



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 14 **Issue:** VI **Month of publication:** June 2026

DOI: <https://doi.org/10.22214/ijraset.2026.83941>

www.ijraset.com

Call: ☎ 08813907089

E-mail ID: ijraset@gmail.com

Acceptance of Intrauterine Contraceptive Devices (IUCD) and Associated Factors among Married Women of Reproductive Age Attending a Selected Hospital in Aizawl, Mizoram

Takhe Kanya¹, Mrs. Ruth Lalhmingthangi², Ms. Malsawmzuali³

¹MSc. Nursing Obstetric and Gynaecological Nursing, RIPANS, Aizawl, Mizoram, India

²Professor cum Principal, BN College of Nursing, Aizawl, Mizoram, India

³Faculty, College of Nursing, RIPANS, Aizawl, Mizoram, India

Abstract- Introduction: Intrauterine contraceptive devices (IUCDs) are among the most effective long-acting reversible contraceptive methods. Despite their proven safety and effectiveness, acceptance of IUCDs remains variable and is influenced by several socio-demographic and obstetric factors. Assessing the level of IUCD acceptance is essential for improving family planning services and promoting informed contraceptive choices.

Objectives: To assess the level of IUCD acceptance and determine its association with selected socio-demographic and obstetric variables among married women of reproductive age attending a selected hospital in Aizawl, Mizoram.

Methodology: A quantitative descriptive research design was adopted among 120 married women aged 18–45 years attending a selected hospital in Aizawl, Mizoram. Participants were selected using simple random sampling. Data were collected using a structured questionnaire and analysed using descriptive and inferential statistics.

Results: The findings revealed that 68.3% of the participants had accepted IUCDs. A statistically significant association was observed between IUCD acceptance and age ($p < 0.01$) and number of children ($p = 0.016$). No significant association was found between IUCD acceptance and other selected socio-demographic or obstetric variables.

Conclusion: The study demonstrated a relatively high level of IUCD acceptance among married women. Age and number of children were significant factors associated with IUCD acceptance. Strengthening family planning counselling and promoting awareness of IUCDs may further improve acceptance and informed contraceptive decision-making among women.

Keywords- Intrauterine contraceptive device, acceptance, family planning, associated factors, married women.

I. INTRODUCTION

Family planning plays a vital role in improving reproductive health and reducing unintended pregnancies. Among the various contraceptive methods available, intrauterine contraceptive devices (IUCDs) are recognized as one of the most effective, safe, and reversible long-acting contraceptive methods. IUCDs provide prolonged protection against pregnancy, are cost-effective, and allow rapid return of fertility following removal [1]. According to global estimates, IUCDs are widely used; however, their utilization varies considerably across regions due to differences in awareness, accessibility, cultural beliefs, and acceptance. Despite their proven effectiveness and availability through public health services, IUCD uptake remains relatively low in many parts of India because of misconceptions, fear of side effects, inadequate counselling, and social influences[2].

In Mizoram, the unmet need for family planning continues to be a public health concern despite ongoing efforts to promote contraceptive use[3]. Limited research has been conducted on the level of IUCD acceptance among married women in Mizoram and the factors associated with its utilization. Therefore, the present study was undertaken to assess the level of IUCD acceptance and determine its association with selected socio-demographic and obstetric variables among married women attending a selected hospital in Aizawl, Mizoram. The findings may contribute to strengthening counselling strategies, improving educational interventions, and enhancing family planning services to promote informed contraceptive choices and increase the acceptance of IUCDs.

II. OBJECTIVES OF THE STUDY

- 1) To assess the acceptance of intrauterine contraceptive devices among married women
- 2) To find the association between level of acceptance of IUCD and socio-demographic variables and obstetric variables.

III. REVIEW OF LITERATURE

The review of literature relevant to the study is presented below:

1. literature related to acceptance of intrauterine contraceptive device

M. M. Janet et al. (2023) conducted an analytical cross-sectional study among 150 women in Kabwe, Central Province, to assess utilization of IUCDs. Simple random sampling was employed, and data were analyzed using SPSS version 22. The findings showed that 44% of participants possessed a high level of knowledge regarding IUCDs. About 28% of women reported using IUCDs because the method helped maintain normal menstrual bleeding, while 26% believed IUCDs did not cause infections. Additionally, 19% stated that they preferred IUCDs because they believed the device would not migrate to other parts of the body. The study further found that 91% of participants agreed that lack of knowledge contributed to underutilization of IUCDs, and 74% believed that religious beliefs negatively influenced contraceptive acceptance^[4].

H. Rawashdeh et al. (2024) conducted a cross-sectional observational study among women attending antenatal clinics at King Abdullah University Hospital after 20 weeks of gestation to assess awareness, attitude, and acceptance of postpartum intrauterine contraceptive devices (PPIUCDs). A total of 1,030 women completed a structured questionnaire in Arabic. The study findings revealed that only 41.4% of women were aware of PPIUCDs. After receiving a brief explanation regarding the method, 56.3% of participants demonstrated a positive attitude toward PPIUCD use. Women who had previously used interval IUCDs were found to be 5.82 times more likely to show a positive attitude toward PPIUCDs, while postgraduate women were 1.35 times more likely to accept the method. However, only 34% of participants expressed willingness to accept PPIUCD insertion if offered, and fear of complications remained the major reason for refusal among 34.5% of women^[5].

IV. RESEARCH METHODOLOGY

A. Research approach

A quantitative research approach was adopted in this study, which is suitable for collecting self-structured, numerical data.

B. Research design

A descriptive research design was adopted in this study

C. Research variables

Acceptance of intrauterine contraceptive device (IUCD).

D. Demographic variables

Age, education, occupation, religion, marital status, income level, number of children and obstetric history.

E. Setting of study

The present study was conducted at Civil Hospital, Aizawl, Mizoram.

F. Population

- 1) *Target population*: All married women of reproductive age (18-45 years) residing in Aizawl, Mizoram.
- 2) *Accessible population*: Married women of reproductive age (18-45 years) attending Civil Hospital Aizawl during the period of data collection and meeting the inclusion criteria

G. Sample and sample size

In this present study, the sample consists of married women of reproductive age (18-45 years) who is attending in a selected hospital Aizawl, Mizoram.

The sample size for the present study consisted of 120 married women who is attending in a selected hospital Aizawl, Mizoram.

H. Sampling criteria

- 1) *Inclusion Criteria:* Married women of reproductive age between 18-45 years of age.
- 2) *Exclusion Criteria:* Woman with difficulty in conceiving a child, Woman who had undergone permanent sterilization

I. Description of the tool

After reviewing the literature (research and non-research) and discussion with experts, a self-structured questionnaire and Likert scale were prepared. The tool consists of the following sections:

Section A: Socio-demographic and Obstetric Variables.

Section B: Self-administered Dichotomous Questionnaire to Assess the Rate of Acceptability of IUCD

Section C: Self-Structured Likert Scale to Assess the Reasons for Discontinuation of IUCD

J. Content validity of the tool

To establish content validity, the socio-demographic and obstetric data form, self-structured dichotomous questionnaire was submitted to seven subject experts for evaluation. The experts reviewed the tools for relevance, adequacy, and appropriateness. Based on their suggestions, necessary modifications were made in consultation with the research guide. After obtaining expert approval and consensus on the revised items, the final tools were accepted for use in the study.

K. Reliability of the tool

Reliability refers to the consistency of a measurement tool in producing similar results on repeated use. The reliability of the tool was established using the Cronbach's alpha method. The reliability coefficient was 0.938 for the acceptance scale indicating good to excellent internal consistency. Therefore, the tool was considered reliable and suitable for data collection.

L. Ethical consideration

The study was conducted after the approval of formal permission from:

- 1) Ethical approval from Institutional Ethics Committee (IEC), RIPANS, Zemapawak .
- 2) Formal permission was taken from medical superintendents of Civil hospital Aizawl before conducting the study.
- 3) Written informed consent was taken from each participant after providing comprehensive information regarding the goals and purpose of the research.
- 4) Phone numbers were not collected in order to uphold participants' privacy and ensure confidentiality.
- 5) All personal information, including names and signatures, was treated with strict confidentiality and was not disclosed to any third party.

M. Pilot study

A pilot study was conducted on 12 married women of reproductive age at Greenwood Hospital, Bawngkawn, Aizawl, Mizoram on 01-04-2026 to pretest the study tools and methodology. The findings indicated varying levels of IUCD acceptance, with no significant association between IUCD acceptance and selected socio-demographic or obstetric variables ($p > 0.05$). The tools demonstrated good to excellent reliability (Cronbach's alpha 0.756–0.972), confirming their suitability for the main study

N. Main study

The data was collected during the month of April to May (06/4/26 to 15/5/2026) from 120 subjects using purposive sampling technique.

V. RESULTS

Table I: Distribution of Married Women of Reproductive Age according to Selected Socio-demographic Variables.

(n =120)

Variable	Category	Frequency (f)	Percentage (%)
Age Group (years)	18-27	48	40.0

	28–36	45	37.5
	37–45	27	22.5
Educational Level	Up to Primary	9	7.5
	Secondary	34	28.3
	Higher Secondary	52	43.3
	Graduate and above	25	20.8
Occupation	Govt. Employee	9	7.5
	Private Employee	15	12.5
	Homemaker	64	53.3
	Self-employed	32	26.7
Marital Status	Single	2	1.7
	Married	117	97.5
	Divorce	1	0.8
Number of Children	One	21	17.5
	Two	49	40.8
	Three	39	32.5
	Four & above	11	9.2
Religion	Hindu	3	2.5
	Christian	103	85.8
	Others	14	11.7
Income Level	Low (₹5000–10,000)	30	25.0
	Medium (>₹10,000)	58	48.3
	High (>₹30,000)	32	26.7

Table I presents the socio-demographic profile of 120 married women of reproductive age. Most participants were aged 18–27 years (40.0%), had higher secondary education (43.3%), and were homemakers (53.3%). The majority had two children (40.8%), were Christian (85.8%), and belonged to middle-income households (48.3%). Overall, the study population mainly consisted of young, married, moderately educated women from middle-income families.

Table II: Distribution of selected obstetric variables among married women in a selected hospital.

(n = 120)

Variable	Category	Frequency (f)	Percentage (%)
Parity	Primipara	28	23.3
	Multipara	92	76.7
Intention to have more children	Yes	64	53.3
	No	30	25.0
	Not decided	26	21.7

Previous Pregnancy	Planned	74	61.7
	Unplanned	46	38.3
Mode of Delivery (Last Pregnancy)	Normal vaginal delivery	93	77.5
	Caesarean section	27	22.5
History of Abortion/Miscarriage	Nil	88	73.3
	One	28	23.3
	Two	4	3.3

Table II shows that most women were multiparous (76.7%) and over half (53.3%) intended to have more children. The majority reported planned pregnancies (61.7%) and normal vaginal deliveries (77.5%) in their last pregnancy. Most participants (73.3%) had no history of abortion or miscarriage. Overall, the findings reflect positive reproductive experiences and pregnancy planning among the study population.

Table III: Distribution of participants according to level of IUCD acceptance with mean and standard deviation
(n=120)

Level of Acceptance	Score Range	Frequency (f)	Percentage (%)	Mean $\pm$ SD	Median	Mode
Low Acceptance	0–2	21	17.5	5.38 $\pm$ 2.59	6.0	6
Moderate Acceptance	3–5	17	14.2			
High Acceptance	6–8	82	68.3			
Total		120	100			

Table III shows that most married women had a high level of acceptance of IUCD (68.3%), while 17.5% demonstrated low acceptance and 14.2% showed moderate acceptance. The mean acceptance score was 5.38 ± 2.59 , with a median and mode of 6, indicating that acceptance was generally concentrated toward the higher end of the scale. Overall, the findings reflect a favourable attitude toward IUCD acceptance, although targeted awareness and counselling are still needed for women with low to moderate acceptance levels.

Table IV: Association between level of IUCD acceptance and selected socio-demographic variables among married women in selected hospital.

(n =120)							
Variable	Category	Low f (%)	Moderate f (%)	High f (%)	χ^2 / Fisher Exact test	df	p-value

Age Group	18-27	6(12.5)	14(29.2)	28(58.3)	15.802	4	<0.01**
	28-36	8(17.8)	2(4.4)	35(77.8)			
	37-45	7(25.9)	1(3.7)	19(70.4)			
Educational Level*	Up to Primary	0(0.0)	0(0.0)	9(100.0)	7.872	6	0.217
	Secondary	10(29.4)	6(17.6)	18(52.9)			
	Higher Secondary	8(15.4)	8(15.4)	36(69.2)			
	Graduate	3(12.0)	3(12.0)	19(76.0)			
Occupation*	Govt. Employee	1(11.1)	0(0.0)	8(88.9)	7.867	6	0.325
	Private Employee	5(33.3)	1(6.7)	9(60.0)			
	Homemaker	8(12.5)	11(17.2)	45(70.3)			
	Self-employed	7(21.9)	5(15.6)	20(62.5)			
Marital status*	Single	0(0.0)	1(50.0)	1(50.0)	3.488	4	0.519
	Married	21(17.9)	16(13.7)	80(68.4)			
	Divorce	0(0.0)	0(0.0)	1(100.0)			
Number of Children*	One	5(23.8)	2(9.5)	14(66.7)	14.489	6	0.016**
	Two	5(10.2)	13(26.5)	31(63.3)			
	Three	7(17.9)	1(2.6)	31(79.5)			
	Four & above	4(36.4)	1(9.1)	6(54.5)			
Income Level	Low (₹5000-10,000)	9(30.0)	5(16.7)	16(53.3)	8.909	4	0.062
	Medium (>₹10,000)	5(8.6)	10(17.2)	43(74.1)			
	High (>₹30,000)	7(21.9)	2(6.2)	23(71.9)			

*Fisher exact test used; **p-value less than 0.05 is considered statistically significant.

Table IV shows age group ($p < 0.01$) and number of children ($p = 0.016$) showed a statistically significant association with IUCD acceptance, with higher acceptance observed among women aged 28–36 years and those with higher parity, whereas educational level, occupation, marital status, and income were not significantly associated ($p > 0.05$). Therefore, the research hypothesis was partially accepted, as a significant association was found only with age group and number of children, while it was rejected for the remaining socio-demographic variables.

Table V: Association between obstetric variables and Level of IUCD acceptance among married women of reproductive age (n =120)

Variable	Category	Low f (%)	Moderate f (%)	High f (%)	χ^2 / Fisher Exact test	df	p-value**
Parity*	Primipara	6(21.4)	2(7.1)	20(71.4)	1.570	2	0.464
	Multipara	15(16.3)	15(16.3)	62(67.4)			

				)			
Intention to have more children*	Yes	11(17.2)	8(12.5)	45(70.3)	2.992	4	0.565
	No	7(23.3)	3(10.0)	20(66.7)			
	Not decided	3(11.5)	6(23.1)	17(65.4)			
Previous Pregnancy	Planned	15(20.3)	11(14.9)	48(64.9)	1.253	2	0.532
	Unplanned	6(13.0)	6(13.0)	34(73.9)			
Mode of Delivery*	Normal vaginal	14(15.1)	16(17.2)	63(67.7)	4.150	2	0.114
	Caesarean section	7(25.9)	1(3.7)	19(70.4)			
History of Abortion/Miscarriage*	Nil	15(17.0)	11(12.5)	62(70.5)	4.043	4	0.351
	One	6(21.4)	4(14.3)	18(64.3)			
	Two	0(0.0)	2(50.0)	2(50.0)			

*Fisher exact test used; **p-value less than 0.05 is considered statistically significant.

Table V shows none of the selected obstetric variables, including parity, intention to have more children, previous pregnancy planning status, mode of delivery, and history of abortion or miscarriage, showed a statistically significant association with IUCD acceptance ($p > 0.05$). Therefore, the research hypothesis was rejected and the null hypothesis was accepted, indicating that obstetric factors did not significantly influence IUCD acceptance among married women in this study.

VI. DISCUSSION

The present study assessed the level of IUCD acceptance and its association with selected socio-demographic and obstetric variables among married women attending a selected hospital in Aizawl, Mizoram. The findings revealed that 68.3% of the participants had accepted IUCDs, indicating a relatively high level of acceptance. This finding is higher than those reported by Bhudharni et al. (2024), Alemayehu et al. (2018), and Mukherjee et al. (2023) [6,7,8], who documented lower levels of IUCD acceptance among women in different settings. The higher acceptance observed in the present study may be attributed to improved awareness, better accessibility of family planning services, and effective counselling provided by healthcare professionals. This finding is also consistent with Najan et al. (2023) [9], who reported that counselling and health education play a significant role in improving the acceptance of IUCDs among women.

The present study also found a statistically significant association between IUCD acceptance and age and number of children ($p < 0.05$), indicating that these factors influence women's acceptance of IUCDs. Similar findings were reported by Gemechu et al. (2023) [10], who observed that age and parity were significant predictors of IUCD utilization. However, no significant association was found between IUCD acceptance and other socio-demographic or obstetric variables. This finding differs from Rawashdeh et al. (2024) [5], who reported associations with additional obstetric characteristics. The variation may be due to differences in study population, cultural context, availability of family planning services, and counselling practices. These findings suggest that women's acceptance of IUCDs may be influenced more by individual characteristics and informed decision-making than by obstetric factors alone.

VII. CONCLUSION

The present study concludes that the level of IUCD acceptance among married women attending a selected hospital in Aizawl, Mizoram was relatively high.

A statistically significant association was observed between IUCD acceptance and age as well as the number of children, while no significant association was found with other selected socio-demographic and obstetric variables. These findings highlight the importance of promoting informed decision-making and strengthening family planning services through effective counselling and health education to sustain and improve IUCD acceptance. Nurses and other healthcare professionals play a vital role in providing accurate information and supporting women in making informed contraceptive choices. Further research involving larger and more diverse populations is recommended to validate these findings and explore additional factors influencing IUCD acceptance.

VIII. IMPLICATION

Nursing Practice: Nurses should provide comprehensive family planning counselling and accurate information on IUCDs to support informed decision-making and encourage their acceptance among eligible women.

Nursing Education: Nursing curricula should strengthen education on family planning and IUCDs, with emphasis on counselling skills and evidence-based contraceptive practices to prepare nurses for effective client education.

Nursing Administration: Healthcare administrators should ensure the availability of trained nursing personnel and promote regular continuing education programmes to enhance the quality of family planning counselling and increase IUCD acceptance.

Nursing Research: Further studies involving larger and more diverse populations are recommended to validate the findings and explore additional factors associated with IUCD acceptance among married women.

IX. RECOMMENDATIONS

- 1) Similar studies should be conducted in different settings with larger and more diverse sample populations to improve the generalizability of the findings.
- 2) Future research should explore additional socio-demographic, behavioural, and healthcare-related factors associated with IUCD acceptance among married women.
- 3) Healthcare institutions should strengthen family planning counselling services to promote informed decision-making and improve acceptance of IUCDs among eligible women.
- 4) Nurses and other healthcare providers should provide accurate, evidence-based information on IUCDs during family planning counselling to support women's informed contraceptive choices.
- 5) Regular in-service training and capacity-building programmes should be organized for healthcare professionals to enhance their knowledge and counselling skills related to family planning and IUCD services.
- 6) Community-based awareness programmes should be encouraged to increase knowledge of IUCDs and promote acceptance of this contraceptive method among married women.

REFERENCES

- [1] World Health Organization. (2022). Family planning/contraception methods. <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception>
- [2] United Nations, Department of Economic and Social Affairs, Population Division. (2022). World contraceptive use 2022. <https://www.un.org/development/desa/pd/data/world-contraceptive-use>
- [3] Pautunthang, N. (2024). Assessing contraceptive knowledge and usage among Currently married women in Mizoram. International Journal of Reproduction Contraception Obstetrics and Gynecology, 13(5), 12611270. <https://doi.org/10.18203/23201770.ijrcog20241077>
- [4] Mweempwa, J. M., & Ngoma, C. M. (2023). An Investigation on the Utilization of Intra Uterine Contraceptive Device among Women in Kabwe, Central Province. Open Journal of Obstetrics and Gynaecology, 13(12), 1994–2020. <https://doi.org/10.4236/ojog.2023.1312169>
- [5] Rawashdeh, H., Alalawne, T., Abujaber, B., Alshraideh, N., & Hamadneh, S. (2024). Awareness, attitude, and acceptance of post placental intra uterine contraceptive device (PPIUCD) among women in Jordan. Journal of Obstetrics and Gynaecology Research. <https://doi.org/10.1111/jog.16110>
- [6] Bhudhrani, D. S., & Godria, P. (2024). Acceptance and factors linked with postpartum IUCD use in women delivering at a tertiary care hospital. International Journal of Reproduction Contraception Obstetrics and Gynecology, 13(7), 1677–1682. <https://doi.org/10.18203/23201770.ijrcog20241759>
- [7] Alemayehu, G., Fekadu, A., & Abebe, T. (2018). Acceptability and factors associated with postpartum IUCD use among women who gave birth at Bale Zone health facilities, Southeast Ethiopia. BMC Pregnancy and Childbirth, 18, 193. <https://doi.org/10.1186/s12884-018-1825-3>
- [8] Mukherjee, S., & Swain, D. (2023). Barriers and acceptance of intrauterine Contraceptive devices (IUCD) among married women of reproductive age in Odisha, India. Cureus. <https://doi.org/10.7759/cureus.40919>
- [9] Najan, A., Dixit, P., & Bhalerao, A. (2023). The acceptance of postpartum Intrauterine contraceptive devices among women who receive focused family planning counseling in the antenatal period compared to those who receive routine counseling: a randomized controlled trial. Cureus. <https://doi.org/10.7759/cureus.40344>
- [10] Gemechu, T., Wakjira, D., & Abebe, F. (2023). Immediate postpartum Intrauterine contraceptive device use among pregnant women attending antenatal clinics in Jimma town public healthcare facilities, Ethiopia: Intentions and barriers. SAGE Open Medicine, 11, 20503121231157212. <https://doi.org/10.1177/20503121231157212>



- [11] Bolling, K. R., Wahdan, Y., Warnock, N., et al. (2023). Utilisation, effectiveness, and safety of immediate postpartum intrauterine device insertion: A systematic literature review. *BMJ Sexual & Reproductive Health*, 49(2), e1. <https://doi.org/10.1136/bmjshr-2022-201579>
- [12] Upadhye, J. J., Parate, S. K., Upadhye, A. J., & Zade, R. D. (2025). Why women refuse postpartum IUCD? *Journal of Family Medicine and Primary Care*, 14(1), 377–381. https://doi.org/10.4103/jfmpe.jfmpe_131_24
- [13] Gudi, S. N., Sachdeva, J., Manchanda, R., et al. (2023). A prospective multi-centric study of acceptance, insertion and follow-up of postpartum insertions OffIUCD. *Journal of Obstetrics and Gynaecology of India*, 73(3), 254–261. <https://doi.org/10.1007/s13224-022-01738->



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)