

## THE RELATIONSHIP OF THE LONG TIME OF 3 MONTHS INJECTIVE CONTRACT USE WITH MENSTRUAL DISORDERS AND WEIGHT INCREASE AT THE PRATAMA RESTU BUNDA CLINIC, JAKARTA, 2023

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### Abstract

**Background** The Family Planning (KB) Program is a series of population development and quality human resource development aimed at controlling population quantity on a national scale (Dewi et al., 2022). According to the results of the 2021 family data collection, BKKBN, shows that the prevalence rate of PUS for family planning participants in Indonesia in 2021 is 57.4%. Based on provincial distribution, the highest prevalence rates for family planning use are South Kalimantan (67.9%), Bangka Belitung Islands (67.5%), and Bengkulu (65.5%), while the lowest are Papua (15.4%), Papua West (29.4%) and Maluku (33.9%). Meanwhile, DKI Jakarta Province is not recorded in the graph above because the data sourced from CARIK JAKARTA has not been integrated into the data from the 2021 family data collection, BKKBN. The side effects of injectable birth control that are often complained about are menstrual disorders and weight gain. Purpose of Writing To find out the relationship between the duration of using contraceptive injections for 3 months with menstrual disorders and weight gain at the Pratama Restu Bunda Clinic, Jakarta in 2023. Research methods using a quantitative type of research with a cross sectional approach, the population of this study was active family planning acceptor participants at the Pratama Restu Bunda Clinic, Jakarta, taken from data in December 2023. The sample size was 51 respondents using the technique *Purposive sampling*. Analyze data using analysis univariate And Bifarious analysis use *chisquare*. Research result The results of statistical tests with the chi-square test show that The 95% confidence level obtained by p (Sig) is 0.009, p value (sig) <  $\alpha$  (0.009 < 0.05) and it can be concluded that there is a relationship between the length of use of 3-month contraceptive injections and menstrual disorders in acceptors of 3-month injectable contraceptives at the Pratama Restu Bunda Clinic, Jakarta. Year 2023. Conclusions and recommendations It is hoped that future researchers can review the relationship between using 3-month injectable birth control with menstrual disorders and weight gain so that future researchers can find other factors in using 3-month injectable birth control.

**Keywords:** 3 Month Contraceptive Injection, Menstrual Disorders, Weight Gain

### Introduction

The Family Planning (KB) Program is a series of population development and quality human resource development aimed at controlling population quantity on a national scale (Dewi et al., 2022). According to the World Health Organization (WHO), modern contraceptive users in the world in 2019 were 842 million people. This figure then increased by 58% in 2020 (Nurhayati, Ramadhani, & Umamy, 2021). The strategy for implementing the family planning program in Indonesia, as stated in the Medium Term Development Plan, is to increase the use of Long Term Contraceptive Methods (MKJP), one of which is the IUD (Intra Uterine Device), still has a low achievement rate. The selection rate for IUD

type MKJP is only 3.9%, which is still far from short-term contraception in the form of injections at 31.15%, pills at 28.1% and condoms at 3.5% (Pinamangun, Kundre, & Bataha, 2018).

The family planning program not only aims to control the rate of population growth, but also to meet the public's demand for quality family planning and reproductive health services, reducing maternal mortality (MMR) and infant mortality (IMR) as well as overcoming reproductive health problems to form quality small families. Family planning (KB) is an action that helps individuals or married couples to achieve certain objectives, avoid unwanted births, regulate the interval between pregnancies, control the time of birth in husband and wife relationships and determine the number of children in the family (WHO, 2017).

The population problem is a problem that is not only faced by developed countries but also developing countries. The world population is increasing rapidly and the growth rate is high. Indonesia's population growth rate also continues to increase from year to year, it can be seen from 248.80 million people in 2013, increasing to 252.2 million people in 2014 (Central Statistics Agency, 2015).

The Maternal Mortality Rate (MMR) in Indonesia is still a major problem in the health sector and is still far from the global SDGs target. From the results of the 2015 Inter-Census Population Survey (SUPAS), the MMR is 305/100,000 Live Births (KH), and the 2024 National Medium Term Development Plan (RPJMN) target for MMR is 183/100,000 Live Births (KH). The Neonatal Mortality Rate (AKN) is still high in Indonesia. The results of the 2017 Indonesian Demographic Health Survey (SDKI) stated that AKN was 151/1000 KH with a 2024 target of 10/1000 KH, Infant Mortality Rate (IMR) 24/1000 KH with a 2024 target of 16/1000 KH. Meanwhile, the global 2030 target for MMR is 70/100,000 KH, IMR reaches 12/1000 KH and AKN 7/100KH. One approach that is widely used is the Safe motherhood approach, where there are four pillars in reducing maternal mortality, namely family planning, standard pregnancy checks, clean and safe childbirth, and PONED and PONEK. Contraceptive or family planning services are strategic interventions in reducing MMR and IMR.

According to the results of the 2021 family data collection, BKKBN, shows that the prevalence rate of PUS for family planning participants in Indonesia in 2021 is 57.4%. Based on provincial distribution, the highest prevalence rates for family planning use are South Kalimantan (67.9%), Bangka Belitung Islands (67.5%), and Bengkulu (65.5%), while the lowest are Papua (15.4%), Papua West (29.4%) and Maluku (33.9%). Meanwhile, DKI Jakarta Province is not recorded in the graph above because the data sourced from CARIK JAKARTA has not been integrated into the data from the 2021 family data collection, BKKBN.

Injectable contraception is the type of contraception most widely used by women of reproductive age because it is simple to use, works effectively and is suitable for the lactation period because it does not suppress lactation (Sulistiyawati, 2011). One of the most frequently used types of injectable contraception is Depo Medroxy-Progesterone Acetat (DMPA) (Pratiwi et al., 2013). Depo Medroxy-Progesterone Acetate is a contraceptive derived from the natural hormone progesterone. DMPA is given every 3 months at a dose of 150 mg (Munayarokh et al., 2014).

Injectable contraception is a method of hormonal contraception. Hormonal contraceptive methods are considered one of the methods with a high level of effectiveness, but on the other hand, hormonal contraceptives, especially those containing progestin, can change menstruation. In the majority of users, there is an increased incidence of irregular and scanty blood spots or bleeding outside the cycle, sometimes prolonged, and sometimes oligomenorrhea or even amenorrhea (Munayarokh et al., 2014).

The side effects of injectable birth control that are often complained about are menstrual disorders and weight gain. Menstrual disorders that occur depend on the length of time the injectable contraceptive acceptor is used. Three-month injectable contraception can cause hypoestrogenism, resulting in prolongation of the secretion stage which can result in a menstrual cycle of more than 35 days (Hartanto, 2010).

The cause of changes in the menstrual cycle is due to hormonal imbalance so that the endometrium experiences histological changes. Amenorrhea is caused by endometrial atrophy. Prolonged or routine administration of DMPA every 3 months will affect estrogen in the body so that the influence of estrogen in the body is less strong on the endometrium so that the endometrium is less than perfect. This effect is seen as a drawback by many women where regular bleeding is a sign of health and an indicator that they are not pregnant (Irianto, 2012).

According to research conducted by Eka Wahyu Ramadiani (2018), the use of injectable birth control generally affects the menstrual cycle in women of childbearing age, and the tendency is for there to be chaos in the cycle and menstrual volume in women of childbearing age. Apart from that, specifically research conducted by Rahmawati Siregar (2019) stated that after using injectable birth control within 2 years, 70% of DMPA users experienced amenorrhea.

The average number of active family planning participants in DKI Jakarta is 2.06%. In April 2019, the number of active family planning was recorded at 1,463,483 couples of childbearing age (PUS). The East Jakarta region is the region with the highest number of active family planning participants each year, followed by West Jakarta and North Jakarta. (Jakarta Statistics). The pattern of choosing the type of modern contraceptive method in 2021 shows that the majority of acceptors choose to use injections at 59.9%, followed by pills at 15.8%. This pattern occurs every year, where family planning participants prefer short-term contraceptive methods compared to long-term contraceptive methods (MKJP). If we look at effectiveness, these two types of contraceptive devices/drugs/methods (injections and pills) are short-term contraceptive methods so that the level of effectiveness in controlling pregnancy is lower than long-term contraceptive methods (MKJP).

The research results showed that the frequency distribution of respondents was that most of them used 3-month injectable contraceptives, 16 respondents (45.7%), most of them had good knowledge, 23 respondents (65.7%), most of them were multipara, 20 respondents (57.1%). The results of the statistical test showed that there was a significant relationship between knowledge ( $p$  value = 0.039) and maternal parity ( $p$  value = 0.045) and the use of injectable contraceptives at PMB Zuniawati Palembang in 2021 with value. The suggestion is that health workers can further improve the provision of counseling to family planning acceptors to increase the acceptors' knowledge about the contraceptive devices used, especially injectable contraceptives.

Based on data from the Bojonegara Banten Community Health Center in 2022, the number of couples of childbearing age was 9,308 with 7,545 acceptors of injectable contraceptives. The results of interviews with mothers who used 3-month injectable contraceptives, 70% of them said they did not want to have sexual relations because they did not have desire after using 3-month injectable contraceptives. The aim of the research is to analyze the relationship between the use of depot medrox progesterone acetate (DMPA) injectable contraception and the incidence of female sexual dysfunction at the Bojonegara Community Health Center in December 2022.

Based on the background above, researchers are interested in conducting research on the relationship between the duration of using 3-month contraceptive injections and menstrual disorders, emotional changes and weight gain at the Pratama Restu Bunda Clinic, Jakarta in 2023.

## Research Methods

This research is a quantitative research using a cross sectional design, namely research Correlation between the duration of using 3-month contraceptive injections and menstrual disorders and weight gain at the Pratama Restu Bunda Clinic, Jakarta in 2023. The independent variable in this study is the duration of using injectable contraceptives for 3 months and the dependent variables are menstrual disorders and weight gain.

The population used is Active family planning acceptor participants who use 3-month injectable family planning at the Pratama Restu Bunda Clinic in Jakarta for the period December 2023. The sampling technique was carried out using purposive sampling.

The population obtained in this study was 58 3-month injectable contraceptive users and the specified precision or significance level was 0.05. So the sample size in this study is 51 respondents, who will be taken based on research criteria.

## Research Result

### 5.1 Research result

#### 5.1.1 General Description of Research Locations

The research location was carried out at the "R" Clinic which is located at Jl. Hanging Stall Kp. Rawa Lele Rt. 003 Rw. 010 No. 23A Kalideres Village, Kalideres District, West Jakarta. The clinic is included in the working area of the Kalideres Health Center. The types of services provided include family planning and general medical examinations. At the "R" Clinic there is 1 midwife, 4 general practitioners and 1 pharmacy staff.

#### 5.1.2 Research Data Analysis

Analysis of research data is the result of a research presentation that was carried out with the title "Relationship between the duration of 3-month use of birth control injections and menstrual disorders and weight gain at the "R" clinic in 2023" which was carried out for 5 weeks, where the following results were obtained:

##### A) Univariate Data Analysis

Univariate analysis aims to explain or describe the characteristics of each research variable. The form of univariate analysis depends on the type of data. For numerical data, the mean or average, median and standard deviation values are used. In general, this analysis only produces frequency distributions and percentages of each variable (Notoatmodjo, 2017).

**Table 5.1 Characteristics of Respondents Who Become Family Planning Acceptors at the Pratama Restu Bunda Clinic, Jakarta in 2023**

Characteristics	Frequency	Percentage (%)
<b>Age</b>		
20-35 years	28	54.9
36-50 years old	23	45.1
<b>Work</b>		
IRT	27	52.9
Private/Labor	24	47.1
<b>Amount</b>	51	100.0

Based on table 5.1, it is known that of the 51 respondents (100.0%) aged 20-35 years there were 28 respondents (54.9%), while there were 23 respondents aged 36-50 years (45.1%). Based on the

characteristics of the respondents, it is known that of the 51 respondents (100.0%) who work as housewives, there are 27 respondents (52.9%), while the respondents who work in the private sector/labor are 24 respondents (47.1%).

**Table 5.2 Frequency Distribution of Length of Use of 3-Month Injectable Birth Control at Pratama Restu Bunda Clinic, Jakrta, 2023**

Length of Use	Frequency	
	Amount	Percentage
≤ 1 Year	26	51.0
≥ 1 Year	25	49.0
<b>Total</b>	<b>51</b>	<b>100.0</b>

Based on table 5.2, it is known that of the 51 respondents (100.0%), there were 26 respondents (51.0%) who used contraceptive injections for 3 months >1 year, and 25 respondents who used contraceptive injections for 3 months >1 year were 25 respondents (49.0%).

**Table 5.3 Frequency Distribution of Menstrual Disorders at the Pratama Restu Bunda Clinic, Jakarta, 2023**

Menstrual Disorders	Frequency	
	Amount	Percentage
<b>Experience</b>	38	74.5
<b>Not Experienced</b>	13	25.5
<b>Total</b>	<b>51</b>	<b>100.0</b>

Based on table 5.3, it is known that of the 51 respondents (100.0%), 38 respondents (74.5%) experienced menstrual disorders, and 13 respondents (25.5%) did not experience menstrual disorders.

**Table 5.4 Frequency Distribution of Respondents' Answers Based on Question Items: Length of Use of Birth Control Injections for 3 Months with Menstrual Disorders**

No	Menstrual Disorders Questions	Answer Choices			
		Yes		No	
		f	%	f	%
1	Did you experience irregular menstruation while you were using injectable birth control for 3 months, with periods lasting less than 21 days?	29	56.9%	22	43.1%
2	Do you feel that there have been changes in your menstrual cycle since the first 3 months of using injectable birth control until now?	30	58.8%	22	43.1%
3	Did you not get your period again while you were using injectable birth control for 3 months?	25	49.0%	26	51.0%
4	As long as you use birth control injections for 3 months, do you get menstruation twice a month?	24	47.1%	27	52.9%

5	Have you ever used contraception other than the 3-month injection within a year?	20	39.2%	31	60.8%
6	When the mother menstruates, does the blood come out so much that you change your sanitary napkins >3 times a day?	19	37.3%	32	62.7%
7	Does a lot of bleeding in the menstrual cycle continue every month?	24	47.1%	27	52.9%
8	Do you experience menstrual bleeding for more than 3 days?	23	45.1%	28	54.9%
9	Is the mother's menstruation just like spots of bleeding?	28	54.9%	23	45.1%
10	Do you always experience late menstruation every month?	27	52.9%	24	47.1%

Based on table 5.4, the results of respondents' answers to the majority of questions in the questionnaire changes in the menstrual cycle that occurred at the start of using injectable contraceptives for 3 months until now, 30 respondents (58.8%) answered YES and 21 respondents (41.2%) answered NO. The minority of questions regarding injectable birth control users for 3 months during the mother's menstruation, heavy bleeding up to >3 times changing pads a day, were found to answer YES as many as 19 respondents (37.3%) and those who answered NO were 32 respondents (62.7%).

**Table 5.5 Frequency Distribution of Weight Gain At the Pratama Restu Bunda Clinic, Jakarta in 2023**

Ascension Weight	Frequency	
	Amount	Percentage
There is an Improvement	41	80.4
No Upgrade	10	19.6
<b>Total</b>	<b>51</b>	<b>100.0</b>

Based on table 5.5, it is known that of the 51 respondents (100.0%), 41 respondents (80.4%) experienced weight gain, and 10 respondents (19.6%) did not experience weight gain.

**Table 5.6 Frequency Distribution of Weight Gain after using KB Injections for 3 Months At the Pratama Restu Bunda Clinic, Jakarta in 2023 Observation Sheet**

No	Respondent	Weight				Conclusion
		P1	P2	P3	P4	
1	R1	42	45	47	50	There is improvement
2	R2	67	68	68	68	No improvement
3	R3	39	42	44	46	There is improvement
4	R4	43	44	44	44	No improvement
5	R5	50	53	54	57	There is improvement
6	R6	43	44	45	45.5	There is improvement
7	R7	52	53	54	56	No improvement

8	R8	50	51	53	54	There is improvement
9	R9	48	49	52	54	There is improvement
10	R10	45	43	43	43	No improvement
11	R11	40	41	42	44	There is improvement
12	R12	69	69	70	71	There is improvement
13	R13	85	86	87	90	There is improvement
14	R14	46	46	48	50	There is improvement
15	R15	67	67	66	65	No improvement
16	R16	50	51	55	56	There is improvement
17	R17	47	47	47	45	No improvement
18	R18	58	59	61	62	There is improvement
19	R19	62	63	64	65	There is improvement
20	R20	44	43	42	42	No improvement
21	R21	55	54	54	53	No improvement
22	R22	42	44	46	48	There is improvement
23	R23	39	39	38	38	No improvement
24	R24	44	46	46	45	There is improvement
25	R25	50	51	54	55	There is improvement
26	R26	72	71	70	70	No improvement
27	R27	52	54	56	57	There is improvement
28	R28	46	50	53	54	There is improvement
29	R29	53	52	52	50	No improvement
30	R30	55	56	61	63	There is improvement
31	R31	60	58	58	57	No improvement
32	R32	92	95	98	101	There is improvement
33	R33	62	61	60	58	No improvement
34	R34	89	91	94	95	There is improvement
35	R35	46	47	50	52	There is improvement
36	R36	92	94	96	97	There is improvement
37	R37	82	81	81	80	No improvement
38	R38	62	64	65	67	There is improvement

39	R39	45	46	48	49	There is improvement
40	R40	44	46	48	50	There is improvement
41	R41	45	44	44	43	No improvement
42	R42	66	67	69	71	There is improvement
43	R43	56	57	59	60	There is improvement
44	R44	50	51	51	50	No improvement
45	R45	49	52	54	57	There is improvement
46	R46	77	76	76	76	No improvement
47	R47	69	71	72	74	There is improvement
48	R48	55	56	58	60	There is improvement
49	R49	57	56	55	53	No improvement
50	R50	50	51	53	54	There is improvement
51	R51	46	48	52	53	There is improvement

Based on table 5.6, it is known that out of 50 respondents, 33 respondents experienced an increase in body weight after using injectable birth control for 3 months and 18 respondents did not experience an increase.

#### B) Bivariate Data Analysis

Bivariate analysis is a statistical test used to analyze the relationship between two variables that are thought to be related or correlated (Notoatmodjo, 2017).

**Table 5.7 Cross-tabulation distribution of duration of family planning use with menstrual disorders, 3 month injection at the Pratama Restu Bunda Clinic, Jakarta, 2023.**

Duration of use of injectable birth control is 3 months	Menstrual Disorders				Total	%	P-(Sig)
	Experience	%	Not Experienced	%			
≤ 1 Year	15	57.7%	11	42.3%	26		
≥ 1 Year	23	92.0%	2	8.0%	25	100%	0.009
Amount	38	74.5%	13	25.5%	51		

Based on table 5.7, it is known that of the 51 respondents (100.0%), respondents with a duration of using injectable birth control ≤ 1 year experienced menstrual disorders as many as 15 respondents (57.7%) and those who did not experience menstrual disorders were 11 respondents (42.3%), while respondents with long ≥ 1 year of use and 23 respondents (92.0%) experienced menstrual disorders and 2 respondents (8.0%) did not experience menstrual disorders.

From the results of the chi-square test analysis with a 95% confidence level, it was obtained that p (Sig) was 0.009, p value (sig) < α (0.009 < 0.05), and it could be concluded that there was a relationship



between the length of use of injectable birth control for 3 months and menstrual disorders in birth control acceptors. 3 month injection at Pratama Restu Bunda Clinic, Jakarta in 2023.

**Table 5.8 Cross-tabulation Distribution of Length of Use of 3-Month Injection Birth Control with Weight Gain at Pratama Restu Bunda Clinic, Jakarta, 2023**

Duration of use of injectable birth control is 3 months	Weight Gain				Total	%	<i>P-Sig</i>
	There is	%	There isn't any	%			
≤ 1 Year	12	46.2%	14	53.8%	26		
≥ 1 Year	31	84.0%	4	16.0%	25	100%	<b>0.008</b>
Amount	33	64.7%	18	35.3%	51		

Based on table 5.8, it is known that of the 51 respondents (100.0%), respondents with a duration of injectable contraceptive use ≤ 1 year experienced weight gain as many as 12 respondents (46.2%) and those who did not experience weight gain as many as 14 respondents (53.8%), while respondents with a duration of using contraceptive injections ≥ 1 year and experiencing weight gain, 31 respondents (84.0%) and those who did not experience weight gain were 4 respondents (16.0%).

From the results of the chi-square test analysis with a 95% confidence level, it was obtained that  $p(\text{Sig})$  was 0.008,  $p \text{ value (sig)} < \alpha$  ( $0.008 < 0.05$ ), and it could be concluded that there was a relationship between the length of use of injectable contraceptives for 3 months and weight gain in acceptors. KB injection for 3 months at Pratama Restu Bunda Clinic, Jakarta in 2023.

## Discussion

### 6.1 Research Limitations

In the process of preparing this research, there were quite a few obstacles and limitations faced by the researcher, when applying for permission to collect research data to the Pratama Restu Bunda Clinic, Jakarta.

#### 6.1.1 Length of use of injectable birth control is 3 months at the "R" Clinic in 2023

Based on the results of data processing, it is known that from 51 respondents (100.0%) respondents Those who used injectable contraceptives for 3 months <1 year were 26 respondents (51.0%), and respondents who used injectable contraceptives for 3 months >1 year were 25 respondents (49.0%) 3-month injectable contraception is more popular with respondents because it is practical and does not require an injection every month.

This is in line with research conducted by Eka Wahyu Ramadiyana with the title "Relationship between the duration of use of 3-month injectable contraceptives and menstrual disorders in 3-month injectable birth control acceptors at the Sabarita Tanjung Beringin Clinic in 2018" stated that out of 98 respondents there were 80 respondents (81.6%) with a duration of use >1 year were 80 people (81.6%) while with a duration of <1 year there were 18 people (18.4%).

According to researchers, the reason why mothers use 3-month injectable birth control is because the injection time is quite long, namely once every 3 months, the cost is more affordable, and does not interfere with sexual relations and users find side effects, namely weight gain, however, patients feel comfortable using injectable contraception 3 month because the price is so affordable that there is no reason to stop the 3-month injectable contraceptive.

For 3-month injectable birth control acceptors themselves, the longer they use the 3-month injectable contraceptive, it will greatly influence the occurrence of menstrual disorders and weight gain. Menstrual disorders due to hormonal imbalance so that the endometrium experiences changes. The use of progesterone contraception causes hormonal imbalance, causing the endometrial wall to become thinner, causing bleeding spots.

Weight gain in injectable contraceptive users is caused by hormonal factors contained in birth control injections, namely the hormones progesterone and estrogen. The content of the hormones estrogen and progesterone can change fluid metabolism in the body, often causing fluid retention (edema) and the hormone progesterone makes it easier to convert carbohydrates and sugar into fat, so that fat under the skin increases. Apart from that, the hormone progesterone also causes increased appetite because it stimulates the appetite control center. feeding in the hypothalamus, which causes the acceptor to eat more than usual. The risk of weight gain is statistically no different in the first 12 months of use. The longer you use hormonal contraception, the greater the risk of obesity.

### **6.1.2 Menstrual Disorders in Acceptors of 3-month contraceptive injections at the "R" Clinic in 2023**

Based on the results of data processing, it is known that out of 51 respondents (100.0%) respondents were 38 respondents (74.5%) experienced menstrual disorders, and 13 respondents (25.5%) did not experience menstrual disorders.

This is in line with research conducted by Eka Wahyu Ramadiyana with the title "Relationship between the duration of use of 3-month injectable contraceptives and menstrual disorders in 3-month injectable birth control acceptors at the Sabarita Tanjung Beringin Clinic in 2018" stated that of the 98 respondents who experienced menstrual disorders as many as 87 people (88.8%) and 11 people (11.2%) who did not experience menstrual disorders.

When using injectable contraceptives, menstrual disorders that can occur are amenorrhea, irregular bleeding, spotting, length and amount of blood lost and changes in frequency. The effects that occur on menstrual patterns depend on the length of use of injectable contraception. Menstrual disorders in the form of amenorrhea are caused by the progesterone in the DMPA content which suppresses the LH hormone (luteinizing hormone) and an increase in DMPA in the blood will inhibit LH, DMPA also affects the decrease in the hormone GnRH (Gonadotropin releasing hormone) from the hypothalamus which causes the release of FSH (follicle stimulating hormone) and LH (luteinizing hormone) from the anterior pituitary is reduced.

DMPA use makes the endometrium shallower and atrophic with inactive glands, making the endometrium less good or suitable for implantation of a fertilized ovum.

According to researchers, based on research that has been carried out, prolonged use of contraceptives affects menstrual disorders, due to an imbalance in the hormone progesterone and estrogen hormones which are depleted, causing bleeding spots. And this contraception also causes menstrual disorders such as heavy or light bleeding, changes in the menstrual cycle that lengthens or shortens, blood spots, blood spots or no menstruation at all.

### **6.1.3 Relationship between the duration of using 3-month injectable contraceptives and menstrual disorders at the "R" Clinic in 2023**

The results of statistical tests with the chi-square test show that The 95% confidence level obtained by  $p$  (Sig) is 0.009,  $p$  value (sig)  $< \alpha$  ( $0.009 < 0.05$ ), and it can be concluded that there is a relationship between the length of use of 3-month contraceptive injections and menstrual disorders in acceptors of 3-month contraceptive injections at Pratama Restu Bunda Clinic. Jakarta in 2023. In this case, it can be stated that the acceptance of the researcher's hypothesis, namely  $H_a$  is accepted and  $H_o$  is rejected, and thus the research hypothesis has been tested for truth.

This research is in line with research conducted by Eka Wahyu Ramadiyana with the title "Relationship between the duration of use of 3-month injectable contraceptives and menstrual disorders in 3-month contraceptive acceptors at the Tanjung Beringin Sabarita Clinic in 2018". The results of the statistical analysis test using the chi-square test showed that the relationship was significant with a p value = 0.001 ( $<0.05$ ). Thus, it can be concluded that there is a relationship between the length of use of the 3-month injectable contraceptive device and menstrual disorders in 3-month injectable birth control acceptors at the Sabarita Tanjung Beringin Clinic in 2018.

According to researchers, prolonged use of hormonal contraceptives will cause endometrial atrophy. Because stopping the formation of progesterone will interfere with providing nutrition to the endometrium so that the endometrium becomes thin and atrophic. This supports the occurrence of amenorrhea in several acceptors who were respondents in this study.

At this age, women are already vulnerable to having children and there are still many who do not want to use steady contraception, so they need contraception for a long period of time to prevent pregnancies, and age influences a person's choice and use of contraception. Many mothers who work as housewives use this contraception.

For the reason that it is easy to use and at a low cost, of course without considering the advantages and disadvantages of this contraception and also this contraception is very easy to use, easy to get, doesn't require a lot of money, without fear of forgetting, this contraception can also be used for a long time, it has no effect on husband and wife relations and this contraception has high effectiveness so that many acceptors use this contraception.

All respondents in the study used injectable contraception because it is quite easy and effective to use, has few side effects and can be used in women aged over 35 years up to perimenopause.

#### **6.1.4 Weight Gain in 3-Month Injectable Birth Control Acceptors at "R" Clinic in 2023**

Based on the results of data processing, it is known that Of the 51 respondents (100.0%), respondents with a duration of using injectable birth control  $\leq 1$  year experienced weight gain as many as 12 respondents (46.2%) and those who did not experience weight gain were 14 respondents (53.8%), while respondents with a long period of using injectable birth control  $\geq 1$  year and 31 respondents (84.0%) experienced weight gain and 4 respondents (16.0%) did not experience weight gain.

This is in accordance with the observation sheet observed by researchers during research.

Based on research that has been conducted, the length of use of contraceptives affects the weight gain of 3-month contraceptive injection users, Weight gain in injectable contraceptive users is caused by hormonal factors contained in birth control injections, namely the hormones progesterone and estrogen. The content of the hormones estrogen and progesterone can change fluid metabolism in the body, often causing fluid retention (edema) and the hormone progesterone makes it easier to change carbohydrates and sugar into fat, so that fat under the skin increases. Apart from that, the hormone progesterone also causes increased appetite because it stimulates the appetite control center. feeding in the hypothalamus, which causes the acceptor to eat more than usual. The risk of weight gain is statistically no different in the first 12 months of use. The longer you use hormonal contraception, the greater the risk of obesity.

#### **6.1.5 Relationship between duration of use of 3-month contraceptive injections and weight gain at the "R" Clinic in 2023.**

The results of statistical tests with the chi-square test show The results of the chi-square test analysis with a 95% confidence level showed that p (Sig) was 0.008, p value (sig)  $< \alpha$  ( $0.008 < 0.05$ ), and it could be concluded that there was a relationship between the length of use of injectable birth control for 3 months and an increase in body weight in birth control acceptors. 3 month injection at the Pratama Restu Bunda Clinic, Jakarta in 2023. This is in line with the observation sheet monitored by researchers.

Based on research that has been conducted, the length of use of contraceptives affects the weight gain of 3-month contraceptive injection users. Weight gain in injectable contraceptive users is caused by hormonal factors contained in birth control injections, namely the hormones progesterone and estrogen. The content of the hormones estrogen and progesterone can change fluid metabolism in the body, often causing fluid retention (edema) and the hormone progesterone makes it easier to change carbohydrates and sugar into fat, so that fat under the skin increases. Apart from that, the hormone progesterone also causes increased appetite because it stimulates the appetite control center. feeding in the hypothalamus, which causes the acceptor to eat more than usual. The risk of weight gain is statistically no different in the first 12 months of use. The longer you use hormonal contraception, the greater the risk of obesity.

For the reason that it is easy to use and at a low cost, of course without considering the advantages and disadvantages of this contraception and also this contraception is very easy to use, easy to get, doesn't require a lot of money, without fear of forgetting, this contraception can also be used for a long time, it has no effect on husband and wife relations and this contraception has high effectiveness so that many acceptors use this contraception.

All respondents in the study used injectable contraception because it is quite easy and effective to use, has few side effects and can be used in women aged over 35 years up to perimenopause.

## Conclusion

Based on data analysis and discussion regarding the relationship between the length of use of 3 month birth control injections and menstrual disorders and weight gain at the "R" Clinic in 2023, it can be concluded as follows:

1. The duration of using injectable birth control was 3 months for 51 respondents(100.0%) respondents who used contraceptive injections for 3 months <1 year were 26 respondents (51.0%), and respondents who used contraceptive injections for 3 months >1 year were 25 respondents (49.0%).
2. Menstrual disorders of 3-month injectable birth control acceptors from 51 respondents(100.0%) respondents who used contraceptive injections for 3 months <1 year were 26 respondents (51.0%), and respondents who used contraceptive injections for 3 months >1 year were 25 respondents (49.0%).
3. The Chi-square test results showthat there is a significant value between the length of use of 3 month contraceptive injections and menstrual disorders of 0.009 so it can be concluded that  $H_a$  is accepted which means there is a relationship between the length of use of 3 month contraceptive injections and menstrual disorders at the "R" Clinic in 2023 because the longer the use of 3 month contraceptive contraceptives , then the occurrence of long menstruation changes to no menstruation at all. Changes in the length of menstruation are caused by the hormone progesterone contained in the contents of DMPA.
4. Weight gain in 3-month contraceptive injection acceptors from 51 respondents(100.0%) respondents with a duration of using injectable birth control  $\leq 1$  year experienced weight gain as many as 12 respondents (46.2%) and those who did not experience weight gain were 14 respondents (53.8%), while respondents with a duration of using injectable birth control  $\geq 1$  year and 31 respondents (84.0%) experienced weight gain and 4 respondents (16.0%) did not experience weight gain.
5. The Chi-square test results showthat there is a significant value between the duration of using contraceptive injections of 3 months and a weight gain of 0.008and it can be concluded that there is a relationship between the length of use of the 3-month contraceptive injection and the increase in body weight in acceptors of the 3-month contraceptive injection at the Pratama Restu Bunda

Clinic, Jakarta in 2023. Because the longer the use of the 3-month contraceptive injection, the more weight gain will increase.

### Suggestions

Based on the conclusions based on this research, several suggestions can be concluded as follows:

1. For Respondents  
It is hoped that 3 months before choosing a contraceptive method, injectable birth control acceptors will first seek information about the side effects and advantages of the contraceptive method they have chosen through health workers such as midwives.
2. For Research Places  
It is hoped that "R" Clinic Health officers will provide counseling in advance about the various types of contraceptives as well as the side effects and advantages when using these contraceptives, so that when there is a complaint the acceptor understands it.
3. For Researchers  
It is hoped that future researchers can review the relationship between using 3-month injectable birth control with menstrual disorders and weight gain so that future researchers can find other factors in using 3-month injectable birth control.

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