

**THE RELATIONSHIP BETWEEN THE USE OF 3-MONTH INJECTABLE BIRTH CONTROL WITH WEIGHT GAIN IN WOMEN BIRTH CONTROL ACCEPTORS AT PMB SARI MAHDALANI, BENGKONG DISTRICT, BATAM CITY IN 2023**

**Poppy Sandra<sup>1</sup>, Mediana Sembiring<sup>2</sup>, Wulan Dahyufi<sup>3</sup>, Christina Sitindaon<sup>4</sup>, Sartika Julianti<sup>5</sup>**

STIKes Mitra Husada Medan

[poppysandra@gmail.com](mailto:poppysandra@gmail.com), [mediyana01@gmail.com](mailto:mediyana01@gmail.com), [nisaarisma2003@gmail.com](mailto:nisaarisma2003@gmail.com)

**ABSTRACT**

According to the World Health Organization (WHO) (2018) contraceptive use has increased in many parts of the world, especially in Asia and Latin America and lowest in Sub-Saharan Africa. Globally, modern contraceptive use has increased significantly from 54% in 1990 to 57.4% in 2014. Regionally, the proportion of couples of childbearing age 15-49 years who report the use of modern contraceptive methods has increased for at least the last 6 years. In Africa from 23.6% to 27.6%, in Asia it has increased from 60.9% to 61.6%, while Latin America from the Caribbean rose slightly from 66.7% to 67.0%. The coverage of new and active family planning participants in Indonesia in 2021 with the number of couples of childbearing age (PUS) is 47,019,002. New birth control comorbidities (16.15%) included injections (49.67%), birth control pills (25.14%), condoms (5.68%), implants (10.65%). UID (Intra Uterine Device) as much (7.15%), female surgical method (MOW) As. The purpose of this study is to determine the effect of using 3-month injectable birth control with weight gain in women birth control acceptors at PMB Sari Mahdaleni, Bengkong District, Batam City in 2023. The research design is an analytical survey with a cross sectional approach which is a study of the relationship between two variables in a situation or a group of subjects carried out to see the relationship between other variables (Notoadmodjo, 2010). Which aims to determine the relationship between the use of 3-month injectable birth control with weight gain in female birth control acceptors at PMB Sari Mahdaleni, Kec. Bengkong, Batam City in 2023

**Keywords: UID ,PUS AND MOW**

## INTRODUCTION

According to the World Health Organization (WHO) (2018) the use of contraception has increased in many parts of the world, especially in Asia and Latin America and lowest in Sub-Saharan Africa. Globally, modern contraceptive use has increased insignificantly from 54% in 1990 to 57.4% in 2014. Regionally, the proportion of couples of childbearing age 15-49 years reporting the use of modern contraceptive methods has increased for at least the last 6 years. In Africa from 23.6% to 27.6%, in Asia it has increased from 60.9% to 61.6%, while Latin America from the Caribbean rose slightly from 66.7% to 67.0%. An estimated 225 million women in developing countries want to delay or stop fertility but do not use any contraceptive method for the following reasons: limited choice of reception methods and experience amping effects. The unmet need for reception is still too high. Injustice is driven by population growth (WHO, 2018). Indonesia is a developing country with a population of 273.52 million people with an area of 1,913,378.68 km and a population density of 131.76 people / km (Ministry of Health of the Republic of Indonesia, 2022). The problem in Indonesia is that the population growth rate is still relatively high. Approximate population Mid (2022) amounted to 284.8 million people with an occupation growth rate of 1.48%. The rate of growth is determined by births and deaths with improvements in health services leading to a major population

explosion. Reducing population by promoting family planning (KB) programs (BPS, 2021).

The coverage of new family planning participants and active family planning in Indonesia in 2021 with the number of couples of childbearing age (PUS) is 47,019,002. New birth control comorbidities (16.15%) include injections (49.67%), birth control pills (25.14%), condoms (5.68%), implants (10.65%). UID (Intra Uterine Device) as much as (7.15%), female surgical method (MOW) as much as (1.5%), male surgical method (MOP) as much as (0.2%). While active birth control participants include IUDs (11.07%), MOW (3.52%), MOP (0.68%), implants (10.46%), condoms (3.15%), injections (47.54%) and birth control pills (29.58%) (Ministry of Health, 2020).

The results of the prevalence of birth control in Indonesia based on a survey of monitoring couples of childbearing age in 2013 reached 65.4% with birth control methods dominated by participants in birth control injections (36%), birth control pills (15.1%), implants (5.2%), IUDs (4.7%),

MOW (2.2%). These results decreased slightly when compared to the results of the 2009-2011 survey the prevalence of family planning tends to remain in the range of 67.5% (BBKBN, 2020).

Based on a journal from Adriana Palimbo, et al with the title of the relationship between the use of 3-month injectable birth control with weight gain in women birth control acceptors in the working area of the lok

baintan health center. Preliminary study conducted by researchers at the Lok Baintan health center on 10 women acceptors of 3-month injectable birth control through interviews, 8 of the acceptor women complained that they experienced weight changes, namely an increase in weight reaching 3 kg to more than 5 kg after using 3 months of injectable birth control for an average of more than 6 months (Adriani Palimbo, et al, 2013).

Based on an initial survey conducted by PMB Sari Mahdaleni Kec. Bengkong Batam City there were 12 mothers who used 3-month injectable birth control, from the 12 people that 8 people who gained weight and 4 people who did not gain weight, so from here researchers are interested in taking the title "The relationship between the use of 3-month injectable birth control with weight gain in women birth control acceptors at PMB Sari Mahdaleni Kec. Bengkong Batam City"

## METHODS

The research design is an analytical survey with a cross sectional approach which is a study of the relationship between two variables in a situation or a group of subjects carried out to see the relationship between other variables (Notoadmodjo, 2010). Which aims to determine the relationship between the use of 3-month injectable birth control with weight gain in female birth control acceptors at PMB Sari Mahdaleni, Bengkong District, Batam City in 2023.

## RESULT

After collecting, managing and analyzing the data obtained, the results of the study obtained by the author on "The effect of using 3-month injectable birth control with weight gain in women birth control acceptors at the Ngkeran Care Health Center, Lawe Alas District, Southeast Aceh Regency in 2021", obtained data on the number of cases of 50 people with results as:

### Univariate Analysis

**Table 4.1 Distribution of Knowledge Frequency with weight gain**

No	Knowledge	F	%
1.	Less	12	24
2.	Enough	14	28
3.	Good	24	48
Sum		50	100

Based on table 4.1, it shows that of the 50 respondents, the most have a level of knowledge about injectable birth control, both 24 people (48%), mothers with sufficient knowledge as many as 14 people (28%) and mothers with less knowledge as many as 12 people (24%).

**Table 4.2 Frequency Distribution of Contraceptive Us**

No	Duration of Contraceptive Use	F	%
1.	<1 year	21	42
2.	>1 year	29	58
Sum		50	100

Based on table 4.2, it can be known that respondents with a duration of contraceptive use of more than one year, namely as many as 29 people (58%) and at least with a duration of contraceptive use of less than one year, namely as many as 21 people (42%).

**Table 4.3 Distribution of maternal age frequency in contraceptive use**

No.	Age	F	%
1.	< 20year	12	24
2.	20 – 35 year	26	52
3.	> 35year	12	24
sum		50	100,0

Based on table 4.3, it can be seen that respondents with maternal age in < 20 years as many as 12 people (24%), with the age of 20-35 years as many as 26 people (52%), and with the age of >35 years as many as 12 people (24%)

**Table 4.4 Frequency of Education on Contraceptive Use**

No	Education	F	%
1.	SD	13	26
2.	SMP	14	28
3.	SMA	15	30
4.	PT	8	16
Total		50	100

Based on table 4.4, respondents can be known based on the level of basic education as many as 13 people (26%), junior high school as many as 14 people (28%), high school as many as 15 people (30%), and universities as many as 8 people (16%).

**Table 4.5 Occupational Frequency of Contraceptive Use**

No	Work	F	%
1.	IRT	40	80
2.	PNS	5	10
3.	Swasta	5	10
Total		50	100

## Discussion

### 1. Distribution of knowledge frequency with weight gain in female birth control acceptors

The results of this study are known to show that of the 50 respondents most

have a good level of knowledge but experience weight gain in using contraception, namely as many as 24 people (48%), less knowledgeable who do not gain weight as many as 12 people (24%), knowledgeable enough who experience weight gain only 14 people (28%). The results of the statistical test obtained P Value = 0.001 or  $P < \alpha$  value or 0.005. Thus,  $H_0$  is rejected and  $H_a$  is accepted. This suggests that there is a knowledge association with weight gain in female birth control acceptors. The results of this study are in line with research conducted by Andriani (2013) showing that weight changes in women acceptors of 3-month injectable birth control in the working area of the Lok

Baintan health center, Sungai Tabuk District were grouped into 2 categories, namely weight gain and no weight gain, from 50 existing respondents, it turned out that most experienced weight gain, which was as much as 24 people (48%). The results of this study showed a relationship between the use of 3-month injectable birth control with weight gain in 3-month injectable birth control acceptor women in the working area of the Lok Baintan health center. The results of this study showed a relationship between the use of 3-month injectable birth control with weight gain in 3-month injectable birth control acceptor women in the working area of the Lok Baintan health center.

## **2. Frequency distribution of contraceptive use with weight gain in women birth control acceptors**

From the results of this study it is known that acceptors who use 3-month

injectable contraceptives as many as 50 people experience weight gain with more than one year use as many as 25 people (50%), more than one year but do not gain weight as much as 4 people (8%), less than one year experience weight gain as many as 10 people (20%), and those who did not gain weight with less than one year of use as many as 11 people (22%).

The results of the statistical test obtained a value of  $P = 0.002$  or a value of  $P > \alpha$  or 0.005. Thus,  $H_a$  is accepted and  $H_0$  is rejected. This suggests a long-standing association of contraceptive use with weight gain in female birth control acceptors. The results of this study are in line with research conducted by Adriana (2013) there were 52 respondents with the use of 3-month injectable birth control. Pratiwi's research (2014) on the relationship between hormonal contraceptive use and weight gain. This research is supported by Irianto's theory (2014) that 3-month injectable constipation affects weight gain due to stimulation in the hypothalamus which causes increased appetite. The assumption of researchers, the number of respondents has increased that one

type of contraception that is the choice of mothers is injectable birth control, because it is safe, effective, simple, cheap. This method is preferred by the public because it can be estimated that half a million couples use injectable contraceptives to prevent pregnancy so that acceptors use more than 1 year more than use less than 1 year.

### 3. Frequency distribution of age with weight gain

From the results of the study as many as 50 respondents <20 years but experienced weight gain as many as 10 people (20%), who did not gain weight in <20 years as many as 2 people (4%), aged 20-35 years who experienced weight gain as much as 22 people (44%), did not gain weight 20-35 years as many as 4 people (8%), aged >35 years who experienced weight gain as much as 3 people (6%), and who did not experience weight gain over >35 years as many as 9 people (18%). The results of the statistical test obtained a value of  $P = 0.002$  or a value of  $P > 0.005$ . With,  $H_a$  is accepted and  $H_0$  is rejected.

This suggests that there is a relationship between age and weight gain in mothers using injectable contraceptive birth control. From 20-35 years this is supported by the BKKBN theory (2013) which states that this age is a safer age than maternal death so that this age with the use of contraceptives can reduce the risk of death in infants. Meanwhile, according to the Ministry of Health (2010) the age of 15-49 is a childbearing age because the reproductive organs function properly.

#### 1. Distribusi Frekuensi Pendidikan Dengan Kenaikan Berat Badan

From the results of the study, respondents as many as 50 people with elementary school education but experienced weight gain in mothers who used injectable contraception as much as elementary school education but experienced weight gain in mothers who used injectable contraception as

many as 10 people (20%) and PT education who did not experience weight gain as much as 7 people (14%), high school education who experienced

weight gain as much as 13 people (26%) and junior high school education who did not experience weight gain As many as 9 people (18%) from the results of statistical tests obtained a value of  $P = 0.003$  or a value of  $P = a$  or  $0.005$ . Thus,  $H_a$  is accepted and  $H_0$  is rejected. This suggests there is a relationship between education and weight gain.

Kurniawati (2008) states that the level of education also affects the mother's knowledge. Because maternal knowledge in the use of contraception is an important domain for the formation of maternal actions in using injectable contraception. The researchers' assumption is that high school age is a sufficient age in terms of knowledge and understanding information about injectable birth control and the effects of using 3-month injectable birth control

#### 1. Distribution of Work Frequency with Weight Gain

From the results of the study, it can be seen that respondents as many as 50

people work as IRT who do not experience weight gain as many as 25 people (50%), civil servant jobs who experience weight gain as much as 4 people (8%), Private who experience weight gain as many as 4 people (8%). From the results of statistical tests obtained a value of  $P = 0.001$  or a value of  $P > 0.005$ . Thus,  $H_a$  was accepted and  $H_0$  was rejected. This shows that the relationship between work and

weight gain in mothers who use birth control injections.

Arum (2011) also found that as many as 60% of respondents have a job as housewives, so that injectable birth control acceptors are more busy with housework and taking care of children, this gives interest in delaying pregnancy in a regular way and using 3-month injectable contraception.

### CONCLUSION

Based on the results of research on the effect of using 3-month injectable birth control with weight gain in women birth control acceptors at Nurul Hikmah

Clinic in North Binjai City in 2019, it can be concluded as follows:

1. Based on variables as many as 50 respondents with good knowledge, namely as many as 24 people (48%), less knowledgeable who did not experience weight gain as many as 12 people (24%), Knowledgeable enough to gain weight only 14 people (28%).
2. From the results of the study, of 50 respondents, namely with a length of contraceptive use of more than one year as many as 25 people (50%), more than one year but did not gain weight as much as 4 people (8%), less than one year experienced weight gain as many as 10 people (20%), and those who did not gain weight with a length of use of less than one year as many as 11 people (22%).
3. Of the 50 respondents with an age frequency distribution of 10 people (20%), who did not gain weight in <20 years as many as 2 people (4%), aged 20-35 years who experienced weight gain as many as 22 people (44%), did

not gain weight 20-35 years as many as 4 people (8%), age >35 years who experienced weight gain as many as 3 people (6%), and who did not gain weight above >35 years as many as 9 people (18%)

4. Of the 50 respondents who had elementary school education but experienced weight gain in mothers who used injectable contraception as many as 10 people (20%) and PT education who did not gain weight as many as 7 people (14%), high school education who experienced weight gain as many as 13 people (26%) and junior high school education who did not experience weight gain as many as 9 people (18%).

5. Based on variables with the frequency of IRT work that did not experience weight gain as much as 25 people (50%), civil servant work that experienced weight gain as much as 4 people (8%), Private sector who experienced weight gain as much as 4 people (8%)

### SUGGESTION

Based on the results and research on the effect of using 3-month injectable birth control with weight gain in women birth control acceptors at Nurul Hikmah Clinic in 2019.

1. For Educational Institutions  
It is expected to be used as an additional discourse or reference so that it can increase knowledge.
2. For Researchers  
This research should be used as a source of reference or information material for future researchers and it is expected that other researchers can

conduct the same research with more in-depth variables.

### 3. For the Community

For the community, it is expected to improve public health and welfare regarding knowledge about contraceptive use.

## BIBLIOGRAPHY

Anggraini, Yetti. Dkk. 2018. *Pelayanan Keluarga Berencana*. Yogyakarta : Rohima Press.

Adriani, Dkk. 2013. Hubungan Pengetahuan KB Suntik 3 Bulan Dengan Kenaikan Berat Badan Pada Wanita Aseptor KB Di Wilayah Kerja Puskesmas Lok Baintan. Diakses Pada tahun 2013.

<http://www.jurnal.unsyiah.ac.id/JIK/article/download/4988/4244>

Arum, D. 2011. *Panduan Lengkap Pelayanan KB Terkini*. Jogjakarta; Muha Medika

BBKBN 2013. *Buku Panduan Praktis Pelayanan Kontrasepsi*. Jakarta. Yogyakarta. Bina Pustaka. Sarwono Prowirohardjo.

Depkes RI. 2017. *Profil Kesehatan*. Republik Indonesia.

pdf.

Proverawati, A. Dkk. 2018. *Panduan Pemilihan Kontrasepsi*. Yogyakarta : Nuha Medika.

Saifudin. 2012. *Buku Panduan Praktis Pelayanan Kontrasepsi*. Jakarta : Yayasan PB-SP

Depkes (Departemen Kesehatan). 2010. *Glosarium, data dan informasi kesehatan*. Jakarta : Pusat data dan informasi

Departemen Kesehatan Republik Indonesia.

<http://www.depkes.go.id>

Hartanto. 2010. *Keluarga Berencana dan Kesehatan Reproduksi*. Jakarta : Pustaka Sinar Harapan.

Irianto. 2014. *Kesehatan Rebrodusi dan Gizi Seimbang*. Penerbit Alfabeta, Bandung.

Maryani. 2011. *Pelayanan Keluarga Berencana dan Pelayanan Kontrasepsi*. Jakarta: Rineka Cipta.

Mulyani, N.S. 2018. *Keluarga Berencana dan Alat Kontrsepsi*. Yogyakarta : Nuha Medika.

Notoatmodjo. 2013. *Metode Penelitian Kesehatan*. Jakarta: PT Bineka Cipta.

Pratiwi. 2014. *Hubungan antara penggunaan kontrasepsi dmpa dengan peningkatan berat badan di Puskesmas Lapai Kota Padang*.

<http://fk.unand.ac.id/indeks.php/article/6454-4969>.