

Factors Influencing the Utilization of Long-Acting Reversible Contraception (LARC) at Dr. Wahyu Slamet Naval Hospital, Bitung

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Abstract. The use of Long-Term Contraceptive Methods (LCMs) is an effective strategy to reduce the number of unplanned pregnancies and increase the success of the Family Planning (KB) program. However, the use of LCMs in Indonesia remains relatively low compared to non-LCMs. Factors such as age, husband's support, and knowledge are thought to influence LCM use among women of childbearing age. This study aims to analyze the factors influencing LCM use at the dr. Wahyu Slamet Hospital. This study used a quantitative analytical design with a cross-sectional approach. The study was conducted from January to April 2026 with a sample of 60 respondents selected using a total sampling technique. Data were collected using a structured questionnaire and analyzed through univariate and bivariate analysis using the Chi-Square test with a significance level of $\alpha = 0.05$. The results showed that most respondents were aged 20–35 years (56.7%), received husband's support (68.3%), had good knowledge (61.7%), and used long-term contraceptive methods (MWJP) (60.0%). The results of the statistical analysis showed a significant relationship between age and the use of MWJP ($p=0.015$), husband's support with the use of MWJP ($p=0.002$), and knowledge with the use of MWJP ($p=0.009$). This study concluded that age, husband's support, and knowledge were significantly related to the use of MWJP. It is hoped that health workers can improve education and counseling regarding the benefits of MWJP and involve husbands in family planning services to increase the use of long-term contraceptive methods.

Keywords: Age; Family Planning; Husband's Support; Knowledge; Long-Term Contraceptive.

1. BACKGROUND

The Family Planning (KB) Program is one of the government's efforts to improve reproductive health, reduce maternal mortality, and control population growth in Indonesia (BKKBN, 2023; UNFPA Indonesia, 2021). One highly effective contraceptive method is the Long-Term Contraceptive Method (LMP), which includes the Intrauterine Device (IUD), implants, the Female Surgical Method (MOP), and the Male Surgical Method (MOP). Compared with short-term contraceptive methods, LMP has a low failure rate, provides long-term protection, and is more effective in preventing unplanned pregnancies (WHO, 2021; Ministry of Health of the Republic of Indonesia, 2022).

Despite this, the use of Long-Term Contraceptive Methods (MKJP) in Indonesia remains relatively low. Data from the National Population and Family Planning Agency (BKKBN) shows that most family planning users still prefer non-MKJP contraceptive methods, particularly injectables and birth control pills (BKKBN, 2023). The low use of Long-Term Contraceptive Methods (MKJP) is a concern because these methods contribute to reducing the number of unintended pregnancies, reducing the risk of contraceptive discontinuation, and supporting the success of the national family planning program.

Various studies have shown that the use of long-term contraceptive methods (MKJP) is influenced by age, husband's support, and knowledge. Rahmawani and Musniati (2025) reported that knowledge ($p=0.025$) and husband's support ($p=0.037$) were significantly associated with the use of long-term contraceptive methods (MKJP). Research by Sumartini et al. (2025) also showed that knowledge ($p=0.008$) and husband's support ($p<0.001$) were factors associated with the use of long-term contraceptive methods (MKJP). Meanwhile, Anggraini et al. (2024) found that women over 30 years of age used MKJP more often than younger women.

Based on data from the Dr. Wahyu Slamet Hospital in Bitung, the use of non-MKJP contraceptives remains higher than that of MKJP. Most users choose injectable and pill methods because they are considered more practical. Furthermore, women of childbearing age still have limited knowledge about MKJP and do not receive full support from their husbands in making their contraceptive choices. This situation indicates that the utilization of MKJP is still suboptimal, so research is needed to analyze the factors influencing its use.

Based on this description, this study aims to analyze the factors influencing the use of Long-Term Contraceptive Methods (LMPs) at the dr. Wahyu Slamet Bitung Hospital, focusing on age, husband's support, and knowledge. The results are expected to serve as a basis for improving the quality of education, counseling, and family planning services in health facilities.

2. THEORETICAL STUDY

Long-Term Contraceptive Method (LTMC)

Long-acting contraceptive methods (LCMs) are highly effective contraceptive methods that can provide long-term protection against pregnancy. Types of LCMs include the Intrauterine Device (IUD), implants, the Female Surgical Method (MSM), and the Male Surgical Method (MPM). Compared to short-acting contraceptive methods, LCMs have a lower failure rate, do not require routine use, and are more effective in preventing unplanned pregnancies (WHO, 2021; Ministry of Health of the Republic of Indonesia, 2022).

Age Factor

Age is one factor influencing the choice of contraceptive method. Women of more mature reproductive age tend to choose long-term contraception (MHT) because they have already had their desired number of children and require a more effective contraceptive method. Conversely, younger women generally prefer short-term contraception because they are still planning for future pregnancies (Anggraini et al., 2024; Harzif et al., 2019; Mutia et al., 2025).

Husband's Support

Husband's support is a form of partner involvement in decision-making regarding contraceptive use. This support can take the form of emotional support, information, financial support, and approval of contraceptive use. Within the family context, husband's support plays a crucial role in increasing the confidence of women of childbearing age to use long-term contraceptive methods (MKJP) (Choiriyah et al., 2020; Fadilah & Sulistiyah, 2025).

Knowledge

According to Notoatmodjo's (2018) health behavior theory, knowledge is a key domain that shapes a person's health behavior. Good knowledge about the benefits, effectiveness, safety, and side effects of long-term contraceptive methods (MHT) will foster positive attitudes and encourage women of childbearing age to choose long-term contraception. Conversely, insufficient knowledge can lead to misperceptions, thus hindering the use of MHT (Bolarinwa & Olagunju, 2020; Sumartini et al., 2025).

Relationship between Age, Husband's Support, and Knowledge with the Use of MKJP

Long-Term Contraceptive Use (MWJP) is influenced by a combination of predisposing and supporting factors. A more mature age reflects readiness to make contraceptive choices, while husband's support provides reinforcement in decision-making. Furthermore, good knowledge increases understanding of the benefits and safety of MWJP, thus encouraging long-term contraceptive use. These three factors interact to shape MWJP use behavior among women of childbearing age.

3. RESEARCH METHODS

This study used an analytical quantitative research design with a cross-sectional approach. The study was conducted at the dr. Wahyu Slamet Bitung Hospital in January–April 2026. The population in this study were all family planning acceptors who visited the dr. Wahyu Slamet Bitung Hospital. The research sample consisted of 60 respondents selected using a total sampling technique. The independent variables in this study were age, husband's support, and knowledge, while the dependent variable was the use of MKJP. Data collection was carried out using a structured questionnaire. Data analysis was carried out univariately to see the frequency distribution of respondents and bivariately using the Chi-Square test with a 95% confidence level ($\alpha = 0.05$).

4. RESULTS AND DISCUSSION

General Data (Univariate Analysis)

Table 1. Distribution of Respondents Based on Maternal Age.

Age	f	%
<20 years	8	13.3
20–35 years	34	56.7
>35 years	18	30.0
Total	60	100

Based on Table 1, it is known that the majority of respondents were in the 20–35 age group, namely 34 people (56.7%), while respondents aged >35 years were 18 people (30.0%) and those aged <20 years were 8 people (13.3%). This indicates that the majority of respondents were of healthy reproductive age.

Table 2. Distribution of Respondents Based on Mother's Occupation.

Work	f	%
Housewife	28	46.7
Self-employed	14	23.3
Private	10	16.7
civil servant	8	13.3
Total	60	100

Based on Table 2, it is known that the majority of respondents work as housewives (28 respondents, 46.7%). Respondents who work as self-employed (14 respondents, 23.3%), work in the private sector (10 respondents, 16.7%), and work as civil servants (PNS) (8 respondents, 13.3%). This indicates that the majority of respondents do not work in the formal sector and primarily act as housewives.

Table 3. Distribution of Respondents Based on Mother's Education.

Education	f	%
Elementary School	11	18.3
JUNIOR HIGH SCHOOL	14	23.3
SENIOR HIGH SCHOOL	26	43.3
College	9	15.0
Total	60	100

Table 3 shows that the majority of respondents had a high school education, 26 (43.3%). Fourteen (23.3%) had a junior high school education, 11 (18.3%), and nine (15.0%) had a college education. This indicates that the majority of respondents had a secondary education.

Table 4. Distribution of Respondents Based on Parity.

Parity	f	%
Primipara	16	26.7
Multipara	29	48.3
Grandel multipara	15	25.0
Total	60	100

Table 4 shows that the majority of respondents were multiparous, with 29 (48.3%). Sixteen (26.7%) were primiparous, while 15 (25.0%) were grand multiparous. This indicates that the majority of respondents had given birth more than once.

Table 5. Distribution of Respondents Based on Husband's Support.

Husband's Support	f	%
Support	41	68.3
Not supported	19	31.7
Total	60	100

Table 5 shows that the majority of respondents received support from their husbands in using contraception (41 respondents (68.3%), while 19 respondents (31.7%) did not receive support from their husbands. This indicates that the majority of husbands supported the study respondents' use of contraception.

Table 6. Distribution of Respondents Based on Knowledge.

Knowledge	f	%
Good	37	61.7
Not enough	23	38.3
Total	60	100

Table 6 shows that the majority of respondents (37 respondents or 61.7%) had good knowledge of Long-Term Contraceptive Methods (LCMs), while 23 (38.3%) had poor knowledge. This indicates that the majority of respondents had a fairly good understanding of the use of LCMs.

Table 7. Distribution of Respondents Using MKJP KB.

Use of MKJP KB	f	%
Using MKJP	36	60.0
Not using MKJP	24	40.0
Total	60	100.0

Table 7 shows that the majority of respondents used Long-Term Contraceptive Methods (LMPs), namely 36 respondents (60.0%), while 24 respondents (40.0%) did not use LMPs. This indicates that LMP use was more dominant among the study respondents than non-LMP use.2. Special Data (Bivariate Analysis).

Table 8. Relationship between Age and Use of MKJP.

Age	Using MKJP		Not MKJP		Total		P value
	f	%	f	%	f	%	
<20 years	2	25.0	6	75.0	8	100	0.015
20–35 years	19	55.9	15	13.6	34	100	
>35 years	15	83.3	3	16.7	18	100	
Total	36	60.0	24	40.0	60	100	

Table 8 shows that the use of the Long-Term Contraceptive Method (MWJP) was more common among respondents aged >35 years, namely 15 people (83.3%), while only 3 people (16.7%) did not use it. In the 20–35 age group, 19 respondents (55.9%) used it, while 15 respondents (44.1%) did not use it. Meanwhile, in the age group <20 years, the majority did not use it, namely 6 people (75.0%), and only 2 people (25.0%) used it.

The statistical test results showed a p-value of 0.015 (<0.05), thus concluding that there is a significant relationship between age and the use of long-term contraceptive methods. This indicates that as respondents' ages, their tendency to use long-term contraceptive methods increases.

Table 9. Relationship between Husband's Support and Use of MKJP.

Husband's Support	Using MKJP		Not MKJP		Total		P value
	f	%	f	%	f	%	
Support	30	73.2	11	26.8	41	100	0.002
Does not support	6	31.6	13	68.4	19	100	
Total	36	60.0	24	40.0	60	100	

Table 9 shows that the majority of respondents who received husband support used the MKJP (30 respondents, 73.2%), while 11 respondents (26.8%) did not use the MKJP. Conversely, the majority of respondents who did not receive husband support did not use the MKJP (13 respondents, 68.4%), and only 6 respondents (31.6%) used the MKJP.

The statistical test results showed a p-value of 0.002 (<0.05), thus concluding a significant relationship between husband's support and the use of long-term contraceptive methods (MKJP). This indicates that husband's support plays a significant role in increasing the use of long-term contraceptive methods among couples of childbearing age.

Table 10. Relationship between Knowledge and Use of MKJP.

Knowledge	Using MKJP		Not MKJP		Total		P value
	f	%	f	%	f	%	
Good	27	73.0	8	27.0	37	100	0.009
Not enough	9	39.1	16	60.9	23	100	
Total	36	60.0	24	40.0	60	100.0	

Table 10 shows that respondents with good knowledge mostly used MKJP (27 people) while 8 people (27.0%) did not use MKJP. Meanwhile, among respondents with less knowledge, most did not use MKJP (16 people) and only 9 people (39.1%) used MKJP.

The statistical test results showed a p-value of 0.009 (<0.05), thus concluding that there is a significant relationship between knowledge and the use of long-term contraceptive methods. This indicates that the better the respondents' knowledge of contraception, the higher their tendency to use long-term contraceptive methods.

Table 11. Relationship between Education and Use of MKJP.

Knowledge	Using MKJP		Not MKJP		Total		P value
	f	%	f	%	f	%	
Elementary School	2	3.3	9	15.0	11	18.3	0.010
JUNIOR HIGH SCHOOL	8	13.3	6	10.0	14	23.3	
SENIOR HIGH SCHOOL	20	33.3	6	10.0	26	43.3	
Higher Education	6	10.0	3	5.0	9	15.0	
Total	36	60.0	24	40.0	60	100.0	

Based on Table 11, it is known that respondents with a high school education were more likely to use MKJP, as many as 20 people (33.3%), while those with an elementary school education were mostly not using MKJP, as many as 9 people (15.0%). The statistical test results obtained a p-value of 0.010 (<0.05), indicating a significant relationship between maternal education level and MKJP use. This indicates that the higher the level of education, the greater the tendency for MKJP use.

Table 12. Relationship between work and use of MKJP.

Work	Using MKJP		Not MKJP		Total		P value
	f	%	f	%	f	%	
Housewife	20	33.3	8	13.3	28	46.7	0.017
Self-employed	10	16.7	4	6.7	14	23.3	
Private	5	8.3	5	8.3	10	16.7	
civil servant	1	1.7	7	11.7	8	13.3	
Total	36	60.0	24	40.0	60	100.0	

Based on Table 12, it is known that respondents who work as housewives (IRT) are the most likely to use MKJP, namely 20 people (33.3%), while respondents who work as civil servants (PNS) mostly do not use MKJP, namely 7 people (11.7%). The statistical test results obtained a p-value of 0.017 (<0.05), thus indicating a significant relationship between occupation and MKJP use. This indicates that the type of occupation is related to respondents' tendency to choose long-term contraception methods.

Table 13. Relationship between Parity and Use of MKJP.

Knowledge	Using MKJP		Not MKJP		Total		P Value
	f	%	f	%	f	%	
Primipara	3	5.0	13	21.7	16	26.7	0.00
Multipara	22	36.7	7	11.7	29	48.3	
Gradel Multipara	11	18.3	4	6.7	15	25.0	
Total	36	60.0	24	40.0	60	100	

Table 13 shows that respondents with multiparity parity used MKJP the most, with 22 respondents (36.7%), while primipara respondents mostly did not use MKJP, with 13 respondents (21.7%). The statistical test results obtained a p-value of 0.000 (<0.05), indicating a significant relationship between parity and MKJP use. This indicates that the greater the number of childbirth experiences, the greater the tendency to use MKJP.

Relationship between Age and Use of MKJP KB

The results showed a significant association between age and the use of long-term contraceptive methods (MWJP) at the dr. Wahyu Slamet Bitung Hospital (p-value = 0.015). Respondents aged >35 years were more likely to use MKJP (83.3%), while those aged <20 years were mostly non-contact (75.0%). These results indicate that with increasing age, the tendency to use MKJP increases.

Age is a factor that influences a person's maturity in making decisions regarding reproductive health. Women of mature reproductive age generally have already had their desired number of children and therefore prefer effective long-term contraceptive methods (Mutia et al., 2025). The WHO (2021) also states that long-term contraceptive methods (MTM) are more recommended for women of mature reproductive age because they are effective in preventing high-risk pregnancies.

The results of this study align with those of Anggraini et al. (2024), Mutia et al. (2025), and Rahmawani and Musniati (2025), who stated that age is significantly associated with the use of long-term contraceptive methods (MKJP). The researchers assumed that older women have more reproductive experience and maturity in family planning, thus preferring long-term contraceptive methods (MKJP).

The Relationship between Education and the Use of MKJP

The results showed that the majority of respondents had a high school education (43.3%). A chi-square test showed a significant relationship between education and the use of MKJP (p-value = 0.010). Respondents with high school and college educations used MKJP more often than respondents with elementary school education.

Higher education makes it easier for someone to receive and understand information about the benefits, effectiveness, and safety of long-term contraceptive methods. Conversely, lower education can lead to limited understanding of health information, making them more susceptible to being influenced by myths about contraception. The results of this study support previous research that found that education level is associated with the choice of long-term contraceptive method.

Relationship between Work and Use of MKJP

The majority of respondents were housewives (46.7%). Statistical test results showed a significant relationship between occupation and MKJP use ($p\text{-value} = 0.017$). Respondents who worked as housewives were the most likely to use MKJP, while respondents who worked as civil servants were the least likely to use MKJP.

Occupation influences socioeconomic conditions, access to information, and behavior in utilizing health services. Housewives tend to choose long-term contraceptive methods (MKJP) because they are more practical, effective, and require less routine check-ups than short-term contraceptive methods. These findings suggest that employment may be a factor influencing women's contraceptive choices.

The Relationship between Parity and the Use of MKJP

The results showed that the majority of respondents were multiparous (48.3%). Chi-square test results showed a significant relationship between parity and the use of long-term contraceptive methods ($p\text{-value} = 0.000$). Multiparous respondents were more likely to use long-term contraceptive methods (36.7%), while the majority of primiparous respondents did not use long-term contraceptive methods (21.7%).

Parity is related to reproductive experience and family planning needs. Mothers who have had more than one child tend to choose long-term contraception (MKJP) because it is more effective in limiting or spacing pregnancies. Conversely, primiparous mothers generally still plan to have more children and therefore prefer short-term contraceptive methods. This study's results align with previous research that found parity to be significantly associated with long-term contraception use.

The Relationship Between Husband's Support and the Use of MKJP KB

The results showed a significant relationship between husband's support and the use of MKJP ($p\text{-value} = 0.002$). Most respondents who received husband's support used MKJP (73.2%), while most respondents who did not receive husband's support did not use MKJP (68.4%).

Husband's support is a crucial factor in contraceptive decision-making, including emotional support, information, approval, and financial support (Choiriyah et al., 2020; Fadilah & Sulistiyah, 2025). This support can increase women's confidence in choosing an effective contraceptive method. The results of this study align with those of Choiriyah et al. (2020), Sumartini et al. (2025), and Rahmawani and Musniati (2025), which found that husband's support is significantly associated with the use of long-term contraceptive methods. The researchers assumed that partner support provides a sense of security and confidence for respondents, making them more willing to use long-term contraceptive methods.

The Relationship Between Knowledge and the Use of MKJP KB

The results showed a significant relationship between knowledge and the use of MKJP (p -value = 0.009). Respondents with good knowledge were more likely to use MKJP (73.0%), while respondents with poor knowledge were mostly not using MKJP (60.9%). These results indicate that the better the respondents' knowledge, the higher the likelihood of using MKJP.

Knowledge is a predisposing factor that influences a person's health behavior (Notoatmodjo, 2018). A good understanding of the benefits, effectiveness, safety, and side effects of long-term contraceptive methods (MHT) will increase the confidence of women of childbearing age in choosing long-term contraception (WHO, 2021). The results of this study align with research by Sumartini et al. (2025), Rahmawani and Musniati (2025), and Arbaiyah (2021), which showed that good knowledge is associated with increased use of MHT. The researchers assumed that the better respondents' knowledge about MHT, the easier it is for them to accept information and make decisions about using effective contraceptive methods in accordance with family planning.

5. CONCLUSION AND SUGGESTIONS

Based on the research results, it can be concluded that there is a significant relationship between age, education, occupation, parity, husband's support, and knowledge with the use of Long-Term Contraceptive Methods (MKJP) in the dr. Wahyu Slamet Bitung Hospital. Respondents with more mature age, higher education level, certain occupations, more parity, received husband's support, and had good knowledge tended to use MKJP more. The results of statistical tests showed a significant relationship between age ($p=0.015$), education ($p=0.010$), occupation ($p=0.017$), parity ($p=0.000$), husband's support ($p=0.002$), and knowledge ($p=0.009$) with the use of MKJP.

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REFERENCE LIST

- Anggraini, M. Y. L., Kusumastuti, I., & Novita, A. (2024). Determinants of fertile age couples' interest in using long-term contraceptive methods (LMPs). *Journal of Public Health Sciences*, 13(3), 210–218.
- Arbaiyah, I. (2021). The relationship between husband's knowledge and support with the use of IUD contraception in Balakka Village in 2020. *Indonesian Scientific Health Journal*, 6(2), 86–94. <https://doi.org/10.51933/health.v6i2.575>
- Bolarinwa, O. A., & Olagunju, O. S. (2020). Knowledge and factors influencing long-acting reversible contraceptives use among women of reproductive age in Nigeria. *Gates Open Research*, 3, 7. <https://doi.org/10.12688/gatesopenres.12902.3>
- Choiriyah, L., Armini, N. K. A., & Hadisuyatmana, S. (2020). Men's supports and perspectives on using and selecting long-term contraceptive aids. *Indonesian Journal of Community Health Nursing*, 5(2), 56–63. <https://doi.org/10.20473/ijchn.v5i2.18481>
- Fadilah, N. U., & Sulistiyah. (2025). The relationship between husband's support and the interest of fertile age couples in using MKJP. *Tambusai Education Journal*, 9(3), 14420–14427.
- Harzif, A. K., Mariana, A., Handayani, D., et al. (2019). Factors associated with the utilization of long-acting reversible contraceptives among family planning clients at the Pameungpeuk Rural Hospital, Indonesia. *F1000Research*, 7, 1891. <https://doi.org/10.12688/f1000research.15755.2>
- Ministry of Health of the Republic of Indonesia. (2022). *Indonesian health profile 2022*.
- Mutia, F., Masnawati, Nasution, N. A., Lubis, A. H. S., & Siregar, Y. (2025). Factors associated with the use of long-term contraceptive methods (LMPs). *Indonesian Scientific Health Journal*, 10(1), 11–19. <https://doi.org/10.51933/health.v10i1.2052>
- National Population and Family Planning Agency. (2023). *Profile of the Indonesian family planning program in 2023*.
- Notoatmodjo, S. (2018). *Health promotion and health behavior*. Rineka Cipta.
- Rahmawani, R., & Musniati, N. (2025). The relationship between knowledge, attitude, and husband's support with the choice of long-term contraceptive methods in women of childbearing age. *Journal of Health Education*, 5(2), 90–98.

- Sumartini, N. P. S., Ningtyas, L. A. W., & Ariyani, N. W. (2025). The relationship between mother's knowledge and husband's support with the choice of long-term contraceptive methods (LMPs). *Sciences and Clinical Pharmacy Research Journal*, 2(2), 15–22. <https://doi.org/10.47134/scpr.v2i2.4224>
- Turiyani. (2021). Husband's support for contraceptive use in fertile age couples. *Indonesian Midwifery Journal*, 12(1), 45–52.
- United Nations Population Fund Indonesia. (2021, July 5). *2021 National Family Day: Preventing maternal mortality and stunting with family planning*. UNFPA Indonesia.
- World Health Organization. (2021). *Family planning and contraception guideline*. Geneva: World Health Organization.