

## LONG RELATIONSHIP WITH THE USE OF IUD CONTRACEPTIVE DEVICES PATOLOGICAL LEVORY IN IUD KB ACCEPTERS

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ABSTRAK HUBUNGAN JANGKA PANJANG PENGGUNAAN ALAT KONTRASEPSI IUD DENGAN TINGKAT PATOLOGI PADA PENGGUNA KB IUD

Latar Belakang: Salah satu alat kontrasepsi yang ideal adalah IUD. Alat kontrasepsi IUD merupakan alat kontrasepsi yang mempunyai reversibilitas dan efektivitas yang tinggi yaitu 0,6 – 0,8/100 akseptor KB IUD pada tahun pertama pemakaian yang paling banyak diminati oleh akseptor KB. Efek samping pemasangan IUD adalah keputihan. Keputihan adalah keluarnya cairan selain darah dari saluran vagina yang tidak biasa. Keputihan akibat KB IUD merupakan kondisi yang umum terjadi selama keputihan tidak berbau dan tidak gatal. Namun, jika keputihan tidak segera ditangani, maka akan timbul akibat yang lebih serius, seperti keputihan yang bersifat patologis. Tujuan penelitian ini adalah untuk mengetahui hubungan penggunaan KB IUD jangka panjang dengan keputihan patologis pada akseptor IUD di wilayah kerja UPTD Puskesmas Kebun Tebu Kabupaten Lampung Barat Tahun 2023.

Metode penelitian : Jenis penelitian ini adalah kuantitatif dengan desain penelitian menggunakan cross sectional. Populasi dalam penelitian ini adalah seluruh akseptor KB IUD yang berjumlah 102 orang dengan menggunakan teknik pengambilan sampel yaitu total sampling. Analisis data univariat dan bivariat menggunakan uji chi square.

Hasil Penelitian: Didapatkan 11 responden (10,8%) dengan durasi penggunaan IUD  $\leq$  2 bulan mengalami keputihan patologis dan sebanyak 47 responden (46,1%) dengan durasi penggunaan IUD  $>$  2 bulan mengalami keputihan patologis. Hasil uji statistik diperoleh nilai P-value = 0,027 yang berarti terdapat hubungan jangka panjang antara penggunaan kontrasepsi IUD dengan keputihan patologis.

Saran: Diharapkan akseptor KB IUD dapat meluangkan waktu untuk melakukan kontrol ulang pasca pemasangan KB IUD dan menjaga kebersihan diri serta tidak menganggap enteng keputihan sebagai efek samping penggunaan alat kontrasepsi.

Kata Kunci : Alat Kontrasepsi IUD, Keputihan

### ABSTRACT

Background: One of the ideal contraceptives is the IUD. IUD contraceptives are contraceptives that have high reversibility and effectiveness, namely 0.6 – 0.8/100 IUD KB acceptors in the first year of use which are most in demand by family planning acceptors. The side effects of IUD installation are vaginal discharge. Leucorrhoea is discharge other than blood from the vaginal canal out of the ordinary. Leucorrhoea from IUD contraception is a common condition as long as vaginal discharge does not smell and does not itch. However, if leucorrhoea is not treated immediately, there will be more serious consequences, such as pathological vaginal discharge. The purpose of this study was to determine the relationship between prolonged use of IUD contraception and pathological vaginal discharge in IUD acceptors in the working area of the Kebun Tebu Health Center UPTD, West Lampung Regency in 2023.

Research methods: This type of research is quantitative with research design using cross sectional. The population in this study were all IUD family planning acceptors, totaling 102 people using a sampling technique, namely total sampling. Univariate and bivariate data analysis using uji chi square.

Research result: It was found that 11 respondents (10.8%) with an IUD usage duration of  $\leq$  2 months experienced pathological vaginal discharge and as many as 47 respondents (46.1%) with an IUD usage duration of  $>$  2 months experienced pathological vaginal discharge. Statistical test results obtained values P-value = 0.027, which means that there is a long-standing relationship between the use of IUD contraception and pathological vaginal discharge.

Suggestion : It is hoped that IUD KB acceptors can take the time to re-control after IUD KB installation and maintain personal hygiene and not take vaginal discharge lightly as a side effect of using contraceptives.

Keywords: IUD Contraceptives, Leucorrhoea

## INTRODUCTION

Family Planning (KB) or *Family Planning/Planned Parenthood* is an attempt to space or plan the number and spacing of pregnancies by using contraception so as to create a small, happy and prosperous family. (Maritalia, 2017). One of the ideal contraception is the IUD. The IUD is a contraceptive that has high reversibility and effectiveness, namely 0.6 – 0.8/100 IUD acceptors (Saifuddin, 2014). In the working area of the Kebun Tebu Health Center UPTD, based on the results of the 2022 KIA KB report, data obtained on the use of contraceptives from 3,199 PUS for injecting contraceptives, namely 67.4%, KB Implants 11.9%, KB Pills 10.3%, KB Condoms 5%, KB IUD 3.2%, and MOW 2.3%. (Kebun Tebu Health Center UPTD, 2022).

The side effects of IUD installation are bleeding, expulsion, pain, translocation, infection, vaginal discharge (Suratun 2013). Leucorrhoea is discharge other than blood from the vaginal canal out of the ordinary. Leucorrhoea from IUD contraception is a common condition, as long as vaginal discharge does not smell, does not itch and does not smell. However, if leucorrhoea is not treated immediately, there will be more serious consequences, such as pathological vaginal discharge. the number of WUS in the working area of the Kebun Tebu Health Center UPTD was 4,356 people. There were 88 WUS who came with complaints of vaginal discharge at the UPT Kebun Tebu Health Center from January to December 2022. One of the causes of vaginal discharge is due to the use of contraceptives (foreign bodies). The genital organs contain the body's defense mechanisms in the form of bacteria which become the acidity level of the vaginal pH. Normally the acidity rate in the vagina ranges from 3.8-4.2, most of 95% is a type of Lactobacillus bacteria and the rest is pathogenic bacteria. Based on the background above, the authors are interested in conducting research on "The Old Relationship of IUD Contraceptive Use with Pathological Leucorrhoea in IUD Acceptors in the Working Area of the Kebun Tebu Health Center UPTD, West Lampung Regency in 2023"

## RESEARCH METHODS

This study uses research *quantitative*. This

research was conducted in May - June 2023. The design in this study used *analyst* which means researchers explore how and why health phenomena occur, by using an approach *cross sectional* namely collecting risk factors/cause (independent variable) and effect/effect (dependent variable) simultaneously (Notoatmodjo, 2018). The sampling technique in this study used a total sampling technique, which means that all 102 IUD acceptor users from the population were used as the research sample.

## RESEARCH RESULTS

### Characteristics of Respondents

Based on table 1 it is known that of the 102 respondents based on the highest number of ages, 77 people (20-35 years) were not at risk (75.5%) while at risk age (> 35 years) were 25 people (24.5%). Respondents with higher education were 50 people (50%) and respondents with basic education were 50 people (50%). Respondents with IRT jobs were 34 people (33.3%) and 68 people working outside the home (66.6%). Respondents who changed their underwear at the cleanliness level once were 54 people (53%) and respondents who changed their underwear twice were 48 people (47%).

### Univariate analysis

Tabel 2

Frequency Distribution of Length of Use of IUD Contraceptive Devices in the Working Areas of the Kebun Tebu Health Center UPTD West Lampung in 2023

Long Using IUD	Frequency	Percentage
≤ 2 Months	29	28,4
> 2 Months	73	71,6

Based on table 2 above, the results obtained from 102 respondents, 29 respondents (28.4%) used IUDs for ≤ 2 months, and 73 respondents (71.6%) used IUDs > 2 months.

Tabel 3

Frequency Distribution of Pathological Leucorrhoea in IUD Acceptors in the Working

**Areas of the Kebun Tebu Health Center UPTD  
West Lampung Regency in 2023**

Whiteness	Frequency	Percentage
Physiological	44	43,1
Pathological	58	56,9

Based on table 4.3 above, the results obtained from 102 respondents, with physiological vaginal discharge were 44 respondents (43.1%), and those with pathological vaginal discharge were 58 respondents (56.9%).

**Bivariate Analysis**

Based on table 4, it was found that 29 respondents (28.4%) had IUD duration  $\leq$  2 months, with 18 respondents (17.6%) physiological vaginal discharge, and 11 respondents (10.8%) pathological vaginal discharge. There were 73 respondents (71.6%) with IUD family planning duration  $>$  2 months, with 26 respondents (25.5%) physiological vaginal discharge, and 47 respondents (46.1%) pathological vaginal discharge.

**Tabel 4**

**Old Relationship between IUD Contraceptive Use and Pathological Leucorrhoea in IUD Acceptors in the Working Areas of the Kebun Tebu Health Center UPTD West Lampung Regency in 2023**

Lama KB IUD	Whiteness				TOTAL		OR	P Value
	Physiologi		Pathologi		N	%		
	N	%	N	%				
$\leq$ 2 Month	18	17,6	11	10,8	29	28,4	0,027	2,958 (1,215-7,203)
$>$ 2 Month	26	25,5	47	46,1	73	71,6		

The results of the study obtained a p-value of 0.027 ( $<$ 0.05), which means that there is a relationship between the duration of IUD use and pathological vaginal discharge in IUD acceptors in the Working Area of the Kebun Tebu Health Center UPTD, West Lampung Regency in 2023, with an Odds Ratio of 2.958 respondents using birth control IUD  $>$  2 months will be 2 times at risk of months by 29 people (28.4%), and the time of use of the KB IUD  $>$  2 months by 73 people (71.6%).

In line with related research conducted by Mayang, D.S. (2011). Correlation between the duration of IUD contraceptive use and the incidence of pathological leukorrhoea in IUD acceptors at the Klego II Health Center, Klego District, Boyolali Regency. That the majority of IUD users who use birth control for  $>$  2 months experience pathological vaginal discharge.

In line with the theory put forward by BKKBN (2005; Priyanti., Syalfina, 2017). That the IUD is a tool to prevent pregnancy that is effective, safe, and reversible made of small plastic or metal that is inserted into the uterus through the cervical canal. The IUD is a contraceptive device that is inserted into the uterus made of polyethylene material equipped with nylon thread so that it is easily removed from the uterus. Side effects of using an IUD include spotting, changes in the menstrual cycle, amenorrhoea, dysmenorrhoea, menorrhagia, experiencing pathological vaginal discharge, compared to respondents who use KB IUD  $\leq$  2 months.

**DISCUSSION**

**Univariate analysis**

Frequency Distribution of Duration of Use of IUD Contraceptive Devices in the UPTD Work Area of the of the Kebun Tebu Health Center UPTD, West Lampung Regency in 2023

Research results from 102 respondents, regarding the length of use of the KB IUD  $\leq$  2fluor albus, and post-sexual bleeding (Putri & Oktaria, 2016). The duration of IUD use based on its type is 5-10 years. If the use of the IUD exceeds its period, it can have an adverse impact on the health of the family planning acceptor. The duration of using IUD contraception is for Cu T 200 (3 years working), Cu T 220 (3 years working), Cu T 300 (3 years working), Cu T 380 A (8 years working), Cu-7, Nova T (5 years workability), ML-Cu 375 (3 years workability) (Handayani, 2014). The risk of side effects in IUD contraceptive users increases with the duration of IUD contraceptive use. In the use of 5 years or more the risk of infection increases 5 times, if you add more than one sexual partner or often change partners (Hartanto, 2014).

According to researchers, the longer the use of IUD birth control can cause various kinds of side effects. Such as the effectiveness of IUD birth control which is decreasing, and other things that can happen are bleeding, pain / pain and cramps in the lower abdomen. Using IUD birth control for too long can cause vaginal discharge. However, the factor in the occurrence of vaginal discharge in IUD KB is not only due to the length of time IUD KB is used but can also be caused by personal hygiene factors for each

individual and other factors.

Frequency Distribution of Pathological Leucorrhoea in IUD Acceptors in the UPTD Work Area of the Kebun Tebu Health Center UPTD, West Lampung Regency in 2023

The results of the study from 102 respondents, regarding vaginal discharge with physiological vaginal discharge were 44 respondents (43.1%), and those with pathological vaginal discharge were 58 respondents (56.9%).

This is in line with related research conducted by Dinar Mayang Sari, 2011. The relationship between duration of IUD contraceptive use and the incidence of pathological leukorrhea in IUD acceptors at the Klego II Health Center, Klego District, Boyolali Regency. That the majority of IUD user respondents experienced pathological vaginal discharge as much as 55%.

In line with the theory put forward by Pinem (2014). Leucorrhoea is a symptom of discharge from the vagina other than menstrual blood. In pathological leucorrhoea, the discharge contains many leukocytes. Symptoms that appear in pathological vaginal discharge include changing the liquid from clear to yellowish to greenish, excessive in amount, thick, unpleasant odor, feeling itchy or hot and causing sores in the vaginal opening area. The genital organs contain the body's defense mechanisms in the form of bacteria which become the acidity level of the vaginal pH. Symptoms that appear in pathological vaginal discharge include changing the liquid from clear to yellowish to greenish, excessive in amount, thick, unpleasant odor, feeling itchy or hot and causing sores in the vaginal opening area. The genital organs contain the body's defense mechanisms in the form of bacteria which become the acidity level of the vaginal pH. Normally the acidity rate in the vagina ranges from 3.8-4.2, most of 95% is a type of Lactobacillus bacteria and the rest is pathogenic bacteria. Leucorrhoea will appear when the acidic conditions drop, the Lactobacillus bacteria break down glycogen into lactic acid, causing an acidic environment in the vagina causing *Candida albicans* to thrive in the vaginal area. (Syahlani, et al, 2017). According to researchers, vaginal discharge can also be caused by mechanical stimulation by contraceptive devices (foreign bodies) causing excess fluid. The use of an IUD will trigger the frequency of bacterial vaginosis, which is an abnormal condition in the vaginal ecosystem caused by an increase in the growth of anaerobic bacterial vaginal flora replacing Lactobacillus which has high concentrations as the normal vaginal flora

which can make the vagina a suitable place for yeast to develop properly resulting in vaginal discharge.

### **Bivariate Analysis**

Old Relationship between IUD Contraceptive Use and Pathological Leucorrhoea in IUD Acceptors in the Work Area of the Kebun Tebu Health Center UPTD, West Lampung Regency in 2023

The results of a study of 102 respondents regarding the relationship between the length of IUD use and pathological vaginal discharge in IUD acceptors obtained a p-value of 0.027 (<0.05), which means there is a relationship between the length of IUD use and pathological vaginal discharge in IUD acceptors in the Work Area. Of the Kebun Tebu Health Center UPTD West Lampung Regency in 2023, with an Odds Ratio of 2,958 respondents who use KB IUDs > 2 months will be 2 times at risk of experiencing pathological vaginal discharge, compared to respondents who use KB IUDs ≤ 2 months.

This is in line with related research conducted by Dinar Mayang Sari, 2011. The relationship between duration of IUD contraceptive use and the incidence of pathological leukorrhea in IUD acceptors at the Klego II Health Center, Klego District, Boyolali Regency. The results showed that 10 respondents experienced pathological vaginal discharge with a duration of IUD use ≤ 2 months and 34 respondents > 2 months. After being analyzed, the results obtained were significance = 0.001 so that it was stated that there was a relationship between the duration of IUD contraceptive use and the incidence of pathological leukorrhea in IUD acceptors at the Klego II Health Center, Klego District, Boyolali Regency.

In line with the theory put forward by Wijayanti (2019), the symptoms that arise due to vaginal discharge vary according to the causative factors. The fluid that comes out can be very large, so you have to change your underwear many times, even use pads, but it can also be very little. Some sufferers complain of itching, this is influenced by humid conditions because of the large amount of fluid that comes out around the thighs, so that the skin in that section is prone to blisters.

According to Suratun (2008) one of the side effects of installing an IUD is leucorrhoea, where there is excessive white discharge, occurring due to increased production of fluid in the uterus, it is not dangerous if the discharge does not smell, does not feel itchy and is not hot.

According to (Handayani Sri, 2010). The use of an IUD is one of the factors for the occurrence of vaginal discharge. Factors that cause physiological

vaginal discharge besides the use of IUD birth control, namely menstrual cycles, pill contraceptive methods, sexual desire, pregnancy and stress as well as factors that cause pathological vaginal discharge other than the use of IUD family planning, namely infections (viruses, fungi and bacteria), consumption of antibiotics, use of pants in tight. Effect of IUD use on excessive use of vaginal cleansers.

According to the researchers, the relationship between IUD birth control and Pathological Leucorrhoea is that the presence of an IUD can cause a reaction to foreign bodies and trigger the growth of candida fungi which were originally saprophytic to become pathogenic resulting in vaginal candidiasis with symptoms of excessive vaginal discharge. Leucorrhoea can appear due to infection. This infection occurs if the cause (bacteria or microorganisms) enters through a medical procedure, such as an IUD insertion that does not follow proper aseptic procedures and an infection in the lower reproductive tract that is pushed up to the cervix or up to the canal. In this study, 29 respondents (28.4%) had IUD birth control duration  $\leq 2$  months, with 18 respondents (17.6%) physiological vaginal discharge and 11 respondents (10.8%) pathological vaginal discharge. Meanwhile, 73 respondents (71.6%) used the IUD for  $> 2$  months, with 26 respondents (25.5%) physiological vaginal discharge and 47 respondents (46.1%) pathological pathological vaginal discharge.

Based on the results of the study, 11 respondents with an IUD usage duration of  $\leq 2$  experienced pathological vaginal discharge due to several factors. The age of 11 respondents is at risk which can indeed affect the occurrence of vaginal discharge during reproductive age for women, namely between the ages of 18-35 years, this is often associated with the period of a woman who is climbing a busy career. 11 respondents who fall into the category of low education, tend to have less knowledge, including in maintaining personal hygiene. The work of the 11 respondents with working status outside the home is also a trigger factor for pathological vaginal discharge. This could be due to the hectic working hours, which made the respondents a bit lazy in maintaining cleanliness, namely changing their underwear when they felt damp/wet. Meanwhile, the results of the study obtained 26 respondents with an IUD usage duration of  $> 2$  months who did not experience pathological vaginal discharge. In terms of age, these 26 respondents are at risk, which can indeed affect the occurrence of pathological vaginal discharge. However, even though they work as housewives or outside the home, they have a good level of

education so they are able to absorb knowledge and information about preventing pathological vaginal discharge. Respondents who always maintain vaginal hygiene and prevent leucorrhoea, such as changing their underwear regularly when they feel it is wet/damp. In addition, respondents who made repeat visits after IUD KB installation were able to control complaints and side effects that would arise from IUD KB installation so as to avoid pathological vaginal discharge.

## CONCLUSION

It is known that 29 (28.4%) respondents have been using the KB IUD  $\leq 2$  months and 73 (71.6%) respondents have been using the KB IUD  $> 2$  months. And as many as 44 (43.1%) respondents experienced physiological whiteness and as many as 58 (56.9%) respondents experienced pathological whiteness.

There is a longstanding relationship between the use of IUD contraceptives and pathological vaginal discharge in the working area of the Kebun Tebu Health Center UPTD, West Lampung, with a value  $P\text{-value} = 0,027$ .

## SUGGESTION

It is hoped that IUD KB acceptors can take the time to re-control after IUD KB installation and maintain personal hygiene and not take vaginal discharge lightly as a side effect of using contraceptives.

## REFERENCES

- Affandi, B. (2011). *Practical Handbook for Contraceptive Services 3*. Jakarta: PT Bina Pustaka Sarwono Prawirohardjo.
- Bernadus, J. D., Madianung, A., & Masi, G. (2013). Factors related to the selection of an intrauterine contraceptive device (IUD) for family planning acceptors at the Jailolo Health Center. *E-NERS*, 1(1).
- Lampung Provincial Health Office. (2020). *IUD Coverage Data*.
- Hartanto, H. (2010). *Family Planning and Contraception*. Jakarta: Sinar Harapan Library.
- Republic of Indonesia Ministry of Health. (2020). *IUD Coverage Data in Indonesia*.
- Kusmiran, E. (2013). *Adolescent and Women's Reproductive Health*. New York: Salemba Medika.
- Mayangsari, D. (2011). The relationship between duration of IUD use and pathological leukorrhea shows the result of a relationship between IUD use and pathological leukorrhea

- in IUD acceptors at Klego II Health Center, Klego District, Boyolali Regency.
- Murtiyarini, I. (2015). Relationship between Knowledge and Attitudes of Family Planning Acceptors and IUD Selection at the Sungai Bahar IV Community Health Center in Sungai Bahar District in 2014. *Journal of Public Health Materials (Bahana of Journal Public Health)*, 13(3), 134–140.
- Notoatmodjo. (2018). *Health Research Methodology*. Jakarta: Rineka Cipta.
- Prawirohardjo Sarwono (2016). *Obstetrics Book 4th Edition*. Jakarta: PT. Library Development Sarwono Prawirohardjo
- Priyanti, S., & Syalfina, A. D. (2017). *Textbook of Reproductive Health and Family Planning*. STIKes Majapahit Publisher E-Book.
- Putri, R. P., & Oktaria, D. (2016). Effectiveness of Intra Uterine Devices (IUD) as Contraceptives. *Jurnal Majority*, 5(4), 138–141.
- Ratna, R., Kasim, J., & Termature, A. S. (2020). Relationship of Old IUD Contraceptive Use to IUD Side Effects on IUD Acceptors at the Sudiang Health Center, Makassar City. *Mutiara Mahakam Midwifery Journal*, 8(2), 84–93.
- Rusmini, et al. (2017). *Evidence-Based Family Planning and Reproductive Health Services*. Jakarta : Trans Info Medika.
- Saragih, H. R. (2020). The Relationship between Knowledge and Attitudes of Mothers of Reproductive Age Couples with the Use of Intrauterine Contraception Devices (IUD) in the Work Area of the Pancur Batu Health Center, Deli Serdang Regency, 2017.
- Saroha Pinem. (2016). *Reproductive Health and Contraception*. Jakarta : Trans Info Media.
- Sibagariang, D. (2016). *Women's Reproductive Health*. Jakarta: Trans Info Media.
- Sugiyono, Dr. (2018). *Quantitative Research Methods, Qualitative, and R&D*. Bandung : Alfabet.
- Sulistyawati, Ari. (2011). *Family Planning Services*. Jakarta: Salemba Medika.
- World Health Organization. (2021). *Data on IUD Family Planning Coverage in the World*.