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KNOWLEDGE OF INJECTABLE CONTRACEPTIVE ACCEPTORS AND DURATION OF USE: A CROSS-SECTIONAL STUDY

Siti Humaira Hanun[1)*], Diyan Indrayani[2)], Riana Pascawati[3)], Ida Widiawati[4)]

[1,2,3,4]*Bachelor of Midwifery, Midwifery Department, Poltekkes Kemenkes Bandung, Bandung, Indonesia*

Email:Hmrhanun@gmail.com

ABSTRACT

Background: Indonesia is still facing population growth challenges, as indicated by the increasing total fertility rate (TFR). Family planning programs play an important role in controlling population growth, with injectable contraceptives being the most widely used method. However, limited knowledge among injectable contraceptive acceptors may contribute to prolonged use and potential health risks. Therefore, this study aimed to analyze the relationship between the knowledge of injectable contraceptive acceptors and the duration of injectable contraceptive use at Batununggal Community Health Center, Bandung.
Methods: This study employed a cross-sectional design involving 65 injectable contraceptive acceptors, selected using accidental sampling, and data were analyzed using the chi-square test.
Results: Results showed that 38.8% of injectable contraceptive acceptors had poor knowledge, and 47.7% used contraceptives for extended periods. There was a statistically significant relationship between knowledge and duration of injectable contraceptive use ($p < 0.001$).
Conclusion: The study concludes that poor knowledge is associated with prolonged use of injectable contraceptives. Recommendations include providing comprehensive education about hormonal contraception, particularly injectable contraceptives, to minimize long-term usage risks and promote safer contraceptive practices among women of reproductive age
Keywords: duration of use, injectable contraceptive, injectable contraceptive acceptors.

INTRODUCTION

Indonesia's population growth rate increased from 1.17% in 2021 to 2.14% in 2023 due to suboptimal family planning coverage. Active family planning participants in 2020 in Indonesia reached 67.6% and in West Java, it was 75.02%. However, MKJP coverage, such as IUDs, implants, MOW, and MOP, was only 41.3% in Bandung City, while in Indonesia it was 27.7%. This is in contrast to the number of short-term contraceptives, particularly injectable contraceptives, where the number of injectable contraceptive users in Indonesia was 72.49% and in West Java, it was 52.5% (Kartini et al., 2024)

The number of family planning participants choosing contraceptive devices in Bandung City is 39.9%, with injectable contraceptives being the most commonly chosen method. With this percentage, injectable contraceptive users in Bandung City have the largest proportion compared to other contraceptive methods. Almost all districts in Bandung City use injectable contraceptives, with some districts having more than 6,000

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users, namely Astanaanyar District and Batununggal District (Murni et al., 2025). On average, contraceptive users use injectable contraception for the long term, with a usage duration of up to >2 years, where the duration of three-month injectable contraceptive use is most commonly within the 12-24 month range, accounting for 63.9% (Putri et al., 2023).

The use of injectable contraceptives for ≥1 year can lead to obesity, menstrual disorders due to hormonal imbalance, and bone thinning after use for >2.5 years. Another risk is that it can affect the process of pregnancy, where contraceptive users will experience difficulty in getting pregnant again due to the cumulative effects of DMPA (Setyowati et al., 2017). Research Mastikana showed that the duration of contraceptive injection use for 1 year resulted in a percentage of 73.3%, with the level of respondent knowledge being good in 50%, poor in 33.3%, and adequate in 16.7% (Fatmawati, 2018a). Based on these conditions, prolonged use of injectable contraceptives remains a significant concern, particularly in relation to acceptors' knowledge and its potential impact on health risks. However, previous studies have mostly focused on the prevalence and patterns of injectable contraceptive use, while studies that statistically examine the relationship between acceptors' knowledge and the duration of injectable contraceptive use at the primary healthcare level are still limited. Therefore, this study aimed to analyze the relationship between the knowledge of injectable contraceptive acceptors and the duration of injectable contraceptive use at Batununggal Community Health Center, Bandung.

RESEARCH METHOD

This study used a quantitative approach, namely descriptive analytical research with a cross-sectional research design, because it can describe the relationship between knowledge about injectable contraceptives and duration of use based on quantitative data. The study was conducted at the Batununggal District Health Centers, namely the Ahmad Yani, Gumuruh Health Center, and Ibrahim Adjie Health Center, conducted from December 2023 to May 2024 using non-probability sampling techniques in the form of accidental sampling with a population of injectable contraceptive acceptors residing at the Batununggal Health Center in Bandung City with a sample size of 65 respondents. Accidental sampling was used due to the accessibility and availability of respondents during the data collection period. However, this sampling technique may limit the generalizability of the findings because the sample may not fully represent the entire population of injectable contraceptive acceptors. The inclusion criteria were injectable contraceptive acceptors who were registered at the Batununggal Community Health Center, had used injectable contraception for at least 3 months, and were willing to participate in the study. The exclusion criteria were acceptors who were unable to complete the questionnaire or had incomplete data. This study has obtained health research ethics approval with No.01//KEPK/EC/IV/2024. This study was conducted by distributing paper-based questionnaires directly, which included questions about the identity of respondents, duration of contraceptive use, and knowledge about injectable contraceptives. The questionnaire on the Level of Knowledge about Injectable Contraception was valid and reliable, as based on the reliability test results, the Cronbach's alpha value was 0.917 > 0.70. Therefore, it can be concluded that the items in the questions on that variable are reliable. Data analysis was performed using the SPSS and Excel programs. Knowledge levels were categorized as good, sufficient, or poor based on the total questionnaire score, while the duration of injectable contraceptive use was classified into ≤12 months, 13–24 months, and >24 months.

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RESULTS

Table 1 presents the characteristics of respondents. Most respondents were aged 20–35 years (49.2%). The majority had senior high school education (55.4%), worked as housewives (76.9%), had ≤2 children (70.8%), and obtained information on contraceptive use from health workers (60%).

Table 1. Respondent characteristics

Characteristics	Frequency (n)	Percentage (%)
Age		
<20 Years Old	1	1.5%
20-35 Years Old	32	49.2%
>35 Years Old	32	49.2%
Education Level		
Diploma III /Diploma IV	3	4.6%
Bachelor's Degree / Master's Degree	10	15.4%
Senior High School /Vocational High School	36	55.4%
Junior High School	16	24.6%
Occupation		
House Wife	50	76.9%
Civil Servant	3	4.6%
Private employee	9	13.8%
Entrepreneur/Self-employed	3	4.6%
Number of Children		
≤ 2	46	70.8%
3-4	16	24.6%
>4	3	4.6%
Source of Information on Contraceptive Use		
Health Workers	39	60%
Non Health Workers	26	40%

Table 2 shows the duration of injectable contraceptive use among respondents. A total of 31 respondents (47.7%) used injectable contraceptives for more than 5 years, 19 respondents (29.2%) for 5 years, and 15 respondents (23.1%) for less than 5 years.

Table 2. Duration of Contraceptive Use

Duration of Contraceptive Use	Frequency	Percentage
<5 years	15	23.1%
5 years	19	29.2%
> 5 years	31	47.7%

Table 3 presents the level of knowledge of injectable contraceptive acceptors. A total of 25 respondents (38.5%) had poor knowledge, 22 respondents (33.8%) had fair knowledge, and 18 respondents (27.7%) had good knowledge.

Table 3. Knowledge of Injectable Contraceptive Acceptors

Level of Knowledge	Frequency	Percentage
Good	18	27.7%
Fair	22	33.8%
Poor	25	38.5%

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Table 4 shows a significant relationship between knowledge level and duration of injectable contraceptive use, with a p-value of 0.000 ($p < 0.05$).

Table 4. Relationship between Knowledge of Contraceptive Acceptors Injections and Duration of Use of Contraception

Level of Knowledge	Duration of Contraceptive Use						Total		p Value
	<5 Years		5 Years		> 5 Years				
	F	%	F	%	F	%	F	%	
Good	10	55.6 %	8	44.4%	0	0%	18	100%	
Fair	3	13.6 %	8	36.4%	11	50%	22	100%	*0.000
Poor	2	8%	3	12%	20	80%	25	100%	

DISCUSSION

The use of injectable contraceptives in women under the age of 20 can cause delayed recovery of fertility, anemia, infertility, hypertension at a young age, and uncontrolled weight gain, so it is not recommended because it poses many risks (Setyowati et al., 2018; WHO, 2022) Most respondents (55.4%) had a high school/vocational school education, indicating a secondary education level that could affect knowledge about contraception. Low education levels are often associated with a lack of knowledge about reproductive health, so more intensive educational efforts are needed (Listyaningsih et al., 2016). The majority of respondents (76.9%) were housewives who tend to have limited access to reproductive health information compared to working women, emphasizing the importance of providing easily accessible information (Djaya et al., 2025) . Although most respondents (70.8%) had ≤2 children, some had >4 children (4.6%). Having >4 children can increase health risks for mothers, such as anemia, postpartum hemorrhage, and maternal mortality (Djaya et al., 2025). One contributing factor is that some respondents obtained inaccurate information from non-health professionals (40%). Counseling from health workers has been shown to increase the use of contraceptive methods according to guidelines, making the role of health workers in providing accurate education extremely important (Nurlaila et al., 2023; Pazol et al., 2015; Soin et al., 2022).

The duration of contraceptive use is an important indicator of the success of family planning programs. This duration is influenced by the knowledge, attitudes, and behaviors of acceptors, as well as support from family and health workers. Continuous use reflects the acceptor's comfort and understanding of the method used, while discontinuous use is often associated with discomfort, side effects, or lack of support. The duration of contraceptive use is usually measured through surveys or interviews. Research shows that age influences the duration of injectable contraceptive use, with older acceptors tending to use it for longer periods (Harahap et al., 2018; Noachtar et al., 2022). Other factors, such as side effects, spousal support, and quality of service, also play a role, as demonstrated by Harahap, that quality service can increase the duration of use. In the Batununggal area of Bandung City, most respondents (47.7%) have been using contraception for more than 5 years, with some even reaching 20 years. Low knowledge may cause acceptors to perceive injectable contraception as a long-term and safe method without fully understanding its recommended duration of use. Limited understanding of side effects, health risks, and alternative contraceptive methods may reduce motivation to switch methods. As a result, acceptors with low knowledge tend to continue using injectable contraception for prolonged periods. The use of long-term injectable contraceptives requires attention because it increases the risk of osteoporosis by up to 38% s. menstrual cycle disorders, and

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weight gain (Setyowati et al., 2018). Research in East Java shows that using injectable contraceptives for more than 10 years can increase the risk of hypertension, cardiovascular disease, and cervical cancer (Doveriyanti, 2016). Therefore, BKKBN and POGI recommend not using injectable contraceptives continuously for more than 2–3 years (POGI, 2021). It is recommended to rotate contraceptive methods to minimize health risks. Efforts in education and public health campaigns need to be increased to make acceptors aware of the dangers of long-term use and encourage them to change methods periodically for long-term health (Peraturan BKKBN RI Nomor 9 Tahun 2019, BKKBN).

In addition to duration of use, the level of knowledge of acceptors is also an important factor in the effectiveness of injectable contraceptive use. In the city of Bandung in the Batununggal area, acceptor knowledge was grouped into three categories based on questionnaire scores: good (26–35 correct answers), fair (19–25), and poor (<19). These categories refer to previous research, which classified knowledge as good (76–100%), fair (56–75%), and poor (40-55%). The results showed that the majority of respondents had

poor (38.5%) and adequate (33.8%) knowledge, while only 27.7% had good knowledge. These findings indicate that there is still a knowledge gap regarding injectable contraception. This is in line with previous studies that revealed low knowledge among injectable contraceptive users (Fatmawati, 2018). Low knowledge can lead to improper use, risk of side effects, or contraceptive failure. Therefore, education needs to be improved by the government and health workers (Windawati & Ernawati, 2019). Strategies that can be implemented include increasing education in health facilities, utilizing mass and social media, and involving community leaders (Windawati & Ernawati, 2019). Education also needs to be tailored to the background of the recipient so that it is easier to understand. This effort is expected to increase public understanding, support the use of effective contraception, and ensure the success of the family planning program (Zakiah et al., 2023). Interestingly, although 60% of respondents received information from health workers, only 27.7% had good knowledge. This means that medical information sources do not always guarantee a good understanding. Factors such as information quality, acceptor absorption capacity, and socio-demographic background also influence understanding. Meanwhile, 40% of respondents received information from non-health worker sources, which risks spreading misinformation or myths (Utami, 2022).

Good knowledge about injectable contraception plays an important role in increasing acceptor compliance with the schedule of use and medical advice. This knowledge includes understanding how it works, its benefits, side effects, and procedures for use. Individuals with access to diverse information tend to have broader knowledge, which in turn has an impact on more appropriate contraceptive use behavior. Previous research shows a significant relationship between knowledge of 3-month injectable contraception and compliance with follow-up visits (p-value 0.003), which confirms the importance of education in supporting compliance (POGI, 2021). Research results in Bandung City show that most acceptors with low knowledge tend to use injectable contraception for more than 5 years, while those with good knowledge tend to use it for less than 5 years. The Chi-Square test shows a significant relationship between the level of knowledge and the duration of contraceptive use (p-value 0.000).21,22 Low knowledge may cause acceptors to be unaware that injectable contraception is a short-term method and is not recommended for continuous use for more than 2–3 years (Zakiah et al., 2023). Therefore, comprehensive education needs to be improved, especially for acceptors with low knowledge. These efforts can be carried out through regular counseling, face-to-face counselling by health workers, and the dissemination of information through the mass media and social media (Dharmawati et al., 2019; Saputra et al., 2020). Proper education will help acceptors understand the risks of long-term use, such as an increased risk of cervical cancer, and

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encourage them to rotate contraceptive methods as medically recommended (Windawati & Ernawati, 2019). Improving the quality of education not only increases compliance and effectiveness of injectable contraceptive use but also supports the overall success of family planning programs by encouraging informed and knowledge-based decision-making by acceptors (Qoiriyah & Sari, 2023). These findings support national family planning guidelines that recommend limiting continuous use of injectable contraception to 2–3 years. Strengthening counseling practices by health workers is essential to ensure that acceptors receive accurate information regarding the duration of use, side effects, and alternative methods. Improved counseling can help promote informed decision-making and appropriate contraceptive use. This study has several limitations. The use of a cross-sectional design limits the ability to establish causal relationships between knowledge level and duration of injectable contraceptive use. In addition, the accidental sampling technique may reduce the generalizability of the findings, as the sample may not fully represent all injectable contraceptive acceptors. Data were also collected using self-reported questionnaires, which may be subject to recall and response bias. Therefore, the results should be interpreted with caution.

CONCLUSION

Based on the results of the research discussion, this study shows that the majority of respondents are aged 20–35 years, have a high school/vocational school education, and are housewives, with some having obtained information about contraception, especially from health workers. Most acceptors have been using injectable contraception for more than 5 years, which indicates the popularity of this method, although education about appropriate contraceptive choices is still needed. The level of knowledge among respondents about injectable contraception is generally still low to moderate, so there is a need to improve understanding about how it works, its benefits, side effects, and the procedure for its use. Bivariate analysis shows a significant relationship between the level of knowledge and the duration of injectable contraceptive use, where respondents with better knowledge tend to use injectable contraceptives for a shorter period and in accordance with medical recommendations. Low knowledge among injectable contraceptive acceptors may lead to prolonged use because of limited understanding of alternative methods, potential side effects, and recommended duration of use. Therefore, health workers are encouraged to strengthen counseling by providing clear, consistent, and individualized information about injectable contraceptives, including duration of use and possible health risks. Improving counseling quality can support informed decision-making and promote safer family planning practices.

RECOMMENDATIONS

The government and healthcare workers need to promote safe contraceptive practices among WUS. In addition, comprehensive education on hormonal contraception, especially injectable contraception, is needed to minimize the risks of long-term use.

REFERENCES

BKKBN. (2019). Pedoman pelayanan kontrasepsi. BKKBN.

Djaya, W. H., Multazam, A., Andayanie, E., Kesehatan, P., Masyarakat, F. K., & K, E. P. K. (2025). *Faktor Yang Berpengaruh Terhadap Kesehatan Reproduksi Pada Pekerja Wanita di PT. Maruki International Indonesia*. *6*(3), 567–578.

Doveriyanti, R. (2016). *Hubungan Lama Pemakaian Kontrasepsi Suntik Dengan Hipertensi*. *1*(2), 104–110.

Volume 2 No 2, Hal 9-16, Desember 2025
E-ISSN: 3090-577X
https://doi.org/10.34035/jmrh.v2i2.1918

Fatmawati, A. E. (2018a). *Hubungan Antara Dukungan Keluarga dan Depresi Pada Orang Dengan HIV/AIDS (ODHA) di Kebumen*. Universitas Islam Indonesia.

Fatmawati, A. E. (2018b). *Hubungan Antara Dukungan Keluarga Dan Depresi Pada Orang Dengan HIV/AIDS (ODHA) Di Kebumen*. Universitas Islam Indonesia.

Fithri, N., Manullang, J., & Wahyuni, F. (2022). *KB Acceptors Inject 3 Months With Compliance Repeat Visits at Mogang Health Center , Samosir Regency*. *3*(2), 100–105.

Harahap, R. Y., Wulandari, R., Agustina, Y., Kebidanan, A., & Husada, P. (2018). *Faktor-Faktor Yang Berhubungan Dengan Puskesmas Gunung Tua Tahun 2018*. *3*(2), 165–175.

Kartini, Aswita, Yosin, Laila, Insani, A. A., Hidayati, R. W., Fasrini, U. U., Siti, I., Setiawati, R., Paramita, D. P., Bayu, P., & Lestari, M. L. (2024). *Kontrasepsi dan Keluarga Berencana* (Rahmawati & Nurmiaty (Eds.)). Eureka Media Aksara.

Listyaningsih, U., Satiti, S., Geografi, F., Mada, U. G., Studi, P., & Mada, U. G. (2016). *Umet Need : Konsep Yang Masih Perlu Diperdebatkan*. *24*.

Murni, N. S., Islami, I. M., Khobbibah, & Astuti, S. (2025). *Kesehatan reproduksi: Kesuburuan dan Permasalahannya Beserta Peran Teman Sebaya*. Nuansa Fajar Cemerlang.

Noachtar, I. A., Hidalgo-Lopez, E., & Pletzer, B. (2022). Duration of oral contraceptive use relates to cognitive performance and brain activation in current and past users. *Frontiers in Endocrinology*, *13*(September), 1–15. https://doi.org/10.3389/fendo.2022.885617

Nurlaila, Hendrayani, & Juhri. (2023). Kompetensi guru kelas dalam mengatasi permasalahan peserta didik melalui bimbingan konseling. *Journal of Elementary School Education*, *3*(2), 268–276.

Pazol, K., Zapata, L. B., Tregear, S. J., Mautone-Smith, N., & Gavin, L. E. (2015). Impact of Contraceptive Education on Contraceptive Knowledge and Decision Making. *Am J Prev Med*, *49*(201), S46–S56. https://doi.org/10.1016/j.amepre.2015.03.031.

Peraturan Badan Kependudukan Dan Keluarga Berencana Nasional RI Nomor 9 Tahun 2019 (2019).

POGI. (2021). Rekomendasi Ppenggunaan Kontrasepsi Suntik. In *POGI*.

Putri, S. S., Tristina, Y., & Rahmadyanti. (2023). Hubungan Penggunaan KB Suntik Tiga Bulan dengan Kejadian Flour Albus. *Keperawatan PPNI Jawa Barat*, *1*(2). https://doi.org/https://doi.org/10.70332/jkp.v1i2.11

Qoiriyah, S., & Sari, N. (2023). *Pengaruh Penyuluhan Terhadap Pengetahuan Wanita Usia Subur Tentang KB IUD*. *4*, 5885–5890.

Rahmah, A., & Heryani, A. C. (2024). *Hubungan Komunikasi Informasi Edukasi dengan Penggunaan Metode Kontrasepsi Jangka Panjang di Indonesia: Scoping Review*. *7*(1), 160–168.

Setyowati, A., Nuraisya, W., & Purwandari, E. (2018). Efek Pemakaian Kontrasepsi Suntik Dmpa Jangka Panjang Terhadap Tingkat Kepadatan Tulang. *Jurnal Ilmiah Kebidanan (Scientific Journal of Midwifery)*, *4*, 120–124. https://doi.org/10.33023/jikeb.v4i2.194

Setyowati, A., Nuraisya, W., & Purwandari, E. S. (2017). *TERHADAP TINGKAT KEPADATAN TULANG The Effect Of Long-Term Contraception Of Contraception Against Bone Density Levels*. 120–124.

Soin, K. S., Yeh, P. T., Gaffield, M. E., Ge, C., & Kennedy, C. E. (2022). Health workers' values and preferences regarding contraceptive methods globally: A systematic review. *Contraception*, *111*, 61–70. https://doi.org/10.1016/j.contraception.2022.04.012

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E-ISSN: 3090-577X
https://doi.org/10.34035/jmrh.v2i2.1918

WHO. (2022). *Coming of age*. Adolescent Health.

Windawati, D. A., & Ernawati, R. (2019). *Hubungan Antara Riwayat Pemakaian Kontrasepsi dan Lama Menyusui dengan*. 167–173.

Zakiah, L., Novianty, K., & Sunarti. (2023). *Pendidikan Kesehatan Reproduksi : Edukasi Pengetahuan Akseptor KB Suntik Tentang Efek Samping KB Suntik di PMB Wayan Adiarthi*. *1*(1), 35–40.