

The Differences of Women's Sexual Drive Condition between Triclofem and Cyclofem Users

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ABSTRACT

Background: Various factors contribute to changes in the condition of a woman's sexual drive, one of which is the use of hormonal contraception. The majority of women of childbearing age use the injectable hormonal contraceptive method to prevent pregnancy. The injection method of contraception consists of two types, namely triclofem and cyclofem. However, until now it is not known with certainty the difference in sexual drive between triclofem and cyclofem contraception users. This study aimed to compare the value of total sexual drive in users of triclofem and cyclofem contraception.

Subjects and Method: A cross-sectional study was conducted in October 2022 at PMB Maria, Tambaksari District, Surabaya, East Java, Indonesia. A total of 152 subjects were selected in this study. The dependent variable is sexual drive. The independent variable is the use of triclofem and cyclofem contraception. Data were analyzed using the Mann-Whitney test.

Results: Mean of sexual drive among Cyclofem users aged ≥ 35 years (Mean= 53.49) was higher than Triclofem users (Mean= 38.43), $p= 0.001$. Mean of sexual drive among worked Cyclofem users (Mean= 31.15) was higher than Triclofem users (Mean= 22.94), $p= 0.020$. Mean of sexual drive among Cyclofem users over 2 years (Mean= 65.18) was higher than Triclofem users (Mean= 50.94), $p= 0.004$.

Conclusion: There was a significant difference between the condition of sexual drive in contraception users of triclofem and cyclofem only in users with characteristics of age ≥ 35 years, working, and having used contraception for >2 years. Also, users of triclofem contraception show lower sexual drive than users of cyclofem contraception.

Keywords: sexual drive, contraceptive users, triclofem, and cyclofem.

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BACKGROUND

Sexual drive or libido is a state of arousal that raises the desire for satisfaction of sexual activity which is considered important for survival. Sexual drive is cyclical or depends

on the release of hormones, especially the hormones estrogen and progesterone (Prawirohardjo, 2011). Any change in sexual drive may indicate a sexual disorder. Based on data in Singapore, 56% of women exper-

rience sexual disorders (Safdar et al., 2019). Changes in sexual drive can affect the household and psychological well-being of partners.

The following are several factors that can contribute to changes in sexual drive such as biological conditions including the woman's age, women with diabetes, hypertension, cancer, and neurological disorders. Meanwhile, the type of delivery did not affect the condition of a woman's sexual drive, this was because there was no difference in the total sexual function scores in primiparous women after having normal births with those having deliveries by cesarean section (Kurniawati et al., 2021). Other factors, namely from a psychosocial perspective, include the factor of self-acceptance or self-acceptance which is related to the condition of women's sexual drive (Afiyah et al., 2021). In addition, stress levels, anxiety, fatigue, and other mental disorders can also cause a decrease in sexual drive. The next factor is women who use several types of drugs, one of which is hormonal contraception. Research by Gumay et al. (2019) explained that there was a relationship between the use of hormonal contraception and sexual dysfunction in female nurses at the Emergency Room of Sayang Cianjur Hospital.

Contraception is an effort to prevent pregnancy or to provide distance between pregnancies which can be permanent or temporary. The rate of population growth is determined by birth and death rates, the city of Surabaya is one of the areas with the largest population in East Java. Based on the statistical results for 2017, 29,679 acceptors chose to use the injection contraceptive method, this number was the highest compared to other contraceptive methods (BPS Surabaya, 2017). Tambaksari District is an area in Surabaya that has a high CBR (Crude Birth Rate) or crude birth rate (Sulistyaningsih, 2015).

There are two types of injectable contraceptives, namely triclofem and cyclofem. Triclofem contraception is given once every three months and contains the hormone progesterone (depo medroxyprogesteron acetate/ depo MPA). Meanwhile, cyclofem contraception is given once a month and contains a combined estrogen-progesterone hormone (estradiol cypionate with medroxyprogesterone acetate/MPA). The addition of hormones from outside the body can cause hormonal imbalances that can affect the condition of a woman's sexual drive.

Based on the results of a study in Iran, it was explained that there were significant differences regarding sexual desire in MPA depot and combination contraceptive users, in which MPA depot users had higher sexual desire (Ozgoli et al., 2015). This is not in line with research by Lubis in Medan, which explained that there were significant differences regarding sexual function in women using depo MPA contraception and those using combined contraception, in which combined contraception users showed that they had better sexual function (Lubis, 2018). Based on a preliminary study at PMB Maria, Tambaksari District, Surabaya City, from 7 MPA depot injection acceptors and combinations, it was found that the condition of sexual drive was that 3 people were in the bad category, 2 people were in the moderate category, and 2 people were in the good category.

Based on the description above, it is found that there is no definite difference in sexual drive among users of triclofem and cyclofem contraception. Meanwhile, the majority of women use this type of contraception, and there are side effects related to sexual function that can affect household welfare. This is the basis for conducting research on differences in conditions of sexual drive in users of triclofem and cyclofem contraception.

SUBJECTS AND METHOD

1. Study Design

The research design is an observational analytic with a cross-sectional approach. The research location is at PMB Maria, Tambak-sari District, Surabaya City. This research was conducted in October 2022.

2. Population and Sample

The population in this study were women who used triclofem and cyclofem contraception. The sample size in this study was 152 samples taken by the sampling technique, namely non-probability sampling with convenience sampling.

3. Study Variables

The dependent variable is sexual drive. The independent variable is the use of triclofem and cyclofem contraception.

4. Operational Definition of Variables

Sexual drive is a state of arousal that gives rise to the desire for satisfaction of sexual activity. The measuring instrument uses a modified Female Sexual Function Index (FSFI) questionnaire with an ordinal data scale. Code 1 for bad sexual drive (score <23), code 2 for moderate sexual drive (23 ≤ score ≤ 29), and code 3 for good sexual drive (score ≥ 30).

Injectable hormonal contraception is one of the tools used to prevent pregnancy or provide space between pregnancies which consists of injections of triclofem and cyclofem. The measuring tool uses questions about the type of contraception used by the subject.

5. Study Instruments

The instrument used in this study was a questionnaire or questionnaire that was distributed offline. The questionnaire that has been made includes the independent variables of triclofem and cyclofem contraception, while the dependent variable is regarding sexual drive. Questions in the questionnaire

included 1 question regarding the frequency of sexual intercourse in one month, and 19 other questions describing the condition of a woman's sexual drive.

6. Data analysis

The research data will be analyzed univariate and bivariately using SPSS for windows. The bivariate analysis used was the Mann-Whitney test. The conclusion results are based on the results of a comparison of the significance value (p) obtained with the desired significance level (α) ($\alpha = 0.05$).

7. Research Ethics

Research ethics namely with informed consent, anonymity, confidentiality. The research ethics approval letter was obtained from the Health Research Ethics Committee of the Faculty of Medicine, Airlangga University, Surabaya, Indonesia, No. 181/EC/-KEPK/FKUA/2022, on 3 October 2022.

RESULTS

1. Sample Characteristics

The research subjects in this study were 152 women using injectable hormonal contraception. The characteristic frequency distribution in this study is described in Tables 1 and 2. Table 1 shows that the majority of triclofem contraceptive users are aged ≥ 35 years, namely 42 (55.3%) subjects, 52 (68.4%) subjects unemployed, and have used contraception > 2 years, namely as many as 58 (76.3%) subjects.

Table 2 shows that the majority of cyclofem contraception users are ≥ 35 years old, namely 49 (64.5%) subjects, do not work, namely 46 (60.5%) subjects, and have used contraception > 2 years, namely 57 (75%) subjects.

2. Univariate Analysis

Table 3 shows that the condition of sexual drive among users of triclofem contraception is mostly in the moderate category, namely 44 (57.9%) subjects. The condition of sexual drive in cyclofem contraceptive users

is also mostly in the moderate category, namely 59 (77.6%) subjects.

Tabel 1. Study Subject Characteristics of Triclofem Contraceptive Users

Characteristics	Category	Frequency (n)	Percentage (%)
Age	<35 years	34	44.7
	≥35 years	42	55.3
Wife's occupation	Not working	52	68.4
	Working	24	31.6
Length of use	≤2 years	18	23.7
	>2 years	58	76.3

Tabel 2. Study Subject Characteristics of Cyclofem Contraceptive Users

Characteristics	Category	Frequency (n)	Percentage (%)
Age	<35 years	27	35.5
	≥35 years	49	64.5
Wife's occupation	Not working	46	60.5
	Working	30	39.5
Length of use	≤2 years	19	25.0
	>2 years	57	75.0

Tabel 3. Univariate Analysis

Variable	Category	Frequency (n)	Percentage (%)
Sexual Drive of Triclofem Contraceptive Users	Bad	23	30.3
	Currently	44	57.9
	Well	9	11.8
Sexual Drive of Cyclofem Contraceptive Users	Bad	6	7.9
	Currently	59	77.6
	Well	11	14.5

3. Bivariate Analysis

Bivariate analysis was carried out to see differences in sexual drive for triclofem and cyclofem users, which can be seen in Table 4. Table 4 shows that there was only a significant difference between the mean sexual drive for triclofem users and the mean sexual drive for cyclofem users aged ≥ 35 years old. The mean sexual drive for users of triclofem contraception (Mean= 38.43) is smaller than the mean sexual drive for users of cyclofem contraception (Mean= 52.49), and the result is statistically significant (p= 0.001). A significant difference between the mean sexual drive in users of triclofem contraception and the mean sexual drive in users of cyclofem contraception was found in working subjects. The mean

sexual drive for users of triclofem contraception (Mean= 22.94) is smaller than the mean sexual drive for users of cyclofem contraception (Mean= 31.15), and the result is statistically significant (p= 0.020). A significant difference between the mean sexual drive in users of triclofem contraception and the mean sexual drive in users of cyclofem contraception was found in subjects who had used contraception for >2 years. The mean sexual drive for users of triclofem contraception (Mean= 50.94) is smaller than the mean sexual drive for users of cyclofem contraception (Mean= 65.18), and the result is statistically significant (p= 0.004). Whereas in subjects who were <35 years old, did not work, and had used contraception for ≤2 years, there

was no significant difference between the mean sexual drive for users of triclofem

contraception and the mean sexual drive for users of cyclofem contraception.

Table 4. Bivariate Analysis

Characteristics	Mean Sexual Drive of Triclofem Contraceptive Users	Mean Sexual Drive of Cyclofem Contraceptive Users	p
Age			
<35 years	29.56	32.81	0.415
≥35 years	38.43	52.49	0.001
Occupation			
Not Working	45.62	53.89	0.082
Working	22.94	31.15	0.020
Length of use			
≤2 years	17.94	20.00	0.578
>2 years	50.94	65.18	0.004

DISCUSSION

Statistical test results stated that there was a significant difference in sexual drive in users of triclofem and cyclofem contraception, namely users who were ≥35 years old, working, and had used contraception for >2 years with triclofem contraception users having a lower score compared to cyclofem contraception users. In addition to the influence of the use of hormonal contraception, it is known that a person's sexual drive is also influenced by biological factors, namely age. The use of antiestrogenic drugs such as triclofem causes a state of premature menopause in women. Perimenopause is the period before menopause which usually occurs 2-10 years earlier, while menopause itself usually occurs when women enter the age of 45-55 years. So that from the age of ≥35 years, a woman can be said to be entering the perimenopause period.

The majority of Triclofem contraception users aged > 35 years experience perimenopausal syndrome, namely physical fatigue (87%), sexual problems (84.4%), and vaginal dryness or vaginal dryness (47.8%) (Anisa, 2015). Research by Ayu Lestari also explains that the decline in sexual drive is most experienced by women aged ≥35 years (Lestari et al., 2020). Increasing age causes

a decrease in estrogen levels in the body, which has an adverse impact on the vagina, namely vaginal dryness so that it becomes painful during sexual intercourse (Baziad, 2018). This is what causes a significant difference in the condition of sexual drive in users of contraception triclofem and cyclofem who are aged ≥35 years. Meanwhile, for users aged <35 years, there was no significant difference in the condition of sexual drive. Although in this study it was also found that several women aged <35 years had poor sexual conditions

Psychosocial factors also contribute to the condition of a woman's sexual drive, such as a wife's job. Emotional problems and stress can also cause a decrease in female sexual function (Lehmiller, 2018). Based on research in Kerala it was found that working women have higher levels of stress compared to women who do not work or are housewives (Harilal, 2017). Another study in India explains that working women have higher levels of anxiety compared to women who don't work (Moral and Singh, 2016).

Working women are also prone to fatigue and according to Mun et al. (2018) fatigue is a factor causing a decrease in a person's sexual drive. In addition, Ayu

Lestari explained that there is a relationship between work fatigue and decreased sexual drive (Lestari et al., 2020). Research by Pal (2017) also explains that women who work experience more mental fatigue problems than those who don't work. This is the reason why there are only differences in the condition of sexual drive in contraception users of Triclofem and Cyclofem in working women, whereas there is no difference in women who are not working. In this study, the majority of working women worked as entrepreneurs in factories from Monday to Saturday with working hours of 8-10 hours per day. So they admit that they don't have much time because most of the time in a day is spent working outside the home, so when they return home they only use it to rest

Decreased sexual drive is also influenced by the length of use of hormonal contraception in women. Contraceptive use for a long time causes changes in hormonal levels in the body, especially sex hormones. Reduced estradiol levels in triclofem users cause mood changes and reduced sexual desire. Low levels of estrogen affect the brain and central nervous system, namely decreased levels of dopamine. Dopamine plays a role in increasing sexual arousal, if the levels are reduced it can cause reduced sexual arousal. In addition, the use of triclofem also causes a buildup of progesterone levels in the body which will trigger the release of serotonin which causes a decrease in sexual desire.

Based on research in West Papua concerning the Relationship of Old DMPA Injection Use with Decreased Libido, it was stated that the majority of decreased sexual drive or libido occurred in acceptors who had used contraception for more than 2 years (Perdana and Sulistiyaningsih, 2022). The use of triclofem contraception for >2 years is associated with the incidence of sexual dysfunction and the use of triclofem is also associated with low levels of estradiol

in the body (<20 pg/ml) (Andryani et al., 2021). Meanwhile, cyclofem users experienced an increase in estradiol on days 2-4 after injection with a maximum level of 250 pg/ml and a minimum level of 50 pg/ml (Maddie Deutsch, 2020). Basically, cyclofem contraception also contains the hormone progesterone, namely medroxyprogesterone acetate which can cause a decrease in estradiol levels, but the dose is not as much as in a single dose (triclofem), which is only 25 mg, whereas in triclofem, progesterone is given in doses of 150 mg so that the body's estradiol levels can be controlled. decreased to <20 pg/ml.

Statistical test results only found significant differences in the condition of sexual drive between triclofem and cyclofem users in users who had used contraception for >2 years, while those who had used ≤2 years had no difference. This is allegedly due to the use of contraception in the long term causes fluctuations in sex hormone levels in the body. In this study, the majority of women had used contraception in the span of 2-4 years and many had used >5 years.

Based on the results of this study it is hoped that health workers including midwives can explain the side effects of using triclofem and cyclofem contraception on sexual function, although these side effects do not occur frequently and are supported by other factors but need to be explained to every contraceptive user. So that prospective contraceptive users can choose the most appropriate contraceptive method, know the side effects in terms of sexual function, and know how to overcome them.

AUTHOR CONTRIBUTION

In this research, Budi Santoso and Sekar Arum collaborated to create a conceptual framework and research methodology. Sekar Arum collects data. Budi Santoso, Sekar Arum, and Jimmy Yanuar Annas

collaborated to analyze the data.

FUNDING AND SPONSORSHIP

The study was self-funded.

CONFLICT OF INTERESTS

There is no conflict of interest in this study.

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