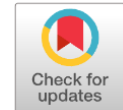


Original Research

Association Between Knowledge and Attitude of Contraceptive Acceptors and Side Effects of Three-Month Injectable Contraceptives at Private Practice



Riska Fauza^{1*}, Yuliana¹, Faridah¹

¹Midwifery Study Program, Nurul Islam Medika Health College, Sigli, Aceh, Indonesia

Article Info

Article History:
Received: 2025-08-28
Revised: 2026-04-22
Accepted: 2026-04-26

*Corresponding Author:
Riska Fauza
Midwifery Study Program, Nurul
Islam Medika Health College, Sigli,
Aceh, Indonesia
Email: riskafauza@gmail.com



This is an Open Access article published by Omni Health Journal, distributed under the terms of the [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/)

Copyright © The Author(s) 2026
DOI: [10.65277/ohj.v3i2.167](https://doi.org/10.65277/ohj.v3i2.167)

Abstract

Background: Injectable contraceptives are the most widely used family planning method in Indonesia, accounting for approximately 63.7% of all contraceptive users. However, the use of three-month injectable contraceptives is often associated with side effects such as dizziness, menstrual irregularities, bleeding, and weight gain, which may influence acceptors' knowledge and attitudes.

Objective: This study aimed to examine the association between knowledge and attitudes of contraceptive acceptors and the side effects of three-month injectable contraceptives at a private midwifery practice.

Methods: This study employed an analytic cross-sectional design. The study was conducted over five days at Midwife Hj. Lindawati's Practice in Kembang Tanjong District, with a total population of 144 acceptors. A sample of 59 respondents was selected using the Slovin formula. Data were collected using a structured questionnaire and analyzed using appropriate statistical tests to determine the association between variables.

Results: The findings showed a statistically significant association between knowledge and the side effects of three-month injectable contraceptives ($p = 0.002$; $p < 0.05$). Similarly, a significant association was found between attitudes and the side effects of three-month injectable contraceptives ($p = 0.002$; $p < 0.05$).

Conclusion: There is a significant association between knowledge and attitudes of contraceptive acceptors and the side effects of three-month injectable contraceptives. Improving knowledge and fostering positive attitudes among acceptors may help in managing and reducing the impact of these side effects.

Keywords: Contraceptive acceptors; knowledge; attitude; injectable contraception; side effects

How to Cite:

Fauza, R. ., Yuliana, & Faridah. (2026). Association Between Knowledge and Attitude of Contraceptive Acceptors and Side Effects of Three-Month Injectable Contraceptives at Private Practice. *Omni Health Journal*, 3(2), 48-52. <https://doi.org/10.65277/ohj.v3i2.167>

Introduction

Population growth remains one of the major challenges faced by developing countries, including Indonesia. Rapid population increase can place significant pressure on economic resources, healthcare systems, and overall quality of life. In response, the Indonesian government has implemented the National Family Planning Program (FP Program) since 1968 through the establishment of the National Family Planning Institute, which later developed into the National Population and Family Planning Board (BKKBN). This program aims to control population growth while improving the quality of human resources (BKKBN, 2023).

Family planning is defined as an effort to assist married couples in preventing unintended pregnancies, regulating birth intervals, and determining the desired number of children (Yurike et al., 2020). According to BKKBN data in 2023, among 5,192,644 couples of reproductive age (CRAs), 9.9% were new family planning participants and 78.2% were active participants. The distribution of contraceptive methods shows that long-term methods (long-acting reversible contraceptives/LARCs), such as intrauterine devices (8.3%), male sterilization (0.1%), and implants (12.2%), are less commonly

used compared to non-long-term methods, particularly injectable contraceptives (51%), oral contraceptives (25.1%), and condoms (2.4%) (BKKBN, 2023). These data indicate that injectable contraceptives remain the most widely used method in Indonesia.

Injectable contraceptives are considered effective and practical because they do not require daily administration and are reversible. Their mechanism of action includes inhibition of ovulation through suppression of luteinizing hormone (LH), thickening of cervical mucus to prevent sperm penetration, and alteration of the endometrium, making it less suitable for implantation (Handayani, 2020). Despite these advantages, injectable contraceptives are also associated with potential side effects, which may influence user satisfaction and continuation of use.

The effectiveness of contraceptive methods is not only determined by their biological mechanism but also by users' knowledge and attitudes. Limited knowledge about contraceptive methods may lead to misconceptions, inappropriate use, and negative attitudes toward contraception, which in turn can increase the risk of method failure (Karimang et al., 2020). Although injectable contraceptives are widely used, concerns about side effects remain a common reason for discontinuation.

However, existing studies have primarily focused on the effectiveness and usage patterns of contraceptives, while limited attention has been given to the relationship between knowledge, attitudes, and perceived side effects among contraceptive acceptors, particularly in primary healthcare settings. Understanding this relationship is important to improve counseling strategies and enhance the quality of family planning services.

Therefore, this study aims to examine the association between knowledge and attitudes of contraceptive acceptors and the side effects of three-month injectable contraceptives at Hj. Lindawati Midwife Practice, Kembang Tanjong District.

Methods

Study Design

This study employed a quantitative analytic design using a cross-sectional approach to examine the association between knowledge and attitudes of contraceptive acceptors and the side effects of three-month injectable contraceptives at Hj. Lindawati Midwife Practice, Kembang Tanjong.

Samples

The population in this study consisted of all three-month injectable contraceptive acceptors at Hj. Lindawati Midwife Practice, Kembang Tanjong, from January to October 2024, totaling 144 individuals. The sample size was determined using the Slovin formula, resulting in 59 respondents. This approach was used to obtain a representative sample from a relatively homogeneous population within a defined setting. The inclusion criteria were women who were currently using three-month injectable contraceptives and residing in Kembang Tanjong. Respondents who did not meet these criteria or were unwilling to participate were excluded from the study.

Instruments

Data were collected using a structured questionnaire designed to assess knowledge, attitudes, and side effects of three-month injectable contraceptives. The knowledge variable was measured using a Guttman scale, where correct responses were scored as 1 and incorrect responses as 0, reflecting respondents' understanding of contraceptive side effects. Attitudes were assessed using a Likert scale, in which positive statements were scored from 5 (strongly agree) to 1 (strongly disagree), while negative statements were scored in reverse. The dependent variable, side effects of three-month injectable contraceptives, was measured using 10 items and categorized as "Yes" if respondents experienced side effects ($\geq 50\%$) and "No" if $< 50\%$. The questionnaire was reviewed to ensure clarity, relevance, and consistency with the study objectives.

Data Collection

Data were analyzed using univariate and bivariate analysis. Univariate analysis was used to describe the distribution of each variable. Bivariate analysis was conducted using the Chi-square test to examine the association between knowledge, attitudes, and side effects of three-month injectable contraceptives. Statistical significance was determined based on standard criteria.

Data Analysis

Study This using the Chi-Square statistical test to determine connection significant between the dependent variable and the independent variable. The Chi-square test itself provide the right approach in a way methodological For test hypothesis , especially in study this , is it there is connection between

knowledge and attitudes acceptor to effect In addition to the three-month injection , this test ensure that the analysis is correct goals and results supported statistically by correlation between categorical variables in study This.

Ethical Considerations

This study was conducted following ethical principles in human research. Permission to conduct the study was granted by Hj. Lindawati Midwife Practice. All participants provided informed consent prior to participation. Confidentiality and anonymity of respondents were maintained throughout the study.

Results

Side Effects of Three-Month Injectable Contraceptives

Table 1 presents the distribution of side effects among respondents. Of the 59 respondents, 23 respondents (39.0% reported experiencing side effects, while 36 respondents (61.0%) did not report any side effects.

Table 1. Distribution of Side Effects of Three-Month Injectable Contraceptives (n = 59)

Side Effects	n	%
Yes	23	39.0
No	36	61.0
Total	59	100.0

Source : SPSS Processed Data

Knowledge

Table 2 presents the distribution of respondents based on knowledge level. Of the 59 respondents, 22 respondents (37.3%) had good knowledge, 18 respondents (30.5%) had moderate knowledge, and 19 respondents (32.2%) had poor knowledge.

Table 2. Distribution of Knowledge Level Among Contraceptive Acceptors (n = 59)

Knowledge Level	n	%
Good	22	37.3
Moderate	18	30.5
Poor	19	32.2
Total	59	100.0

Source : SPSS Processed Data

Attitude

Table 3 presents the distribution of respondents based on attitude. Of the 59 respondents, 30 respondents (50.8%) had a positive attitude, while 29 respondents (49.2%) had a negative attitude.

Table 3. Distribution of Attitude Among Contraceptive Acceptors (n = 59)

Attitude	n	%
Positive	30	50.8
Negative	29	49.2
Total	59	100.0

Source : SPSS Processed Data

Association Between Knowledge and Side Effects

Table 4 presents the distribution of knowledge level based on the occurrence of side effects. Among respondents who experienced side effects, 13 respondents (56.5%) had poor knowledge, while among those who did not experience side effects, 19 respondents (52.8%) had good knowledge. The Chi-square test showed a p-value of 0.002.

Table 4. Association Between Knowledge and Side Effects of Three-Month Injectable Contraceptives (n = 59)

Knowledge Level	Side Effects Yes n (%)	Side Effects No n (%)	Total n (%)
Good	3 (13.1)	19 (52.8)	22 (37.3)
Moderate	7 (30.4)	11 (30.6)	18 (30.5)
Poor	13 (56.5)	6 (16.7)	19 (32.2)
Total	23 (100.0)	36 (100.0)	59 (100.0)

Source : SPSS Processed Data

Association Between Attitude and Side Effects

Table 5 presents the distribution of attitude based on the occurrence of side effects. Among respondents who experienced side effects, 17 respondents (73.9%) had a negative attitude, while among those who did not experience side effects, 24 respondents (66.7%) had a positive attitude. The Chi-square test showed a p-value of 0.002.

Table 5. Association Between Attitude and Side Effects of Three-Month Injectable Contraceptives (n = 59)

Attitude	Side Effects Yes n (%)	Side Effects No n (%)	Total n (%)
Positive	6 (26.1)	24 (66.7)	30 (50.8)
Negative	17 (73.9)	12 (33.3)	29 (49.2)
Total	23 (100.0)	36 (100.0)	59 (100.0)

Source : SPSS Processed Data

Discussion

The findings of this study indicate a significant association between knowledge and attitudes of contraceptive acceptors and the occurrence of side effects of three-month injectable contraceptives. Rather than merely reflecting statistical association, this relationship suggests that knowledge plays a fundamental role in shaping how individuals perceive and respond to the side effects of contraceptive use.

From a theoretical perspective, knowledge represents the cognitive domain that forms the basis for individual understanding and decision-making processes (Notoatmodjo, 2020). Adequate knowledge enables individuals to recognize expected side effects, differentiate between normal and concerning symptoms, and respond appropriately. In contrast, limited knowledge may lead to misconceptions, anxiety, and negative perceptions toward contraceptive use. This condition can influence attitudes, which are defined as a state of readiness to respond to certain objects or situations based on prior experience (Arikunto, 2020). Thus, knowledge and attitudes are closely interconnected, where knowledge acts as a foundation for the development of attitudes.

In the context of contraceptive use, particularly three-month injectable contraceptives, understanding the mechanism, benefits, and potential side effects is essential. Injectable contraceptives work by preventing ovulation, thickening cervical mucus, and altering the endometrium, thereby effectively preventing pregnancy (Handayani, 2020). However, the presence of side effects may influence users' perceptions and acceptance. Individuals with better knowledge are more likely to interpret these effects as part of the normal physiological response, leading to more positive attitudes. Conversely, those with insufficient knowledge may perceive side effects negatively, which can contribute to dissatisfaction or discontinuation.

The relationship between knowledge and attitudes can also be explained through behavioral theory, where cognitive components such as beliefs and understanding influence affective responses and ultimately shape behavior. Knowledge provides a framework for evaluating information, while attitudes reflect an individual's tendency to respond positively or negatively. In this study, respondents with higher levels of knowledge tended to demonstrate more positive attitudes toward managing side effects, indicating that improved understanding may enhance acceptance and adaptation.

In addition, sociocultural factors such as beliefs, values, and religious perspectives may influence both knowledge and attitudes toward family planning. Some individuals may hold beliefs that discourage contraceptive use, which can affect how information is received and interpreted. This highlights that knowledge alone may not be sufficient, but must be supported by culturally sensitive education and counseling strategies.

These findings are consistent with previous studies showing that higher levels of knowledge are associated with more positive attitudes toward contraceptive use and selection (Siregar, 2024). Knowledge contributes to the formation of attitudes by providing the basis for evaluating benefits and risks, which in turn influences individual responses. Therefore, improving knowledge through effective health education is essential to promote positive attitudes and better acceptance of contraceptive methods.

Overall, the results of this study emphasize the importance of strengthening educational interventions for contraceptive acceptors. Healthcare providers, particularly in primary care settings, play a crucial role in delivering accurate and comprehensive information regarding contraceptive methods and their side effects. By enhancing knowledge, it is expected that individuals will develop more positive attitudes, leading to better acceptance and continued use of contraception.

Conclusion

This study demonstrates a significant association between knowledge and attitudes of contraceptive acceptors and the side effects of three-month injectable contraceptives. These findings indicate that better knowledge contributes to more positive attitudes in responding to and managing contraceptive side effects. From a practical perspective, the results highlight the importance of strengthening health education and counseling for contraceptive acceptors, particularly in primary care settings. Healthcare providers, including midwives, play a key role in improving patient understanding through effective communication and decision-support tools. Enhancing knowledge and attitudes is expected to improve acceptance and continuity of contraceptive use. Further research is recommended to explore additional factors influencing contraceptive use and to develop more targeted interventions to support family planning programs.

References

- Arikunto, S. (2020). *Prosedur penelitian: Suatu pendekatan praktik* (13th ed.). Rineka Cipta.
- BKKBN. (2019). *Family planning movement*. <http://bkkbn.go.id>
- BKKBN. (2023). *Health law on family planning*. <https://peraturan.bpk.go.id/Details/254345/peraturan-bkkbn-no-1-tahun-2023>
- Ernawati, Sumarmi, Nuryana, R., Kartini, A., & Nurftariwi, I. (2024). Knowledge of Pregnant Before and After Educational Module on Postpartum Family Planning. *Omni Nursing Journal*, 1(4), 107-112. <https://doi.org/10.65277/onj.v1i4.93>
- Hardianty, A., Anwar, & Wahyuni, A. (2024). Mother's Knowledge and Attitude Correlated with Nutritional Status of Children. *Omni Nursing Journal*, 1(3), 71-76. <https://doi.org/10.65277/onj.v1i3.52>
- Karimang, S., Abeng, T. D. E., & Silolonga, W. N. (2020). Factors related to the use of three-month injectable contraceptives in the Tagulandang Community Health Center area, Sitaro Regency. *Jurnal Keperawatan*, 8(1), 10. <https://www.academia.edu/download/102959897/2621.pdf>
- Notoatmodjo, S. (2020). *Metode penelitian kesehatan* (Revised ed.). Rineka Cipta.
- Romauli, S., Wijayanti, I., Wardhani, Y., & Pasang, N. (2024). Experience of family planning acceptors using three-month injectable contraceptives at community health centers. *Jurnal Keperawatan Florence Nightingale*, 7(1), 88–102. <https://www.ejournal.stikstellamarismks.ac.id/index.php/JKFN/article/view/150>
- Sari, D. P. (2021). Side effects of three-month injectable contraceptives among acceptors at a private midwife practice (BPS) Hj. Norhidayati Banjarmasin. *Jurnal Keperawatan Suaka Insan*, 6(2), 127–131. https://stikessuakainsan.ac.id/si_journal/index.php/jksi/article/view/297
- Siregar, E. S. (2024). The relationship between knowledge and attitudes of family planning acceptors with three-month injectable contraceptives. *Evidence Based Journal*, 290–299. <https://ojs.stikessehati.ac.id/index.php/ebj/article/download/153/138>
- Tahir S, Supirman. (2024). The Relationship Between the Level of Knowledge and Maternal Attitudes towards Giving the Covid-19 Vaccine to Children Aged 6-17 Years. *Omni Health Journal*, 1(1), 21-29. <https://doi.org/10.65277/ohj.v1i1.12>
- Yurike, S., Wardani, E. M., & Kartini, Y. (2018). Factors influencing the use of three-month injectable contraceptives among family planning acceptors. *Journal of Nursing and Midwifery*, 5(1). <http://unusa.ac.id>