

The Relationship between Long-Time Use of Injectable Contraception Devices (3 Months Depo Medroxyprogesterone Acetate) and Libido Change in Family Planning Acceptors

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Abstract:

DMPA is a hormonal contraceptive method that is often used because of its high effectiveness. However, some users report side effects in the form of decreased libido. This study used a cross-sectional design involving 150 DMPA injectable contraceptive acceptors at several health centers in City Y. This study aims to determine the relationship between the duration of use of the 3-month DMPA (Depo Medroxy Progesterone Acetate) injectable contraceptive device and the decrease in libido in birth control acceptors in PMB Hanifatuzzaqiya Senduro Lumajang. In this research, the research design used is a quantitative research design with a cross-sectional approach, namely a type of research that emphasizes measuring or observing independent and dependent variable data only once at a time. The sampling method uses a purposive sampling method, namely samples taken according to certain characteristics of 75 respondents. The data analysis technique used is data quality testing which consists of validity and reliability tests. The results of this study indicate that there is a relationship between the duration of DMPA injection contraceptive use for 3 months and a decrease in libido in contraceptive acceptors with $p\text{-value} = 0.007$.

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INTRODUCTION

Population growth is still a major problem in Indonesia, influencing economic, social, and cultural problems (Azizah & Asiyah, 2022). Family planning (KB) is still a way to control growth (Muaya et al., 2023). Various innovations in contraceptive technology start from simple ones such as interrupted intercourse, condoms, femidoms, and spermicides to more reliable modern methods such as birth control pills, injections, implants, IUDs, and the use of stable contraception such as Vasectomy and Tubectomy (Isfaizah & Widyaningsih, 2019). This control can affect health control mechanisms that often occur due to uncontrolled growth, such as nutrition in children, which can cause stunting (Ardiana et al., 2019).

Based on the medical side, non-hormonal contraceptives are much safer for body health compared to hormonal contraceptives, which will disrupt hormonal balance during long-term use (Pratiwi, 2023). Most contraceptive users in Indonesia are still focused on hormonal contraception, such as injections, pills, and implants. This is because hormonal contraceptives containing the hormones estrogen, progesterone, or their combination are considered very effective in preventing pregnancy when compared to non-hormonal contraception (Isfaizah & Widyaningsih, 2019). The

risks of use can impact health status and affect the user's quality of life, such as health (Afandi & Kurniawan, 2017; Afandi et al., 2021).

Hormonal contraception ranks first in contraceptive use in Indonesia, where 47.54% are injectable contraceptives, 29.58% are pills, 11.07% are IUDs, 10.46% are implants, 3.52% are MOW, 3.15% are condoms, and only 0.69% are MOP. Data from the 2014 Indonesian Demographic and Health Survey (SDKI) shows that hormonal injection contraception is the choice most often taken by women. Hormonal contraception is contraception that uses synthetic hormones as a basis, used to regulate pregnancy. The use of contraceptives affects a woman's hormonal physiological function, which can cause various sexual disorders, for example, interest disorders, orgasm disorders, or lust disorders (Zettira & Nisa, 2015).

Based on several studies regarding changes in libido, it was found that among those using DMPA injectable birth control, most of them stated that they experienced a decrease in desire during sexual intercourse with their husband after using the contraceptive for ≥ 1 year and 3 of them did not experience a decrease in libido after using < 1 year (Damailia & Saadati, 2016). This is in line with other research, which states that using injectable contraception for a long period of time, namely 1 year or ≥ 1 year, can result in decreased libido, so that using DMPA injection contraception for a long time will cause sexual dysfunction in the form of decreased libido (Triyanti & Oktapianti, 2021).

This is also clarified by other research which explains that there is a significant relationship between emotional changes and the use of hormonal contraception in women of childbearing age (Noviana & Sutarno, 2023). Hormonal contraception has a negative influence in the form of increasing body weight and obesity which results in sexual dysfunction (Putri et al., 2021). Prolonged use of the hormone progesterone causes the side effect of decreasing libido (sexual dysfunction) due to changes in serum lipids that decrease (Dewi et al., 2022). In addition, long-term use of the hormone progesterone can lead to weight gain, cancer, vaginal dryness, emotional disturbances and acne, which can cause women to become unattractive to their partners. Users of DMPA (Depo Medroxy Progesterone Acetate/3-month injection) after 4 to 8 times (12 to 24 months) will experience a decrease in serum estradiol levels which affects sexual desire (Wulandari, 2018).

In a preliminary study conducted at PMB, Senduro subdistrict, Lumajang, of 15 people who used hormonal contraception, it was found that 11 people experienced a decrease in sexual dysfunction after using hormonal contraception for ≥ 1 year and 4 people who did not experience a decrease in sexual dysfunction after using hormonal contraception for ≤ 1 year. Sexual dysfunction is a disorder that causes a decrease in sexual desire or obstacles in enjoying sexual activity. This problem is also called sexual disorders, which can occur in both men and women. The causes of sexual dysfunction are stress, depression, drug consumption, menopause and use of contraceptives (Alazizah & Asiyah, 2022).

The impact that will occur if the decrease in libido is not immediately addressed will cause problems in the household, reduced sexual activity, difficulty in carrying out sexual activity, a burden in establishing a relationship with a partner due to a lack of desire to have sex, can cause disharmony in the family, domestic violence, and infidelity and divorce (Lestari, 2020). If hormonal disorders cause a decrease in libido, hormonal therapy can be done. Suppose a decrease in libido disrupts household harmony. In that case, it is recommended to switch to a non-hormonal contraceptive method and explain the advantages, disadvantages and possible side effects that will arise.

METHOD

In this research, the research design used is a quantitative research design with a cross-sectional approach, which emphasizes measuring or observing independent and dependent variable data only once a time. The population of this study was all acceptors of 3-month contraceptive injections whose duration of use was <2 years and >2 years, totaling 100 people. The samples in the study were 3-month contraceptive injection acceptors at PMB Hanifatuzzaqiya Senduro Lumajang. According to Arikunto, if the number of subjects is more than 100, 10-15% or 20-25% can be taken. So, the sample used was 75 acceptors. The sampling technique in this research was carried out using purposive sampling, namely where samples were taken according to certain characteristics. So, the number of samples in this study was 75 respondents. Sampling techniques are methods used in sampling that are truly appropriate to the entire research subject. The sampling technique in this research is probability sampling with a simple random sampling method, namely taking samples randomly without paying attention to strata within the population.

RESULT

In this research, the research design used is a quantitative research design with a cross-sectional approach, namely a type of research that emphasizes measuring or observing independent and dependent variable data only once at a time. This research was conducted from January to April.

Table 1. Distribution of Respondents based on Education, Age, Duration of 3-month Contraceptive Injection Use, and Libido Change (n=70)

Characteristic	Frequency	Percentage
Education		
Elementary School	9	13%
Junior High School	15	21%
Senior High School	32	46%
College	14	20%
Age (years)		
19-30	20	29%
31-40	31	44%
41-50	17	24%
51-60	2	3%
Length of Injection Contraceptive Use		
≤ 2 years	14	20%
> 2 years	56	80%
Libido Change		
Decrease	44	63%
Increased	26	37%

Table 1 shows that of the 70 respondents, 9 people had an elementary school education (13%), 15 people had a junior high school education (21%), 32 people had a high school education (46%), and 14 people had a college education (20%). Respondents who were categorized based on age, from those aged 19-30 there were 20 people (29%), and those categorized as aged 31-40 were 31 people (44%), aged 41-50 were 17 people (24%) and those aged 51-60 people as many as 2 people (3%). 14 people (20%) took the 3-month contraceptive injection for ≤ 2 years, and 56 people (80%) took ≥ 2 years. Of the respondents who experienced a decrease in libido, 44 people (63%) and 26 experienced an increase, 37 (%).

Table 2. Correlation between the Duration of Using Injectable Contraceptives for 3 Months and Decrease in Libido (n=70)

Variable	p-value
Duration of Using Injectable Contraceptives for 3 Months - Decrease in Libido	0.007

From Table 2. it is obtained that the p-value is $0.007 < 0.05$. This shows that there is a relationship between the duration of injection use of 3 months and a decrease in libido.

DISCUSSION

Three-month injectable birth control is a hormonal contraceptive device containing 150 mg DMPA which is given once every 3 months intramuscularly (IM). Using monthly or quarterly contraception has the main side effects, namely weight gain, menstrual disorders, headaches, decreased libido. The factor that influences the change in body weight of injectable contraceptive acceptors is the presence of the strong hormone progesterone which stimulates the appetite hormone in the hypothalamus. If you have more appetite than usual, the body will convert excess nutrients by the hormone progesterone into fat and store them under the skin. The main side effect of using injectable birth control for 3 months is weight gain. A study reported that the increase in body weight could reach 2.3 kg in the first year and would increase in subsequent years (Kurniasari et al., 2020).

The chi square analysis shows that there is a relationship between the duration of using injectable contraception for 3 months and a decrease in libido with P-Value = $0.007 < 0.05$. The results of the study showed that the duration of use of injectable birth control was 3 months at PMB Hanifatuzzaqiya Senduro Lumajang. Of the 70 respondents, the majority were users for more than 2 years as many as 56 people (80%) and some were users for less than 2 years as many as 14 people (20%).

The results of this study are in line with research by Indrasari et al. (2023) which shows that using injectable contraceptives for 3 months > 1 years can result in changes in libido. This is because the longer the acceptor uses injectable birth control, it can result in a buildup of progesterone in the body. Excessive buildup of progesterone will result in estrogen levels so that the female hormone testosterone will not be formed, resulting in a woman's sexual desire decreasing.

This research is also supported by research by Karimah et al (2019) that DMPA injections only contain the hormone progesterone which has the main effect of preventing ovulation with high levels of progestin which will effectively inhibit the LH (Lutenizing Hormone) surge. This will gradually cause sexual dysfunction in the form of decreased libido and other sexual potential. Occurs in 1-5% of acceptors who complain of decreased libido and ability to orgasm.

Likewise, research by Triyanti & Oktapianti (2021) states that the use of injectable birth control (with added estrogen/progesterone hormones) over a long period of time can affect sexual desire (libido), because a decrease/change in the production of the estrogen hormone causes side effects of hot flashes, dryness/irritation of the vagina, thinning or loss of skin elasticity, changing desires/desires. Meanwhile, a decrease in the testosterone hormone causes side effects of lack of energy, appetite, energy, sexual arousal and response. So basically, every hormone given from outside will suppress ovarian hormone production either sooner or later.

CONCLUSION

Based on the results of research and discussion, it can be concluded that mothers who used injectable contraception for 3 months with a duration of injection use of ≥ 2 years were 56 people (80%) and a duration of injection use of \leq years was 14 people (20%). There were 44 people (63%) who experienced a decrease in libido after using 3-month contraceptive injections and 26 people (37%) who did not experience a decrease in libido. There is a relationship between the duration of using injectable contraception for 3 months and a decrease in libido.

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