

Correlation use of Injectable Contraceptive Types with Menstruation Pattern Changes in Contraception Acceptor

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ABSTRACT

Oversize of population in Indonesia, thus requiring long-term use of contraception, but they are commonest use short-term contraceptives especially injecting contraceptive. It has advantages and disadvantages for its users. This study aims to determine the relationship between the use of injecting contraceptive type with the change of menstrual pattern injectable acceptor. The design study is used correlational study with cross sectional approach. Independent variable is the use of Injectable Contraception Type. Dependent Variables are menstrual pattern changes. The population of all injecting contraceptives in October - November 2017 in Pelem Village, Pare District Kediri. Simple random sampling technique and the number of samples of 137 respondents. Research Instrument using Questionnaire. The research was conducted in December 2017. The data analysis was done univariat and bivariate with chi square test. Research ethics include informed consent, anonymity, confidentiality. The result of the research showed that almost all respondents of DMPA injection acceptor experienced changes of abnormal pattern of menstruation (85,7%), and acceptor of Cyclofem injection most of the respondents did not experience the change of menstrual pattern 25 (64,1%). The statistical test with chi square with confidence interval (CI) 95% indicated that there was a significant correlation between the use of injectable contraception type with the change of menstrual pattern with $p: 0,00$ and had close relation with $r: 0,446$.

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I. INTRODUCTION

Indonesia is one of the developing countries with various types of problems. The main problem is the explosion in population. To overcome these problems the Indonesian government has implemented a Family Planning program. The solution to the explosion of population size by raising the National Family Planning Program. This family planning program aims to improve the health of mothers and children and have small family through birth control and control of the growth of Indonesia's population.

Many methods of contraceptives include IUD, injections, pills, implants, condoms but injection is highest 31.2% [1]. Injectable contraception in Indonesia is one of the most popular effective contraceptive methods. Based on data, injectable contraception is the most dominant used by women in Indonesia. This is because injectable contraception is related to adherence and intercourse and has high effectiveness against pregnancy events provided that it is used according to the schedule. Injectable contraceptives consist of progestin contraception and combined injectable contraception. Injectable contraceptives for progestin that are often used are *Long-acting* progesterone, namely *Norethindrone Enanthate* (NET-EN) and *Depo Medroxy Progesterone Acetate* (DMPA). Once a month injection contraception (*Cyclofem*) contains estrogen and progesterone, and for 3 months (*Triclofem*) contains progesterone. Failure rates for DMPA: <1 per 100 women per year, while NET-EN: 2 per 100 women per year [2]. Side effects experienced by menstrual abnormality, weight gain, decreased libido, emotional disturbances, headaches, nervotaksis

and acne. As for menstrual disorders in the form of menstrual cycles shortening, elongated, bleeding a lot or little, irregular bleeding, spotting and amenorrhoea [3].

Some of the side effects of using injectable contraceptive such their menstrual cycle changes due to the influence of hormones. Based on the results of interviews of researchers with 10 3-month and 1-month injecting acceptors in Pelem Village in May 2017, they said that 3 (30%) people who used 3-month injection and 1-month injections during menstruation had extended menstrual cycles, and their menstrual cycles shortened, 4 (40%) of people who use injections are not having periods, respectively - participated for 3 months, 3 (30%) of people using injectable contraceptive got menstrual irregularity. Side effects often be complained is the menstrual cycle.

Changes in the menstrual cycle occur most often in the month first injection. Usually after one or two years injection of amenorrhoea will occur in most woman. The high incidence of amenorrhea is thought to be related to endometrial atrophy. Whereas the causes of irregular bleeding are still unclear, and there seems to be no relationship with changes in hormone levels or endometrial histology. DMPA more often causes bleeding, spotting, and *amenorrhea* compared with NET-EN, and amenorrhea in DMPA appears to be more common in overweight acceptor. If there is *amenorrhea*, reduced menstrual blood actually has a beneficial effect which will reduce the incidence of anemia [4].

As health workers must be able to explain to acceptors of family planning users before KB acceptors choose contraception that is suitable for themselves. So that the injecting contraceptive acceptors can receive it and still use injectable contraception to prevent pregnancy and limit the number of children in the family.

Based on the description above, the researcher is interested in conducting further study on the relationship between the use of injectable contraception types and changes in menstrual cycles in family planning acceptors in Bendo health center work area. This research are using selecting a template to find out the relationship between the use of types of injection contraceptives and changes in menstrual patterns. Maintaining the integrity of the specifications :

1. Identify the use of contraceptives.
2. Identify changes in menstrual pattern
3. Analyzing correlation between the use of types of injectable contraceptive with changes menstrual patterns.

II. METHOD

The design used is *correlational study* with *cross sectional* approach. Independent variables are the use of injectable contraceptive contraceptive types. Dependent variables are menstrual cycle changes. The population is all injectable family planning acceptors in October - November in 2017 in Pelem Village to Pare District, Kediri Regency, sampling technique by simple random sampling and the number of samples was 137 respondents. Research Instrument using questionnaire. The research conducted in December 2017 in Pelem Village Pare Sub District Kediri Regency. Data analysis was carried out by univariate and bivariate, namely the Chi square test. The research ethics includes *informed consent*, *anonymity*, *confidentiality*.

III. RESULTS AND DISCUSSION

General data

Table 1. Characteristics of Injectable Contraceptive acceptors in Pelem Village in December 2017

	Characteristics	Frequency	Percentage (%)
1	Age		
	a. 20-35	68	49.6
	b. > 35	69	50.4
2	Education		
	a. Elementary school	28	20.4
	b. Middle school	45	32.8
	c. High school	57	41.6
	d. university	7	5.1
3	Work		
	a. housewife	131	95.6
	b. Farmer	2	1.5
	c. Private	4	2.9
6	Reasons for KB		
	a. Cost	16	11.7
	b. Simple & Practical	106	77.4
	c. Desire Number of Children	10	7.3
	d. Etc	5	3,6
8	Duration of menstruation		
	a. Short	75	54.7
	b. Normal	55	40.1
	c. Long	7	5.1
9	Menstrual Blood		
	a. a little	76	55.5
	b. Normal	46	33.6
	c. Many	15	10.9

Table 1 shows the most characteristic of 3 months injectable family planning users at > 35 years of age, ie 50.4%. The highest number of family planning acceptors is 41.6%. Percentage works of acceptor is as housewifeAs much as 95.6%. The reason for having family planning is simple and practice at 77.4%. Short menstruation duration is 54.7% and menstrual blood is a little 55.5%.

Special Data

Table 2 Frequency Distribution of Injecting Contraceptive

Type of injectable contraceptive	Frequency	Percentage (%)
Cyclofem	39	28,5
DMPA	98	71,5
Total	137	100

This number shows that most of the respondents are DMPA injection contraceptive acceptors.

Table 3 Relation of the Use of Injectable Contraceptive Types to Menstrual Pattern Changes

No.	Type of injectable contraceptive	Menstrual Pattern Changes	
		Normal	Abnormal
1	Cyclofem	25 (64,1%)	14 (35,9%)
2	DMPA	14 (14,3%)	84 (85,7%)

This number shows that most of the respondents are DMPA injection KB acceptors. DMPA injections are widely chosen by the community because of the distance between the one schedule and the next, which is relatively long that is 3 months, so as not to cause persistent pain like the cyclofem injection which has to be injected every month. Also the case of DMPA injectable more cheaper compared cyclofem. These things are used as a strong reason for DMPA injectors.

Table 4 Statistical Analysis with Chi Square Test

r: 0,446
p:0,00
α:5%

Table 4 on the correlation test suggest significant correlation between the use of the injectable contraceptive with change menstrual pattern ($p: 0.00$) with a sufficiently close relationship ($r: 0.446$). The results of this study illustrate that the use of DMPA type of contraceptive has an influence on the occurrence of changes in menstrual patterns that can be in the form of a cycle, length or amount of blood coming out.

All hormonal contraceptive systems for progesterone change the menstrual pattern, but the mechanism underlying menstrual disorders is still not identified. For most users, there are incidents of irregular blood spots and little or bleeding outside the cycle, hypermorrhea and oligomenorrhea or even amenorrhoea. Most women experience decrease in total blood volume per month because blood loss [5].

Injection contraception can cause abnormal menstrual cycles. In accordance with the theory that the DMPA injection method is an increase in progesterone levels in the body thus inhibiting the effective surge of luteinizing hormone (LH) so that ovulation does not occur. Inhibits follicular development and prevents ovulation. The progesterone decreases the frequency of release (FSH) and (LH). This hormone imbalance will cause menstrual patterns in women to become abnormal. Besides that menstruation experienced by the respondent also experienced changes cycle in the form of cycle lengthening. Even lengthening this cycle several user have developed amenorrhoea. Other menstrual pattern changes are found in the period of menstruation where the menstrual period of the respondent in this study experienced shortening.

Menstrual disorders are amenorrhoea caused because of progesterone in the DMPA component suppress LH so that the endometrium becomes more shallow and atrophic with glands inactive [2]. Prolonged amenorrhoea by progesterone inject is unknown harmful, and many women can reive well. For those who feel that amenorrhoea is not natural, it can be taken reasonable analogy with amenorrhoea lactation [5]. If there is *amenorrhea*, reduced menstrual blood actually has a beneficial effect which will reduce the incidence of anemia [4]. Research conducted [6], shows that normal menstrual patterns are more commonly found in the use of cyclofem contraceptives while amenorrhoea is more common in the use of DMPA. The amount of bleeding in DMPA acceptors was more than the cyclofem acceptor [7,10]. Menstrual pattern changes are even more experienced by DMPA injection acceptors compared to other hormone contraceptives such as implants [8,9]. This suggests DMPA injection contraception has a major effect on menstrual pattern changes.

Although the results of this study shows menstrual disorders be influenced by several factors including nutrition, disease, age, psychology, and the use of drugs

IV. CONCLUSION

Injection contraceptive have a large number of acceptors due to material reasons, and the ease of using them. In terms of side effects of injectable birth control has side effects such as menstrual pattern abnormality. The results of study and other studies which show that there is a relationship between menstrual pattern changes in injecting acceptors, especially users of DMPA injection.

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