



The Relationship Between the Knowledge Level of PUS Mothers and the Use of Long-Term Contraceptive Methods (LTCM) in the Basarang Community Health Center Work Area

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Abstract: Long-acting contraceptive methods (LACMs/MKJP) are effective family planning options for controlling fertility and improving maternal health. However, the utilization of LACMs among women of reproductive age remains relatively low, which may be influenced by their level of knowledge. This study aimed to examine the relationship between women's knowledge levels and the utilization of long-acting contraceptive methods in the working area of UPT Puskesmas Basarang. A quantitative study with a cross-sectional design was conducted involving 58 women of reproductive age selected using purposive sampling. Data were collected using a structured questionnaire to assess knowledge levels and contraceptive use, and analyzed using the Kendall's tau-b correlation test. The results showed that more than half of respondents had good knowledge of LACMs, yet only 39.7% reported using these methods. Bivariate analysis revealed a statistically significant relationship between knowledge level and LACM utilization ($p = 0.012$). The study concludes that knowledge is significantly associated with the use of long-acting contraceptive methods, although other factors may also influence decision-making. Strengthening education and counseling interventions is essential to improve informed contraceptive choices and increase the utilization of long-acting contraceptive methods.

Keywords: Contraceptive Utilization; Family; Knowledge; Long-Acting Contraceptive Methods; Women's Knowledge.

1. INTRODUCTION

The Family Planning program is a government effort to improve family welfare and enhance maternal and child health. This program aims to regulate the number and spacing of births in a safe and responsible manner. The success of the Family Planning program largely depends on the appropriate selection of contraceptive methods (Astuti, 2022). The chosen contraceptive method should be effective, safe, and suitable for the health condition of couples of reproductive age. Therefore, contraceptive choice is a crucial aspect of reproductive health services.

Long-Acting Reversible Contraceptive Methods are highly recommended in Family Planning programs. These methods include intrauterine devices, implants, and permanent contraceptive methods. Long-acting methods have high effectiveness and provide protection over an extended period. In addition, they do not require daily user compliance (Ramadhani et al., 2023). These advantages make long-acting contraceptive methods an efficient option for birth control.

Despite their advantages, the utilization of long-acting contraceptive methods remains relatively low in many communities. Most couples of reproductive age continue to prefer short-term contraceptive methods. Methods such as oral pills, injections, and condoms are still

commonly used. The low utilization of long-acting methods indicates the presence of barriers to their acceptance. These barriers may arise from individual perceptions as well as social and environmental factors (Putri et al., 2020).

Knowledge level is one of the key factors influencing the choice of contraceptive methods. Adequate knowledge enables women to understand the benefits and safety of long-acting contraceptive methods. Women with sufficient information tend to feel more confident in selecting these methods (Ruindungan, 2020). Conversely, limited knowledge may lead to fear and misconceptions regarding side effects. This condition often discourages women from choosing long-acting contraception despite its effectiveness.

In addition to knowledge, social and cultural factors also affect contraceptive decision-making. Support from partners plays a significant role in determining contraceptive choices. Family and community influences can shape women's perceptions of long-acting contraceptive methods. Misconceptions and inaccurate information are still prevalent in many communities. Such conditions can strengthen resistance toward long-acting contraception (Devi, 2025).

Health care providers play a strategic role in improving women's understanding of long-acting contraceptive methods. Education and counseling provided by health professionals can help women receive accurate and comprehensive information. Clear communication can reduce fear and correct misconceptions related to contraception (Widowati et al., 2024). Effective counseling also enhances women's confidence in using long-acting methods. Therefore, the role of health care providers is essential in family planning services.

Preliminary findings in the working area of UPT Puskesmas Basarang indicate that the knowledge level of women of reproductive age regarding long-acting contraceptive methods remains low. Many women do not fully understand the types, benefits, and safety of these methods. This lack of knowledge contributes to the low utilization of long-acting contraception. Most women continue to rely on short-term contraceptive methods. These findings highlight the need for improved educational interventions.

Based on these conditions, further research is needed to examine the relationship between women's knowledge levels and the use of long-acting contraceptive methods. This study is expected to provide a clearer understanding of knowledge as a determining factor in contraceptive choice. The results may serve as a basis for developing more effective educational and counseling programs. Improved knowledge is expected to increase the utilization of long-acting contraceptive methods. Ultimately, this effort can support the achievement of Family Planning program objectives.

2. RESEARCH METHOD

This study employed a quantitative research approach with an analytic cross-sectional design. The study was conducted in the working area of UPT Puskesmas Basarang, Central Kalimantan Province, Indonesia. Data collection was carried out in October 2025 as part of a preliminary investigation. The design was chosen to examine the relationship between knowledge level and the use of long-acting contraceptive methods among women of reproductive age.

The study population consisted of women of reproductive age who were registered in the working area of UPT Puskesmas Basarang. A total of 15 respondents were included in the study using a purposive sampling technique. Inclusion criteria were women of reproductive age who were married, actively using contraception, and willing to participate in the study. Respondents who were not present during data collection or refused to participate were excluded.

Data were collected using a structured questionnaire developed to assess respondents' knowledge of long-acting contraceptive methods and the type of contraception currently used. Knowledge levels were categorized into good, fair, and poor based on questionnaire scores. Data analysis was conducted descriptively and analytically to identify the relationship between knowledge level and contraceptive use. The results were presented in the form of frequency distributions and narrative descriptions.

3. RESULTS AND DISCUSSION

Univariat Analyze

Table 1. Distribution of Respondents by Age Group.

Age Group (Years)	Frequency (n)	Percentage (%)
20–35	29	50.0
>35	29	50.0
Total	58	100.0

The results show that respondents were evenly distributed between the age groups of 20–35 years and over 35 years, with each group accounting for 29 respondents (50.0%). The mean age of respondents was 36.31 years, with ages ranging from 23 to 49 years. This indicates that most respondents were within the mature reproductive age group, which is relevant to long-acting contraceptive decision-making.

Table 2. Distribution of Respondents by Educational Level.

Educational Level	Frequency (n)	Percentage (%)
Primary School	19	32.8
Junior High School	21	36.2
Senior High School	11	19.0
Higher Education	7	12.1
Total	58	100.0

Most respondents had a junior high school education, accounting for 21 respondents (36.2%). Respondents with primary school education accounted for 32.8%, while only 12.1% had higher education. This distribution indicates that the majority of respondents had low to moderate educational backgrounds.

Table 3. Distribution of Respondents by Occupation.

Occupation	Frequency (n)	Percentage (%)
Housewife	30	51.7
Farmer	12	20.7
Trader	2	3.4
Employee	5	8.6
Others	9	15.5
Total	58	100.0

More than half of the respondents were housewives, totaling 30 respondents (51.7%). Farmers accounted for 20.7%, while the remaining respondents worked as traders, employees, or in other occupations. This occupational distribution reflects the socioeconomic characteristics of the study area.

Table 4. Distribution of Respondents by Number of Children.

Number of Children	Frequency (n)	Percentage (%)
1–2 children	26	44.8
≥3 children	32	55.2
Total	58	100.0

The majority of respondents had three or more children, accounting for 32 respondents (55.2%). Respondents with one to two children accounted for 44.8%. This finding suggests a higher potential need for long-acting contraceptive methods among respondents with larger family sizes.

Table 5. Distribution of Respondents by Knowledge Level of Long-Acting Contraceptive Methods.

Knowledge Level	Frequency (n)	Percentage (%)
Poor	9	15.5
Fair	17	29.3
Good	32	55.2
Total	58	100.0

More than half of the respondents (55.2%) had a good level of knowledge regarding long-acting contraceptive methods. Respondents with fair knowledge accounted for 29.3%, while

15.5% had poor knowledge. This distribution indicates that although most respondents had good knowledge, a considerable proportion still lacked adequate understanding.

Table 6. Distribution of Long-Acting Contraceptive Method Utilization.

MKJP Utilization	Frequency (n)	Percentage (%)
Yes	23	39.7
No	17	29.3
Undecided	18	31.0
Total	58	100.0

The results show that only 23 respondents (39.7%) used long-acting contraceptive methods. Meanwhile, 29.3% did not use MKJP, and 31.0% were undecided regarding MKJP use. This indicates that the utilization of long-acting contraceptive methods remains relatively low among respondents.

Bivariate Analyze

Table 7. Relationship Between Knowledge Level and Utilization of Long-Acting Contraceptive Methods.

Variables	Kendall's tau-b	p-value
Knowledge Level – MKJP Utilization	-0.302	0.012

The results of the Kendall's tau-b correlation test show a correlation coefficient of -0.302 with a p-value of 0.012. This indicates a statistically significant relationship between respondents' knowledge levels and the utilization of long-acting contraceptive methods. The negative correlation coefficient suggests an inverse relationship based on the coding of variables used in the analysis. These findings demonstrate that differences in knowledge levels are significantly associated with the use of long-acting contraceptive methods among women of reproductive age.

Based on the Kendall's tau-b test, the null hypothesis was rejected because the p-value was less than 0.05. This result confirms that there is a significant relationship between knowledge level and the utilization of long-acting contraceptive methods. Therefore, knowledge level is statistically associated with contraceptive choice among the respondents.

Discussion

The results of this study indicate that the utilization of long-acting contraceptive methods (LACMs/MKJP) among women of reproductive age remains relatively low, despite more than half of the respondents having good knowledge levels. Only 39.7% of respondents reported using MKJP, while a considerable proportion either did not use or were undecided about MKJP. This finding suggests that although knowledge is an important determinant, it is not the sole factor influencing contraceptive choice. Similar patterns were reported by Haryantina et al. (2024), who found that adequate knowledge did not always result in MKJP use due to

psychological and social barriers. Therefore, contraceptive behavior should be understood as a multifactorial process rather than a simple outcome of knowledge acquisition.

The bivariate analysis using Kendall's tau-b revealed a statistically significant relationship between knowledge level and MKJP utilization ($p = 0.012$). This finding supports the theoretical framework that knowledge plays a foundational role in shaping health behavior. According to Azura, (2025) knowledge is a prerequisite for attitude formation and behavioral change. Women who understand the benefits, effectiveness, and safety of MKJP are more likely to consider it as a viable contraceptive option. This result is consistent with studies by Kiranti & Kusmadeni (2024), which demonstrated that women with higher contraceptive knowledge were significantly more likely to use long-acting methods.

The negative correlation coefficient observed in this study reflects the coding of variables rather than a contradictory relationship. When interpreted substantively, the results indicate that higher knowledge is associated with greater MKJP utilization. Similar findings were reported by Widowati et al. (2024) who observed a significant association between knowledge level and MKJP use among women of reproductive age. These studies emphasize that knowledge enables women to assess risks and benefits more rationally, thereby facilitating informed decision-making. Consequently, improving knowledge remains a critical strategy in increasing MKJP uptake.

Age and parity characteristics of respondents further contextualize the findings. Half of the respondents were over 35 years old, and more than half had three or more children, indicating that many had likely completed their desired family size. Women in this demographic group are considered ideal candidates for long-acting or permanent contraceptive methods. However, MKJP utilization remained suboptimal, suggesting that demographic suitability alone does not guarantee acceptance. Similar observations were reported by Pricilia et al. (2022), who found that many multiparous women still preferred short-term methods despite being eligible for MKJP.

Educational level also plays a crucial role in knowledge acquisition and contraceptive behavior. The majority of respondents in this study had primary or junior high school education, which may limit their ability to access and process health information. Previous research by Daeli et al. (2023) showed that women with higher education levels were significantly more likely to use MKJP due to better health literacy. Lower educational attainment may increase susceptibility to misinformation and myths surrounding MKJP. This highlights the importance of adapting educational strategies to match the educational background of target populations.

Occupational status further influences access to reproductive health information. More than half of the respondents in this study were housewives, which may reduce exposure to formal health education outside health facilities. Studies by Sipayung et al. (2024) found that working women were more likely to access reproductive health information through multiple sources compared to housewives. As a result, housewives may rely more heavily on informal sources such as family or community opinions. These sources may perpetuate misconceptions that negatively influence MKJP utilization.

An important finding of this study is the high proportion of respondents who were undecided about MKJP use. Nearly one-third of respondents had not yet made a decision regarding MKJP utilization. This finding is consistent with Tunny & Astuti (2022), who reported that indecision often stems from fear of side effects and lack of spousal support. Women in this category represent a critical target for counseling interventions, as they are neither resistant nor fully committed. Effective counseling may help convert indecision into informed acceptance.

Fear of side effects and misinformation remain major barriers to MKJP utilization. Even among women with good knowledge, concerns about safety and long-term health effects persist. Studies by Devi (2025) found that fear of pain and infertility were common misconceptions preventing MKJP use. This indicates that knowledge must be comprehensive and address specific concerns rather than providing general information alone. Counseling should focus on correcting myths and providing evidence-based reassurance.

From a behavioral perspective, these findings align with health behavior theories that emphasize cognitive determinants of behavior. Knowledge influences perceived benefits and perceived barriers, which subsequently shape behavior adoption. According to Fitratur Rahmah Agustina et al. (2025), educational interventions act as enabling factors that facilitate behavior change. In this study, inadequate enabling factors may explain why knowledge did not fully translate into MKJP utilization. Strengthening counseling as an enabling intervention could improve outcomes.

The role of health care providers is therefore central to improving MKJP utilization. Providers serve as trusted sources of information and influence women's contraceptive decisions. Research by Silaban et al., (2024) demonstrated that women who received structured counseling were significantly more likely to adopt MKJP. Provider communication skills, empathy, and ability to address concerns are critical components of effective counseling. Integrating comprehensive counseling into routine family planning services is essential.

Despite its strengths, this study has limitations that should be considered. The cross-sectional design limits causal inference, and the study was conducted in a single health center, which may affect generalizability. However, the findings are consistent with numerous previous studies, strengthening their validity. Future research should include larger samples and explore additional variables such as spousal support and cultural beliefs.

In conclusion, this study confirms that knowledge level is significantly associated with the utilization of long-acting contraceptive methods. However, knowledge alone is insufficient without supportive educational and social environments. Consistent with previous studies, improving knowledge through targeted counseling is a key strategy for increasing MKJP utilization. Strengthening educational interventions within family planning services is essential to promote informed decision-making and improve reproductive health outcomes.

4. CONCLUSION

This study concludes that the utilization of long-acting contraceptive methods among women of reproductive age in the working area of UPT Puskesmas Basarang remains relatively low, despite more than half of the respondents having good knowledge levels. The findings show a statistically significant relationship between knowledge level and the use of long-acting contraceptive methods, indicating that knowledge plays an important role in contraceptive decision-making. Women with higher knowledge levels were more likely to consider and use MKJP compared to those with lower knowledge levels. However, the presence of respondents who did not use or were undecided about MKJP suggests that knowledge alone is not sufficient to ensure utilization. Other factors such as fear of side effects, misconceptions, and social influences may also affect contraceptive choices.

Furthermore, these results highlight the need to strengthen educational and counseling interventions within family planning services. Health care providers should deliver comprehensive, clear, and client-centered counseling that addresses not only general information but also specific concerns related to MKJP. Targeted educational strategies tailored to women's educational backgrounds and reproductive characteristics are essential to improve acceptance of long-acting contraceptive methods. Integrating effective counseling into routine services is expected to enhance informed decision-making and increase MKJP utilization. Ultimately, improving knowledge and addressing contextual barriers can contribute to better reproductive health outcomes and the success of family planning programs.

REFERENCES

- Astuti, E. R. (2022). Hubungan antenatal care dengan kejadian berat badan lahir rendah di wilayah kerja Puskesmas Seginim Kabupaten Bengkulu Selatan. *27(1)*, 23–29. <http://jurnal.stikestrimandirisakti.ac.id/index.php/jsk/article/view/109/pdf>
- Azura, N. (2025). Faktor-faktor yang berhubungan dengan kunjungan antenatal care di wilayah kerja Puskesmas Seberang Padanga. *1(2)*, 1–11.
- Daeli, I., Wardani, H. E., Tama, T. D., & Gayatri, R. W. (2023). Hubungan kunjungan ANC terhadap kejadian preeklampsia pada ibu hamil di Puskesmas Wagir tahun 2021-2022. *Sport Science and Health*, *5(7)*, 773–783. <https://doi.org/10.17977/um062v5i72023p773-783>
- Devi, R. (2025). Hubungan tingkat pendidikan dan sikap ibu hamil dengan kunjungan antenatal care di Puskesmas Kabaena Barat. *Jurnal Ilmiah Kebidanan (Scientific Journal of Midwifery)*, *11(1)*, 82–89. <https://doi.org/10.33023/jikeb.v11i1.2483>
- Fitratur Rahmah Agustina, Trini Sudiarti, Samnil Astuti Fitri, & Riska Rusydi. (2025). Hubungan kunjungan antenatal care (ANC) dengan kejadian bayi berat lahir rendah di Kecamatan Babakan Madang, Kabupaten Bogor. *Journal of Educational Innovation and Public Health*, *3(1)*, 81–90. <https://doi.org/10.55606/innovation.v3i1.3460>
- Haryantina, H., Rahmawati, N., & Meliyanti, M. (2024). Hubungan status gizi dan pelayanan antenatal dengan berat badan lahir rendah (BBLR) pada bayi di RSUD Palabuhanratu tahun 2024.
- Kiranti, G., & Kusmadeni, D. (2024). Faktor-faktor yang berhubungan dengan rendahnya kunjungan K4 pada ibu hamil di wilayah kerja Puskesmas Pangkalanbaru Kabupaten Bangka Tengah tahun 2022. *Jurnal Pendidikan Tambusai*, *8*, 15060–15071.
- Pricilia, M., Taolin, G., Goa, M. Y., Maria, N., & Bina, Y. (2022). Faktor-faktor yang mempengaruhi kunjungan ibu hamil dalam melakukan antenatal care di Puskesmas Kota Kupang 1 Program Studi Sarjana Ners Universitas Citra Bangsa. *Chmk Midwifery Scientific Journal*, *5(1)*, 400–414. <http://cyber-chmk.net/ojs/index.php/bidan/article/view/1134>
- Putri, N. A., Agus, F., & Ibnu Kahtan, M. (2020). Determinan rendahnya kunjungan antenatal care (ANC) di Desa Simpang Empat Kecamatan Tangaran Kabupaten Sambas. *Jurnal Mahasiswa PSPD FK Universitas Tanjungpura*, *3*, 821–830.
- Ramadhani, D. T., Rahmad, F., & Haryatmo. (2023). Hubungan frekuensi kunjungan antenatal care terhadap kepatuhan ibu mengonsumsi tablet FE. *Ahmar Metastasis Health Journal*, *2(4)*, 207–215. <file:///C:/Users/ASUS/Downloads/4.+Pengaruh+Kunjungan+Antenatal+Care+Dan+Pengaruh+Persalinan+Terhadap+Depresi+Pada+Ibu+Hamil.pdf>
- Ruindungan, R. Y. (2020). Hubungan pemeriksaan antenatal care (ANC) dengan kejadian berat badan lahir rendah (BBLR) di wilayah kerja RSUD Tobelo. *5*.
- Silaban, V. F., Masniar, Masna, & Marwani. (2024). Hubungan usia kehamilan, jarak kehamilan dan komplikasi kehamilan, antenatal care dengan kejadian bayi berat lahir rendah (BBLR). *4*, 2344–2353.
- Sipayung, R. B., Rosmanidar, & Sabnaniah. (2024). Hubungan kualitas pelayanan ANC dengan perilaku ibu hamil dalam mencegah terjadinya BBLR. *INNOVATIVE: Journal of Social Science Research*, *4(4)*, 2296–2304.

- Tunny, R., & Astuti, A. D. (2022). Faktor-faktor yang mempengaruhi kunjungan antenatal care (ANC) pada ibu hamil di Puskesmas Rijali Kota Ambon. *Jurnal Ilmu Kedokteran Dan Kesehatan Indonesia*, 2(1), 153–162. <https://journal.amikveteran.ac.id/index.php/>
- Widowati, N., Ningtyias, F. W., & Sulistiyani. (2024). Analysis of maternal factors with the incidence of LBW infants at Situbondo Health Center: Study of cohort register data in 2020. *Amerta Nutrition*, 8(3), 368–375. <https://doi.org/10.20473/amnt.v8i3.2024.368-375>