

## Relationship between Age, Parity, and Mother's Education with the Selection of 3 Months Injectable Family Planning in Banuayu Village, Lubuk Batang District, Ogan Komering Ulu Regency 2021

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### ABSTRACT

**Background:** Indonesia is a country with the fourth largest population in the world, so the government has launched the use of contraception. The most popular contraceptive is injection contraception by 34.3%. The purpose of the study was to determine the relationship between age, parity and education with the choice of 3-month injection KB in Banuayu Village, Lubuk Batang District, Ogan Ulu Regency in 2021. The research design was an analytical survey and a cross sectional approaches. The population in this study were all active family planning acceptors in Banuayu Village, Lubuk Batang District, OKU Regency and registered in the MCH/KB registration starting from January - July 2021 as many as 489 family planning acceptors who were still active and the number of samples was 83 respondents, 11 pill acceptors, 3 IUD acceptors, 12 natural family planning acceptors, 5 implant acceptors and 52 3 month family planning injection acceptors. The sampling technique used is systematic random sampling. The data collection tool is in the form of a check list. The data were processed univariately and bivariately by using the Chi-Square test with p value value (0.05). This research was conducted in August 2021. The results of the Chi Square statistical test stated that there was no significant relationship between age and the choice of 3-month injection KB with p-value = 0.756; there is no significant relationship between parity and the choice of 3-month injection KB with a p-value of 1,000; and there is a significant relationship between education and the choice of 3-month injection KB with a p-value of 0.004.

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## 1. Introduction

Indonesia is a country with the fourth largest population in the world with a population of 265 million people [1]., so the government launched the use of family planning as a way to reduce the population and improve maternal and child health [2].

Family Planning (KB) or family planning is a method used to organize and plan a happy and prosperous family. Family planning can provide many advantages such as spacing and number of pregnancies. This will reduce the number of maternal and infant deaths and unwanted pregnancies [3]. One of the important components in family planning is the use of contraception which is an effort to prevent temporary or permanent pregnancy. The main purpose of using contraception is to distance pregnancy, delay pregnancy and end fertility [4].

Contraception is used by most of the married women in almost all regions of the world. In 2015, 64% of women of reproductive age worldwide used some form of contraception [5]. According to WHO the number of injectable contraceptive use worldwide is 4,000,000 or about 45%. In the United States, the use of injectable contraceptives is 30%, while in Indonesia injectable contraceptives are one of the most popular forms of contraception. Contraception in Indonesia is the most popular, namely injectable contraceptives at 34.3% [6].

Indonesia's Health Profile data in 2019 shows that the majority of active family planning participants choose injections and pills as contraceptives and are even very dominant (more than 80%) compared to other

methods; injection (63.7%), Pill (17.0%), Implant (7.4%), IUD/IUD (7.4%), Condom (1.2%), MOW (Female Operative Method) (2.7%), MOP (Male Operative Method) (0.5%) [7].

Nationally, in October 2013 there were 723,456 acceptors of family planning acceptors. When viewed per contraceptive mix, the percentages are as follows: IUD (7.39%), MOW (1.40%), Implants (11.20%), Injections (46.17%), Pills (27.06%), MOP (0.30%) and condoms (6.48%). The majority of KB participants are dominated by injection, pill and implant KB participants [8]. There are many kinds of hormonal contraceptives, either the pill method, one month injection, three month injection, implant and others. Having a hormonal dose that is in accordance with the conditions and needs of a woman's body. The highest number were hormonal acceptors as much as 51.21% compared to other methods, the highest was injection KB 40.02%, choosing Pills 4.93%, choosing implants 2.72% [9].

In South Sumatra in 2018, 2019, 2020, the number of hormonal family planning users for the pill type increases every year, namely 289,658 people, 295,952 people, and 298,842 people. In the type of injectable family planning in 2018 there were 577,851 people, in 2019 there were 600,074 people, in 2020 there were 595,772 people. The type of KB implants increases every year in 2018 as many as 320,690 people, in 2019 as many as 330,992 people, in 2020 as many as 344,381 people. For non-hormonal family planning users, condom types increase every year, namely 2018, 2019, 2020 as many as 59,803 people, 62,861 people, 65,127 people. The type of IUD also increases every year, namely 2018, 2019, 2020 as many as 63,461 people, 64,408 people, 69,280 people. In the MOW family planning type, in 2018 there were 39,852 people, in 2019 there were 41,491 people, and in 2020 there were 41,284 people. While the type of KB MOP in 2018 was 6,079 people, in 2019 there were 6,068 people, and in 2020 there were 6,258 people [10].

Based on data obtained from Banuayu Village, Lubuk Batang District, OKU Regency, the number of family planning acceptors in 2019 was 315 injections for 3 months, 14 people for 1 month injection, 29 implants, 13 IUDs, 57 pills, 35 natural KB, and 5 condoms. person. In 2020 there were 324 acceptors who used 3-month injections, 11 people with 1-month injections, 29 implants, 10 IUDs, 64 pills, 36 natural KB, and 2 condoms. In 2021 from January to July the number of family planning acceptors who used 3 months injections was 313 people, 2 people injected 1 month, 27 people implanted, 16 IUDs, 4 MOW people, 67 pills, 58 natural KB, and 2 condoms [11].

Contraception is defined as any means used to prevent pregnancy, either by preventing fertilization of an ovum by a sperm cell or by preventing the implantation of a fertilized ovum in the uterine wall. Contraceptives are increasingly popular among women of reproductive age every year. Approximately 64% of women worldwide who are married or of reproductive age use one method of contraception [12]. Injectable contraception is a contraceptive device in the form of a liquid that is injected into a woman's body periodically and contains hormones, then enters the blood vessels and is absorbed little by little by the body which is useful for preventing pregnancy [13].

According to Utoyo (2010) Several factors influence a person in choosing contraceptives, including sociodemographic factors (place of residence, age, education level, number of children or number of births/parity, employment status, and economic status), psychology, health, knowledge, and experience. Based on these factors, sociodemographic factors have a significant influence on contraceptive use. In this study, the author will review further on sociodemographic factors, namely age, parity and education level. [14].

The maturity of a person's age affects decision making and the thought process in determining which family planning to use. The more old enough, the level of maturity and strength of a person will be more mature in thinking. The results of the study by Sartika, et al (2020) showed that from the results of bivariate analysis using the Chi Square test, a p value = 0.006 was obtained, which means that there is a relationship between age and the use of injectable family planning. [15].

Education is one of the factors that influence the choice of injectable contraceptives, this is because someone who has received a better or higher education will usually be able to think rationally, so it will be easier for him to get information. This is in line with research conducted by Gustirini (2020) [16]. where the results of the study found a significant relationship between mother's education and the choice of injectable contraceptive methods.

The injection method of family planning has become part of the national family planning movement and its demand is increasing. The high interest of users of KB injections because it is safe, simple, effective, does not cause interference and can be used after delivery [17].

## **2. Methods**

This study uses analytical quantitative research using a cross sectional research design, the study was conducted in January – July 2021, the sample of this study was part of the active family planning participants in Banuayu Village, Lubuk Batang District, OKU Regency, the number of samples in this study was 83 people.

### 3. Results and Discussion

#### 3.1 Research result

##### a. Univariate Analysis

**Table 1**  
Frequency Distribution of Respondents by Age in Banuayu Village  
Lubuk Batang District, Ogan Komering Ulu Regency in 2021

Age	F	%
Low Risk	46	55.4
High Risk	37	44.6
Tbrain	83	100

Based on table 1, it shows that respondents who are at low risk have a larger proportion of 46 people (55.4%) compared to respondents who are at high risk.

**Tabel 2**  
Frequency Distribution of Respondents by Parity in Banuayu Village  
Lubuk Batang District, Ogan Komering Ulu Regency in 2021

parity	F	%
High Parity	7	8.4
Low Parity	76	91.6
Tbrain	83	100

Based on table 2 shows that respondents who have low parity have a greater proportion of 76 people (91.6%) compared to respondents who have high parity.

**Table 3**  
Frequency Distribution of Respondents by Education in Banuayu Village  
Lubuk Batang District, Ogan Komering Ulu Regency in 2021

Education	F	%
No Risk	23	29.9
at risk	54	70.1
Tbrain	77	100

Based on table 3, it shows that respondents with low education have a greater proportion of 45 people (54.2%) compared to respondents with higher education.

**Table 4**  
Frequency Distribution of Respondents by Selection of 3 Months Injectable KB  
in Banuayu Village, Lubuk Batang District, Ogan Komering Ulu Regency in 2021

Selection of 3 Months Injectable KB	F	%
Yes	52	62.7
Not	31	37.3
Tbrain	83	100

Based on table 4 shows that respondents who use 3-month injectable contraception have a greater proportion of 52 people (62.7%) compared to respondents who do not use 3-month injectable contraception.

##### b. Bivariate Analysis

**Table 5**  
Relationship between Age and Selection of 3 Months Injectable Family Planning in Banuayu Village, Lubuk Batang District, Ogan Komering Ulu Regency in 2021

No	Age	electionihan KB inject 3 months						p Value	OR
		Yes		Not		Tbrain			
		N	%	n	%	n	%		
1.	Low Risk	30	65.2	16	34.8	46	100	0.756	1,278
2.	High Risk	22	59.5	15	40.4	37	100		
	Tbrain	52	-	31	-	83	-		

PaFrom table 5, it is known that from 83 respondents there were 46 respondents who were of low risk age who chose 3-month injection KB as many as 30 respondents (65.2%). Meanwhile, 37 respondents who were of high risk age who chose 3-month injection KB were 22 respondents (59.5%).

Chi Square statistical test results obtained p value  $0.756 > 0.05$ . This shows that there is no significant relationship between age and the choice of 3-month injection KB in Banuayu in January – July 2021. So the hypothesis that there is a relationship between age and the choice of 3-month injection KB is not statistically proven.

The results of the Odds Ratio obtained a value of 1.278, which means that respondents with a low risk age have 1,278 times the opportunity to choose a 3-month injection KB compared to respondents whose age is at high risk.

**Table 6**  
The Relationship of Parity with the Selection of 3 Months Injectable KB in Banuayu Village, Lubuk Batang District, Ogan Komering Ulu Regency in 2021

No	parity	electionihan KB inject 3 months						p-Value	OR
		Yes		Not		Tbrain			
		n	%	N	%	N	%		
1.	High Parity	4	57.1	3	42.9	7	100	1,000	0.778
2.	Low Parity	48	63.2	28	36.8	76	100		
	Tbrain	52	-	31	-	83	-		

In table 6, data obtained from 83 respondents, there are 7 respondents with high parity who chose 3-month injection contraception as many as 4 respondents (57.1%). Meanwhile, 76 respondents with low parity who chose 3-month injection KB were 48 respondents (63.2%).

The results of the Chi Square statistical test obtained p value  $1,000 > 0.05$ . This shows that there is no significant relationship between parity and the choice of 3-month injection KB in Banuayu in January - July 2021. So the results of the hypothesis which states that there is a parity relationship with the choice of KB are not statistically proven. The results of the Odds Ratio obtained a value of 0.778 which means that respondents with low parity have a 0.778 chance of choosing 3-month injection KB compared to respondents with high parity.

**Table 7**  
Relationship between Education and Selection of 3-Month Injectable Family Planning in Banuayu Village, Lubuk Batang District, Ogan Komering Ulu Regency in 2021

No	Education	Selection of 3 Months Injectable KB						p- Value	OR
		Yes		Not		Tbrain			
		N	%	N	%	N	%		
1.	higher education	17	44.7	21	55.3	38	100	0.004	0.231
2.	Low education	35	77.8	10	22.2	45	100		
	Tbrain	52	-	31	-	83	-		

Table 7 shows that from 83 respondents there were 38 respondents with higher education who chose 3-month injection KB as many as 17 respondents (44.7%). Meanwhile, 45 respondents with low education who chose 3-month injection KB were 35 respondents (77.8%).

The results of the Chi Square statistical test obtained  $p$  value  $0.004 \leq 0.05$ . This shows that there is a significant relationship between education and the choice of 3-month injection KB in Banuayu village in January - July 2021. So the hypothesis that there is a relationship between education and the choice of 3-month injection KB is statistically proven.

The results of the Odds Ratio obtained a value of 0.231, which means that respondents with low education have a 0.231 chance of choosing 3-month injection KB compared to respondents with higher education.

### 3.2 Discussion

#### a. Relationship between Age and Choice of 3 Months Injectable Family Planning

Based on table 1, it shows that respondents who are at low risk have a greater proportion of 46 people (55.4%) compared to respondents who are at high risk. Based on table 5 of 83 respondents, there are 46 respondents who are of low risk age and choose the 3-month injection KB as many as 30 respondents (65.2%). Meanwhile, 37 respondents who were at high risk and chose 3-month injection KB were 22 respondents (59.5%).

Chi Square statistical test results obtained  $p$  value  $0.756 > 0.05$ . This shows that there is no significant relationship between age and the choice of 3-month injection KB.

The results of the Odds Ratio obtained a value of 1.278 which means that respondents with low risk age have a 1.278 times greater chance of choosing 3-month injection KB compared to respondents whose age is at high risk. This is in accordance with the theory which says that a good age for delaying pregnancy is  $< 20$  years and not getting pregnant again at age  $> 35$  years. The best age for a pregnant woman is in the fertile period between the ages of 20 years to 35 years and can space pregnancies from 2 years to 4 years (Saifuddin, 2006).

In line with the research conducted by Jurisman, et al (2013) regarding the Relationship between Mother's Characteristics and the Choice of Contraception at the Padang Pasir Public Health Center, it was found that  $p$  value =  $0.590 > 0.05$ , so there was no significant relationship between age and contraceptive choice.

This is different from the results of research conducted by Karimang (2020) from the results of hypothesis testing based on age with the use of 3-month injectable contraceptives using the Chi-square test at a significance level of 95% ( $\alpha = 0.05$ ), showing a significant relationship between age and use 3 months injectable contraception in the Tagulandang Public Health Center, Sitaro Regency, where  $p$  value =  $0.02 \leq 0.05$ .

Based on the research assumptions, it can be concluded that the respondents who used injectable contraceptives for 3 months were more likely to be used by mothers who were not at risk compared to those at risk. This is because the use of this contraceptive can be used by all women of reproductive age and the nature of its use is temporary so that couples who want to space their pregnancies and can arrange the intervals of pregnancies they want.

And based on the results of the study, it can also be concluded that age  $< 20$  years and  $> 35$  years for delaying pregnancy, 20-35 years is a good age for pregnancy because it is for non-long-term pregnancy prevention, effective, does not interfere with marital relations, does not need to store injection drugs, and can also be used by women over 35 years of age until perimenopause.

So there is no influence between low-risk age or high-risk age on the choice of 3-month injectable KB because this 3-month injectable KB can be used on women of reproductive or non-reproductive age.

#### b. The Relationship between Parity and Selection of 3 Months Injectable Family Planning

Based on table 2 shows that respondents who have low parity have a greater proportion of 76 people (91.6%) compared to respondents who have high parity.

Based on table 6 of 83 respondents, there were 7 respondents who had high parity and chose 3-month injection KB as many as 4 respondents (57.1%). Meanwhile, 76 respondents who had low parity and chose 3-month injection KB were 48 respondents (63.2%).

The results of the Chi Square statistical test obtained  $p$  value  $1,000 > 0.05$ . This shows that there is no significant relationship between parity and the choice of 3-month injection KB.

The results of the Odds Ratio obtained a value of 0.778 which means that respondents with low parity have a 0.778 times greater chance of choosing 3-month injection KB compared to respondents with high parity.

This is in accordance with the theory According to Forney A and EW Whitenhorne, parity is safe for the absence of complications during delivery, namely the number of deliveries 1-3 times (Manuaba, 2010).

According to research conducted by Gustirini (2020), there was a relationship between parity and the use of injectable contraceptives ( $p$  value  $< 0.05$ ). In contrast to the research conducted by Jurisman, et al

(2013) regarding the Relationship between Maternal Characteristics and Contraception Choice at the Padang Pasir Public Health Center, Padang, it was found that  $p$  value = 0.590 > 0.05, so there was no significant relationship between parity and contraceptive choice.

Based on the researcher's assumptions, it can be concluded that the use of 3-month injectable contraceptives is more widely used by mothers at low parity than high parity.

This is because mothers prefer to space pregnancies and give births apart where it is known that safe deliveries are between 2-4 years, with the number of giving births 1-3 times. In addition, mothers think more for the future of their children, it is inconceivable if mothers giving birth > 3 have entered risk factors and affect economic factors, therefore mothers prefer to have a good number of children.

So there is no influence between low parity or high parity on the choice of 3-month injectable KB because this 3-month injectable KB can be used for mothers with low parity or high parity.

### **c. The Relationship of Education with the Selection of 3 Months Injectable Family Planning**

Based on table 3 shows that respondents with low education have a greater proportion of 45 people (54.2%) compared to respondents with higher education. Based on table 7 of 83 respondents there are 38 respondents who are highly educated and choose 3-month injection KB as many as 17 respondents (44.7%). Meanwhile, 45 respondents with low education and choosing 3-month injection KB were 35 respondents (77.8%).

The results of the Chi Square statistical test obtained  $p$  value of  $0.004 < 0.05$ . This shows that there is a significant relationship between education and the choice of 3-month injection KB.

The results of the Odds Ratio obtained a value of 0.231, which means that respondents with low education have a 0.231 times greater chance of choosing 3-month injection KB compared to respondents with higher education.

Similar to the research conducted by Jurisman, et al (2013) regarding the Relationship between Mother's Characteristics and the Choice of Contraception at the Padang Pasir Public Health Center, Padang, it was found that  $p$  value =  $0.006 < 0.05$ , so there was a significant relationship between education and contraceptive choice.

According to the research of Sartika, et al (2020), the results of the bivariate analysis using the Chi Square test obtained a  $p$  value = 0.06, which means that there is a relationship between the education level of family planning acceptors in using injectable family planning.

Based on the research assumptions, it can be concluded that from research related to the level of education affects the use of contraceptives because the higher the level of education, the way of thinking, being more independent and rational in making a decision in a method, as well as in receiving information from health workers and acceptors of injecting family planning users. 3 months of experience so that it can be applied in the selection of 3 months injectable contraception. So there is an influence between education on the choice of 3-month injection KB.

## **4. Conclusion**

There is a simultaneous relationship between age, parity, and education with the selection of 3-month injection KB in Banuayu Village, Lubuk Batang District, Ogan Komering Ulu Regency in 2021.

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