JCTMN

Volume 1 Issue 1, June 2025
Journal of Complementary Therapies in Midwifery and Nursing

Article

Analysis of Low Uptake of IUD Contraception in Kutabumi Health Center, Tangerang Regency

Siti Choirul Hidayah[1,*] and Lia Idealistiana[2]
[1] Sekolah Tinggi Ilmu Kesehatan Abdi Nusantara, Jakarta, Indonesia

ABSTRACT

Background: The intrauterine device (IUD) is a highly effective, long-acting, reversible contraceptive, yet its uptake among Indonesian women remains low relative to short-term methods such as pills and injections. Barriers including limited knowledge, negative perceptions, weak spousal support, and suboptimal health-worker engagement. This study aimed to analyze the factors contributing to the low uptake of intrauterine device (IUD) contraception among women of reproductive age in the Kutabumi Health Center working area, Tangerang Regency.

Methods: This analytic descriptive study employed a cross-sectional design. The sample consisted of 103 women of reproductive age using contraception in June 2022, selected through accidental sampling. Data were collected using a structured questionnaire and checklist sheet. Primary data were analyzed using chi-square statistical tests.

Results: Univariate analysis showed that the majority of respondents did not use IUD contraception (62.1%), had two or fewer children (71.8%), had low educational attainment (56.3%), had negative perceptions about IUD contraception (50.5%), lacked husband's support (51.5%), and reported that the role of health workers was good (51.5%). Bivariate analysis revealed significant associations between IUD contraceptive use and number of children (p = 0.003), education level (p = 0.001), perception of IUD contraception (p = 0.003), husband's support (p = 0.000), and the role of health workers (p = 0.003).

Conclusion: Husband's support was the most influential factor in IUD contraceptive uptake, with an odds ratio (OR) of 5.983. Encouraging women to seek regular consultations at health facilities and to access information through media, the internet, and health professionals can improve knowledge and motivation regarding IUD contraception. Additionally, husbands are encouraged to provide active and positive support to their partners to promote the use of IUDs as an effective, long-term, and cost-efficient contraceptive method.

Contact
siti.coy16@gmail.com

Keyword
IUD, contraception, husband's support, perception, education, family planning, reproductive health

Received: June 13, 2025
Revised: June 20, 2025
Accepted: June 28, 2025
Published: June 30, 2025

JCTMN is licenced under a Creative Commons Attribution 4.0 International Public Licence (CC-BY 4.0)

Website
https://journal.img.co.id/index.php/jctm

INTRODUCTION

Indonesia continues to experience a steady increase in population growth, currently ranking as the fourth most populous country in the world, with an annual growth rate of 2.6 million people. If this trend is not addressed through effective population control strategies, the country risks facing a demographic explosion within the next decade. The well-being of a nation is closely tied to how effectively family planning programs are embraced and implemented by its population. According to the World Health Organization (WHO), family planning refers to actions that enable individuals or couples to achieve specific reproductive goals, such as spacing births, preventing unintended pregnancies, determining the timing of childbirth, and limiting the number of children (WHO, 2015b).

Globally, the use of modern contraceptives has increased marginally over time. Between 2000 and 2017, the prevalence of modern contraceptive use rose from 54.3% to 57.4%, with regional variations: 23.6% to 27.6% in Africa, 60.9% to 61.6% in Asia, and 66.7% to 67.0% in Latin America and the Caribbean (WHO, 2015a). In Indonesia, injectable contraception remains the most widely used method, with 63.7% of family planning acceptors choosing injections, followed by 17% who use pills, and smaller proportions using implants (7.4%), IUDs (7.4%), female sterilization (2.7%), condoms (1.2%), and male sterilization (0.5%) (Ministry of Health, 2020).

A similar pattern is observed in Banten Province, where 57.9% of family planning acceptors use injectable methods, 22% use pills, 9.4% use implants, and 6.6% use IUDs. Condom use stands at 2%, female sterilization at

1.5%, and male sterilization at 0.6%. In Tangerang District, the data reveal even more pronounced disparities in contraceptive method preference: only 4.22% of acceptors use IUDs, 0.56% use male sterilization, 1% use female sterilization, 4.96% use implants, 0.04% use condoms, while 39.85% rely on injectable contraceptives and 14.07% use pills. These figures underscore the persistently low uptake of long-acting reversible contraceptives (LARCs), particularly intrauterine devices (IUDs), despite their effectiveness (Indriyawati et al., 2019).

At the Kutabumi Health Center in Tangerang Regency, trends from 2019 to 2021 show fluctuating use of IUDs. In 2019, of 24,976 family planning acceptors, only 980 (3.9%) used IUDs. The figure rose to 1,609 (6.0%) out of 26,792 acceptors in 2020 but declined again to 1,105 (3.87%) out of 28,517 in 2021. Despite these fluctuations, injectable contraceptives remained the most popular method, even though they are short-term and carry a high risk of discontinuation. In contrast, IUDs offer long-term protection for over two years and require fewer follow-up visits, making them particularly suitable during periods of limited access to healthcare services, such as the Covid-19 pandemic (Rilyani & Saputra, 2020).

The national family planning movement has indeed made progress in increasing public awareness and participation. However, the underutilization of LARCs—especially IUDs—remains a concern. This indicates a need for greater emphasis on promoting and educating the public about long-term contraceptive options (Sari et al., 2019). The IUD is among the most effective contraceptives available, with a failure rate of only 0.6–0.8 pregnancies per 100 women in the first year of use, equivalent to one failure in every 125 to 170 pregnancies (Handayani, 2010). According to Sulistyawati (2011), IUDs are also highly convenient, requiring no daily compliance and offering protection until menopause. Users only need to return to the clinic if problems arise, making this method ideal during pandemic-related service disruptions.

Previous studies have identified multiple factors associated with IUD use among women of reproductive age. Yulizar et al. (2022) found a positive association between the number of children and the likelihood of IUD use. Similarly, Aningsih and Irawan (2019) reported significant correlations between parity, education, and IUD adoption. Ake et al. (2020) further emphasized that IUD use is influenced by education level, spousal support, attitudes toward contraception, and healthcare provider involvement. These findings suggest that counseling interventions targeting knowledge, attitudes, and partner support could improve IUD uptake (Rahayu, 2024).

A preliminary study conducted at the Kutabumi Health Center in Tangerang Regency involving 10 contraceptive acceptors found that only two were using IUDs. Interviews with the remaining eight women revealed that lack of information and fear were major barriers. Many respondents stated they did not fully understand what an IUD is and expressed anxiety about its use. Others reported that their spouses did not support the use of this method. Most of the women who chose not to use IUDs had only one or two children and possessed a junior high school level of education. These findings highlight the urgent need to improve community knowledge, dispel myths, and strengthen support systems around IUD use as part of long-term family planning efforts in Indonesia.

METHODE

Study design

This study employed a quantitative analytic approach using a cross-sectional design to investigate factors associated with the low performance of intrauterine device (IUD) contraceptive use among women of reproductive age. The primary outcome variable (dependent variable) was IUD contraceptive use, while the independent variables included the number of children, level of education, perception toward IUD contraception, husband's support, and the role of health workers.

Sample

The research was conducted within the service area of the Kutabumi Health Center, located in Tangerang Regency, Banten Province, Indonesia. The study population included all women of reproductive age (Pasangan Usia Subur or PUS) who were utilizing any form of contraception and accessing services at the Kutabumi Health Center during the study period. Based on preliminary data, the total number of PUS actively using contraception was 137 individuals. A total of 103 respondents were selected using an incidental (accidental) sampling technique, where participants were recruited consecutively based on their availability and willingness to participate at the time of data collection.

Measurement

Data were collected through a structured questionnaire and an accompanying checklist. The questionnaire was developed by the research team and consisted of both closed- and open-ended items. It was divided into sections covering demographic characteristics, reproductive history, contraceptive choices, perceptions toward IUD use, spousal support, and the perceived role of healthcare workers. The questionnaire underwent content

validation by a panel of three experts in public health and reproductive health to ensure its relevance and clarity. Additionally, a pilot test was conducted with 15 respondents from a neighboring health center to evaluate item reliability. The Cronbach's alpha coefficient for internal consistency was 0.82, indicating good reliability.

Data collection

Data were collected using a structured questionnaire and a checklist developed by the research team. The questionnaire consisted of items related to sociodemographic characteristics, contraceptive use history, perceptions about IUD contraception, spousal support, and the role of health workers. The checklist was used to verify responses and ensure completeness. Respondents were selected through accidental sampling, targeting women of reproductive age who were present at the Kutabumi Health Center during the study period and who met the inclusion criteria. Prior to data collection, each participant received a clear explanation of the study's purpose and procedures. Responses were collected through face-to-face interviews conducted in a private setting to maintain confidentiality and reduce response bias.

Statistical Analysis

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics were used to summarize the demographic characteristics and distribution of study variables. The chi-square test was applied to examine associations between the independent variables and IUD contraceptive use. Statistical significance was determined at a p-value of less than 0.05.

Ethical Consideration

Prior to data collection, ethical approval for this study was obtained from the Health Research Ethics Committee of the appropriate institutional review board. All participants received a clear explanation of the study's purpose, procedures, and their rights as respondents. Written informed consent was obtained from each participant before data collection commenced.

RESULTS

The findings in Table 1 illustrate the frequency distribution of key variables related to the use of IUD contraception among women of reproductive age in the Kutabumi Health Center work area. Of the 103 respondents, a majority (62.1%) reported not using an IUD, indicating a relatively low uptake of this long-term contraceptive method. Most participants (71.8%) had two or fewer children, suggesting that IUD non-use is common even among those with fewer children who might still be in their reproductive years. In terms of education, more than half of the respondents (56.3%) had lower educational attainment, which may influence their understanding and acceptance of IUDs. Perception of IUD contraception was almost evenly split, with 50.5% holding negative views, highlighting a potential barrier rooted in misinformation or fear. Furthermore, husband's support emerged as a critical social factor, with 51.5% of women reporting a lack of spousal support for IUD use. Interestingly, perceptions of health worker roles were also divided, with 51.5% rating them as adequate and 48.5% as inadequate, indicating mixed experiences in service delivery and counseling.

The results of the bivariate analysis presented in Table 2 indicate that several variables were significantly associated with the use of intrauterine device (IUD) contraception among women of reproductive age in the Kutabumi Health Center. Women with two or fewer children were significantly less likely to use IUDs compared to those with more than two children ($p = 0.003$), with an odds ratio (OR) of 4.130, suggesting that women with more than two children were approximately four times more likely to use an IUD. Educational level also showed a strong association: women with higher education were significantly more likely to use IUDs than those with lower educational attainment ($p = 0.001$, OR = 4.737), indicating that higher-educated women had almost five times greater odds of IUD use. Perception of IUDs was another important factor. Women who had a positive perception of IUD contraception were significantly more likely to use it compared to those with negative perceptions ($p = 0.003$, OR = 3.750), demonstrating the role of beliefs and attitudes in influencing contraceptive choice. Most notably, husband's support emerged as the strongest predictor of IUD use. Women who received support from their husbands were almost six times more likely to use IUDs compared to those without such support ($p = 0.003$, OR = 5.983), highlighting the critical influence of spousal involvement in contraceptive decision-making.

Table 1. Frequency Distribution of IUD Contraceptive Use, Number of Children, Education, Perception of IUDs, Husband's Support, and Role of Health Workers in the Work Area of Kutabumi Health Center, Tangerang Regency (n = 103)

Variable	Category	Frequency (f)	Percentage (%)
IUD Contraceptive Use	Uses IUD	39	37.9
	Does not use IUD	64	62.1
Number of Children	> 2 Children	29	28.2
	≤ 2 Children	74	71.8
Education Level	Higher education	45	43.7
	Lower education	58	56.3
Perception of IUD Contraceptives	Positive	51	49.5
	Negative	52	50.5
Husband's Support	Supports IUD use	50	48.5
	Does not support	53	51.5
Role of Health Workers	Adequate	53	51.5
	Inadequate	50	48.5

Table 2. Biaviate association results

Variabels	IUD Use (Yes)	%	IUD Use (No)	%	Total (n)	p-value	OR	95% CI
Number of child								
> 2 Children	18	62.1	11	37.9	29			
≤ 2 Children	21	28.4	53	71.6	74	0.003	4.130	1.672–10.203
Education level								
Higher education	26	57.8	19	42.2	45			
Lower education	13	22.4	45	77.6	58	0.001	4.737	2.015–11.137
Perception of IUDs								
Positive perception	27	52.9	24	47.1	51			
Negative perception	12	23.1	40	76.9	52	0.003	3.750	1.607–8.753
Husband support								
Supportive	29	58.0	21	42.0	50			
Not Supportive	10	18.9	43	81.1	53	0.003	5.983	2.443–14.434

DISCUSSION

The use of IUD contraception remains relatively low among women of reproductive age in the Kutabumi Health Center area, despite its proven efficacy as a long-acting reversible contraceptive (LARC). This study explored several factors influencing IUD use, including parity, education level, perception of IUDs, husband's support, and the role of health workers.

One significant factor was the number of children. As Hartanto (2004) noted, the higher a woman's parity, the greater her tendency to opt for long-term contraception to limit further pregnancies. This is supported by Aningsih and Irawan (2019), who emphasized that reproductive decisions, including ideal family size, are shaped by personal and cultural values. Franciska (2017) further argued that the number of living children enhances maternal experience and reproductive knowledge, which influence the decision to use effective contraceptives such as IUDs. In this study, parity was significantly associated with IUD use ($p = 0.003$), consistent with Yulizar et al. (2022) and Ibrahim et al. (2019). However, the fear of IUD insertion and misinformation regarding reproductive organ damage remained barriers, along with concerns about partner discomfort and IUD-related complications.

In contrast, Salsabilla et al. (2018) found no significant association between parity and IUD use, suggesting that other factors, such as fear or discomfort, may override parity in contraceptive decision-making.

Educational attainment also showed a significant correlation with IUD contraceptive uptake (p = 0.001). Women with higher education were 4.737 times more likely to use an IUD than those with lower education. According to Ibrahim et al. (2019) and Yulizar et al. (2022), education broadens individuals' perspectives and increases acceptance of new ideas, including health innovations. Educated women are more likely to process health-related information rationally and make informed choices. As Wawan and Dewi (2010) emphasized, education enhances information absorption and decision-making quality. Similarly, Sari et al. (2019) found that educated mothers, especially those with high school or higher education, preferred IUDs for their long-term efficacy and practicality. On the other hand, Aningsih and Irawan (2019) reported an inverse relationship in their study, where higher education was linked to lower use of long-term contraceptive methods. This discrepancy may be due to differing social contexts, contraceptive counseling quality, or family planning promotion strategies in each setting.

Perceptions toward IUDs were another critical determinant. In this study, women with positive perceptions were 3.75 times more likely to use IUD contraception (p = 0.003). As Notoatmodjo (2018) explained, perceptions are shaped by past experiences, exposure to media, and peer influence. Marmi (2013) noted that negative past experiences with IUDs, such as discomfort or fear of side effects, often lead women to avoid or discontinue use. This was echoed by Y. Handayani (2016), who identified fears of IUD displacement and discomfort during string checks as common barriers. Positive perceptions are generally formed through accurate information, positive peer testimonials, and professional counseling. Franciska (2017), Kenta (2017), and Surinati (2015) all emphasized the role of correct knowledge and experience in shaping contraceptive perceptions and ultimately influencing behavior.

Husband's support emerged as the most significant predictor of IUD use, with an odds ratio of 5.983 (p = 0.000). Women whose husbands were supportive were significantly more likely to use IUD contraception. Hartanto (2004) and Sulistyawati (2011) highlighted the role of social and spousal support in reproductive decision-making. When husbands actively participate in family planning decisions, women are more likely to choose reliable contraception. This finding aligns with Salsabilla et al. (2018), Padmasari (2019), and Indriyawati et al. (2019), who demonstrated the central role of spousal endorsement in contraceptive uptake. In contrast, Saragih et al. (2018) and Veronica et al. (2019) reported no such correlation, suggesting that in some families, women independently decide on their contraceptive methods. However, these exceptions may reflect variations in gender dynamics, communication quality, and decision-making autonomy across households.

The role of health workers also significantly influenced IUD adoption, with mothers who received quality health worker support being 3.971 times more likely to use an IUD (p = 0.003). As Notoatmodjo (2018) stated, health workers serve as both information sources and behavioral reinforcers. Their role in counseling, education, and reassurance is essential, particularly in dispelling myths and addressing fears related to IUDs. Wulandari (2012) emphasized the importance of effective contraceptive counseling, which is often underutilized due to time constraints or limited resources. Surinati (2015) and Fatmawati & Wati (2021) reinforced the importance of trained health professionals in shaping family planning behaviors, especially postpartum. Counseling sessions, whether at clinics or in community settings, provide crucial opportunities to promote IUDs as a safe and effective option. Overall, the findings of this study demonstrate a strong association between IUD use and a combination of demographic, psychosocial, and service-related factors. The integration of accurate information, partner support, and competent health worker engagement are key to improving IUD uptake.

CONCLUSION

This study found that the majority of women of reproductive age in the Kutabumi Health Center service area did not use IUD contraception (62.1%). The highest proportion of participants had fewer than two children (71.8%), a low level of education (56.3%), negative perceptions of IUDs (50.5%), lacked husband's support (51.5%), and did not perceive health worker involvement as adequate (51.5%). Statistically significant associations were identified between IUD use and parity (p = 0.003), education (p = 0.001), perceptions about IUDs (p = 0.003), husband's support (p = 0.000), and the role of health workers (p = 0.003). Among these, husband's support demonstrated the strongest effect, with an odds ratio of 5.983, suggesting that women with spousal support were nearly six times more likely to use an IUD. These findings highlight the need for integrated family planning

education that includes not only women, but also their partners. Strengthening the role of health workers in counseling and outreach, correcting misconceptions, and promoting the safety and benefits of IUDs could substantially improve contraceptive uptake. Empowering women through education and involving spouses as active participants in reproductive health decision-making are critical strategies for improving IUD contraceptive performance in this population.

Conflict of Interest

The authors declare no conflict of interest.

Acknowledgement

The authors extend their sincere appreciation to all women of reproductive age who participated in this research. Gratitude is also expressed to the midwives and administrative personnel at Kutabumi Health Center, Tangerang Regency, for their valuable assistance and cooperation during the data collection process.

Data Availability Statement

The datasets generated and analyzed during the current study are not publicly available due to participant confidentiality but are available from the corresponding author on reasonable request.

Funding

This study did not receive any external funding from governmental, commercial, or not-for-profit organizations. The research was independently conducted by the authors.

REFERENCES

Ake, I., Ramadany, S., Pelupessy, N., & Ahmar, H. (2020). Peningkatan Pengetahuan Ibu Tentang Iud Pasca Persalinan Setelah Diberikan Strategi Konseling Berimbang (SKB) Dengan Video Learning. *Jurnal Keperawatan Muhammadiyah*, *5*(2).

Aningsih, B. S. D., & Irawan, Y. L. (2019). Hubungan Umur, Tingkat Pendidikan, Pekerjaan Dan Paritas Terhadap Penggunaan Metode Kontrasepsi Jangka Panjang (Mkjp) Di Dusun Iii Desa Pananjung Kecamatan Cangkuang Kabupaten Bandung. *Jurnal Kebidanan*, *8*(1), 33–40.

Fatmawati, E., & Wati, D. R. (2021). Hubungan Paritas Dengan Berat Badan Lahir Rendah (BBLR). *IJMT: Indonesian Journal of Midwifery Today*, *1*(1), 49–56.

Franciska, D. G. (2017). Hubungan Paritas Dengan Pemilihan Alat Kontrasepsi Dalam Rahim (Akdr) Di Puskesmas Danurejan I Kota Yogyakarta Tahun 2016. *Jurnal Bidang Ilmu Kesehatan*, *7*(2), 11.

Handayani, S. (2010). Buku ajar pelayanan keluarga berencana. *Yogyakarta: Pustaka Rihama*, *76*.

Handayani, Y. (2016). Komitmen, Conflict Resolution, dan Kepuasan Perkawinan Pada Istri yang Menjalani Hubungan Pernikahan Jarak Jauh. *Psikoborneo: Jurnal Ilmiah Psikologi*, *4*(3).

Hartanto, H. (2004). Keluarga berencana dan kontrasepsi. *Jakarta: Pustaka Sinar Harapan*, *37*.

Ibrahim, W. W., Misar, Y., & Zakaria, F. (2019). Hubungan Usia, Pendidikan Dan Paritas Dengan Penggunaan Akdr Di Puskesmas Doloduo Kabupaten Bolaang Mongondow. *Akademika*, *8*(1), 35–44.

Indriyawati, N., Susiloretni, K. A., & Najib, N. (2019). The current use contraception in Indonesia. *JURNAL KEBIDANAN*, *9*(2), 174–177.

Kenta, A. M. (2017). Persepsi Ibu Rumah Tangga terhadap Penggunaan Alat Kontrasepsi dalam Rahim Berdasarkanpendidikan dan Usia di Desa Taugi Kecamatan Masama Kabupaten Banggai. *Jurnal Pendidikan Glasser*, *1*(1).

Latifah, J., & Wahid, A. (2015). Perbandingan Breast Care dan Pijat Oksitosin terhadap Produksi ASI pada Ibu Post Partum Normal. *Dunia Keperawatan: Jurnal Keperawatan Dan Kesehatan*, *3*(1), 34–43.

Marmi, D. (2013). Intranatal care asuhan kebidanan pada persalinan. *Yogyakarta: Pustaka Pelajar*.

Notoatmodjo. (2018). *Health Research Methods*. Rineka Cipta.

Organization, W. H. (2015a). *Health worker role in providing safe abortion care and post abortion contraception*. World Health Organization.

Organization, W. H. (2015b). *World health statistics 2015*. World Health Organization.

Rahayu, I. (2024). The Corellation of Hypnoanasthesia with Pain Degree on Installation of Intra Uterine Device (IUD). *Jurnal Keperawatan Komprehensif (Comprehensive Nursing Journal)*, 10(4), 403-409.

Rilyani, R., & Saputra, S. O. (2020). Hubungan pemakaian alat kontrasepsi IUD dengan tingkat kenyamanan dalam melakukan hubungan seksual. *Holistik Jurnal Kesehatan*, *14*(2), 240–247.

Salsabilla, B., Nasution, A., & Avianty, I. (2018). Faktor-Faktor yang Berhubungan dengan Pemilihan Alat Kontrasepsi Intra Uterine Device (IUD) pada Pasangan Usia Subur di Kelurahan Sempur Kecamatan Bogor Tengah Kota Bogor Tahun 2018. *PROMOTOR*, *1*(1).

Sari, Y. N. I., Abidin, U. W., & Ningsih, S. (2019). Faktor-faktor yang berhubungan dengan minat ibu dalam pemilihan alat kontrasepsi IUD. *Jurnal Kesehatan Masyarakat*, *5*(1), 47–59.

Sulistyawati, A. (2011). Pelayanan keluarga berencana. *Jakarta: Salemba Medika*, 1–3.

Surinati, I. D. A. K. (2015). Persepsi Wanita Usia Subur tentang Pemilihan Kontrasepsi IUD. *Jurnal Gema Keperawatan*, *8*(2), 117–122.

Wawan, A., & Dewi, M. (2010). Teori dan pengukuran pengetahuan, sikap dan perilaku manusia. *Yogyakarta: Nuha Medika*, *12*.

Wulandari, F. (2012). *Hubungan tingkat pengetahuan perawat tentang perawatan paliatif dengan sikap terhadap penatalaksanaan pasien dalam perawatan paliatif di RS Dr. Moewardi surakarta*. Universitas Muhammadiyah Surakarta.

Yulizar, Y., Rochadi, R. K., Sembiring, R., Nababan, D., Sitorus, M. E. J., & Windra, T. (2022). Analisis Faktor-Faktor Yang Mempengaruhi Partisipasi Pus Dalam Metode Kontrasepsi Jangka Panjang (Mkjp) Di Kecamatan Langsa Timur Tahun 2021. *PREPOTIF: Jurnal Kesehatan Masyarakat*, *6*(1), 113–124.