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## Research Article

### Factors Related To Contraceptive Selection of Iud On Mothers Who Are Family Planning Acceptors In Pantoloan Community Health Center Areas Palu City

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**Abstract:** A large population is a problem, the results of the population census show that the population in Indonesia reached 237.641.326 people with a Population Growth Rate of 1,49 percent. One of the efforts to implement the family planning program listed in the Medium-Term Development Plan is to increase the use of long-term contraceptive methods, one of which is the IUD. The use of IUDs at the Pantoloan Community Health Center was the lowest in 12 Community Health Center in Palu. From the data of the last 3 years, there have been fluctuations of 17 acceptors in 2013, 34 acceptors in 2014 and 30 acceptors in 2015. The purpose of this study is to determine the relationship between knowledge, attitudes, husband's support and attitudes of health officers on the contraceptive selection of IUD by mothers who are the family planning acceptors in the Pantoloan Community Health Center. The type of this research was a quantitative study with a Cross-Sectional approach. The total population was 649 and the sample was 106 people. Sampling technique used was a proportional stratified random sampling. Statistical analysis was performed using Chi-Square test and the variable that had a relationship with the contraceptive selection of IUD was the knowledge ( $\rho = 0,038$ ), maternal attitude ( $\rho = 0,015$ ), husband's support ( $\rho = 0,010$ ). Whereas the attitude of health officers ( $\rho = 0,443$ ) had no relationship with the contraceptive selection of IUD. It was expected that the health officers and health cadres conducted many counseling to increase the knowledge.

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**Keywords:** Selection, Contraception, IUD, Family Planning Acceptor

#### Introduction

Today, the use of IUD is still low, approximately 85 million women worldwide have used the IUD where the 70% (59 million) of them are found in China [6]. Based on data from the National Population and Family Planning Board in 2016, there were 2.268.492 family planning participants and the number of couples of reproductive ages was 3.627.945. The majority of family planning participants were dominated by family planning participants who used the Non-Long-Term Contraceptive Methods (Non-MKJP) of 82,31% which included Pills (17,41%), injections (63,68%) and condoms (1,22%) while participants who used MKJP chose implant (7,06%), IUD (7, 27%), MOW/ Tubectomy for women (2,84%) and MOP/ Tubectomy for man (0,53%). Judging from the use of IUD, Central Sulawesi is in the middle place which ranks eighteenth lowest of all 34 provinces in Indonesia.

Based on the Health Office of Palu in 2015, the number of couples of reproductive ages in Palu was 61.133 people, while

the achievements of active acceptors in 2015 in Palu were 32,682 people (53.5%), new acceptors were 19,862 (32.5%) and those who did not use contraception were 8,589 people (14.04%). The type of contraceptive method mostly used was injection of 29.70%, then IUD of 27,30%, pill of 22.70%, implant of 13.60%, MOW of 5.14%, condom of 2.78% and the lowest rate in use was MOP with 0, 22% [7].

The use of IUD (Intrauterine Device) can be influenced by several factors, namely knowledge, attitude, husband support and attitudes of health officers. Knowledge concerning family planning is very important for acceptors to choose contraceptives that will be used because knowledge is a very important domain in shaping a person's behavior [8]. Knowledge concerning IUD affects the maternal mindset in choosing contraception that is in accordance with the conditions of their needs and can make someone to have an interest in the use of IUD before they select the IUD as their contraceptive method [9].

Pantoloan Community Health Center is a health center in Palu. Based on the data obtained, the Pantoloan community health center has the lowest proportion of IUD acceptors compared to the other community health centers, which is 17,3% with 2.266 couples of reproductive age. The results of a preliminary study conducted by researchers at the Pantoloan Community Health Center, the use of IUD as long-term contraception without sterilization experiences fluctuations. Fructuations in 2013 were 17 acceptors, in 2014 were 34 acceptors and in 2015 were 30 acceptors of the existing numbers of couple of reproductive age. This study wants to find out the factors associated with the selection of IUD (intrauterine device) on mothers who are family planning acceptors in the Working Area of Pantoloan Community Health Center in North Palu.

**Methods**

The type of this research is quantitative research with a cross-sectional approach, conducted from April 3 to May 2, 2017. The research was conducted in the working area of the Pantoloan Community Health Center in North Palu. The population of the study was 649 people and the sample was 106 respondents which were selected using Proportionate Stratified Random Sampling.

**Operational Definition and Objective Criteria**

- a. Knowledge, is the ability of respondents to correctly answer questions about IUDs with objective criteria of lacking and good.
- b. Maternal attitude, is the response of the active family planning acceptors on IUD with objective criteria of negative and positive.
- c. Husband's support, is the assistance provided by the partners in the use of IUD contraceptive methods with objective criteria of not supportive and supportive
- d. Attitude of health officers, is the response of active family planning acceptors to the health officers in the working area of the Pantoloan Community Health Center in North Palu with objective criteria of negative and positive.

**Data collection**

- 1. Primary data is direct data obtained from respondents. This data was collected using a questionnaire. Questionnaire is a method of collecting data on a problem that generally involves many public interests. It was done by distributing a list of questions in a form [10]. A questionnaire was given directly by the researcher to the respondent. Questions on the questionnaire included the characteristics of respondents and independent variables.
- 2. Secondary data is not obtained directly from the respondent but the data is obtained from the agency related to the research that has been recorded.

**Results**

**Relationship Between Knowledge and Contraceptive Selection of IUD**

The relationship between knowledge and contraceptive selection of IUD that was analyzed using the Chi-Square test in a 2x2 contingency table is shown in the following table 1.

**Table1. The Relationship between Knowledge and Contraceptive Selection of IUD on Mothers who are the Family Planning Acceptors in Pantoloan Community Health Center Area**

Knowledge	Using the IUD				Total		P Value
	No		Yes		n	%	
	n	%	n	%			
Lack	4	97.9	1	2.1	48	100	0.038
Good	5	86.2	8	13.8	58	100	
<b>Total</b>	9	91.5	9	8.5	10	100	

In table 1, showed that from the 48 respondents who had less knowledge, respondents were more likely not to used IUD of 47 respondents (97.9%) compared to those who used the IUD which was 1 respondent (2.1%). From the 58 respondents who had good knowledge, more respondents did not use the IUD as many as 50 respondents (86.2%) compared to those who used the IUD as many as 8 respondents (13.8%). The chi-square test results showed  $\rho = 0.038$ , it meant that there was a relationship between the knowledge and the use of IUDs on mothers who were the family planning acceptors in the Working Area of Pantoloan Community Health Center, North Palu.

**Relationship Between Maternal Attitude and Contraceptive Selection of IUD**

The relationship between the maternal attitude with the contraceptive selection of IUD which was analyzed using the Chi-Square test in the 2x2 contingency table is shown in the following table 2.

**Table2. Relationship Between Maternal Attitudes and Contraceptive Selection of IUD in Mothers who were the Family Planning Acceptors in Pantoloan Community Health Center Area**

Maternal Attitude	Using the IUD				Total		ρ Value
	No		Yes		n	%	
	n	%	n	%			
Negative	53	98.1	1	1.9	54	100	0.015
Positive	44	84.6	8	15.4	52	100	
<b>Total</b>	97	91.5	9	8.5	106	100	

In table 2, it showed that from 54 respondents who have a negative attitude, more respondents did not use the IUD as many as 53 respondents (98.1%) compared to those who used the IUD as many as 1 respondent (1.9%). From the 52 respondents who had a positive attitude, more respondents did not use the IUD as many as 44 respondents (84.6%) compared

to those who used the IUD as many as 8 respondents (15.4%). The results of the chi-square test showed  $p=0.015$ , it meant that there was a relationship between the maternal attitudes and the use of IUDs on mother who were the family planning acceptors in the Working Area of Pantoloan Community Health Center, North Palu.

**Relationship Between Husband's Support and Contraceptive Selection of IUD**

The relationship between husband's support and the contraceptive selection of IUD which was analyzed using the Chi-Square test in the 2x2 contingency table is shown in the following table.

**Table 3. The Relationship between Husband's Support and Contraceptive Selection of IUD on Mothers Who were the Family Planning Acceptors in Pantoloan Community Health Center Area**

Husband's Support	Using the IUD				Total		P Value
	No		Yes		n	%	
	n	%	n	%			
Not supportive	58	98.3	1	1.7	59	100	0.010
Supportive	39	83	8	17	47	100	
<b>Total</b>	97	91.5	9	8.5	106	100	

In table 3, it showed that from 59 respondents who had not supportive husbands, more respondents did not use IUD as many as 58 respondents (98.3%) compared with those who used IUD as many as 1 respondent (1.7%). From the 47 respondents who had supportive husbands, more respondents did not use the IUD as many as 39 respondents (83%) compared to those who used the IUD as many as 8 respondents (17%). The results of the chi-square test showed  $p=0.010$ , it meant that there was a relationship between the husband's support and the use of IUDs on mothers who were the family planning acceptors in the Working Area of Pantoloan Community Health Center, North Palu.

**Relationship Between Attitudes of Health Officers and Contraceptive Selection of IUD**

The relationship between the attitudes of the health officers and the contraceptive selection of IUD which was analyzed using the Chi-Square test in the 2x2 contingency table is shown in the following table 3.

**Table 4. The Relationship between the Attitudes of Health Officers and Contraceptive Selection of IUD on Mothers who were the family planning acceptors in in Pantoloan Community Health Center Area**

Attitude of the Health Officers	Using the IUD				Total		P Value
	No		Yes		N	%	
	n	%	n	%			
Negative	26	96.3	1	3.7	27	100	0.443
Positive	71	89.9	8	10.1	79	100	
<b>Total</b>	97	91.5	9	8.5	106	100	

In table 4, it showed that from the 27 respondents who considered that the attitude of health workers was negative, more respondents did not use the IUD as many as 26 respondents (96.3%) compared to those who used the IUD as many as 1 respondent (3.7%). From 79 respondents who considered that the attitude of the health officers was positive, more respondents did not use the IUD as many as 71 respondents (89.9%) compared to those who used the IUD as many as 8 respondents (10.1%). The results of the statistical test of chi square showed  $p=0.443$ , it meant that there was no relationship between the attitudes of health officers and the use of IUDs on mothers who were the family planning acceptors in the Working Area of Pantoloan Community Health Center, North Palu.

**Discussion**

**Relationship between Economic Status and the Use of MKJP**

The results of the statistical tests between knowledge and contraceptive selection of IUD showed that there was a relationship between knowledge and contraceptive selection of IUD with a value of  $p=0.038$ . It meant that knowledge was a factor that could influence the contraceptive selection of IUD. This was because mothers who lacked knowledge about IUDs would make them reluctant to use the IUD. This was also influenced by age and education factors because the older and the higher the education of a person, it would be easier for someone to get the right information about the IUD. On the contrary, the lower the education of a person, it would make them difficult to obtain information [12].

This research was in line with the research conducted by Putri and Rahmawati (2015) [13], that there was a relationship between knowledge and the contraceptive selection of IUD. This was indicated by the value of  $p=0,004$ . Another study from Nomleni, Ernawati and Mato (2014) [14] showed that there was a significant relationship between knowledge and the contraceptive selection of IUD with a value of  $p=0,001$ . Moreover, the research conducted by Goldthwaite et al (2016) obtained the value of  $p=0.05$ , it meant that the increase in knowledge was related to the increase in the contraceptive use of IUD. Another study conducted by Anguzu et al (2014) [15], showed that there was a relationship between knowledge and use of IUD with a value of  $p=0.006$ . This research was not in line with the research conducted by Anggraini (2013) [16], that there was no relationship between knowledge and contraceptive use of IUD with a value of  $p=0.670$ .

The education level of the respondents could affect one's knowledge, but in this study, education was the reason for the lack of knowledge. However, it was because the respondents were lack of clearer information. In line with the research conducted by Fitriani [17], the contraceptive selection of IUD was due to the lack of information about the IUD, only knew at a little about the IUD, such as IUDs were contraceptives that were inserted into uterus, IUDs were effective for a long period of time and knew little about the advantages of IUD as well as how the IUD worked.

### **The Relationship Between Maternal Attitude and Contraceptive Selection of IUD**

The results of the statistical test showed the value of  $\rho=0.015$ , this result indicated that there was a relationship between the maternal attitude and the contraceptive selection of IUD. This research was in line with the research conducted by Susanti [8] that there was a relationship between maternal attitude and contraceptive selection of IUD. It was also more dominant than other factors in women of reproductive age in the working area of the Sepanjang Community Health Center, Sepanjang Village, Glenmore Regency in 2013 with statistical test results of  $\rho = 0, 00$ .

Research conducted by Gomez et al., [19] showed that the maternal attitude of towards IUDs was good, mothers were interested in using IUD because IUD was easy to use and it showed a high level of effectiveness. The curiosity of the mothers who were the family planning acceptors was influenced by the interest in using IUD.

Information developed in the community about IUD could be controlled properly by the health officers so that people no longer hear the information from fellow acceptors but they knew directly from the health officers. The management could be done in various ways, one of which was by conducting two-way communication or discussion to the acceptors before and after using the contraception.

### **Relationship between Husband's Support and Contraceptive Selection of IUD**

Husband is the first and leading person in giving help to the wife before the other party gives suggestion to choose the contraceptive method. The role of a husband in using contraception is to support in choosing contraception and giving wife freedom to use contraception [20].

The results of the chi-square test analysis obtained  $\rho = 0.006$   $<$   $\alpha$  value = 0,05, this meant that there was a relationship between husband's support with the contraceptive selection of IUD. Husband's decision to allow his wife to use the contraception was an important guideline for his wife. If the husband did not allow them, only a few wives dared to use the contraception [20].

This study was in line with the research conducted by Lidano, Runkat and Manueke [21], which showed that there was a significant relationship between husband's support and the use of intrauterine device with a value of  $\rho = 0.005$ . This research was also in line with the research conducted by Irnawati [22] that there was a relationship between husband's support and the interest in the use of IUD in the Sumber village, Sumber Subdistrict, Rembang Regency ( $\rho = 0,000$ ). It was also supported by the research conducted by Thapa [23] with a value of  $\rho = 0.00$ .

Cooperation between husband and wife was needed in the contraceptive selection that would be used by the wife. Husbands played a major role in supporting contraceptive use. The wrong understanding from the husband about contraception could affect acceptors whether to use the contraception or not. Therefore, an activity to improve the

understanding should be carried out for the husband and not only for the acceptors.

### **Relationship Between Attitudes of Health Officers and Contraceptive Selection of IUD**

The statistical test results of the relationship between the attitude of health officers and the contraceptive selection of IUD showed  $\rho = 0.443 > \alpha = 0.05$ , this meant that there was no correlation between the attitude of the health officers with the contraceptive selection of IUD at the Pantoloan Community Health Center, North Palu.

Every health officer must be able to carry out excellent service such as giving patients what they really need. Excellent service could only be achieved through implementation which included the components of practice which were discipline, initiative, responsive, communicative and cooperative with patients [25]. Midwives or health officers had a role in influencing the acceptors on contraceptive selection [26].

This study was not in line with the research conducted by Pitriani [27], that there was a relationship between the attitude of health officers with the of IUD ( $\rho = 0,034$ ). The research conducted by Aldriana [28], entitled factors related to the use of intrauterine device in the working area of Kebun Community Health Center, Rokan Hulu Regency in 2013 was not in line with this study. The results showed that there was a causal relationship between the attitude of health officers and the use of IUD.

### **Conclusion**

The conclusion of this study was that there was a relationship between knowledge, maternal attitudes and husband's support with the contraceptive selection of IUD on mothers who were the family planning acceptors in the Working Area of Pantoloan Community Health Center, North Palu. Whereas for the variable of the attitude of health officers, there was no relationship between the attitudes of health officers with the contraceptive selection of IUD on mothers who were the family planning acceptors in the Working Area of Pantoloan Community Health Center, North Palu. It was expected that socialization about family planning would be conducted frequently to increase the knowledge so that people knew more about contraception and people's attitudes toward contraceptive method could change.

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### **Conflict Of Interest**

The authors declare no potential conflict of interest in this articles publication

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