

Original Research

The Relationship of the Role of Midwives with the Use of Long-Term Contraceptive Methods in Women of Childbearing Age

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ABSTRACT

Background: BKKBN plays a crucial role in implementing the family planning program, promoting the use of Long-Term Contraceptive Methods (LCM) due to their high effectiveness and very low risk of failure. The use of LCM in Sleman Community Health Centers remains low, at only 41% compared to non-LCM users. The role of midwives is one aspect that contributes to the use of LCM. This study aims to analyze the relationship between role of midwives and the use of LCM in women of childbearing age at the Sleman Community Health Center.

Methods: The research method applied in this study is observational using a cross-sectional approach. The population studied included all active participants in the family planning program at the Sleman Health Center with a total of 268 people and the sample taken amounted to 73 family planning participants collected using quota sampling techniques. Data collection employed questionnaires. Data analysis in this study was carried out using univariate and bivariate approaches through the Chi-Square test.

Results: The results showed that the majority of respondents (49 people (67.1%)) received a good midwife's role, with 48 respondents (65.8%) using LCM. Bivariate analysis using the Chi-Square test obtained a $P = <0,001$ ($P < 0,05$).

Conclusion: Women of childbearing age who get support and a good midwife role have a greater tendency to choose LCM than those who get a bad midwife role. It is suggested that women of childbearing age or their partners can be more proactive in seeking information related to contraceptive methods that suit their conditions and needs.

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INTRODUCTION

The Family Planning Program is one of the government's main strategies to suppress the rate of population growth while supporting the achievement of sustainable development goals (Khatimah et al., 2022). However, in reality, many women of childbearing age need birth control but it is not fulfilled or called *unmet need*. *Unmet need* Family planning is a condition in which a woman who is of childbearing age and

sexually active, does not use contraception, even though she does not want to have another pregnancy or wants to delay the next pregnancy (Hamat et al., 2024).

According to WHO, in 2021 the number of women in the reproductive age group of 15-49 years is estimated to reach 1.9 billion people. Of the total number, about 1.1 billion women require family planning services with details of 874 million of them using modern contraceptive methods, while another 164 million still have unmet contraceptive needs (WHO, 2021). Data from the 2023 Indonesian Health Profile shows that contraceptive users are dominated by injectable contraceptive users (35.5%) and contraceptive pills (13.2%). Annually, this phenomenon is observed, wherein a greater proportion of individuals utilizing contraception opt for short-term methods in preference to long-term ones. In terms of effectiveness, both injectable contraceptives and pills constitute short-term contraceptive methods, thereby demonstrating reduced efficacy in averting conception relative to long-term contraceptive methods (Kementrian Kesehatan, 2024).

Based on data obtained from the KESGA of the Special Region of Yogyakarta in 2024, it shows that the coverage of LCM family planning in five regencies/cities is Sleman 27.24%, Bantul 26.27%, Gunung Kidul 22.09%, Kulon Progo 15.79%, and Yogyakarta City 8.59% (KESGA DIY, 2024). Of all the community health centers in Sleman Regency, there are 5 community health centers with high LCM coverage, namely, Kalasan Community Health Center 8.05%, Berbah Community Health Center 6.05%, Mlati I Community Health Center 5.32%, Depok III Community Health Center 5.31% and Sleman Community Health Center 5.29%. Based on the results of the study that has been carried out by researchers at the Sleman Health Center showed that the proportion of LCM users in the January-June 2025 period was 40.7%, with details of implant users 4.1%, IUDs 29.2%, MOP 0.7%, and MOW 6.7%, while short-term contraceptive method users were 59.28%. Based on these data, the coverage of LCM users is lower than that of short-term contraceptive method users.

BKKBN in recent years has focused on increasing the use of LCM, as stated in the Decree of the Head of BKKBN Number 238/KEP/E1/2022. The institution targets 69.52% of health service facilities to be ready to provide LCM family planning services by 2024, and sets a target for male family planning participation of 5.73% in the same year (BKKBN, 2022). This family planning program is part of the government's and community's efforts to improve the quality of life through addressing maternal and child health factors, as well as the social and economic well-being of families (Ikhtiyaruddin et al., 2022).

The community has a good understanding of family planning. However, they can only explain and understand the types of family planning. Public knowledge about the advantages of LCM is still low. This has led to low use of LCM (Wulandari, 2023). One of the driving factors for the use of LCM is the role of midwives. Midwives have a strategic influence on women's decisions regarding the choice of contraceptive methods. The role of midwives in increasing the use of LCM in women of childbearing age is a strategic opportunity to shape a change in people's mindset towards contraceptive choices.

Through the provision of motivation, counseling, and counseling, midwives can effectively convey health information and education so as to support increased knowledge, perception changes, and more appropriate decision-making in the selection of contraceptive methods (Nuryanti et al., 2024). Limited counseling and information can limit the recipient's knowledge, thus affecting the quality of the choice of methods.

Optimal information by midwives helps women of childbearing age make informed decisions, increase the use of LCM, and support the success of family planning programs (Sundari & Wiyoko, 2020).

Previous researchers have shown that midwives are counselors, namely people who provide counseling to women or couples of childbearing age who aim to change behavior in using contraception. The results of the statistical test showed that there was a relationship between the role of midwives and the behavior of LCM elections (Mau, 2024). Meanwhile, other research shows that midwives have a significant role in increasing the use of LCM, especially implants, through the provision of comprehensive education, counseling, and clinical services. The delivery of accurate, clear, and easy-to-understand information helps women of childbearing age to consider and determine the appropriateness of using LCM based on their health conditions and reproductive needs (Lismawaty et al., 2025).

Although several studies have addressed the factors that influence the use LCM, studies that specifically analyze the relationship between the role of midwives and the use of LCM among women of childbearing age at the primary care level, particularly at the Sleman Health Center, are still limited. Therefore, the novelty of this study lies in the analysis of the relationship between the role of midwives and the use of LCM in women of childbearing age at the Sleman Health Center, by comprehensively examining the role of midwives as counselors, communicators, motivators, and facilitators in family planning services. The results of this study are expected to provide empirical evidence on the importance of optimizing the role of midwives in increasing the use of LCM and become the basis for the development of family planning programs at the primary health service level. Therefore, more research is needed to examine other factors influencing the use of LCM, and to use larger sample numbers so that the results can be generalized to provide a broader picture.

Based on the background, this study aims to determine the relationship between the role of midwives and the use of LCM in women of childbearing age at the Sleman Health Center.

MATERIALS AND METHOD

This study uses a quantitative approach with an analytical observational design and a cross-sectional design, where the implementation of data collection is carried out at a specific point in time. This observational analytical study aimed to analyze the relationship between independent and dependent variables. This research was carried out from November to December 2025 at the Sleman Health Center.

The population that was the subject of this study included 268 women of childbearing age who were actively using contraceptives and served at the Sleman Community Health Center between January and June 2025. Sampling technique using quota sampling, based on inclusion and exclusion criteria using the Slovin formula, resulted in 73 respondents. The inclusion criteria included women of childbearing age who were actively using contraceptives, able to read and communicate fluently, and who resided in the Sleman Community Health Center area and were making repeat visits or check-ups at the Sleman Community Health Center. Exclusion criteria included patients using hormonal birth control methods for specific medical conditions such as menstrual cycle disorders, endometriosis, and severe dysmenorrhea.

The independent variable in this study is the role of midwives and the dependent variable is the use of long-term contraceptive methods. The role of midwives is defined

as the respondent's opinion of the midwife's involvement in providing complete information about contraceptives, which is measured using a Guttman-scale questionnaire with a good category if the score is $\geq$ mean and the bad category if the score is $<$ mean with a mean score of 21.75. Long-term contraceptive method use was defined as the type of contraceptive chosen by the respondent, the type of implanted LCM, IUD, tubectomy, vasectomy, which was measured using a questionnaire with the category of using and not using.

The instrument in this study used a questionnaire consisting of 27 closed-ended questions using a Guttman scale with yes and no answer options. The validity test was conducted on November 17-20, 2025, at the Mlati I Community Health Center with 30 respondents, using an r table value of 0.361. Of the 27 questions regarding the role of the midwife, all items is declared valid because the r value obtained from the calculation exceeds the r value listed in the reference table. The results of the reliability test showed a Cronbach's Alpha coefficient value of 0.939, which indicates that the questionnaire is reliable. The data collection method in this study uses primary data collection.

Analysis of research data was carried out by univariate and bivariate analysis. Univariate analysis is used to present the frequency distribution of each research variable. Meanwhile, bivariate analysis in this study was carried out with the non-parametric Chi-Square test because both independent and dependent variables have nominal measurement scales. The Chi-Square test was performed with a confidence degree of 95% and a significance level of $\alpha = 0.05$. If the result shows a p value ≤ 0.05 , it can be stated that there is a relationship between independent variables and dependent variables.

The research has obtained ethical permission from the Research Ethics Committee Aisyiyah University Yogyakarta on November 7, 2025, under ethics permit number 4916/KEP-UNISA/XI/2025. All respondents provided their consent after receiving an explanation of the research objectives and procedures through an informed consent form.

RESULTS

Table 1 presents the distribution of respondent characteristics which include age, education level, employment status, parity, and history of contraceptive use. The presentation of this data aims to provide an overview of the characteristics of women of childbearing age who participated became respondents in the study.

Table 1. Characteristics of respondents (n = 73)

Characteristics	Frequency (n)	Percentage (%)
Age		
Not at risk	30	41,1
At risk	43	58,9
Total	73	100
Education		
Low	14	19,2
High	59	80,8
Total	73	100
Work		
Working	13	17,8
Not working	60	82,2

Characteristics	Frequency (n)	Percentage (%)
Total	73	100
Parity		
Primiparous	15	20,5
Multiparous	58	79,5
Total	73	100
Contraceptive History		
LCM	27	37
Non LCM	46	63
Total	73	100

Based on Table 1, the results showed that out of 73 respondents, most of the mothers were in the risk age group (<20 years old or >35 years) as many as 43 respondents (58.9%), had a higher education level (high school/vocational school to college) as many as 59 respondents (80.8%), did not work as many as 60 respondents (82.2%), multipara status (gave birth ≥ 2 times) as many as 58 respondents (79.5%), and had a history of using non-LCM contraceptives as many as 46 respondents (63%).

Tables 2 and 3 present the distribution of the role of midwives felt by respondents in family planning services. This data aims to describe the level of midwife's role as an independent variable in research on the use of LCM.

Table 2. Midwife's role by category (n = 73)

Characteristics	Frequency (n)	Percentage (%)
Educator		
Good	49	67,12
Not good	24	32,88
Total	73	100
Facilitator		
Good	57	78,08
Not good	16	21,92
Total	73	100
Motivator		
Good	53	72,60
Not good	20	27,40
Total	73	100
Advocate		
Good	42	57,53
Not good	31	42,47
Total	73	100

Based on Table 2, it can be observed that regarding the characteristics of the role of midwives, most midwives carry out the role of facilitator-which is as many as 57 people (78.08%)-compared to the role of educator, motivator, and advocate. In the four indicators of the role of midwives, it can be seen that the role of midwives is in the good category.

Table 3. The Role of Midwives (n = 73)

Variabel	Frequency (n)	Percentage (%)
The Role of Midwife		
Good	49	67,1
Not good	24	32,9
Total	73	100

Based on Table 3, it can be observed that the characteristics of the role of midwives showed a good role in 49 respondents (67.1%). Table 4 presents the distribution of the use of LCM in women of childbearing age. The presentation of this data aims to provide an overview of the proportion of respondents who use and do not use LCM as a dependent variable in the study.

Table 4. Use of Long-Term Contraceptive Methods (n = 73)

Contraception Methods	Frequency (n)	Percentage (%)
LCM	47	64,4
IUD	30	41,1
Implant	8	11
MOW	8	11
MOP	1	1,3
Non LCM	26	35,6
Injection	14	19,2
Pill	2	2,7
Condom	10	13,7
Total	73	100

Based on Table 4, the characteristics of the use of contraceptive methods can be observed in 73 respondents, as many as 47 respondents (64.4%) use the LCM, while 26 respondents (35.6%) use the short-term contraceptive method. The majority of respondents used IUD (30 respondents or 41.1%). Overall, contraceptive users are dominated by users of LCM. Table 5 presents analysis of the relationship between the role of midwives and the use of LCM in women of childbearing age. This analysis aims to find out whether there is a meaningful relationship between the role of midwives and the use of LCM by respondents.

Table 5. The Relationship Between The Role of Midwives and The Use of MKJP (n = 73)

The Role of Midwife	MKJP Election				Total n (%)		<i>p-value</i>
	Non LCM N(%)		LCM N(%)				
	n	%	n	%	n	%	
Good	10	13,7	39	53,4	49	67,1	<0,001
Not good	16	21,9	8	11	24	32,9	
Total	26	35,6	47	64,4	73	100	

Table 5. shows the results of the study from 73 respondents, the majority of non-LCM users received poor midwife roles, amounting to 21.9%. Meanwhile, the use of LCM was more common among respondents who received good midwife roles, amounting to 53.4%. Therefore, respondents with good midwife roles tended to choose

LCM compared to respondents with bad midwife roles who tended to choose non-LCM. Based on data analysis, the relationship between the midwife's role and the choice of LCM resulted in a $p\text{-value} = <0.001$ ($p < 0.05$), indicates a relationship between midwife's role and the use of LCM.

DISCUSSION

Based on a 2025 study conducted at the Sleman Health Center among 73 women of childbearing age, the majority of respondents use long-term contraception with the involvement of qualified midwives. Long-term Contraceptive methods are widely used by women of childbearing age who get the role of a good midwife. These findings are in line with research conducted by Dita et al (2023), which found that women of childbearing age were 0.68 times more likely to use contraception if they received services from a competent midwife than if they received services from midwives whose roles were substandard.

The results of the study indicate that there is a relationship between the roles midwives and the use of LCM at the Sleman Health Center. Respondents who obtained the role of midwives in the good category tended to prefer LCM compared to respondents who obtained the role of midwives in the bad category. On the other hand, non-LCM contraceptive users were found more in respondents who got the role of a midwife not good.

The analysis of the role of midwives with the use of LCM showed that respondents with the use of non-LCM were more than respondents who accepted the role of a midwife who was not good, namely 16 people (21.9%). The use of LCM was more likely to be in respondents with a good midwife role, namely 39 people (53.4%). These results indicate that the quality of the role of midwives, which includes providing information, counseling, education, motivation, and assistance in contraceptive decision-making, contributes to the increase in the use of LCM.

This study is in line with the results of research conducted by Yolandia & Jayatmi, (2022) which stated that there was a relationship between the role of midwives and the use of IUD contraceptives at PMB Bogor City in 2021. A role is a set of patterns of behavior, beliefs, values, and attitudes that are expected to describe the actions of individuals who perform a particular role in a common situation. Meanwhile, midwives are health workers who have undergone and completed government-recognized midwifery education, passed exams in accordance with applicable regulations, are registered, and have obtained official permits to provide services in midwifery practice, especially in the use of contraceptive methods (Yolandia & Jayatmi, 2022).

The role of health workers, especially midwives, is a key factor influencing changes in individual behavior. Supporting information about contraception provided by health workers is closely related to the use of contraceptives in couples of childbearing age. Midwives play an important role in encouraging contraceptive use through information, education, and counseling (Gusman et al, 2025). Family planning counseling services can be provided by midwives both at the community level and in health facilities. If the role of health workers, especially midwives, is considered effective, it will increase the motivation and interest of clients in using contraception, especially the KPK (Karkarnah, 2023).

The findings of this study show that this is in accordance with the research conducted by Mau, (2024) which stated that there is a relationship between the role of

midwives and the behavior of choosing LCM at the Lanteng Agung Health Center, South Jakarta in 2022 with the results of the Chi Square statistical test which obtained a value of $p = 0.000 < 0.05$. Midwives have an important role as communicators in service, namely as parties who convey information in the communication process. Through socialization activities, midwives motivate couples of childbearing age to have a good understanding of family planning programs. Information delivery is carried out using simple, easy-to-understand language, and conveyed properly and correctly (Mau, 2024).

Based on the results of the study, the majority of respondents assessed the role of midwives in Family Planning Services, especially as educators, facilitators, and motivators. These findings indicate that midwives have carried out their professional functions in accordance with the competence of family planning services through the provision of education, mentoring, and support to women of childbearing age in determining contraceptive options. This shows that midwives have been optimal in providing education about family planning, especially LCM, facilitating access to family planning services, and providing support and encouragement to women of childbearing age in determining contraceptive choices.

Effective education plays an important role in increasing awareness and decision-making regarding contraceptive use (Sembiring et al., 2025). The role of midwives as facilitators and motivators has been proven to help mothers choose contraceptive methods that suit their family's conditions and needs and influence changes in mindsets related to the use of LCM (Nuryanti et al., 2024). The role of midwives as advocates is still considered relatively low, showing that the advocacy function in helping decision-making regarding client needs has not been fully felt optimally by the community (Nuryanti et al., 2024).

Based on the theory of health behavior put forward by Lawrence Green as quoted in (Poul et al., 2024), the behavior of women of childbearing age in using contraceptives determined by three factors, namely predisposing factors, probable factors, and boosting factors. Predisposing factors include knowledge, attitudes, and attitudes, beliefs, traditions, values, education level and socioeconomic conditions. Possible factors include the availability of resources, ease of access to services, and supporting health facilities.

Meanwhile, strengthening factors include support from families, health workers, and community participation which plays a role in strengthening the decision of women of childbearing age to use contraception. These factors are the basis for shaping changes in the behavior of women of childbearing age in choosing and using contraceptives. The role of health workers makes an important contribution through the provision of information, counseling, and support in decision-making. However, the use of contraceptives is not only influenced by the role of health workers, but also by other factors, such as family support and the social environment that also influence the decision of family planning acceptors (Mau, 2024).

This study has limitations because the researcher did not explore in depth the reasons why midwives do not provide education about LCM because women of childbearing age have a history of previous non-LCM use or there are contraindications so that the results of KLOP screening are more directed to non-LCM use. This condition can affect the choice of women of childbearing age and prevent midwives from providing education about LCM. Therefore, midwives who carry out family planning at the Sleman Health Center can provide educational media such as leaflets and posters

about various contraceptive methods to provide easy access to services and information for acceptors and can remind the selection of LCM with lower risk.

CONCLUSION

Analysis of the results revealed that the role of midwives has a significant relationship with the use of LCM in women of childbearing age who receive services in Sleman Health Center. These findings confirm that strengthening the role of midwives through family planning education and counseling contributes to increasing the use of LCM. The findings of this study are expected the basis for health workers and policymakers in optimizing family planning services, as well as a reference for future research to be able to conduct further research and examine other factors that affect the use of LCM and add a larger sample number so that it can be generalized to provide a broader picture.

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