

# Determinants of Factors Associated With Low Use of IUD Contraceptions in the Work Area of Puskesmas Sidomulyo Pekanbaru

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## ARTICLE INFO

## ABSTRACT

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Intra Uterine Device (IUD) is one of the MKJP which has many advantages compared to other contraceptive methods. Among the advantages is its high effectiveness so that it can increase the comfort of husband and wife relationships and can be effective immediately after installation with an effective duration of 5 to 10 years, but in fact, fertile age couples (PUS) prefer non-MKJP contraceptives, one of which is injectable contraceptives and pills. Based on data from the Riau Provincial Health Office, in 2015 the ratio of injectable and IUD KB acceptors in Riau Province was 88.8% injectable KB acceptors and 1% IUD KB acceptors. In 2017, the number of injectable KB acceptors increased to 54.66% and 3.67% of IUD KB acceptors. The lowest use of IUDs in the entire city of Pekanbaru is Sidomulyo Health Center with a percentage of 1.8%. "Active family planning participants are 9,185 with a total of 12,220 PUS. What is assumed to be one of the causes is the lack of knowledge of EFA about IUDs so that factors related to the use of IUDs in EFA are sought. This type of research is quantitative analytic with a cross sectional design, the population in this study is EFA with a sample of 162 respondents. Sampling was done by Systematic Random Sampling. The measuring instrument used is a questionnaire. The results of the statistical test showed that there was a relationship between knowledge (Pvalue = 0,003) (POR= 3,261) (CI) 95% = 1,521-6,992, attitude (Pvalue = 0,001) (POR= 3.60(CI) 95% 1.685-7.691), husband's support (Pvalue = 0,002) (POR= 3,497) (CI) 95%=1,628-7.510, the role of health workers (Pvalue = 0,004) (POR= 3,112) (CI) 95%= 1,472-6,579. This research can be used as a reference as additional material in learning and add useful discourse, for further research in order to be able to develop new knowledge and insights in the field of research. It is hoped that health workers can further improve the provision of information regarding the selection and use of contraceptives as well as the perceived benefits and side effects of EFA by delivering information according to their level of education and understanding.

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## 1. Introduction

Population growth in the world has increased from time to time, especially in developing countries such as Indonesia. Based on Indonesia's health profile data in 2017, the total population of Indonesia in 2017 was 261,890,872 people. Indonesia still ranks fourth with the most population in the world after India, China and America. Indonesia's population growth continues to increase from 238.5 million in 2010 to 255.4 million in 2015. The average annual growth of Indonesia's population in the 2010-2015 period, the population growth rate reached 1.38% (1)

To control the population, the government of the Republic of Indonesia launched the Family Planning (KB) program. The family planning program is one of the efforts to reduce the rate of population growth in Indonesia by increasing the high number of contraceptive users. The family planning program is not only aimed at controlling the rate of population growth, but also to meet the public's demand for quality family planning and reproductive health (KR) services, reduce maternal mortality (MMR) and infant mortality (IMR) and overcome reproductive health problems to form quality small family by using

contraception. The realization of one of the achievements of the family planning program is by increasing family planning acceptors,

Contraception is a tool used to prevent the meeting between a mature egg cell (female cell) and sperm cell (male cell) which can lead to pregnancy. Contraception is generally divided into two types, namely Long Term Contraceptive Methods (MKJP) and Non Long Term Contraceptive Methods (Non MKJP). Non MKJP includes condoms, birth control pills, injections, and other methods other than MKJP. While MKJP includes types of contraceptive implants, Intra Uterine Devices (IUD) or intrauterine devices (IUD), Male Operative Methods (MOP) such as Vasectomy, and Female Operative Methods (MOW) such as Tubectomy (3).

Data from the Ministry of Health of the Republic of Indonesia, (2017) The most dominant contraceptive method in Indonesia is the short-term contraceptive method, namely injections (52.8%) and pills (12%). Contraceptives that are less desirable are long-term contraceptives, namely implants (5%), intrauterine devices (5%), female contraceptive methods (4%) and male contraceptive methods (0.64%). In fact, the fact in the field is that the pill is the contraceptive method that contributes the most to the drop out rate. The use of contraceptives is strongly influenced by the knowledge and education of the mother of family planning acceptors, the husband's support and the support of health workers about contraceptives (4).

Planning for a prosperous family can start with choosing and using the right contraception. One of the contraceptive methods that can be chosen is the long-term contraceptive method (MKJP). This method is considered superior to others because it has a long time span and does not need to be repeated frequently to continue contraception such as the Pill method and the Injectable KB method, which allows family planning acceptors to forget to visit again so that it can result in unwanted pregnancies. Long-term contraceptive methods are highly recommended for women who want to make the pregnancy gap relatively longer (5)

One of the MKJP that is in demand by the public is the IUD which has quite a lot of advantages compared to non-MKJP contraceptive methods. Among them are as a contraceptive, its effectiveness is high so that it can increase the comfort of husband and wife relationships; Can be effective immediately after installation with a duration of effectiveness of 5 to 10 years; No hormonal side effects; Does not affect the quality and volume of breast milk; Help prevent ectopic pregnancy; Fertility returns quickly after the IUD is removed. Even though there are so many advantages to the IUD contraception, in fact, couples of childbearing age (PUS) prefer non-MKJP contraception, one of which is injectable contraception and the pill (6)

Based on data from the Riau Provincial Health Office, in 2015 the comparison of injectable and IUD KB acceptors in Riau Province was 88.8% injectable KB acceptors and 1% IUD KB acceptors. In 2017 the number of injectable family planning acceptors increased to 54.66% and 3.67% IUD acceptors (7)

Based on data from the Pekanbaru City Health Profile in 2018. The use of IUD Contraceptive Devices throughout the city of Pekanbaru was 16,896 in 21 Puskesmas. The lowest percentage compared to other active family planning acceptors was Sidomulyo Health Center with 163 people (1.8%) 9,185 active family planning participants with 12,202 EFAs. Meanwhile, the Puskesmas with the highest percentage of IUD Contraceptive users compared to active family planning acceptors was Harapan Raya Health Center with 1,729 people (29.5%) 7,563 active family planning participants with 9,453 PUS.

Based on initial observations and interviews with the Sidomulyo Public Health Center in Pekanbaru City and several family planning acceptors, information was obtained that the factors that most influence the low use of IUD contraceptives are lack of knowledge about IUD family planning, lack of understanding about IUD family planning devices and lack of awareness caused by not caring about the IUD. the benefits and objectives of using the IUD contraceptive device, and the lack of husband's support due to the husband's lack of knowledge about the use of the IUD contraceptive device. Therefore, this study aims to determine the Determinants of Factors Associated with the Low Use of IUD Contraception Devices in Sidomulyo Public Health Center Pekanbaru.

## **2. Method**

This type of research is quantitative analysis with a cross sectional research design. This study was conducted to determine the determinants of factors associated with the low use of IUD contraceptive devices at the Sidomulyo Public Health Center Pekanbaru. The population in this study were couples of childbearing age (PUS) who became family planning acceptors in the Sidomulyo Health Center Work Area, Pekanbaru City with a total sample of 162 people. This study used a systematic random sampling

technique. The types of data used are primary data and secondary data. Analysis of research data using univariate and bivariate analysis using chi-square test.

### 3. Results and Discussion

#### 3.1 Research results

##### a. Univariate Analysis

**Table 1**

Distribution of Frequency of IUD Contraceptive Users, Knowledge, Attitude, Husband's Support and Role of Health Workers in Couples of Childbearing Age in Sidomulyo Health Center Work Area Pekanbaru

Variable	Frequency (N)	Percentage (%)
<b>IUD use</b>		
Do not use	124	76.5
Use	38	23.5
<b>TOTAL</b>	<b>162</b>	<b>100</b>
<b>Knowledge</b>		
Low	91	56.2
Tall	71	43.8
<b>TOTAL</b>	<b>162</b>	<b>100</b>
<b>Attitude</b>		
Negative Attitude	98	60.5
Positive Attitude	64	39.5
<b>TOTAL</b>	<b>162</b>	<b>100</b>
<b>Husband Support</b>		
Does not support	93	57.4
Support	69	42.6
<b>TOTAL</b>	<b>162</b>	<b>100</b>
<b>Role of Health Workers</b>		
No role	102	63
role	60	37
<b>TOTAL</b>	<b>162</b>	<b>100</b>

Based on table 1, it can be seen that, from 162 respondents the majority of 124 (76.5%) respondents did not use an IUD, the majority 91 (56.2%) respondents had low knowledge, the majority 98 (60.5%) respondents were negative, the majority 93 (57.4%) of respondents did not receive support from their husbands in using IUD contraception and the majority of 102 (63%) respondents felt that health workers had no role in the use of IUD contraception.

##### b. Bivariate Analysis

**Table 2**

Relationship between Knowledge and Use of IUD Contraceptives in Couples of Childbearing Age In the Working Area of the Sidomulyo Health Center Pekanbaru

Knowledge	IUD				Total		P value	por (95% CI)
	Not		Yes		N	%		
	n	%	n	%				
Low	78	85.7%	13	14.3%	91	100%	0.003	3,261 (1,521-6,992))
Tall	46	64.8%	25	35.2%	71	100%		
<b>Total</b>	<b>124</b>	<b>76.5%</b>	<b>38</b>	<b>23.5%</b>	<b>162</b>	<b>100%</b>		

Based on table 2 above, it can be seen that from 91 respondents with low knowledge there were 78 people (85.7%) who did not use an IUD. Meanwhile, of the 71 respondents with high knowledge, 46 people (64.8%) did not use an IUD in the Sidomulyo Health Center Work Area, Pekanbaru City. The results of the statistical test obtained P value = 0.003 < (0.05) meaning that there was a significant relationship between knowledge of EFA with the use of IUD contraceptives at EFA in the Sidomulyo Health Center Work Area, Pekanbaru City and obtained Prevalence Odds Ratio (POR) = 3.261 with Confidence Interval (CI) 95% = 1.521-6.992 means that respondents with low knowledge have a 3.2 times higher chance of not using IUD contraceptives than respondents with high knowledge.

**Table 3**  
Relationship between Attitude and Use of IUD Contraceptives in Couples of Childbearing Age In the Working Area of the Sidomulyo Health Center Pekanbaru

Attitude	IUD				Total		P value	por (95% CI)
	Not		Yes		N	%		
	n	%	n	%				
Negative	84	85.7%	14	14.3%	98	100%	0.001	3,600 (1,685-7,691)
Positive	40	62.5%	24	37.5%	64	100%		
<b>Total</b>	<b>124</b>	<b>76.5%</b>	<b>38</b>	<b>23.5%</b>	<b>162</b>	<b>100%</b>		

Based on table 3 above, it can be seen that from 98 respondents with a negative attitude there were 84 people (85.7%) who did not use an IUD, while from 64 respondents with a positive attitude there were 40 people (62.5%) who did not use an IUD in the Sidomulyo Health Center Work Area, Pekanbaru City. . The results of the statistical test obtained P value = 0.001 < (0.05) meaning that there was a significant relationship between attitudes and the use of the IUD at PUS in the Sidomulyo Health Center Work Area, Pekanbaru City and obtained Prevalence Odds Ratio (POR) = 3.600 with a Confidence Interval (CI) of 95 % 1.685-7.691 means that respondents with negative attitudes have a 3.6 times higher chance of not using the IUD contraception compared to respondents with positive attitudes.

**Table 4**  
Relationship between husband's support and use of IUD contraceptives in couples of childbearing age In the Working Area of the Sidomulyo Health Center Pekanbaru

Husband Support	IUD				Total		P value	por (95% CI)
	Not		Yes		N	%		
	n	%	n	%				
Does not support	80	86.0%	13	14.0%	93	100%	0.002	3,497 (1,628-7,510)
Support	44	63.8%	25	36.2%	69	100%		
<b>Total</b>	<b>124</b>	<b>76.5%</b>	<b>26</b>	<b>16.0%</b>	<b>162</b>	<b>100%</b>		

Based on Table 4 above, it can be seen that from 93 respondents with no husband's support there were 80 people (86.0%) who did not use an IUD, while from 69 respondents with husband's support there were 44 people (63.8%) who did not use an IUD in the Sidomulyo Health Center Work Area Pekanbaru City. The results of the statistical test obtained P value = 0.002 < (0.05) meaning that there was a significant relationship between husband's support and the use of IUD contraceptives in the Sidomulyo Health Center Work Area, Pekanbaru City. ) 95% = 1.628-7.510 means that respondents with no husband's support have a 3.4 times higher chance of not using the IUD contraception compared to respondents who have husband's support

**Table 5**  
The Relationship between the Role of Health Workers and the Use of IUD Contraceptives on Couples of Childbearing Age in the Work Area of Sidomulyo Health Center Pekanbaru

Health workers	IUD				Total		P value	por (95% CI)
	Not		Yes		N	%		
	n	%	n	%				
No role	86	84.3%	16	15.7%	93	100%	0.004	3,112 (1,472-6,579)
role	38	63.3%	22	36.7%	69	100%		
<b>Total</b>	<b>124</b>	<b>76.5%</b>	<b>38</b>	<b>23.5%</b>	<b>162</b>	<b>100%</b>		

Based on Table 5, it can be seen that from 102 respondents with no role for health workers there were 86 people (84.3%) who did not use an IUD, while from 60 respondents with a role for health workers there were 38 people (63.8%) who did not use an IUD in the Work Area of the Puskesmas. Sidomulyo Pekanbaru City. The results of the statistical test obtained P value = 0.004 < (0.05) meaning that there was a significant relationship between the role of health workers and the use of IUD contraceptives in the Sidomulyo Health Center Work Area, Pekanbaru City. CI) 95% = 1.472-6.579 means that respondents who do not have the role of health workers have a 3.1 times higher chance of not using the IUD contraception compared to respondents who have the role of health workers.

### 3.2 Discussion

#### a. The Relationship of Respondents' Knowledge with IUD Contraceptive Use

Based on the results of the study, it can be seen that from 91 respondents with low knowledge, 78 people (85.7%) did not use an IUD. Meanwhile, of the 71 respondents with high knowledge, 46 people

(64.8%) did not use the IUD. Statistical test results obtained  $P$  value =  $0.003 < (0.05)$  meaning that there is a significant relationship between knowledge of EFA and the use of IUD contraceptives. Confidence Interval (CI) 95% = 1.521-6.992 means that respondents with low knowledge have a 3.2 times higher chance of not using IUD contraceptives than respondents with high knowledge.

Knowledge is influenced by age, the more mature the level of maturity and strength of a person will be more mature in thinking and working, besides that it is also influenced by education where the higher the level of education, the more patterns of knowledge possessed (8).

One of the factors that influence knowledge is the level of education. The higher a person's education, the easier it is for them to receive information, and in the end the more knowledge they have. Conversely, if the level of education is low, it will hinder the development of a person's attitude towards acceptance, information and newly introduced values (9)

The results of this study are in line with research conducted by Sri Mularsih, et al., (2018) (10) obtained the results that there is a significant relationship between the level of knowledge of EFA mothers about IUD contraception and the choice of IUD contraception, with a  $p$  value = 0.000. These results mean the value of  $p < 0.05$  so  $H_a$  is accepted.

#### **b. The Relationship of Respondents' Attitudes with the Use of IUD Contraceptives**

Based on the results of the research, the results of the statistical test  $P$  value =  $0.001 < (0.05)$  meaning that there is a significant relationship between the attitude of the respondents and the use of the IUD, and the Prevalence Odds Ratio (POR) = 3.600 with a Confidence Interval (CI) of 95% 1.685-7,691 means that respondents with negative attitudes have a 3.6 times higher chance of not using the IUD contraception compared to respondents with positive attitudes.

Attitude is a person's closed response to a particular stimulus or object that involves the opinion and emotion factor concerned. Attitude serves to adjust to one's behavior, regulate the treatment and statement of one's personality. Attitudes are formed because of a person's interaction with the physical and social environment around him. Attitudes are tendencies to act, perceive, and think and feel in the face of objects, ideas, situations, or values. Attitude is not behavior but is a tendency to behave in certain ways towards the object of attitude, the two attitudes have a driving force or motivation, the third attitude is relatively more permanent, the four attitudes contain evaluative aspects and the fifth attitude arises from experience, is not born from birth and is the result of learning. (11).

This research is in line with research conducted by Mulastin (2016) (12), in Jepara district and research by Fatimah (2013) (13), in Tanjung Morawa district which states that there is a relationship between attitudes and women's participation in using the IUD/IUD. This can be due to the fact that the respondent has good knowledge about various types of contraception so that it supports the use of the IUD/IUD, knowledge of a new object becomes an attitude if that knowledge is accompanied by readiness to act in accordance with the knowledge of the object.

#### **c. Relationship between Husband's Support and Use of IUD Contraceptives**

Based on the results of the study, the results of the statistical test  $P$  value =  $0.002 < (0.05)$  means that there is a significant relationship between husband's support and the use of IUD contraceptives with Prevalence Odds Ratio (POR) = 3,497 and Confidence Interval (CI) 95% = 1,628 - 7,510 explained that respondents with no husband's support had a 3.4 times higher chance of not using the IUD contraception compared to respondents with husband's support.

Husband's support is one of the socio-cultural variables that greatly influences the use of contraceptives for women as wives in particular and in the family in general. The patrilineal culture that makes men the head of the family which is still widely embraced by most family patterns in the world makes the husband's preference for fertility and his views and knowledge of family planning programs will greatly influence the decision in the family to use certain contraceptives. Discussions between husband and wife regarding various methods of family planning are not always a requirement in using family planning, but the absence of such discussions can become an obstacle to the use of family planning.

The results of this study are in line with research conducted by Rukhmawati (2019) (14). One of the factors that influence husband's support is the level of knowledge, where the better the husband's level of knowledge about contraceptives, the better the support given by the husband in choosing contraceptives. Because the husband is one of the supporting elements in a person's behavior. Husband's support has a big role in the actions of a wife to choose the contraceptive method she will use.

#### **d. The Relationship between the Role of Health Workers and the Use of IUD Contraceptives**

Based on the results of the study, the results of the statistical test  $P$  value =  $0.004 < (0.05)$  explained that there was a significant relationship between the role of health workers and the use of IUD contraceptives with Prevalence Odds Ratio (POR) = 3.112 and Confidence Interval (CI) 95% = 1.472-6.579, stated that respondents with no role for health workers had a 3.1 times higher chance of not using the IUD contraception compared to respondents with a role for health workers.

Green (1980) suggested that health workers have a role as counselors. A counselor is someone who provides counseling to women and couples of childbearing age or EFA, so that the behavior of women of childbearing age or EFA can change, the woman must know about family planning and the use of contraceptives. There are two health problems, namely behavioral factors and non-behavioral factors where both factors are influenced by several other factors such as predisposing factors, enabling factors and reinforcing factors. These factors can be a reference so that women can change their behavior in using contraceptives.

The results of this study are in line with research conducted by Pitriani (2015) that the attitudes and behavior of health workers and health workers are the driving force or reinforcement of healthy behavior in the community to achieve health, so health workers must receive special training education on health or health education and science. behavior. Women of childbearing age who do not get the role of health workers are 8 times more at risk of not using an IUD than women of childbearing age who get the role of health workers (15)

#### **4. Conclusions**

- a. There is a relationship between knowledge and the use of IUD contraceptives in couples of childbearing age (PUS) with  $P$  value =  $0.003 < (0.05)$  and POR value = 3.261 (95% CI = 1.521-6.992).
- b. There is a relationship between attitude and the use of IUD contraceptives in couples of childbearing age (PUS) with  $P$  value =  $0.001 < (0.05)$  and POR value = 3.600 (95% CI = 1.685-7.691).
- c. There is a relationship between husband's support and the use of IUD contraceptives in couples of childbearing age (PUS) with  $P$  value =  $0.002 < (0.05)$  and POR value = 3.497 (95% CI = 1.628-7.510).
- d. There is a relationship between the role of health workers and the use of IUD contraceptives in couples of childbearing age (PUS) with  $P$  value =  $0.004 < (0.05)$  and POR value = 3.112 (95% CI = 1.472-6.579).

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