



**ASSESSMENT OF IMMEDIATE SIDE EFFECTS AND CONSEQUENCES OF INTRA  
UTERINE DEVICES USAGE ON WOMEN HEALTH IN LAKKUNDI PHC AREA OF  
GADAG DISTRICT**

Dr. Suvarna Sajjan<sup>1</sup>, Dr. Gulappa Devagappanavar<sup>1\*</sup>, Ms. Geetha R. Krishna<sup>2</sup>, Dr. Archana N. L.<sup>2\*</sup>

<sup>1,2</sup>Student of the Master of Public Health, Mahatma Gandhi Rural Development and Panchayath Raj University, Gadag.

<sup>1\*</sup>Assistant Professor, <sup>2\*</sup>Faculty, Department of Public Health, Mahatma Gandhi Rural Development and Panchayath Raj University, Gadag.



\*Corresponding Author: Dr. Gulappa Devagappanavar

Assistant Professor, Faculty, Department of Public Health, Mahatma Gandhi Rural Development and Panchayath Raj University, Gadag.

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**ABSTRACT**

**Background:** The government of India has promoted the expansion of access to and uptake of intra uterine devices (IUD) as a part of its family planning 2020 initiative. Female sterilization remains the most common method (36%), while IUD use remains low at 1.5%, despite government efforts to promote it. This study was conducted to find the immediate side effect and consequences faced. We identified respondent using IUD client data from Lakkundi PHC in Gadag district. We compared continuation rates for IUD adopters in immediate side effect and consequences effect of analysis to measure association between continuation and demographic, immediate side effect and consequences effect. 90% of women had the immediate side effect and 1% of consequences effect between 2020 to 2022, several sociodemographic factors were associated with continuation. Our study demonstrates the value and benefits of programs offering IUD services emphasizing quality counselling and client – centred care to increases access, uptake and continuation. **Objectives:** To assess the immediate side effect of intra uterine device insertion on health. 2 To determine the consequences of intra uterine device insertion on health. **Materials and Methods:** A Cross-Sectional study method was done to assess the immediate side effect and consequences of intra uterine device among women's in Lakkundi, in gadag district. Permission for conducting study was obtained from head of the university. Data was collected using semi structured questionnaire after getting informed consent from the IUD insertion women. **Results:** Among the 60 study participants, all most all women have the immediate side effects, most women experienced side effects after IUD insertion: 88.33% reported excessive bleeding, 76.66% reported leg pain, and 65% complained of abdominal pain. A few also experienced headache (8.33%), white discharge (5%), and low back pain (6.66%). Only 1 woman (1.66%) reported menstrual disorder as a long-term complication of post-removal. **Conclusion:** Although immediate side effects are common, they are generally mild and self-limiting. Misconceptions and lack of proper counselling were primary barriers to acceptance. Strengthening health education, counselling, and follow-up services is critical to improving IUD adoption in rural areas.

**KEYWORDS:** IUD; IUCD; family planning; NFHS; consequences of IUCD; Karnataka.

**INTRODUCTION**

India has significantly reduced maternal mortality, from 540 to 113 deaths per 100,000 live births between 1999 and 2017, partly due to improved maternal healthcare initiatives.<sup>[1]</sup> Yet, modern contraceptive use showed a marginal decline during this period—from 48.5% to 47.7%—with one in eight women still reporting an unmet need.<sup>[1]</sup> Female sterilization remains the dominant method (36%), while usage of IUDs and pills remains low.<sup>[1,3]</sup> Although IUDs are safe and effective, their uptake is hindered by fears of side effects, lack of

awareness, family opposition, and discontinuation within the first year by up to 26% of users.<sup>[1,7]</sup>

Globally, around 270 million women lack access to contraception despite wanting it.<sup>[2]</sup> Family planning reduces unintended pregnancies, unsafe abortions, and maternal deaths, contributing to better maternal and fetal health outcomes.<sup>[2,6]</sup> The Government of India shifted from a sterilization-focused program to a client-centered approach emphasizing spacing methods, through initiatives like the RCH Programme,<sup>[4]</sup> NRHM,<sup>[4]</sup> and

National Population Policy 2000,<sup>[4]</sup> aiming for population stabilization by 2045.

Despite these programs, misconceptions and limited access remain barriers. In developing nations, unintended pregnancies often lead to unsafe abortions, affecting 70,000 women annually,<sup>[5,6]</sup> In countries like Ethiopia and Tanzania, postpartum IUD use is still low due to concerns over complications and lack of standardized techniques.<sup>[6,8]</sup> While global IUD use has risen slightly,<sup>[9]</sup> it still lags behind other methods due to myths, improper insertion, and rare complications like uterine perforation.<sup>[12,13]</sup>

Quality contraceptive counselling and informed choice are essential for increasing modern method uptake and continuation.<sup>[1,10]</sup> Addressing misinformation, improving access, and promoting long-acting reversible contraceptives like IUDs can help India and similar countries achieve sustainable reproductive health goals.<sup>[1,11]</sup>

### OBJECTIVES

1. To identify the immediate side effects following IUD insertion.
2. To assess long-term health consequences, if any, among IUD users in the Lakkundi PHC area.

### MATERIALS AND METHODS

**Study Design:** A Community based Cross-Sectional study.

**Study setting:** The study was conducted in Primary health centre in Lakkundi PHC Gadag, Karnataka. A total of 60 women who had previously undergone IUD insertion were identified through local health records and contacted through ASHA workers.

**Participants:** Women who have been using IUD'S in the past 3 years i.e. 2019 to 2022 and who gave consent

were included and Participant who are not willing to give consent and Participants who were not present after three visits to the household were excluded. A total of 60 participants were included using Purposive sampling technique.

**Variables:** Sociodemographic variables such as age, educational status, religion, occupation, marital status etc, Complication occurred after copper T insertion, consequences of IUD, complication after one year of removal of IUD and Immediate effects of IUD such as abdominal cramps, headache, mood swings, acne, bleeding, leg pain and fever.

**Source of data:** Primary quantitative data was obtained using semi structured questionnaire was prepared after doing the review of literature and referring the standard manuals. Questionnaire was being validated from the subject expert.

**Study size:** Purposive sampling technique was used to select 60 participants.

**Data collection tools:** The semi-structured questionnaire was prepared after doing the review of literature and referring the standard manuals. Questionnaire was being validated from the subject expert.

**Data Analysis:** Data was expressed in terms of frequency and percentage tables by using MS Excel.

### Ethical Considerations

Ethical clearance was obtained from institutional ethical committee of Karnataka state rural development and panchayat raj university, Gadag. (IEC no. RDPR/SEF/IEC/4/2021/10). Prior to data collection, necessary permission from the concerned officials were obtained.

### RESULTS

**Table No. 1: Socio-Demographic Profile of Study Participants (n = 60)**

Characteristic	Category	Frequency	Percentage
Age Group (years)	20-25	11	18.3%
	26-30	33	55.0%
	30-35	16	26.7%
Educational Status	Primary School	33	55.0%
	High School	21	35.0%
	Degree	5	8.3%
	Post-Graduation	1	1.7%
Religion	Hindu	51	85.0%
	Muslim	9	15.0%
Occupation	Homemaker	52	86.7%
	Wage Labour	3	5.0%
	Business	2	3.3%
	Professional	3	5.0%
Socio-Economic Status	APL	9	15.0%
	BPL	50	83.3%
	Antyodaya	1	1.7%

Marital Status	Married	60	100.0%
Type of Family	Nuclear	43	71.7%
	Joint	17	28.3%

Among 60 members participated in study almost half of participant 26 to 30 years are people activated participated in study. Almost quarter of them 18 to 25, less than quarter 30 to 35 years people actively participate. More than 80% people participated in Hindu remaining 20% people Muslim participated. Half of

people completed in primary education, remaining 35% completed in high school, 8% completed in degree and 1% completed post-graduation. 80% having the BPL card remaining 20% having APL card. All people are married. 71% people nuclear family and 28% people joint family.

**Table No. 2: Distribution of Immediate health effect due to Intra uterine device insertion (n=60).**

Variables	Responses	Frequency	Percentage
Abdominal cramps	Yes	39	65
	No	21	35
Headache	Yes	31	51.6
	No	29	48.33
Mood swing	Yes	9	15
	No	51	85
Acne (Pimples)	Yes	4	6.66
	No	56	93.3
Veginal Bleeding	Yes	53	88
	No	7	11.6
Leg pain	Yes	46	76.6
	No	14	23.3
Fever	Yes	7	11.6
	No	53	88.3

This table shows the immediate side effect in IUD insertion. Most of the women's suffered in bleeding, 76% women's had leg pain, 65% of women's abdominal

cramps, 51% of women's headache, 15% women's mood swing, 11% women's fever remaining 6% acne.

**Table No. 3: Immediate Side Effects Reported Post-IUD Insertion (n=60).**

Category	Variable	Frequency	Percentage
Complication	Bleeding	22	36.6
	Abdominal pain	5	8.33
	Joint pain	9	15
	Dysmenorrhea	18	30
	Disorder of menstruation	6	10
Pregnancy related	Ectopic pregnancy	0	0
	Molar pregnancy	0	0
	Missed pregnancy	0	0
	Spontaneous pregnancy	0	0
	None of the above	60	100
Any Complication after one year of removal of IUCD	Abnormal menstrual bleeding	0	0
	Heavy bleeding	9	15
	Heavy bleeding and cramping	8	13.3
	Irregular menstrual cycle	0	0
	Strong cramping	43	71.66
	None of the above		
Any complication due to IUD insertion	Lost string	0	0
	Infection	3	5
	Perforation	4	6.6
	Expulsion	0	0
	None of the above	53	88.33

This table shows consequences of IUD insertion 36.6% women's having bleeding, 30% women's dysmenorrhea, 15% women's joint pain, 15% women's heavy bleeding, 13.3% women's heavy bleeding and cramping, 10%

women's disorder of menstruation, 8.33% women's abdominal pain, 6.6% women's perforation and 5% women's infection.

**Table No. 4: Consequences after IUD Insertion and Removal (n=60).**

Consequence Category	Subtype	Frequency	Percentage
Complications (Post-Insertion)	Vaginal Bleeding	22	36.7%
	Dysmenorrhea	18	30.0%
	Joint Pain	9	15.0%
	Disorder of Menstruation	6	10.0%
	Abdominal Pain	5	8.3%
Pregnancy-Related	None of the above	60	100.0%
Post-Removal Issues	Heavy Bleeding	9	15.0%
	Heavy Bleeding & Cramping	8	13.3%
	Irregular Menstrual Cycle	0	0.0%
	Abnormal Menstrual Bleeding	0	0.0%
	Strong Cramping	0	0.0%
	None of the above	43	71.7%
Other Complications	Perforation	4	6.7%
	Infection	3	5.0%
	Lost String / Expulsion	0	0.0%
	None of the above	53	

This table shows consequences of IUD insertion 36.6% women's having bleeding, 30% women's dysmenorrhea, 15% women's joint pain, 15% women's heavy bleeding, 13.3% women's heavy bleeding and cramping, 10% women's disorder of menstruation, 8.33% women's abdominal pain, 6.6% women's perforation and 5% women's infection.

## DISCUSSION

Total 60 members participated in study almost half of participant 26 to 30 years are people activated participated in study. Almost quarter of them 18 to 25, less than quarter 30 to 35 years people actively participate. More than 80% people participated in Hindu remaining 20% people Muslim participated. Half of people completed in primary education, remaining 35% completed in high school, 8% completed in degree and 1% completed post-graduation. 80% having the BPL card remaining 20% having APL card. All people are married. 71% people nuclear family and 28% people joint family. This table shows the immediate side effect in IUD insertion. Most of the women's suffered in bleeding, 76% women's had leg pain, 65% of women's abdominal cramps, 51% of women's headache, 15% women's mood swing, 11% women's fever remaining 6% acne.

### According to age in IUD insertion women immediate side effect

In our study IUD insertion women belong to age 18 to 35 years old completed their secondary level education and married women, the similar opinion found Gujarat and Rajasthan (1), Saudi Arabia (2), Northern California (3), Delhi (4).

### According to age in IUD insertion women consequences side effect

Large majority of study participant in 25 – 29 old age women's Similar found in large no. of participant in age between 20 -29 old years women, in Gujarat and Rajasthan(1), Udupi (8), U.S (27), UK (28), New Delhi (25).

### IUD insertion women immediate side effect side effect

In our study most of the women suffered in immediate side effect for example heavy bleeding, abdominal pain, leg pain etc., Similar opinion found in Gujarat and Rajasthan (1) 85% women, Saudi Arabia (2) 85% women, Europe and America (16), 80% California (3), 82% US women (15), 80% Tabriz, Iran (17) also women suffered immediate side effect.

### IUD insertion women consequences side effect

In our study only 1% of consequence effect, similar opinion found in 2% Saudi Arabia(2) 1.5%, northern California(3), 1% Boston(18), 1.2% Newzeland(19), 0.9% Solankiya(20), 0.1% U.S(21), 0.5% Telangana(22), 0.1% Bhopal(14), 0.9%Tanzania(23), 0.4% North India(24), 0.9%New Delhi(25), 0,8%UK(26).

## CONCLUSION

IUDs offer an effective contraceptive option for rural women. However, immediate side effects and fear of complications impact continuation. With better counselling, regular follow-up, and community sensitization, IUD acceptance can improve significantly—contributing to better reproductive health outcomes.

**RECOMMENDATIONS**

Proper counselling to women about possible side effect of contraception along with family counselling is required. further research is required to explain the misconception towards contraceptives to abolish the barrier to contraceptive use among women.

**LIMITATIONS**

- In the present study only regional variation of contraceptive utilization is considered.
- Parity of the women is not considered.
- The effectiveness of spacing method is not analysed.

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