

LITERATURE REVIEW : RELATIONSHIP OF MENORRRGHAGIA AND ANEMIA IN IUD KB ACCEPTERS

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LITERATURE REVIEW : RELATIONSHIP OF MENORRHAGIA AND ANEMIA IN IUD KB ACCEPTERS

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ABSTRACT

The IUD has several side effects, one of which is menorrhagia. Menorrhagia is menstrual bleeding that is heavy and longer than normal, ie > 7 days and changing pads 5-6 times per day at 60-80cc of blood issued. The number of erythrocytes that come out during menstruation can cause anemia. The purpose of this study was to determine the relationship between menorrhagia and anemia in IUD family planning acceptors. This article uses a literature review study method from scientific journals with the keywords IUD, menorrhagia, anemia as a guide. There were 5 scientific journals selected from research journals related to the research topic, namely the relationship between menorrhagia and anemia in IUD family planning acceptors. From the results of the literature review that has been presented, all articles explain the results of the study of the relationship between menorrhagia and anemia in IUD family planning acceptors. The insertion of an Intra Uterine Device (IUD) can cause an increase in the concentration of plasminogen activators (enzymes that break down proteins and activate the dissolution of blood clots) in the endometrium, and these enzymes cause increased fibrinolytic activity and inhibit blood clotting, resulting in more bleeding and bleeding. cause anemia. Based on the results of the literature review, it can be concluded that there is a relationship between menorrhagia and anemia in IUD family planning acceptors

Keywords: IUD, Menorrhagia, Anemia

INTRODUCTION

Based on data from (6) World Health Organization (WHO) in 2017 among 1.9 billion women of childbearing age (15-49 years), 1.1 billion of them have a need to use contraception, but currently, 842 million use modern contraceptive methods and 80 million use traditional methods. While another 190 million women choose not to use contraception. For long-term contraception, one of the recommended is an Intrauterine Contraceptive Device (IUD).

In Indonesia, statistical data shows that 7.75 out of 100 women used contraception in the form of an IUD. According to this data, there is still low data on IUD users in Indonesia, one of the causes is the side effects caused by IUD (WHO, 2021). The side effects caused are bleeding during menstruation, uterine wall perforation, vaginal discharge, and expulsion (2).

Based on data from SDKI (2018), users of modern KB tools/methods have decreased from SDKI 2012 by 60% to 57%. The number of KB users in Indonesia for the 2018-2020 period was in 2018 from the total number of modern KB participants, only 17.8% of them use KB MKJP, while the other 82.2% are non-MKJP KB users. In 2019 saw an increase for MKJP KB users of 22.5% and for non-MKJP users of 77.5%. In 2020, MKJP KB users fell by another 20.2%, while non-MKJP users fell by 79.8%. We can see from the data above that MKJP family planning users in 2020 decreased by 2.3% from 2019. The pattern for choosing the type of contraceptives in 2020 showed that most acceptors chose to use the injectable method by 72.9%, followed by pills at 19.4%. In terms of effectiveness, both types of devices are short-term contraceptive methods so that the level of effectiveness in pregnancy control is lower than other types of contraceptives. This pattern occurs every year, where more participants prefer short-term contraceptive methods to long-term contraceptive methods (IUD, implant, MOW, and MOP) (4).

The pill, implants, intrauterine devices (IUD), and stable birth control are some of the birth control methods in use. Menorrhagia is one of the effects of using an IUD for contraception later in life (increased menstrual bleeding). The non-hormonal IUD has an average of 50-100% more

menstrual blood than before insertion, and the hormone-bearing IUD has an increase of 20-50%, and this bleeding can also last a long time. The cause of more menstrual bleeding (menorrhagia) is during installation. Installation of the IUD leads to an increase in the concentration of plasminogen activators (enzymes that break down proteins and activate thrombolysis) in the lining of the uterus. This enzyme causes an increase in fibrinolytic activity and inhibits blood clotting, causing more blood to come out. The use of IUD CuT 380 A can cause more bleeding so that it can cause iron deficiency anemia (5).

The use of an IUD can have several negative effects, including discharge, uterine perforation, and issues with menstrual bleeding. It's important to consider the negative effects, as well as the advantages and disadvantages of using an IUD. Menorrhagia, or unusual bleeding during menstruation, is one of the side effects of the IUD. Menorrhagia brought on by hormonal imbalance, ovarian dysfunction, uterine fibroids, polyps, adenomyosis, use of an IUD, pregnancy complications, congenital bleeding issues, and medication for various disease (6).

Anemia can be brought on by the number of red blood cells lost during bleeding, or it can worsen the condition of people who already have it. Anemia is a condition in which hemoglobin levels in the blood fall below normal level that can be determined by laboratory means, and the number of red blood cells or the scattered amount of hemoglobin cannot perform its function as an oxygen provider, body tissues. Anemia in women if hemoglobin (Hb) levels < 12 or 13 mg / dL (7).

METHODS

The method used in writing this article is Literature Review. Pubmed and Google Scholar are used as search sources. Search for this article using the keyword "IUD, menorrhagia, and anemia" were the search terms for this article." The number of articles used is 5 from 2017-2022.

RESULTS

Table 1 Summary of reviewed articles

Title	Country	Researchers	Journal	Research methods	Data analysis	Research results
Hemoglobin Level In IUD KB Acceptor	Indonesia	Widyana, Yudianti and Widarin, (2018)	Maternal And Neonatal Health Journal	The design of this study was correlation analytics with a cross-sectional approach. The population was 49. The total sample was 33 respondents. Sampling using stratified random sampling.	Data collection used observation sheets and hemoglobin level examination using Easy Touch GCHb digital sticks through home visits. Data analysis of this study used Spearman Rank Correlation.	Based on statistical tests with $\alpha = 0.05$, a calculated r value of -0.531 with a value of p value of 0.023 ($p < 0.05$) was obtained, which means that H_0 was rejected meaning that there was a relationship between the duration of use of Intrauterine Contraceptives (IUD) to Hemoglobin Levels.
Relationship of Menorrhagia with Hemoglobin Levels In Acceptor of IUD KB in Wangun Harja Village in 2019	Indonesia	Medika and Suherman, (2019)	Jurnal kebidanan	The research method used is a quantitative analytical method using a cross-sectional research design. Total sampling is the method used in this sampling.	Chi-Square Test	Based on the bivariate analysis of the Chi-square Test, the results were obtained that the variables associated with menorrhagia and hemoglobin levels in the kb IUD acceptor (P.value 0.036 and $R 0.174$).
The Relationship of Long Use of Intrauterine Devices with Hemoglobin Levels in Acceptors IUD Family Planning in the Bangko Health Center Work Area in 2020	Indonesia	Revinovita, (2020)	Jurnal Kebidanan dan Keperawatan	Analytical quantitative research using a cross-sectional approach, the population in this study was 117 people with sampling techniques used accidental sampling	Chi-Square Test	The results of the statistical test using the Chi-Square test obtained X^2 count > X^2 tables, namely $7,397 > 3,841$. Thus, it can be concluded that there is a long relationship between the use of IUD and Hb levels in the acceptor of kb IUD in the working area of Puskesmas Bangko in 2020.
The Relationship between Menstruation Length and Hb Levels in KB-IUD Acceptors of Tanjung Uma Village, Lubuk Baja District.	Indonesia	Novianti, F., & Sari, (2018)	Zona Keperawatan	Observational analytics design with a cross-sectional approach	Uji Chi-Square. Chi-Square Test	The results of the bivariate analysis with the chi-square test obtained a p-value = 0.003 (< 0.05), meaning that H_0 was rejected, then there was a relationship between the length of menstruation and the HB level in the acceptor's KB-IUD.

Percentage of Menorrhagia That Cause Iron Deficiency Anemia in Non-Hormonal Intrauterine Users	Pakistan	Jaffery <i>et al.</i> , PJMHS (2021)	Descriptive case series	Chi-Square Test	In this study, the average age \pm elementary school was 31.85 ± 5.05 years. The frequency of menorrhagia was positive only in 41 (19.52%) patients. Similarly, anemia was present in 57 (27.15%) patients.
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DISCUSSION

From the results of the literature review that has been presented, all articles explain the results of the study on the relationship between menorrhagia and anemia in acceptors of birth control IUD. Menorrhagia is a lot of menstrual bleeding and longer than normal, which is > 7 days and change pads 5-6 times per day and 60-80 cc of blood removed (13). All articles explained the results of research on the relationship of menorrhagia with anemia in acceptors of birth control IUD. So that it can be used as a basis for reviewing research journals. Four of the five journals used for the review were analytical, and one was descriptive.

The results of the study average acceptor of kb IUD experienced menorrhagia and anemia. There are several side effects of using IUD such as bleeding problems during menstruation, perforation of the uterine wall, and expulsion. For the use of the IUD, it is necessary to consider the side effects and the advantages and disadvantages. One of the side effects of the IUD is the occurrence of menorrhagia, which is an abnormal bleeding during menstruation. The causes of menorrhagia are hormonal imbalances, ovarian dysfunction, uterine fibroids, polyps, adenomyosis, use of IUDs, pregnancy complications, congenital bleeding disorders, drugs and other medical conditions (6).

Intra Uterine Device (IUD) insertion can cause an increased concentration of plasminogen activators (enzymes that break down proteins and activate dissolution of blood clots) in the endometrium, and these enzymes cause increased fibrinolytic activity as well as block blood clotting, as a result of which more bleeding arises. Blood loss often doubles with the use of the CuT 380 A Intra Uterine Device (IUD), and may be so high that it causes iron deficiency anemia (5).

The large number of erythrocytes that come out during menstruation can cause anemia, or worsen the condition of patients who have been diagnosed with anemia. Anemia is a condition where blood hemoglobin levels decrease below normal values that can be determined laboratory, and where the state of the erythrocyte mass or scattered hemoglobin mass cannot fulfill its

function as an oxygen provider for body tissues. Women are said to be anemic if hemoglobin (Hb) levels <12 or 13 μ g/dL (7).

CONCLUSION AND SUGGESTIONS

Based on the results of the literature review from five articles, it can be concluded that there is a relationship between menorrhagia and anemia in IUD KB acceptor.

Suggestions that can be given for the implementation of the next literature review are that more databases should be used so that they can get more complete and better articles, and the year limit for searching articles with the specified keywords is the last five years so that the literature is more updated.

AUTHORS' CONTRIBUTIONS

Concept & Research Question	Nuke Devi Indrawati
Conducting Research	Nuke Devi Indrawati, Nurul Islamiati, Maria Ulfah Kurnia Dewi, Dian Nintyasari Mustika, Dewi Puspitaningrum, Sherkia Ichtiarsi Prakasiwi, Ariyani Lutfitasari, Siti Nurjanah
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