

DETERMINANTS ANALYSIS OF POST-DELIVERY CONTRACEPTION USAGE IN PREVIOUS CAESAREAN SECTION PATIENTS AT DR M DJAMIL PADANG HOSPITAL

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Abstract

Family Planning Program is a current primary strategy and key program to reduce maternal mortality. Acceleration to decline in maternal mortality rate can be done by ensuring that every mother can access good quality maternal health services, one of which is family planning services, especially postpartum contraception. The correlation between birth control and the maternal mortality rate was shown in the analysis result between the proportion of maternal deaths aged 15-49 years and the prevalence of birth control in 172 countries, which concludes that the higher the prevalence of birth control in a country, the lower the maternal mortality rate in a country. This study aims to analyse the determinant factor of postpartum contraceptive use in patients with previous caesarean sections in RSUP Dr M. Djamil Padang. This is an analytical study to explain the correlation between variables and test the hypothesis using a cross-sectional design. This study was conducted from March 2020 – to May 2021. This study used a purposive sampling method, and 92 data samples were collected in RSUP Dr M. Djamil Padang. The dependent variable was postpartum contraceptive use in patients with previous caesarean sections in RSUP Dr M. Djamil Padang. The independent variables were maternal age, education level, parity, knowledge, and attitude. There was no significant correlation between maternal age and education level with contraceptive use ($p\text{-value} > 0,05$). Contraceptive use in mothers with high-risk parity was 3,114 times higher than non-high-risk parity. Postpartum contraceptive use in a patient with a previous cesarean section was 3,421 times higher in patients with higher knowledge scores than a lower score. Postpartum contraceptive use in patients with previous cesarean section was 2,804 times with higher attitude scores than lower scores. There was no correlation between maternal age and education level with contraceptive use in patients with previous caesarean sections. A correlation was found between parity, mother's knowledge, and attitude with contraceptive use in patients with previous caesarean sections. Knowledge became a dominant factor in contraceptive use in patients with previous caesarean sections.

Keywords: postpartum contraception, previous caesarean section

Introduction

Indonesia's Health development target to be achieved in 2025 is to increase the degree of public health as indicated by an increase in life expectancy, a decrease in the Infant Mortality Rate (IMR), and a decrease in the Maternal Mortality Rate (MMR) (Kurniawan, 2019). The family planning program (KB) is one of the current strategic and key programs to reduce maternal mortality. Efforts to accelerate the decline in MMR can be made by ensuring that every mother can access quality maternal health services, one of which is family planning services, especially postpartum contraception. The close relationship between family planning and maternal mortality can be seen in the analysis results of the proportion of maternal deaths aged 15-49 years and the prevalence of family planning in 172 countries in the world. The higher the prevalence of family planning in a country, the lower the proportion of maternal deaths in that country (Ri, 2018).

The use of postpartum contraception is very important, this can be seen from the high use of short-term contraception, which is still less effective than the long-term so that it can cause short delivery intervals, based on data taken from Riskesda 2018 the proportion of post-delivery contraceptive use is 67.5% of the time. its use is above 42 days after delivery, 20% after returning from the health facility until 42 days after delivery, 5.2% after delivery is complete but not yet discharged from the health facility and 3% concurrently with the delivery process (Magfirah, 2019).

In West Sumatra, although the family planning program has been running for a long time, family planning acceptors are still far from the program target. The program target is that the percentage of active family planning achievements is 75% of the target number of fertile age couples (PUS), and postpartum contraception is 35% of the total target number of mothers giving birth. In the city of Padang in 2019, fertile age couples (PUS) were 185,048 people, with 29,120 new family planning participants (15.74%) and 136,937 active family planning participants (74%) (Magfirah, 2019).

At Dr M Djamil Hospital, it was found that contraception was used in patients with former cesarean sections performed in 2019. Only 30% of patients used postpartum contraception out of 120 patients who underwent cesarean sections with a history of previous cesarean sections. This illustrates that the use of contraception is still low, wherein for patients with previous cesarean section, the interval is one of the factors that play a role. Based on the WHO recommendation, it recommends at least waiting for a 2-3 year delivery interval to avoid poor delivery and reduce maternal and infant mortality (Who, 2005), based on observational studies. Previously, where the delivery distance was less than 2-3 years in patients after cesarean section, uterine healing was not complete after 6-12 months of surgery and increasing the risk of uterine rupture and would increase the risk of maternal death.(Stamilio et al., 2007)(Cleland et al., 2006)

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Factors that can influence a mother in choosing a contraceptive method include age, attitude, parity, level of education and knowledge, these factors are the most dominant factors. (Nike, 2015) Health workers are expected to be able to provide information and education communication (IEC) more effective for prospective family planning acceptors. Complete and sufficient information will give the client flexibility to choose the contraception that will be used so that the client feels satisfied and, in the end can increase the success of the family planning program (BKKBN, 2017).

Age is one of the important factors to determine someone to use family planning. Women with low education tend to start getting pregnant earlier, while 16% of women who are not in school have started having children compared to 1% of women with higher education. In addition, the level of knowledge is the dominant factor regarding birth control and family planning where the higher a person's education, the higher his level of understanding about contraceptive use. (BKKBN, 2017) (Lubis, 2018) Based on research that has been conducted in Majalengka, the average age of acceptors is 20–30 years as much as 53.9%, most of the acceptors' education has graduated from elementary school 72.9%, the average parity of acceptors is 2–3 children 55.5%. There is a relationship between age, level of education, and parity with the choice of the type of contraceptive method used (Suherman, Widjajanegara, & Yuniarti, 2017), (Jendral, 2013).

Studies on the use of postpartum family planning in Indonesia have been carried out by several people, but studies on the use of contraception in patients with former cesarean sections are still very limited and based on the data above, along with the times and the entry of the Industrial Revolution 4.0 era, family planning counselling faces new challenges, with a lot of information that can be obtained whether the relationship between age, education, parity, knowledge and attitudes has changed or shifted towards the use of contraception. Therefore, the authors are interested in conducting this research.

Method

This study is a cross-sectional comparative study with an observational study design. The research was carried out at Dr M. Djamil Padang's Department of Obstetrics and Gynecology. Sampling was conducted from March 2020 to Mey 2021. The dependent variable is the use of postpartum contraception. Independent variables are age, education level, parity, knowledge, and attitude towards contraceptive use. A questionnaire is used to measure the variable. The chi-square and binary logistic regression tests were used for statistical analysis.

Results and Discussion

Characteristics of research respondents consisted of maternal age, parity, education level, mother's knowledge and attitude (Table 1). Most of them have a high school education, namely 61 people (66.3%). S1 education is 22 people (23.9%), Diploma education is 3 people (3.3%) and elementary/junior high school education is 6

people (6.5%). The parity of respondents who were previous cesarean sections at Dr M Djamil Hospital Padang in this study included 55 people (59.8%) who were not at risk, while those who were at risk were 37 (40.2%). The respondents' knowledge about contraceptive use is mostly good, namely 60 people (65.2%), while those who lack knowledge are 32 people (34.8%). The attitude of respondents toward contraceptive use was mostly good, namely 64 people (69.6%), while those who had a bad attitude were 28 people (30.4%). The use of contraception after cesarean section was 69 people (75.0%), while those who did not use contraception after cesarean section were 23 people (25.0%).

Table 1
Characteristics of Respondents

	F	%
Age (years)		
< 20	1	1,1
20-35	59	64,1
>35	3	34,8
Education levels		
Elementary/Junior school	6	6,5
Senior high school	61	66,3
Diploma	3	3,3
Bachelor degree	22	23,9
Parity		
Non-high risk (1 child)	55	59,8
High risk (>3 children)	37	40,2
Knowledge		
Good	32	34,8
Lack	60	65,2
Attitude		
Good	28	30,4
Bad	64	69,6

The relationship between age, education levels, parity, knowledge, attitude and contraceptive use by patients with former section Caesarea at Dr M Djamil Hospital Padang is presented in Table 2. Contraceptive use in patients with previous cesarean section was slightly higher at age > 35 years (81.3%) than in those aged <20 years (0.0%) and age 20-35 years (72.9%). Statistically, there was no relationship between age and contraceptive use ($p>0.05$). Contraceptive use in patients with previous cesarean section was higher at the level of S1/S2 (86.4%) than diploma (66.7%), SMA (75.4), SD/SMP (33.3%). However, statistically, there was no relationship between education level and the use of postpartum contraception in patients with previous cesarean sections ($p>0.05$).

The use of postpartum contraception in patients with previous cesarean sections was at higher risk (86.5%) than those who were not at risk (67.3%). Statistically, there was a relationship between parity and the use of postpartum contraception

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($p < 0.05$), with an OR of 3.114 (CI=1.038-9.335). This shows that the use of contraception at risk parity is 3.114 times higher than the non-risk parity. The use of postpartum contraception in patients with previous cesarean section with good knowledge (83.3%) from those with poor knowledge (59.4%). Statistically, there was a relationship between knowledge and the use of postpartum contraception ($p < 0.05$), with an OR of 3,421 (CI=1,285-9,107). This shows that the use of postpartum contraception in patients with previous cesarean section was 3,421 times with good knowledge compared to those with poor knowledge.

The use of postpartum contraception in patients with previous cesarean section with a good attitude (81.3%) from a poor attitude (60.7%). Statistically, there was a relationship between attitude and postpartum contraceptive use ($p < 0.05$), with an OR of 2.804 (CI=1.048-7.504). This shows that the use of postpartum contraception in patients who have had a cesarean section is 2.804 times more likely to have a good attitude than a bad attitude.

Table 2
The Relationship Between Age, Education Levels, Parity, Knowledge, Attitude And Contraceptive Use By Patients With Former Section Caesarea At Dr M Djamil Hospital, Padang.

	The contraceptive use						P-value	OR (CI)
	No		Yes		Total			
	N	%	N	%	N	%		
Age (years)								
< 20	1	100	0	0	1	100	0,149	-
20-35	16	27,1	43	72,9	59	100		
>35	6	18,8	26	81,3	32	100		
Education levels							0,066	-
Elementary/Junior school	4	66,7	2	33,3	6	100		
Senior high school	15	24,6	46	75,4	61	100		
Diploma	1	33,3	2	66,7	3	100		
Bachelor degree	3	13,6	19	86,4	22	100		
Parity							0,037	3,114 (1,038- 9,335)
Non-high risk (1 child)	18	32,7	37	67,3	55	100		
High risk (>3 children)	5	13,5	32	86,5	37	100		
Knowledge							0,011	3,421 (1,285 – 9,107)
Good	13	40,6	19	59,4	32	100		
Lack	10	16,7	50	83,3	60	100		
Attitude							0,036	2,804 (1,048 – 7,504)
Good	11	39,3	17	60,7	28	100		
Bad	12	18,8	52	81,3	64	100		

Table 3
The Results Of Logistic Regression Analysis On The Factors That Influence The Use Of Contraception By Patients With Previous Cesarean Section At Dr M Djamil Hospital, Padang.

Variables	P	Exp (B) - PR	CI (95%)
Education levels	0,022	2,244	1,123 - 4,486
Parity	0,027	5,566	1,212 - 25,569
Knowledge	0.006	5,884	1,671-20,725

Knowledge factor has the most significant influence on contraceptive use with $p=0.006$ ($p<0.05$). For patients who have a PR value of 5.884, it means that patients with good knowledge of previous cesarean sections tend to use contraception after cesarean section 5.884 times compared to those who are not good. The parity factor had a significant effect on contraceptive use with $p=0.027$ ($p<0.05$). The parity factor has a PR of 5.566, which means that patients with parity at risk have a tendency to use contraception 4.566 times compared to patients without risk.

The education factor also had a significant influence on the use of contraception with $p=0.022$ ($p<0.05$). The education factor has a PR of 2.244, meaning that it is suspected that patients with higher education have a tendency to use contraception by 2,244 times compared to patients with low education. Thus, it can be concluded that knowledge, parity and education have a significant influence on the use of contraception in patients with previous cesarean sections.

The results of this study indicate that the use of contraception in patients with previous cesarean section was higher at age > 35 years (81.3%) than those aged 20-35 years (72.9%). Statistically, there was no relationship between age and contraceptive use ($p<0.05$). Research conducted by Abrar in 2016 stated that there was no relationship between age and contraceptive use.(J., 2016) This study is in line with Fitri in 2012, which stated that there was no significant relationship between age and contraceptive choice.(FITRI, n.d.) In addition, Nike has conducted research on the determinants of contraceptive use. does not show any relationship (Nike, 2015).

The more old enough, the level of maturity and strength a person will be more mature in thinking and working this is because at that age the spirit is more active to seek more experience. In terms of public trust, someone who is more mature is more trusted than someone who is not yet mature because this is related to the experience and maturity of one's soul. But at a certain age, the older they get, their memory decreases and it is difficult to receive new information, and their way of thinking becomes irrational because sometimes at that age, they are often underestimated and ignorant to add more experience and feel that they have had enough of what they know (FITRI, n.d.).

Research that has been done by Abrar on the relationship between maternal characteristics and the choice of contraception at the Padang City Health Center shows that respondents who have higher education use more contraception (62.5%) and there is a significant relationship ($p = 0.000$),(J., 2016) other studies conducted by Mohammed in Nigeria regarding the choice of contraception after cesarean section showed significant results,31 this is inversely proportional to the study of contraceptive use in patients with previous cesarean section at Dr M Djamil Hospital Padang where statistically there was no significant relationship.

These results are in line with research conducted by Nike where there is no relationship between education and the use of postpartum contraception. This is not in line with the theory which states that the higher a person's education, the easier it is to receive information so that the more knowledge one has. On the other hand, a lack of

education will hinder the development of a person's attitude towards the new values (Mohammed-Durosинlorun et al., 2016).

From the research that Nike has conducted in Koto, there is a relationship between parity and the use of postpartum contraception.⁸ This study is not in line with Fitri in 2012 and also not in line with Arifuddin in 2013 who stated that there was no significant relationship between the number of children and the choice of contraception.(FITRI, n.d.)(Jurisman, Ariadi, & Kurniati, 2016)The parity of the number of children born can influence decisions in the household, namely whether they still want to add more children or do not want to add more children. This decision can affect the use based on a clear demand for family planning, whether to regulate the birth spacing or limit the number of children desired (Susiloningtyas, Wulandari, & Dinastiti, 2021).This is in accordance with the theory that a person in deciding to join the family planning program is when he feels that the number of children who are still alive is sufficient for the desired number. This means that the number of children who are still alive affects a person's participation in the family planning program. The greater the number of living children a person has, the more likely it is to limit births. By looking at the number of children born alive, we also found a positive relationship, meaning that the older age reflects the process of family change and can also show the process of changing fertility over time (Depkes, 2006).

The research that was conducted was in line with the results of Desi's research on the participation of postpartum family planning in women giving birth, which stated that there was a relationship between knowledge and the use of postpartum contraception with $p=0.006$ in the bivariate test and 0.22 with an OR value of 3,780.(Widiyanti, 2014) Tita also in her research entitled Factors which affects the use of postpartum family planning using long-term contraceptive methods, states that there is a relationship between knowledge and the use of contraception.(Tita, 2018) in addition to the research conducted by lis in flatland areas, there is a significant relationship with $p = 0.05.38$ In contrast to the research conducted by Nike in 2015 where there is no significant relationship with the use of postpartum contraception (Nike, 2015).

A mother who has a sufficient level of education and income will have a relatively higher level of knowledge than a mother who has a low level of education and income. Mothers from the upper-middle class will have a higher ability to increase their knowledge through formal and informal education.

These results are in line with research conducted by Tita in 2018 that there is a relationship between attitudes and the use of postpartum contraception.(Tita, 2018) Different from the research conducted by Nike in the Koto Baru area, Simalanggang, there is no relationship between attitudes and the use of postpartum contraception (Nike, 2015).

The implementation of postpartum contraception has a big influence in regulating the time of pregnancy and providing the optimal distance for subsequent deliveries to reduce the risk to the mother and the baby's outcome, WHO 2006 recommended a good pregnancy interval for the next pregnancy is 24 months.

The application of postpartum family planning is very important because the return of fertility in the mother after giving birth cannot be known with certainty and can occur before the arrival of the menstrual cycle even in breastfeeding women. This causes during breastfeeding, women experience unwanted pregnancy or unwanted pregnancy.

Other results from multivariate analysis showed that the attitude factor had no significant effect on contraceptive use with $p=0.289$ ($p>0.05$). Thus, it can be concluded that only parity and knowledge significantly affect the use of contraception after cesarean section.

This research is in line with the research conducted by Nike with the title determinant factors of postpartum contraceptive use in Koto Baru Simalanggang, the results obtained that parity is the dominant factor in the use of postpartum contraception.⁷ It can be concluded that knowledge, parity and education have a significant influence on the use of contraception in patients with previous cesarean section, with the most dominant factor being knowledge.

Knowledge has a significant relationship with the use of contraceptives, the better one's knowledge about contraception, the more rational in using contraceptives. In addition, a person's high level of education will also support accelerating the acceptance of family planning information for couples of childbearing age (Rahayu, Reza, & Usman, 2018).

Conclusion

There is no relationship between maternal age and education level with the use of contraception by patients with previous cesarean sections. There is a relationship between parity, knowledge, and attitudes of mothers with contraception by patients with previous cesarean sections. Knowledge is the dominant factor related to contraception by patients with previous cesarean sections. It is hoped that further researchers will examine the analysis of determinants of postpartum contraceptive use in patients with previous cesarean sections whose delivery intervals are less than 2-3 years and high-risk patients at Dr M Djamin Hospital, Padang. Add more reference sources regarding other contraceptive use issues to add references for further research. The current digital information system is hoped to be used more effectively to promote family planning.

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