Factors Influencing The Use Of Postpartum Intrauterine Device (Iud)

Welem Tandilolok Sitohang[1], Umar Malinta[2], Sriwijaya[3], A. Mardiah Tahir[4], Eddy Hartono[5], Arifin Seweng[6]

[1]*Department of Obstetrics and Gynecology, Faculty of Medicine, Hasanuddin University*
[2]*Department of Obstetrics and Gynecology, Faculty of Medicine, Hasanuddin University*
[3]*Department of Obstetrics and Gynecology, Faculty of Medicine, Hasanuddin University*
[4]*Department of Obstetrics and Gynecology, Faculty of Medicine, Hasanuddin University*
[5]*Department of Obstetrics and Gynecology, Faculty of Medicine, Hasanuddin University*
[6]*Department of Obstetrics and Gynecology, Faculty of Medicine, Hasanuddin University*

E-mail: [1]*welemtandiloloksitohang@gmail.com,* [2]*mheera_88@yahoo.co.uk,*
[3]*sriwijayaqadar@yahoo.com,* [4]*mardiahtahir@yahoo.com,* [5]*eddyhartono_spog@yahoo.com,*
[6]*fkm.unhas@gmail.com*

Abstract
Postpartum Intrauterine Device (IUD) is an effective, safe and comfortable contraceptive choice for women and made of T-shaped plastic and copper (Cooper T) which is inserted into the uterus postpartum/intraoperative. The results of the study showed that the highest percentage of respondents was at the age of spacing pregnancies (20-35 years), multiparas, those who were highly educated and those who did not work. The results of the statistical analysis showed that there was a significant influence between age, occupation, knowledge and support from the husband with postpartum IUD use, where p<0.05, while parity had no effect. Knowledge factor had a significant effect even though it was not influenced by the level of education or media exposure with a value of p=0.00. Multivariate analysis showed that knowledge was the dominant factor that affected the use of postpartum IUD as much as 43,012 times.
Conclusion: The postpartum IUD was most commonly used by mothers aged >35 years, working, sufficient knowledge of the IUD regardless of level of education and media exposure, and receiving support from the husband. Knowledge and support from the husband were the most influential factor on postpartum IUD use.
Keywords: Postpartum IUD, knowledge, support from husband, influence.

1. BACKGROUND

The problem of maternal morbidity and mortality in Indonesia is still a big problem in this country. One of the programs to reduce maternal mortality is the family planning program. Based on the data of Riskesdas (Riset Kesehatan Dasar; Basic Health Research in Indonesia) 2010, the type of family planning devices used nationally were dominated by hormonal injections (31.1%), followed by pills (12.3%), intrauterine device (IUD) (5.0%), female sterilization (2.1%), implants (1.4%), condoms (1.1%), male sterilization (0.1%). Factors that influence the selection of contraceptive methods used were divided into predisposition factors (age, education level, number of children, knowledge, attitudes),

supporting factors (availability of contraception, distance of home to health center, travel time and cost), push factors (support from the husband and health worker skills) (1,2).

The IUD is a non-hormonal contraceptive with a long-term method that is ideal in effort to narrow pregnancy. The use of IUD in South Sulawesi was only 2.34%, in Makassar city 3,454 postpartum mothers, and in RSKDIA St. Fatimah Makassar in 2015 was 526 mothers. The low rate of the IUD use was carried out in this "Factors Influencing the Use of Postpartum Intrauterine Device (IUD)" study (3).

2. RESEARCH OBJECTIVES
To determine the relationship of factors that influence the selection of postpartum Intrauterine Device (IUD) at several hospitals in obstetrics and gynecology education networks and community health centers in Makassar.

3. RESEARCH METHODS/DESIGN
The study was an observational study with a cross sectional design at the network hospitals and health centers in Makassar (January-May 2018). The research samples were postpartum mothers who used the postpartum IUD and the sampling method was stratified proportional random sampling.

4. RESEARCH RESULTS
The total sample was 185 samples of postpartum IUD acceptor groups and 185 control group samples.

Univariate Analysis
Table 1 showed more respondents in the age group that limiting pregnancies (20-35 years) 73.0%, multiparas 63.8%, those with higher educational attainment (i.e., high school graduate or more) 79.5% and who unemployed (housewives) 68.1%.

Table 1. Distribution of characteristics of the study sample

Characteristics	Total	
	n	%
Age		
Delaying Pregnancy (<20 Years)	36	9.7
Sparing Pregnancy (20-35 Years)	270	73.0
Limiting Pregnancy (>35 Years)	64	17.3
Total	**370**	**100**
Parity		
Primipara	134	36.2
Multipara	236	63.8
Total	**370**	**100**
Education		
High (High School, College, Graduate School or More)	294	79.5
Low (High School Graduate or Less)	76	20.5
Total	**370**	**100**

Work Status		
Employed (Civil Servant, Army, Police, Entrepreneur)	118	31.9
Unemployed (Housewife)	252	68.1
Total	**370**	**100**

Chi Square Test

Bivariate Analysis

Table 2 showed that mothers taking a postpartum IUD are more at the age of limiting pregnancy (>35 years) which is 64.1% (p=0.027). Parity variables showed that mothers who had postpartum IUD are more in multiparous mothers 53.8% (p=0.052). Work status variable showed that mothers who took a postpartum IUD are more likely to be working at 66.1% (p=0.000). Knowledge variable showed that mothers who use postpartum IUD are more in mothers who have sufficient knowledge of 83.4% (p=0.000). Support from husband variable showed that mothers who had postpartum IUD are more likely to received support from their husbands 58.7% (p=0.000).

Table 2. Analysis of the Relationship of Maternal Age, Parity, Work Status, Knowledge, and Support from Husband to the Postpartum IUD Selection.

	IUD acceptor				Total		P value
	Using IUD		Not Using IUD				
	n	%	n	%	n	%	
Age							
Delaying Pregnancy (<20 Years)	14	38.9	22	61.1	36	9.7	0.027
Sparing Pregnancy (20-35 Years)	130	48.1	140	51.9	270	73.0	
Limiting Pregnancy (>35 Years)	41	64.1	23	35.9	64	17.3	
Total	**185**		**185**		**370**	**100**	
Parity							
Primipara	58	43.3	76	56.7	134	36.2	0.052
Multipara	127	53.8	109	46.2	236	63.8	
Total	**185**		**185**		**370**	**100**	
Work Status							
Employed (Civil Servant, Army, Police, Entrepreneur)	78	66.1	40	33.9	118	31.9	0,000
Unemployed (Housewife)	107	42.5	145	57.5	252	68.1	
Total	**185**		**185**		**370**	**100**	
Knowledge							

Enough	171	83.4	34	16.6	205	55.4	0,000
Less	14	8.5	151	91.5	165	44.6	
Total	185		185		370	100	
Support from Husband							
Support	175	58.7	123	41.3	298	80.5	0,000
Does not support	10	13.9	62	86.1	72	19.5	
Total	**185**		**185**		**370**	**100**	

Chi square test, P <0.05

Table 3 showed mothers who have high and low level educational attainment with sufficient knowledge to choose a postpartum IUD is 81.8% and 91.4% (p=0.000). Media exposure variable showed that mothers exposed to the media and not who had sufficient knowledge are 83.8% and 82.4% were found to be more likely to use postpartum IUDs (p=0.000). This showed that there is a correlation between knowledge of postpartum IUD selection without being influenced by education and media exposure.

Table 3. Analysis of the relationship of knowledge and postpartum IUD use based on education and media exposure

		IUD acceptor				Total		P value
	Knowledge	Using IUD		Not Using IUD				
		n	%	n	%	n	%	
Education Level								
High	Enough	139	81.8	31	18.2	170	45.9	0.000
	Less	11	8.9	113	91.1	124	33.5	
Low	Enough	32	91.4	3	8.6	35	9.5	0.000
	Less	3	7.3	38	92.7	41	11.1	
	Total	**185**		**185**		**370**	**100**	
Media exposure								
Exposed	Enough	129	83.8	25	16.2	154	41.6	0.000
	Less	6	11.5	46	88.5	52	14.1	
Not exposed	Enough	42	82.4	9	17.6	51	13.8	0.000
	Less	8	7.1	105	92.9	113	30.5	
	Total	**185**		**185**		**370**	**100**	

Chi Square test, P <0.05

Multivariate Analysis

Statistically, table 4 showed that the assessment of the work status variable is not significant (p= 0.119) while the knowledge variable and support from husband were significant (p = 0.000). Odds Ratio (OR) test results of knowledge are 43,012 and 4,127 for support from husband. This showed that high-knowledge mothers had 43,012 times tendency to use postpartum IUD and 4,127 times for who received support from husband and there are many

contributions from the variables of work status, knowledge and support from husband of 64.8% for postpartum IUD.

Table 4. Results of Logistic Regression Analysis between Independent Variables of Work Status, Knowledge and Support from Husband against the Postpartum IUD Selection

Variable	B	SE	Wald	Df	P	OR
Work Status	0.551	0.353	2,427	1	0.119	1,734
Knowledge	3,761	0.343	120,534	1	0,000	43,012
Support	1,417	0.466	9,237	1	0.002	4,127
Constants	-3,602	0.492	53,645	1	0,000	0.027
Nagelkerke R Square (0.648)						

Logistic Regression Test, P <0.05

5. DISCUSSION
1) Relationship between Age and Postpartum IUD Use
Mothers taking postpartum IUD are more at the age of limiting pregnancy (>35 years). The results of the bivariate analysis showed there is a significant relationship between age and postpartum IUD use. This is in line with the results of a study by Chaudhury et al., 2013 and Rati et al. 2014 which were IUD use that related to age and more in women >30 years old (4,5).
2) Relationship between Parity and Postpartum IUD Use
There are more multiparous mothers using postpartum IUD. Statistically, there is no relationship between parity and IUD contraceptive use. The results of this study were also in line with the research by Smith, 2015 that mentioned about a relationship between parity that was not significant enough to discredit the use of the IUD. The reasons were because mothers still want to get pregnant or have more children and contraceptive counseling was given not by the same person. (5,8)
3) Relationship between Work Status and Postpartum IUD Use
Work status had a significant relationship with postpartum IUD use because of the mothers who were busy with work, the demands of their careers, and workplace policies limit the time they have to get contraceptive services so they choose an effective contraception which is postpartum IUD. (6,7)
4) Relationship between Knowledge and Postpartum IUD Use
There is a relationship between the knowledge of the mother and postpartum IUD use. Statistically, the results of this study are consistent with the results of studies by Rati, et al., 2014, Sulistio, 2010, and Regland et al., 2014, that there was a significant relationship between knowledge factors and IUD use (4,5,8).
5) Relationship between Knowledge and Postpartum IUD Use Based on Education
This study showed that statistically there is a significant correlation between knowledge and postpartum IUD use without being influenced by education. This result is in line with the research by Beyna, 2015, which said that education did not have a significant relationship with family planning participation. This means that not all low-educated mothers will also have low knowledge because an increase in one's knowledge of IUD contraception is not only obtained from formal education, but can be obtained through non-formal education, so that someone with low or high level education may decide to choose a postpartum IUD based on informal knowledge and experience (7,9,10).
6) Relationship between Age and Postpartum IUD Use Based on Media Exposure

Research showed that mothers taking postpartum IUD contraception are all well-informed, both those who are exposed to the media and not. Statistically, there is a relationship between knowledge and postpartum IUD use without being affected by media exposure. This result is in line with research by Aryanti, 2014, which stated that IUD information was not only obtained through social media but also from information from health workers and counseling (2,9,10)

7) Relationship between Support from Husband and Postpartum IUD Use
Every woman who used postpartum IUD contraception has the support from their husband. Statistically, there was a relationship between support from husband and postpartum IUD contraceptive use. This is consistent with the result of studies by Nuzula, 2015, Kohan, 2012, and Megha, et al., 2016, that the decision to use family planning should be decided jointly with their partners so that they can support each other to use it. (7,9,10).

6. CONCLUSION
1. There is a significant relationship between age, work status, knowledge and support from husband for contraceptive use.
2. There is a significant relationship between knowledge and use of postpartum IUD without being influenced by education and media exposure .

REFERENCES

[1]. BKKBN. Profil Kependudukan Dan Pembangunan di Indonesia Tahun 2013. Badan Kependudukan Dan Keluarga Berencana Nasional; Available from: http://bkkbn.go.id. 2013

[2]. Aryanti, H. Faktor-faktor yang berhubungan dengan penggunaan kontrasepsi pada wanita kawin usia dini di kecamatan Aikmei Kabupaten Lombok Timur (tesis). Denpasar. Universitas Udayana.2014

[3]. Bangsawan N. Faktor Yang Berpengaruh Terhadap Pemilihan AKDR Pascapersalinan di RSKDIA St Fatimah Makassar. 2015 Yogyakarta: Gadjah Mada; 2015

[4]. Chaudhury., N. Tariq, M. Singh A. Determinant of Intrauterine Device Usage among Women in Reproductive Age in three states of North India. International Union For The Scientific Study of Population, 2013

[5]. Smith, Sarah A. The Usage Of Intrauterine Devices (IUDs) in Adolescents and Nulloparous Women. A Systematic Review Journal Women's Health Care;4,6;2015

[6]. Mosha,I,H,Ruben, R.Communication, knowledge, social network and family planning utilization among couples in Mwanza, Tanzania, African Journal Of Reproductive Health. Sep : 17(3):57-70, 2013

[7]. Nuzula, F. Faktor-Faktor Yang berhubungan Dengan Pemakaian Implants Pada Wanita Pasangan Usia Subur di Kecamatan Tegalsari Kabupaten Banyuwangi. Denpasar. Program Pascasarjana Universitas Udayana, 2015.

[8]. Subha,A,dkk. A study On Acceptance and Discontinuation Of Intrauterine Contraceptive Device And Its Determinants In A Tertiary Care Centre. Journal of Evidence Based Med & Health Care,pISSN 2349-2562,eISSN 2349-2570/Vol.2/Issue 26/June 29,2015

[9]. Megha, S, Joshi S. Nagar, O, Sharma A. Determinants of Intrauterine Contraceptive Device Discontinuation. Among Indoan Women. The Journal of Obstetrics and gybecology of India (may0June 2014) 64(3):208-211, 2014

[10]. Kohan, S., Simbar, M., & Taleghani, F. Empowerment in family planning as viewed by Iranian women : a qualitative study Journal Of Biosocial Science, 44(2),2009-19, 2012.