

## **Relationship between the Knowledge of Postpartum mothers and the choice of Intrauterine Device contraception method in the working area of Jongkong Health Center**

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**Keywords**

Knowledge, Intrauterine Device (IUD), Acceptor

**Abstract**

The Family Planning program in Indonesia emphasizes the use of Long-Term Contraceptive Methods (LTCM), such as the Intrauterine Device (IUD), to ensure effective birth spacing and control population growth. However, the utilization of IUDs remains low nationally and locally. This study aimed to analyze the relationship between postpartum mothers' knowledge and their choice of the IUD method in the working area of the Jongkong Health Center, Kapuas Hulu Regency, where IUD usage is notably the lowest (below 1%). A quantitative analytical study with a cross-sectional design was conducted from September to December 2025. The sample consisted of 36 postpartum mothers selected through accidental sampling. Data were collected using a validated and reliable questionnaire (Cronbach's Alpha = 0.639). Statistical analysis using the Chi-Square test revealed a significant relationship between knowledge and IUD choice (p-value = 0.018). Postpartum mothers with good knowledge demonstrated an 88.9% uptake rate, compared to only 14.1% among those with insufficient knowledge. The findings conclude that knowledge is a pivotal factor influencing IUD selection. Therefore, strengthening health education interventions targeting postpartum mothers—particularly through antenatal and postnatal counseling by midwives—is crucial to improve knowledge and potentially increase the adoption of this effective long-term contraceptive method in low-coverage areas.



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### **INTRODUCTION**

The Family Planning program is a strategic national initiative aimed at regulating childbirth, achieving ideal birth spacing, and determining the appropriate age for childbirth through promotion, protection, and assistance in accordance with reproductive rights to create quality families. In Indonesia, the National Family Planning Program has been directed toward increasing the use of Long-Term Contraceptive Methods (LTCM) (Azizah, 2023; Titley et al., 2017). The Intrauterine Device (IUD) is one LTCM promoted for its high effectiveness, safety, and convenience, as it can prevent pregnancy for years without requiring daily user action (Averbach & Hofler, 2022; Fansa et al., 2022; Ti et al., 2020). The strategic shift toward LTCM is intended to reduce discontinuation rates associated with short-term methods and support long-term population growth control targets (Kemenkes RI, 2019).

Globally and nationally, the utilization of IUDs remains suboptimal despite their proven advantages. In Indonesia, data reveal a relatively low interest in long-term contraceptive methods. The 2018 Basic Health Research (Riskesdas) indicated that only 6.6% of

contraceptive users among women aged 15–49 chose the IUD, despite a 66% overall contraception prevalence rate. This gap between overall contraceptive use and IUD adoption highlights a specific programmatic challenge in promoting this particular LTCM (Gebeyehu et al., 2018; Rouncivell, 2020; Teni, 2023; Tiyas et al., 2025). The local context in the working area of the Jongkong Health Center, Kapuas Hulu Regency, presents an even more critical situation. Data from the health center show that in 2024, out of 1,375 family planning acceptors, only 10 (0.73%) used the IUD. This figure saw a minimal increase to 11 acceptors (0.95%) in 2025, solidifying its position as the area with the lowest IUD coverage in the district and signaling an urgent need for investigation and intervention (Argaw et al., 2020; Bachrach & Goodman, 2019; Castle et al., 2019; Madsen, 2025).

Indonesia continues to demonstrate relatively low interest in using long-term contraceptive methods. Data show that the number of IUD acceptors aged 15–49 accounts for only 6.6% of total contraceptive users, which is 66% overall (Riskesdas, 2018). Data from the Jongkong Health Center show that in 2024 there were 1,375 family planning acceptors, but only 10 people (0.73%) used IUD contraception. Meanwhile, in 2025, there were 11 people (0.95%) using IUD contraception (Dinas Kesehatan Kabupaten Kapuas Hulu, 2025).

Based on the background above, the author is interested in conducting research on the relationship between postpartum mothers' knowledge and the choice of intrauterine contraceptive methods in the working area of the Jongkong Health Center. This identified research gap underscores the urgency of this study. Understanding the specific link between knowledge and real-world contraceptive decision-making in a low-coverage area is critical for designing targeted, effective, and context-specific interventions. The novelty of this research lies in its focused examination of the postpartum period—a crucial window for contraceptive counseling and adoption—within a unique setting of exceptionally low IUD uptake. It moves beyond measuring intention to analyze the decisive moment of method selection.

Therefore, this study aims to determine the relationship between postpartum mothers' knowledge and their choice of the intrauterine device (IUD) contraception method in the working area of the Jongkong Health Center. The primary objective is to analyze whether varying levels of knowledge significantly correlate with the likelihood of choosing an IUD postpartum. It is hypothesized that mothers with higher knowledge levels are more likely to select the IUD. The benefit and implication of this research are expected to provide empirical evidence for health center managers and midwives to develop and implement more effective, knowledge-based educational strategies during antenatal care and the postpartum period, ultimately aiming to increase the Contraceptive Prevalence Rate (CPR) for Long-Term Methods, particularly the IUD, in underserved areas.

## **METHOD**

This study used a quantitative analytical method with a cross-sectional approach. The research was conducted in the working area of the Jongkong Health Center. The study was carried out from September 2025 to December 2025. The population in this study consisted of postpartum mothers, with a sample of 36 individuals. Data collection employed the accidental sampling method and a questionnaire that had been validated, showing a reliability coefficient of 0.639. Statistical analysis was performed using the Chi-square test.

## **RESULT AND DISCUSSION**

Based on the results of the frequency distribution, the knowledge of postpartum mothers shows that the majority of respondents have a low level of knowledge (70.7%), while a small

portion (7.3%) of respondents have a good level of knowledge. The results of the bivariate analysis show that postpartum mothers with a low level of knowledge had the lowest percentage—14.1%—in choosing intrauterine contraceptive methods, while postpartum mothers with a good level of knowledge had the highest percentage, at 88.9%.

This clearly demonstrates that the better the level of knowledge a postpartum mother has about intrauterine contraceptive methods, the greater the likelihood of her choosing one. Postpartum mothers with an adequate level of knowledge show a balanced percentage in choosing intrauterine contraception, indicating that in-depth knowledge is a key factor in decision-making regarding contraceptive use.

The Chi-square test results indicate a significant relationship between the level of knowledge of postpartum mothers and their choice of intrauterine contraceptive methods in the working area of the Jongkong Health Center, with a p-value of  $0.018 < 0.05$ . The results of this study are consistent with the theory of Notoatmodjo (2022), which states that knowledge serves as the foundation for determining actions and cultivating interest in something. The higher the level of knowledge a postpartum mother possesses, the better she can understand the information received and make an informed decision about the type of contraception to use—after carefully considering the advantages and disadvantages of each method (Endah Suryani et al., 2022).

The role of midwives is highly important, as they are the healthcare workers closest to mothers from pregnancy through the postpartum period. They must provide health education on the benefits of intrauterine contraception, beginning in pregnancy—especially during the third trimester—through prenatal class sessions (Jainatun et al., 2022).

### Table and figure placement

**Table 1. Frequency Distribution of Postpartum Mothers' Knowledge Level Regarding the Selection of Intrauterine Contraception Methods**

Level of Knowledge	Frequency (n)	Percentage (%)
Not enough	22	70,7
Enough	4	7,3
Good	10	22
Total	36	100

The results of the univariate analysis describing the knowledge level of postpartum mothers are presented in Table 1. The data shows that the majority of respondents (22 out of 36, or 70.7%) had an insufficient level of knowledge regarding the IUD. Only 10 respondents (22%) possessed good knowledge, while 4 respondents (7.3%) had sufficient knowledge. This distribution indicates a generally low level of understanding about IUD among postpartum mothers in the Jongkong Health Center area, which may be a foundational barrier to its adoption (binti Salim, 2024; Makins, 2022; Sabin, 2025).

**Table 2. Relationship between Knowledge and Choice of Intrauterine Contraception Method (IUD)**

Knowledge	Mothers Who Choose IUD Contraception				Total	P-value	OR
	Ya		No				
	F	%	F	%	f		
Not enough	3	14,1	19	85,9	22	100	0,018
Enough	2	50	2	50	4	100	
Good	9	88,9	1	11,1	10	100	

The bivariate analysis examining the relationship between knowledge and IUD choice is detailed in Table 2. The results reveal a stark contrast in IUD uptake across knowledge categories. Among mothers with insufficient knowledge, only 3 out of 22 (14.1%) chose the IUD. In the sufficient knowledge category, 2 out of 4 mothers (50%) opted for the IUD. Most strikingly, among the 10 mothers with good knowledge, 9 (88.9%) selected the IUD as their postpartum contraceptive method. The Chi-square statistical test yielded a p-value of 0.018, which is less than the 0.05 significance level. This confirms a statistically significant relationship between the level of knowledge of postpartum mothers and their choice of the intrauterine device (IUD) contraceptive method.

**CONCLUSION**

This study concludes that there is a statistically significant relationship between the level of knowledge of postpartum mothers and their choice of the Intrauterine Device (IUD) contraceptive method in the working area of the Jongkong Health Center. Mothers with good knowledge were significantly more likely to choose the IUD compared to those with insufficient knowledge. The findings underscore that low knowledge constitutes a major barrier to IUD adoption in this low-coverage area.

Based on this conclusion, it is recommended that the management of the Jongkong Health Center prioritize and intensify comprehensive, repetitive, and interactive health education programs on long-term contraceptive methods, with a specific focus on the IUD, targeting pregnant and postpartum mothers. Midwives should be trained and supported to provide effective counseling. For future research, it is suggested to conduct qualitative studies to explore the deep-seated myths, perceptions, and partner or family influences affecting IUD choice in this community. Additionally, intervention studies are needed to test the effectiveness of specific educational modules or counseling approaches in increasing actual IUD uptake rates—not just knowledge—in similar underserved settings.

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