-test attitude scores of women on IUCD N=60

Attitude scores	Mean	Mean difference	S.E._M.D	't' Value
PRE-TEST	39.93	9.3	0.45	20.3
POST -TEST	49.23			

't' value df (59) level= 2.00 , P>0.05= significant at 0.05 level

The data given in table 15 , shows that the mean post-test attitude score (49.23) is higher than mean pre-test attitude score (39.93) of the study group. The mean difference (9.3) between pre-test and post-test scores of the study group was found to be statistically significant as evident from the 't' value (20.3) at 0.05 level. Therefore the mean difference was a true difference and not by chance. The research hypothesis (**H$_2$**) is accepted and the null hypothesis (**H$_{02}$**) is rejected, which indicates that there is an improvement in their attitude towards IUCD as family welfare method.

Section V : Findings Related To Frequency And Percentage Distribution For Outcome Related To IUCD

- ☑ In terms of motivation, 35% of the samples were motivated for IUCD insertion and 65% of the samples were not motivated after the administration of structured teaching programme.
- ☑ In terms of actual number of insertions, 15% of the eligible women opted for IUCD insertion while 85% did not opt for it.
- ☑ In terms of type of insertion, out of 15% of women who opted for IUCD insertion, 88.88% got multiload 375 inserted while 11.11% got IUCD 380A inserted.

The deviation in percentage of study sample motivated for IUCD insertion and the percentage of study samples who actually opted for insertion can mainly be attributed to the fact that COVID-19 screening was a pre-requisite before IUCD insertion in the study setting. Hence, though 35% of the women were willing for insertion, only 15% went for actual insertion.
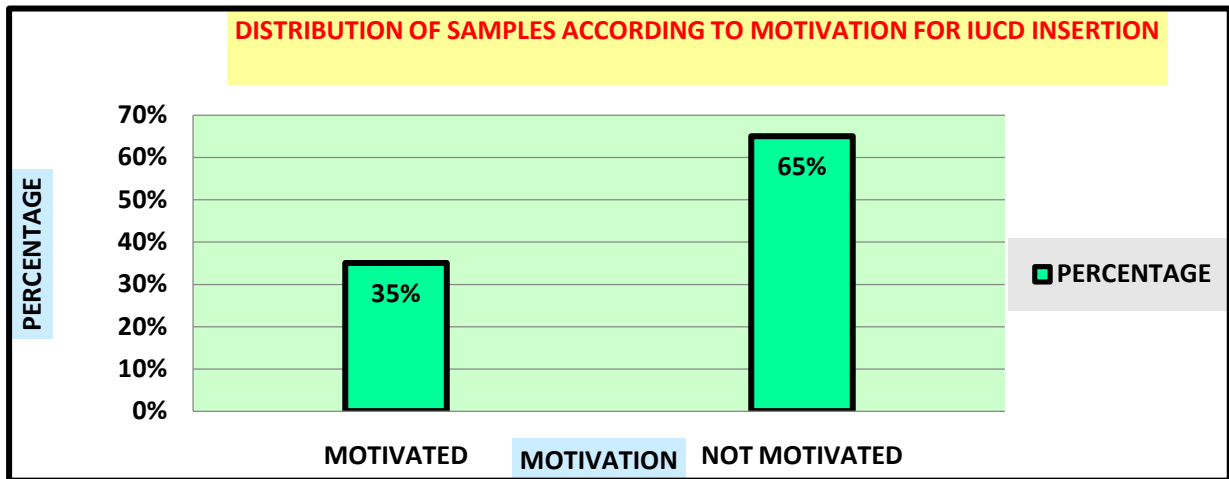
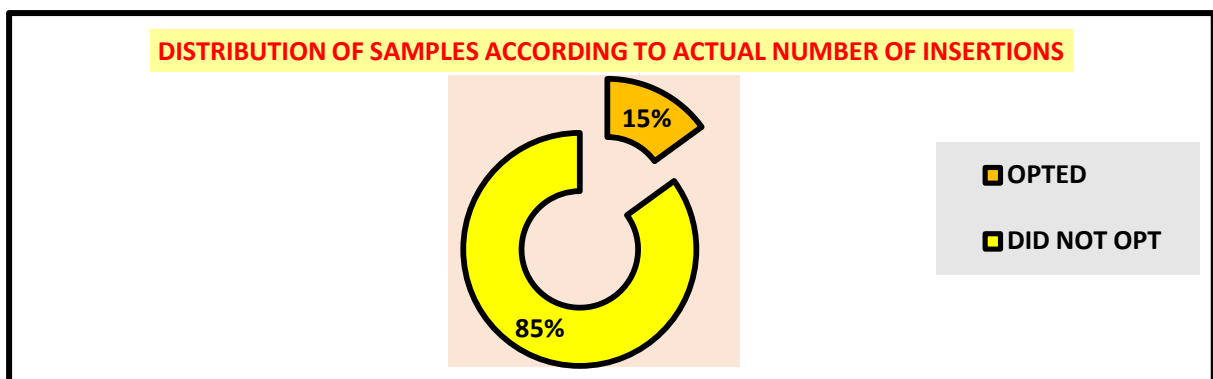DISTRIBUTION OF SAMPLES ACCORDING TO MOTIVATION FOR IUCD INSERTION

Fig 23:Bar diagram showing distribution of samples according to motivation for IUCD insertion

DISTRIBUTION OF SAMPLES ACCORDING TO ACTUAL NUMBER OF INSERTIONS

Fig 24: Doughnut showing Distribution of Samples According To actual number of insertions

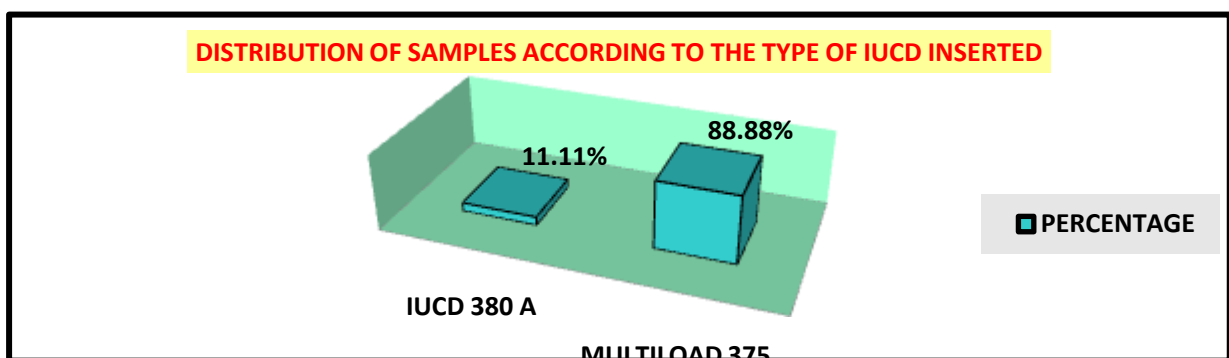DISTRIBUTION OF SAMPLES ACCORDING TO THE TYPE OF IUCD INSERTED

Fig 25: Bar diagram showing distribution of samples according to type of IUCD inserted

Section VI :   Findings Related To Relationship Between

A. Mean post-test knowledge scores and post-test attitude scores of sample population

Coefficient of correlation (r) between mean post-test knowledge score and mean pre-test attitude score is 0.186 which shows that there is a positive relationship between knowledge and attitude of sample population, however there is a weak correlation. The findings reveal that due to change in knowledge ,the attitude also changes with regard to IUCD but to a very small extent.

B. Mean post-test knowledge scores and outcome of sample population

The mean post-test knowledge score is 14.21 and the Outcome (Actual Insertions) is 9. As shown by point-biserial coefficient of correlation (0.019), there is a very weak positive correlation between mean post-test knowledge score and outcome (in terms of actual number of insertion) of eligible women after administration of structured teaching programme. The findings reveal that due to change in knowledge ,the outcome also changes with regard to IUCD but to a very small extent.

C. **Mean post-test attitude scores and outcome of sample population**
The mean post-test attitude score is 49.23 and the Outcome (Actual Insertions) is 9. As shown by point-biserial coefficient of correlation(0.259) there is a weak positive relationship between mean post-test attitude score and outcome (in terms of actual number of insertion) of eligible women after administration of structured teaching programme. The findings reveal that due to change in attitude, the outcome also changes with regard to IUCD but to a very small extent.

Section VII: Findings Related To Association Between Post- Test Knowledge Scores Of Eligible Women And Selected Variables
There was no significant association between post-test knowledge scores of eligible women and selected variables i.e. age, education, occupation, religion except prior information about IUCD.
Table 21: Chi-square value to seek association between post-test knowledge scores of eligible women and selected variables N=60

Sno.	Selected variables	Post- test knowledge score		Computed	Df		Table Value	Significant/non-significant (NS)
		Above median	Below median					
1.	**Age in years-** 18-25	9	14	**1.52#**	2		5.99	NS
	25-35	13	18					
	35-45	4	2					
2.	**Education-** No basic education	4	6	**0.95#**	4		9.49	NS
	Upto primary	9	9					
	Upto secondary	3	6					
	Upto higher secondary	44	4					
	Graduation and above	6	9					
3.	**Occupatio n -** Housewife	21	23	**5.02#**	3		7.81	NS
	Private job	2	1					
	Governmen	2	0					

	t job						
	Daily wage labourer	1	0				
4	**Religion-** Hindu	23	28	**0.43#**	1	3.84	NS
	Muslim	3	6				
	Christian	0	0				
	Others	0	0				
5.	**Prior information about IUCD-** yes	25	22	**8.58**	1	3.84	S
	no	1	12				

#Not Significant at 0.05 level

Section VIII: Findings Related To Association Between Post- Test Attitude Scores Of Eligible Women And Selected Variables

There was no significant association between post-test attitude scores of eligible women and selected variables i.e. age, education, occupation, religion and prior information about IUCD.

Table 22: Chi-square value to seek association between post-test attitude scores of eligible women and selected variables   N=60

Sno.	Selected variable	Post- test attitude score		Computed	Df	Table Value	Significant/non-significant (NS)
		Above median	**Below median**				
1.	**Age in years** 18-25	8	15	**2.05#**	2	5.99	NS
	25-35	14	17				
	35-45	4	2				
2.	**Education** No basic education	6	4	**6.2#**	4	9.49	NS
	Upto primary	10	8				
	Upto secondary	1	8				

	Upto higher secondary	3	5				
	Graduation and above	6	9				
3.	**Occupation** Housewife	23	31	**3.51**[#]	3	7.81	NS
	Private job	2	1				
	Government job	0	2				
	Daily wage labourer	1	0				
4	**Religion** Hindu	24	27	**1.92**[#]	1	3.84	NS
	Muslim	2	7				
	Christian	0	0				
	others	0	0				
5.	**Prior Information About IUCD** Yes	22	25	**1.06**[#]	1	3.84	NS
	No	4	9				

[#] **Not Significant at 0.05 level**

Section IX: Findings Related To Association Between Post- Test Outcome (In Terms Of Actual Number Of Insertions) Of Eligible Women And Selected Variables
There was no significant association between post-test outcome of eligible women and selected variables i.e. age, education, occupation, religion and prior information about IUCD.
Table 23: Chi-square value to seek association between mean post-test outcome (in terms of actual number of insertions) of eligible women and selected variables   N=60

Sno.	Selected variables	Post- test outcome		Computed chi-square value	Df	Table Value	Significant/non-significant (NS)
		Opted	**Not opted**				
1.	**Age in years** 18-25	4	19	**1.193** [#]	2	5.99	NS

	25-35	5	26				
	35-45	0	6				
2.	**Education**			**4.837** [#]	4	9.49	NS
	No basic education	2	8				
	Upto primary	3	15				
	Upto secondary	0	9				
	Upto higher secondary	0	8				
	Graduation and above	4	11				
3.	**Occupation**			**1.176** [#]	2	5.99	NS
	Housewife	9	45				
	Private job	0	3				
	Government job	0	2				
	Daily wage labourer	0	1				
4	**Religion**			**0.126** [#]	1	3.84	NS
	Hindu	8	43				
	Muslim	1	8				
	Christian	0	0				
	Others	0	0				
5.	**Prior information about IUCD**			**7.165**	1	3.84	S
	yes	4	43				
	no	5	8				

[#] **Not Significant at 0.05 level**

CONCLUSION

The following conclusion could be drawn from the findings of the study:

The majority of the participants (63.33%) had not used any contraceptive in the past. Mostly (18.33%) IUCD was the preferred method of contraception used by the study participants.

Majority of the samples(78.33%) had some previous information about IUCD while 21.66% had no prior information about IUCD.

Fear of pain during insertion and removal of IUCD remains the prime and most common reason for non –acceptance of IUCD followed by fear of bleeding.

The mean post-test knowledge score was (14.21)was higher than mean pre-test score(9.66) of the study group. The mean post-test attitude score is higher (49.23) is higher than mean pre-test attitude

score (39.93)of the study group. The findings reveal that due to change in knowledge, the attitude also changes with regards to IUCD but to a very small extent and due to change in attitude, the outcome also changes with regards to IUCD.

The findings also reveal that there was no significant association between post-test knowledge scores, post-test attitude scores and outcome with selected variables i.e. age, education, occupation, religion except with prior information about IUCD.

DISCUSSION

CATEGORY	RELATED STUDY FINDINGS FROM LITERATURE
FINDINGS RELATED TO FACTORS RELATED TO NON ACCEPTANCE OF IUCDs- In the present study, various factors such as related to IUCD insertion and its complications (43.70%) , Behavioural factors (28.17%), Socio-cultural factors (5.44%) , Physiological factors (4.53%) and Religious factors (2.72%) had direct or indirect influence on IUCD usage as spacing method.	These findings are in consistent to other findings such as in the study of **Rati Suchitra (2014)** where Misconceptions and myths in the form of physiological, psychological and socio-cultural factors had direct influence on the non-acceptance of IUD.
FINDINGS RELATED TO KNOWLEDGE AND ATTITUDE - In the present study, the knowledge and attitude of eligible women towards IUCD was found to be low when measured during pre-test which showed that eligible women were not having adequate and correct information as well as unfavourable attitude towards IUCD as contraceptive method which was enhanced in post-test after administration of the intervention i.e. structured teaching programme. Not only this 15 % of sample actually got IUCD inserted in the interval period.	These findings are consistent with the earlier study of **Gupta N et.al (2007)** in which the teaching enhanced knowledge and attitude and led to 66 % of acceptance in terms of outcome .
FINDINGS RELATED TO ASSOCIATION BETWEEN KNOWLEDGE SCORES, ATTITUDE SCORES AND SELECTED FACTORS In the present study, there is no significant association between post-test knowledge scores of eligible women and selected variables of eligible women as measured by structured knowledge questionnaire ate 0.05 level of significance. **Hence the study samples have gained knowledge irrespective of their age, education, occupation, religion except prior information about IUCD.**	The findings in the present study are also consistent with study of **Yadav Askok and Koushalya,** which state the there is no association of knowledge and attitude with selected factors but if knowledge increases, the attitude changes positively. Thus the nurse and health care providers can play a significant role in educating the women regarding IUCD in order to enhance their knowledge and lead to favourable attitude thereby increasing the acceptance of IUCD.

FINDINGS RELATED TO EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME- In the present study, the intervention i.e. structured teaching programme was found to be effective in enhacing knowledge, attitude and outcome related to IUCD as evident from the significant 't' value and frequency percentage value	Consistent with the other studies of **Kamhavi S et.al (2011) , Johnson S et.al (2010) and Rinehart W, Rudy S, Drennan M** concluding that planned teaching sessions help in strengthening IUCD services and acceptance rates.

IMPLICATIONS

Nursing Practice
Fertility control is an important component in reducing maternal and infant mortality rates. The nurse's work in variety of settings including communities with different individual, families, couples in various specialized areas. This study has an important role to play in such nursing practice may it be community or a hospital setup.

Nursing Education
Education is the key to the development of excellence in nursing practice. The nursing education should prepare the future nurses to develop a sound knowledge of contraceptive use safest and also client satisfaction and continuation which comes from effective and planned teaching sessions as important interventions.The nursing curriculum should focus on skill attainment and development in this field of counselling and service provision of IUCD services with highest client satisfaction. The nurses should have updated knowledge and skills in these service provisions during their education period only.

Nursing Administration
Continuing nursing education should be made mandatory for all nurses as IUCD service providers to update their knowledge and skills. Health care services should give more emphasis to new trends and issues of contraceptive use timing in continuation with proper counselling. The administrator must see that nurse posted in ANC OPD, labour room AN ward, PHC or in community must be competent enough in meeting their client's needs of contraception.

Nursing Research
Research is vital to nursing as any other profession to grow and ongoing research should be directed to explore and update the students as well as nursing personnel. There is intense need for extended research in the field of post-partum contraceptive use and antenatal family welfare counselling with ANC care provision.

Public administration
Nurses are required to equip themselves with the means to share knowledge and skills with individuals and community to know how to delegate people the responsibility for their own health. This means that nurses need to learn how to mobilize for public health action and obtain collaboration of non-government and government organizations.

LIMITATIONS

1) The study can be conducted on a bigger sample to make generalization of the findings as it was confined to only one urban health centre of the selected area which limits the generalization of the findings.
2) No standard tool is used for data collection. The tools are made by the researcher to gather the relevant data.

RECOMMENDATIONS

❖ The study can be replicated to a larger sample, thereby findings can be validated and generalized for a larger population.
❖ The study can be conducted using standardized tools as the tools are developed by researcher only.
❖ A follow up of the same study subjects can be done to find out the continuity with the use of IUCD and to detect and manage remote complications if any.
❖ A comparative study can be conducted to find out the knowledge, attitude and acceptance among eligible women in urban and rural areas.
❖ A similar study can be conducted on postnatal mothers too.

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