



## DESCRIPTION OF MENSTRUAL CYCLE DISORDERS IN 3 MONTHS INJECTABLE CONTRACEPTIVE USERS

Amellia Mardhika, Yolanda Dwi Safitri, Lailatul Fadliyah, Riris Medawati

Research Report

Faculty Of Vocational Studies, Universitas Airlangga

### ABSTRACT

**Introduction:** *Injectable contraception (3-month) is a hormonal contraceptive that is widely used by women of childbearing age because it is very effective in preventing pregnancy, and includes the Intermediate-term Method. The use of 3-month injectable contraceptives also has drawbacks or side effects, one of which is menstrual cycle disorders. The purpose of this study was to determine the description of menstrual cycle disorders in users of 3-month injectable contraceptives.* **Methods:** *This study used a descriptive design. The population in this study was women of childbearing age who used injection contraception for 3-months at the sub-health center of Tanjung Village. The total population in this study was 48 samples. The sampling technique was carried out by the total sampling technique. The statistical analysis used in this study was descriptive analysis (number and prosentase).* **Results:** *The results of the study showed that using 3-month injectable contraceptives were found that 29 respondents (60.4%) experienced amenorrhea, 15 respondents (31.3%) spotting, and 4 respondents (8.3%) did not experience menstrual cycle disorders.* **Conclusion:** *Most users of 3-month injectable contraceptives experience amenorrhea.*

### ARTICLE INFO

Received August 24, 2021  
Accepted October 19, 2021  
Online October 31, 2021

\*Correspondence:  
Amellia Mardhika

\*Email:  
[ameliamardhika@vokasi.unair.ac.id](mailto:ameliamardhika@vokasi.unair.ac.id)

**Keywords:**  
Amenorrhea, Injectable Contraceptives, Menstruation, Spotting

### INTRODUCTION

The use of contraception is one of the BKKBN programs as an effort to control the rate of population growth in Indonesia. The need for contraceptive use in Indonesia is quite high.

According to data from the Central Statistics Agency, in 2017 the use of contraceptives in Indonesia was 64.49%, 64.52% in 2018, and 62.54% in 2019. Meanwhile in East Java, the rate of contraceptive use continued to decline from 2017 by 69.13%, in 2018 by 67.88%, and in 2019 by 66.24% (BPS, 2020). The highest use of active contraception in 2019 was in Bengkulu at 71.4% and the lowest was in West Papua at 25.4%. Indonesia has a target of the National Medium Term Development Plan (RPJMN) with an active family planning achievement of 66% and there are 11 provinces that have achieved the RPJMN target (Kemenkes RI, 2020).

In addition to controlling the rate of population growth, the use of contraceptives is also important in reducing maternal mortality. According to the Health Ministry of Indonesia

(2020), 33% of maternal deaths can be prevented through the use of contraception.

The use of injectable contraceptives was the method chosen by around 15 million (63.7%) active family planning participants (Kemenkes RI, 2020). This contraceptive is widely used by women of childbearing age because it is very effective in preventing pregnancy, including the Intermediate-term Method, and does not interfere with sex (Handayani, 2010).

Injectable contraceptives are not only effective at preventing pregnancy but also have side effects. The side effect of contraception that the most occur is menstrual pattern disturbance, almost 59% of women using injectable contraceptives experience prolonged, shortened menstrual phases, and most often do not experience menstruation at all or amenorrhea. As many as 49% experienced spotting, 35% experienced weight changes, 10% had headaches, 4% experienced nausea and vomiting and 2%

experienced other complaints (Titin & Windi, 2015).

Injectable contraceptives can interfere with the menstrual cycle because the mechanism of action of injectable contraceptives can suppress ovulation. Injectable contraception causes no feedback mechanism so that estrogen which should give positive feedback to LH (Luteinizing Hormone) actually gives negative feedback to LH in the ovulation phase. In addition, injectable contraceptives also thicken cervical mucus so that it interferes with the movement of the tubes so that egg transportation will be disrupted by itself and menstruation will not occur (Affandi, 2012).

Menstrual disorders due to the use of contraception can have a negative impact if not addressed immediately. Health workers play a very important role in handling the adverse effects/complications of using contraception. The data above is the background for researchers to examine the description of

menstrual cycle disorders in users of 3-month injectable contraceptives.

## MATERIALS AND METHODS

This study used a descriptive design. The population in this study was women of childbearing age who used injection contraception for 3 months at the sub-health center of Tanjung Village, Lamongan, Indonesia. The total population in this study was 48 samples. The sampling technique was carried out by the total sampling technique. The research was conducted in April - July 2019.

This study used a questionnaire to collect data. The statistical analysis used by researchers to describe menstrual cycle disorders in users of 3-month injectable contraceptives was descriptive analysis. Before collecting respondent data, the researcher gave informed consent. The researcher explained in full the objectives, procedures, and rights of the respondents.

## RESULT

**Table 1.** Distribution of respondents describing menstrual cycle disorders in users of 3-month injectable contraceptives

Characteristics of Respondents	Category	f	%
Age	< 20 years old	0	0
	20-35 years old	16	33,3
	>35 years old	32	66,7
	Total	48	100
Occupation	Farmer	5	10,4
	Housewife	28	60,4
	Civil servant	4	8,3
	Self-employed	11	20,9
	Total	48	100
Education	No school	0	0
	Elementary School	9	18,8
	Junior High School	18	37,5
	Senior High School	16	33,3
	College	5	10,4
	Total	48	100
Parity	Primiparity (1)	3	27,1
	Multiparity (2-4)	35	72,9
	Grandmultiparity (>5)	0	0
	Total	48	100
The duration of injecting contraceptive use	1 year	6	12,5
	2-5 years	19	39,6
	>5 years	23	47,9
	Total	48	100
Menstrual cycle disorders	Spotting	15	31,3
	Amenorrhea	29	60,4
	No Disturbance	4	8,3
	Total	48	100

The distribution of respondents in Table 1 shows that most of the respondents are >35 years old (66.7%), most of the mothers' jobs are housewives (60.4%), and from 48 respondents there are 18 respondents (37.5%) educated was Junior High School.

Table 1 also shows that from 48 respondents, most of the respondents experienced parity multipara as many as 35 respondents (72.9%) and none of the respondent's grandmultiparity (0%). According to table 1, there were 23 respondents (57.9%) who used contraception for >5 years. Menstrual cycle disorders according to table 1 shows that most of the respondents experienced amenorrhea as many as 29 respondents (60.4%) and did not experience disturbances as many as 4 respondents (8.3%).

## DISCUSSION

Age is an important indicator that must be considered because age is the reason for a person's maturity and mindset in the use of contraception. According to Priyanti & Syalfina (2017), Age is a measure of a person's physiological and psychological maturity. In Jacobus et al.'s study (2018), more than 50% of injection contraceptive users are women aged >35 years.

Women's occupations influence decision-making in the use of contraception. Most users of injectable contraceptives are women of childbearing age who do not work (housewives). According to Herowati & Sugiharto (2019), 67% of injection contraceptive users are women of childbearing age who do not work. Women who work tend to choose long-term contraception because it is related to their busy life. In addition, the income of families with mothers who do not work only comes from their husbands, so mothers consider 3-month contraception to be more economically affordable (Chandra et al., 2015).

Education can determine a person's decision in the use of contraception. Education is closely related to knowledge. The level of education has an impact on the ability to understand contraceptive methods (Priyanti & Syalfina, 2017). 37,5% mother's education is Junior High School. Mothers with low education tend to have a high fear of long-term contraception due to their lack of knowledge. So, mothers prefer 3-month contraception because it is considered more efficient than pill contraception and condom.

The number of children is the most influential factor in the use of contraception. Families who have achieved or exceeded the desired number of children have a high tendency to use contraception. The use of

injectable contraceptives is higher in women of childbearing age who have the ideal number of children (Herowati & Sugiharto, 2019). In this study, there were no injectable contraceptive users in women who had children >5. This is because the number of children has exceeded the desired number of children, so women tend to use long-term contraception.

The duration of the use of injectable contraceptives is closely related to the side effects of using contraceptives. The results showed that only 8.3% of women did not experience menstrual disorders. The use of injectable contraceptives for a long time is more likely to affect changes in progesterone due to an addition. The addition of progesterone causes a hormonal imbalance resulting in menstrual disorders (Harahap & Amelia, 2020).

Injectable contraceptives cause spotting due to an imbalance of hormones in the body (estrogen and progesterone hormones) which causes dilation of small veins in the endometrium. The dilation of the small veins in the endometrium makes the veins fragile, resulting in local bleeding that causes the discharge of blood spots (Baziad, 2008).

Amenorrhea is the most common side effect found in the use of 3-month injectable contraceptives (Sawabir, 2019). Menstrual cycle disorders amenorrhea can occur because the main mechanism action of contraception is to inhibit ovulation. None of the women became pregnant while following the Depo Medroxyprogesterone acetate (DMPA) schedule (J et al., 2020). Follicle Stimulating Hormone (FSH) and Luteinizing hormone (LH) levels decreased and there was no LH surge. With DMPA, the endometrium becomes shallow and atrophic with inactive glands. With long-term use the endometrium may become less and less so that almost no tissue is obtained when a biopsy is performed, but these changes will return to normal within 90 days after the DMPA injection ends (Sulistiyawati, 2013).

## CONCLUSIONS

Menstrual cycle disorders occur in almost all users of 3-month injectable contraceptives. Disorders that occur in the form of spotting and amenorrhea. Amenorrhea is the most common menstrual disorder among users of 3-month injection contraceptives. It is hoped that health workers can provide education to women about the side effects of using 3-month injectable contraceptives correctly.

## REFERENCES

- Affandi, B. G. (2012). *Buku Panduan Praktis Pelayanan Kontrasepsi*. PT Bina Pustaka

- Sarwono Prawiroharjo.  
Baziad, A. (2008). *Kontrasepsi Hormonal*. Bina Pustaka Sarwono Prawirohardjo.
- BPS. (2020). *Angka Pemakaian Kontrasepsi (CPR) Semua Cara pada Pasangan Usia Subur 15-49 Tahun yang Pernah Kawin (40% Bawah), Menurut Provinsi Persen*. Badan Pusat Statistik. [https://www.bps.go.id/indikator/indikator/view\\_data/0000/data/1550/sdgs\\_1/1](https://www.bps.go.id/indikator/indikator/view_data/0000/data/1550/sdgs_1/1)
- Chandra, A., Manan, H., & Tjekyan, R. S. (2015). Karakteristik Demografi Akseptor Kontrasepsi Suntik Depot Medroxyprogesterone Acetate di Puskesmas Merdeka Palembang Periode Januari-Desember 2012. *Majalah Kedokteran Sriwijaya*, 47(2). <https://doi.org/10.36706/mks.v47i2.2746>
- Handayani, S. (2010). *Buku Ajar Pelayanan Keluarga Berencana*. Pustaka Rihama.
- Harahap, L. J., & Amelia, L. (2020). Hubungan Lama Pemakaian dengan Efek Samping Kontrasepsi Suntik 3 Bulan pada Akseptor KB. *Indonesian Journal of Health Development*, 2(2), 124–128. <https://ijhd.upnvj.ac.id/index.php/ijhd/article/view/41>
- Herowati, D., & Sugiharto, M. (2019). Hubungan Antara Kemampuan Reproduksi, Kepemilikan Anak, Tempat Tinggal, Pendidikan Dan Status Bekerja Pada Wanita Sudah Menikah dengan Pemakaian Kontrasepsi Hormonal Di Indonesia Tahun 2017. *Buletin Penelitian Sistem Kesehatan*, 22(2), 91–98. <https://doi.org/https://doi.org/10.22435/hsr.v22i2.1553>
- Sims, Jaleen., Lutz, Elizabeth., Wallace, Kedra., Yimer, Wondwosen., Ngwudike, Chiamaka., Shwayder, James. (2020). Depo-medroxyprogesterone acetate, weight gain and amenorrhea among obese adolescent and adult women. *The European Journal of Contraception & Reproductive Health Care : The Official Journal of the European Society of Contraception*, 25(1), 54–59. <https://doi.org/10.1080/13625187.2019.1709963>
- Jacobus, R. M., Maramis, F. R. R., & Mandagi, C. K. F. (2018). Faktor-Faktor yang Berhubungan dengan Penggunaan Kontrasepsi Suntik pada Akseptor KB di Desa Humbia Kecamatan Tagulandang Selatan Kabupaten Sitaro. *E-Journal Universitas Sam Ratulangi*, 7(3). <https://doi.org/https://ejournal.unsrat.ac.id/index.php/kesmas/article/view/22935>
- Kemendes RI. (2020). *Profil Kesehatan Indonesia Tahun 2019*.
- Priyanti, S., & Syalfina, A. D. (2017). Alat Kontrasepsi dan Aktivitas Seksual sebagai Faktor yang Berpengaruh terhadap Kejadian Keputihan. *Jurnal Berkala Epidemiologi*, 5(3), 371–382. <https://doi.org/10.20473/jbe.V5i32017.371-382>
- Sawabir, R. (2019). Perubahan Siklus Menstruasi Akibat Penggunaan Alat Kontrasepsi Suntik Triwulan Di Wilayah Kerja Puskesmas Totoli. *Celebes Health Journal*, 1(1), 1–10. <https://journal.ildikti9.id/CPHJ/article/view/ch2119>
- Sulistiyawati, A. (2013). *Pelayanan Keluarga Berencana*. Salemba Medika.
- Titin, E. N., & Windi, S. R. (2015). Gambaran Lama Penggunaan Kb Suntik Progestin Dengan Kejadian Amenorrhoea Sekunder Di Dusun Karanglo. *Midwifery*, 7–9. <http://ojs.umsida.ac.id/index.php/midwifery/article/view/344/295>