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Exploring Factors Affecting The Mother's Knowledge about Intrauterine Device (IUD) In Bastiong Karance District of Ternate City

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ABSTRACT The Family Planning Program as one of the government policies in the population sector, has high implications for quantitative and qualitative health development. To make the family planning program a success, one of the methods used is the contraceptive method. The method of contraception that is considered safe and effective is the intrauterine device (IUD), but its use is still very low compared to other contraceptives. National coverage for active family planning participants is 66%, while North Maluku Province is only 52.4%, with IUD users only 7.4%, far below injectable contraceptives at 63.7%. The purpose of this study was to determine which factors from age, education, occupation and parity were more related to the mother's knowledge about IUD. Using a descriptive method with a non-probability sampling technique, which was taken by accident, for a month to find 67 samples. The results showed that most of the respondents were aged 20-35 years old, had adequate education, employed female employees and had 2-3 children parity. Of the four factors analyzed, it shows that the work factor and the number of children 2-3 people are the respondents who use the IUD the most

Keywords: Maternal characteristics; Knowledge about IUD

I. INTRODUCTION

Family Planning is an effort to regulate pregnancy, the ideal distance and age for giving birth, through the promotion of protection and assistance in accordance with reproductive rights to create a quality family. The regulation of pregnancy in the family planning program is carried out using a contraceptive method. Contraceptive methods are divided into two types, namely Long Term Contraceptive Methods (LTM) and Non Long Term Contraceptive Methods (Non LTM) (1). LTM includes implants, IUD (non-permanent) and Tubectomy and Vasectomy (parmanent) (2). LTM is considered more efficient because it can be used for a long time and is safer and more effective because the MKJP failure rate is reported to be 0.2 per 1000 users, while the non LTM method is reported to be more than 10 per 1000 users. From this, it can be seen that the MKJP method is more effective in preventing pregnancy in its users (3).

Intrauterine contraception (IUD) is one of the effective, safe, and reversible long-term contraceptives, because it is considered very effective in preventing pregnancy and has relatively many benefits compared to other

contraceptives(4). Among them, it does not interfere with coitus (sexual intercourse), can be used until menopause and after the IUD is removed from the uterus, it can easily be fertile again. National coverage for active family planning participants is 66%, while North Maluku Province is only 52.4%, with IUD users only 7.4, far below injectable contraceptives at 63.7% (5).

In the 2019 Indonesian Health Profile, it can be seen that active family planning among PUS is 62.5%, a decrease from the previous year which was 63.27%. Meanwhile, the Medium term development plan target to be achieved in 2019 is 66%. The results of the 2017 IDHS also show a higher number for active family planning, which is 63.6%. The highest active family planning was in Bengkulu at 71.4% and the lowest was in West Papua at 25.4%. There are 11 (eleven) provinces with active family planning coverage achieving the medium term development plan target of 66%, including Bengkulu, South Kalimantan, Lampung, Jambi, Bangka Belitung Islands, Bali, West Java, etc (7). Health Ministry data in 2019 showed that most of the acceptors chose to use the injection method at 72.9%, followed by pills at 19.4%. In

terms of effectiveness, these two types of devices are short-term contraceptive methods so that their effectiveness in controlling pregnancy is lower than other types of contraception (8). This pattern occurs every year, where more participants choose short-term contraceptive methods than long-term contraceptive methods (IUD, implant, Tubectomy and Vasectomy) (9). Many factors cause contraception method usage, such as age, parity, and husband support. Among these factors, parity was significantly related to long term contraceptive preference (10). Information also matter in choosing contraceptive method (8). Information about contraception which were commonly displayed in internet i.e. effectiveness, risk of using contraception, and its side effect (10). A study suggested that those whose high education level and good knowledge were positively affected long-term contraceptive method (12).

Specifically for the Bastiong Karance sub-district, the coverage of family planning participants in 2020 was 7466 acceptors with details, 5799 injections, 910 implants, 543 IUDs, MOW 154, MOP 42 and 18 condoms. While for Bastiong Karance sub-district the number of acceptors was 739 acceptors, with details of 543 injections, IUD, 154 people, Pill 42 people, tubectomy 18 people, Most women don't wear an IUD because they are afraid, and in doubt, some even don't know the IUD at all (11). Based on the pattern in the selection of contraceptives in the 2019 Indonesian Health Profile data, it can be seen that the majority of Active Family Planing participants choose injections and pills as contraceptives and are even very dominant (more than 80%) compared to other methods; injections (63.7%) and the IUD (17.0%).

The low use of IUDs in women of childbearing age has prompted many researchers in Indonesia, and other countries in the world to conduct research on this phenomenon. A literature study conducted by Nobiling et al (13), entitled Exploring Trends in Intrauterine Device (IUD) Use among Women in the United States, with the aim of exploring the factors that influence IUD use patterns, with a focus on potential users and providers, found that factors Country of origin, age, attitude and training of providers, as well as IUD services, are major factors including Lack of knowledge of potential users is also considered a barrier to continued use of IUDs. Gomez's, study using a multinomial logistic regression model to examine differences in interest in the use of IUDs, in women aged 18-29 years in America, found data that most were not sure to use the IUD, some were not interested in using it because of pain during insertion (14). Likewise the study in Navajo India entitled Attitudes and Practices Among Indian Healthcare Providers in the Navajo Area. regarding "Perspectives on sexual and reproductive health", found that provider education and training should focus on available insertion and safety techniques. Training should be targeted not only for women's health care providers, but also for family practice physicians, nurse practitioners, and health care providers. others who offer family planning counseling and services (15).

Research on the relationship between maternal knowledge and IUD use by Sari in Lampung, stated that there are many factors that can increase mother's knowledge of IUDs, but what most influence mothers to choose IUDs are service facilities and initial information

about indications, benefits, installation procedures and time of insertion. 16). The same result was obtained by Yusuf, who researched the relationship between family planning counseling and IUD selection, at the Mamboro Palu Health Center, which showed that proper initial counseling, as well as quality of service, influenced mothers to use the IUD (17).

Research on maternal knowledge and IUD use conducted by Sari et al in Lampung, or Yusuf et al in Palu, also Maricar in Manado (18), also Ilmiyah in Boyolali (19), they did not examine the mother's occupation. Therefore, in this study, the employment variable is added, assuming that in Indonesia the rules regarding workers apply equally to both men and women. Thus, it will be seen whether the mother's occupation has an effect on the decision to use the IUD. The weakness of this research is the small number of samples and homogeneous respondents, so that the sources of knowledge are almost the same.

II. METHOD

The method used is descriptive method, where this research was conducted to describe the problems/phenomena found, then analyzed to draw conclusions (Sugiono, 2009). The population of this study were all active acceptors who used IUDs in Bastiong Karance Village as many as 76 people, with a sample size of 67 people. The sampling technique used was non-probability sampling, with accidental sampling. The variables studied are the factors that influence the mother's knowledge of the IUD, namely Age, Education, Occupation and parity. Collecting data by interview and distribution of questionnaires. This research was conducted from August to October 2020.

III. RESULTS AND DISCUSSION

The results of research on factors that influence the knowledge of mothers using IUDs are shown in the following tables:

TABLE 1
Frequency Distribution Of Respondents By Knowledge

Knowledge	Frequency (f)	Percentage (%)
Good	15	22.3%
Enough	42	62.7%
Less	10	15.0%
Total	67	100%

TABLE 1 suggested that mostly respondents with enough knowledge and only 22.5% of 67 respondents whose knowledge level was good.

TABLE 2
Frequency Distribution Characteristics Of Respondents

Variables	Frequency (f)	Percentage (%)
Age		
< 20 years	3	4.5 %
20-35 years	39	58.2 %
> 35	25	37.3
Education		
Elementary	5	7.5 %
Junior high	21	31.3%

school		
Senior high school	29	43.2%
Higher education	12	18, 0 %
Worker		
Domestic	23	34.3%
Employee	24	35.8%
Entrepreneur	20	29.9 %
Parity		
1 child	4	5.9 %
2-3 children	47	70.1 %
4 children	16	24.0 %
All characteristics	67	100 %

In [TABLE 2](#) it can be seen that, most respondents are mothers aged 21-35 years and the number of children owned is 2-3 people

The results of this study are expected to show which factors from age, education, occupation and parity can affect mothers' knowledge of the IUD ([TABLE 3](#)). In [TABLE 1](#), it can be seen that the majority of respondents were mothers with moderate knowledge, namely 62.7%. [TABLE 2](#) shows that the majority of respondents are aged 21-35 years by 58.2%, the highest level of education is high school as much as 43.2%, the most occupations are female employees, 35.8% and the number of children 2-3 people is 70.1%.

The analysis of the effect of age, education, occupation and parity on mother's knowledge of the IUD is as follows: factors of age and knowledge, it appears that the older the mother, the better her knowledge of the IUD. Many respondents aged more than 35 years have good knowledge, this is in line with research on the characteristics of IUD acceptors, conducted by Hasanah et al in Jogjakarta (7) found that most of the IUD acceptors are in the age range of more than 30 years, as is the case with research Scientific studies in Boyolali use AKJP a lot in mothers aged > 35 years (19). Age is an indicator of the maturity of a woman. Theoretically it is also explained that someone who is in adulthood is considered to have adequate

experience and understanding of contraception because he gets a lot of information from work friends, family or from the mass media. From the program side, this is very supportive because at the age of > 35 years is the age where it is not recommended to get pregnant again, because of the possibility of complications in pregnancy.

Research in America on adolescent knowledge and attitudes about contraception by Race/Ethnicity and Age, concluded that contraceptive knowledge is lower among adolescents (20-29 years) especially Hispanics, and immigrants, indicating the importance of disseminating family planning information to women of this age (21). Education and Knowledge Factors, the results of the analysis found that respondents with high school education and higher education also had high knowledge of the IUD, as much as 41%. Education is a benchmark for someone to find out information and knowledge about health, for example contraception. The higher a person's education, the better he or she will be able to determine the contraceptive method a woman needs in the long term, namely the selection of the IUD (4). A person's education level affects a person's ability to receive and review health information. Educational status affects the opportunity and ability to obtain information about things around them, including the ability to make decisions (6). In line with Padmasari's research on the description of decision-making in the selection of IUD contraceptives for family planning acceptors at the Danurejan I Health Center, Yogyakarta (12), found that mature age can influence the decision to use contraception. This age group includes a person's adult development, a period when personality is more stable. Education level and maternal exposure have no effect on IUD use decisions, compared to husband's knowledge and support(22).

WORK ON KNOWLEDGE

It appears that many female employees have a good opinion about the IUD, namely 24%, this indicates that a woman's employment status has an influence on knowledge about the IUD. This study is in line with the theory which states that the work environment can make a person gain experience and knowledge both directly and

TABLE 3
Effect Of Characteristics On Mother's Knowledge Of The Iud

Variables	Category of Knowledge						Total	
	Good		Enough		Less			
	n	%	n	%	n	%		
Age								
< 20 years	0	0.0	2	66.7	1	33.3	3	100
20-35 years	10	25.6	12	30.8	17	43.6	39	100
> 35	12	48.0	10	40.0	3	12.0	25	100
Education								
Elementary	2	40.0	1	20.0	2	40.0	5	100
Junior high school	9	42.9	10	47.6	6	28.6	21	100
Senior high school	12	41.4	10	34.5	7	24.1	29	100
Higher education	6	50.0	5	41.7	1	8.3	12	100
Worker								
Domestic	11	47.8	9	39.1	3	13.0	23	100
Employee	14	58.3	8	33.3	2	8.3	24	100
Entrepreneur	8	40.0	9	45.0	3	15.0	20	100
Parity								
1 child	1	25.0	2	50.0	1	25.0	4	100
2-3 children	17	36.2	20	42.6	10	21.3	47	100
4 children	4	25.0	8	50.0	3	18.8	16	100

indirectly so that mothers can increase their knowledge, including knowledge of the IUD (4).

This is because working women will seek information about contraception that can provide protection from pregnancy in the long term, so that they can return to active work without worrying about getting pregnant again. These results are in line with research on IUDs by Yulidasari et al, who concluded that employment status had an effect on mothers' knowledge of IUDs (23)

Research in Iran on the factors that affect birth spacing, concluded that, the most significant factor on birth spacing was the first work of the mother, the second was family socioeconomic (24).

The effect of parity on respondents' knowledge, it was found that respondents with parity 2-3 children had more moderate knowledge about IUDs. This is not in line with the theory which says that parity is very influential on the knowledge of a mother, arguing that the more experience a mother has, the easier it will be to accept knowledge. In Susanti's research (6), it is the same as this study which shows that the number of children has no effect on mother's knowledge. In line with Ibrahim's research (25), very few mothers who have 1 child use an IUD because they are afraid that if the contraceptive device is inserted into the uterus, most of them are worried that it will damage the uterus, be uncomfortable during intercourse, and if delaying birth for too long will affect fertility levels. mother. Likewise, Imbarwati's research (26) on several factors related to the use of IUD in non-IUD family planning participants, the results showed that the most IUD use was in adults (20 to 35 years) while at a young age it was very low. Overall, this research has several limitation as describe as follow; the instrument used is a closed questionnaire, and simple interviews, so it is necessary to consider using structured and in-depth interviews. Many factors related to maternal characteristics were not studied. The number of respondents is small (67 people) and homogeneous, 95% of respondents come from ethnic groups in North Maluku, so there is no variation in knowledge and occupation. So it does not provide a real picture of the actual conditions that want to be studied.

IV. CONCLUSION

From the above analysis, it is concluded that there are 2 variables that are very influential, namely age and occupation. Mothers > 35 years old have good knowledge of IUDs, because at this age women are no longer recommended to get pregnant. Mothers who work as employees, will choose the IUD because this contraception once installed can provide 3-5 protection so that there is no potential for forgetting to take or forget to inject, or forget to use.

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