

THE EFFECT OF GIVING RED GINGER OIL ON PAIN AFTER IUD INSTALLATION AT MIDWIFERY INDEPENDENT PRACTICE IN TUREN MALANG REGENCY

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ABSTRACT

IUD installation pain is caused by a foreign body that enters the uterus, so to help the adaptation process, it is necessary to have treatment both pharmacologically and non-pharmacologically. The more frequent the pain that arises, the more recommended non-pharmacological treatment because it has a low risk. In post-IUD pain, there is complementary care in the form of essential oils. Essential oils often used are olive oil, peppermint oil, lavender oil, coconut oil, clove oil, and the latest red ginger oil. Complementary care can be done by giving Red Ginger Oil as a natural analgesic. The purpose of this study is to examine the impact of administering red ginger oil on post-IUD discomfort in a midwifery practice in Turen, Malang Regency. Experimental quantitative research using a one-group pre- and post-test design is what this study employs. The 18 people that filled out the survey were chosen using a quota system. The findings of the research were obtained three days after the controlled intervention, after the administration of Red Ginger Oil. Supplemental care, which posed less of a threat, was easily comprehended by patients. This research found that red ginger oil greatly alleviates uterine discomfort when administered topically.

Keywords: IUD, Red Ginger Oil, Pain

INTRODUCTION

The percentage of the use of injectable contraceptives 35.5%, pills 30.5%, implants 7.3%, and other contraceptives amounted to 11.7%. Currently, it is estimated that 30% of IUD use is in China, 13% in Europe, 5% in the United States, and 6.7% in other developing countries (Nurmalita Sari, 2020).

Couples of reproductive age (PUS) numbered 38,690,214 in Indonesia in 2019, according to the Population and Family Planning Agency (BKKBN). Among those who actively sought to limit their

fertility, 63.7% used injectable contraceptives, 17.0% used pills, 7.4% used implants, 2.7% used MOW, 0.5% used MOP, 7.4% used IUDs, and 1.2% used condoms. Among the East Java KB participants, 62.5% used injections, 18.3% used tablets, 7.2% used IUDs, 6.0% used implants, 3.6% used MOWs, 1.0% used condoms, and 0.7% used MOPs. With 204 users in 2019, 384 in 2020, and 519 in 2021, researchers in Malang Regency zeroed down on family planning participants, with an emphasis on intrauterine device (IUD) users in

Turen, the study's site. Meanwhile, IUD enthusiasts at the Independent Midwife Practice Yulia Tri Jayanti, S.Tr In 2022, there were 59 IUD users, but there was a high increase to 183 users in 2023. It is reported that as many as 40% of IUD users experience mild to moderate pain during the first 3 days after installation.

The difference between this study and previous research is the form of complementary care substance of red ginger. In previous studies, red ginger is processed as complementary non-pharmacological care type of herbal medicine drinking (oral).

Results also demonstrated that older persons with osteoarthritis had less pain after receiving a combined massage with red ginger oil, which is consistent with other studies. The intervention group also significantly reduced knee discomfort and stiffness ($p = 0.02$, $p = 0.03$), according to another research. There was no discernible decrease in the control and placebo groups.

It is recommended that adolescents who suffer from primary dysmenorrhea drink red ginger juice, according to previous research that compared the treatment and control groups using a Paired T-test that yielded a p-value of 0.000. This indicates that there was a significant difference in the reduction of pain associated with primary dysmenorrhea in the two groups.

While in this study applied topical types to red ginger that has been converted into oil. We hope that this study's findings may shed light on how complimentary attitudes, particularly in the health sector, affect pain complaints among IUD users.

The purpose of this study is to examine the impact of administering red ginger oil on post-IUD discomfort

in a midwifery practice in Turen, Malang Regency.

LITERATURE REVIEW

1. Women of Childbearing Age

Women of Childbearing Age are still in reproductive age (since getting their first menstruation and until the cessation of menstruation) with the age range of 15-49 y.o (Ministry of Health RI, 2016).

This happens at a rate that is both quicker and proportional to age in reproductive-aged women compared to males. Fertility peaks between the ages of 20 and 29. Between the ages of 20 and 29, a woman's fecundity peaks. There is a 95% probability of pregnancy for women at that age. There is a 95% probability of pregnancy for women at this age. Getting pregnant was 40% less likely between the ages of 30 and 40. The likelihood of a woman becoming pregnant drops to 10% after the age of 40.

Getting pregnant within a year is 85% more likely for women under 30 than for those over 30; beyond 30 years old, the odds drop to 75%. As one reaches the age of 35, this probability drops to 66%. The percentage increases to 44% at age 40. The ovaries and eggs lose their fertility as we get older, which causes this. A miscarriage is more common in older women than to younger ones. A miscarriage occurs in 27% of pregnancies at the age of 40, compared to 16% in the age group of 30 and younger. With the help of a computer simulation (Habbemma *et al.*)

2. Intrauterine Device (IUD)

IUD (Intrauterine Device) is a small object made of flexible plastic, has copper windings, or also contains hormones and is inserted into the uterus through the vagina and has a thread (BKKBN, 2014).

IUDs mainly prevent pregnancy by reducing the likelihood of fertilization by sperm. The impact of copper on the gadget is this. Because of this, sperm and eggs are unable to pass through the uterine lining and the cervical mucus. Because of this, it is impossible for sperm to get past the cervix and into the uterus. The lining of the uterus is also less likely to accept an egg as a result. Abortion, which happens when a fertilized egg implants in the uterine wall and the pregnancy terminates, is not caused by intrauterine devices. These days, intrauterine devices are quite effective.

3. Theory of Pain

The definition of pain is still relatively relative; underlying the difficulty in understanding and explaining pain experiences is the limitation of language. On the one hand, people with pain do not have the direct language to express the experience to others or to explain it to themselves, so they must use similes and metaphors, usually creatively. On the other hand, doctors tend to use the same language. The biomedical language implies "a predictable and linear relationship between identifiable tissue damage and pain reports." (Quintré, 2016).

A pathogenetic cascade leading to chronic pain can be initiated by changes in the dorsal horn neurons of the spine and brain regions of the central

nervous system, which activate peripheral and central sensitization pathways through sensitization of the peripheral sector nosy (Cascella, 2017).

4. Red Ginger Concept

Ginger belongs to the division Magnoliophyta, class Monocotyledoneae, order Zingiberales, and family Zingiberaceae (USDA, 2020). Ginger is an herbaceous plant that has rhizomes and is perennial; the height of the plant above the ground can reach 90cm. Rhizomes are aromatic and pale yellow. The leaves have a lanceolate-oblong build, narrow and long, 2-3 cm wide, the leaf blades gradually taper towards the tip of the leaf, have a short midrib and petioles, and seated leaves alternately. Inflorescences solitary, peduncles of inflorescences of cylindrical shape. In Indonesia, widely cultivated ginger consists of 3 varieties: sultan or red ginger (*Z. officinale* var. *rubrum*), elephant ginger (*Z. officinale* var. *officinatum*), and empire ginger. Scientists expect that patients will find it simpler to employ red ginger treatment to alleviate pain symptoms as the oil is made by distillation or evaporation. The pharmacological benefits of red ginger oil include antioxidant, anti-inflammatory, analgesic, anticarcinogenic, and cardiotoxic properties, among others. The oil includes a number of chemicals, including gingerol, shogaol, and zingerone (Syukkur, 2023).

RESEARCH METHODS

Research Design

The researchers in this study used a one-group pretest-posttest layout approach for their quantitative research, which was

based on a pre-experimental design. This quantitative study used a one-group pretest-posttest layout approach (first test-final test) and a pre-experimental design. Researchers in this study used purposive sampling strategies, a method of choosing samples with predetermined goals in mind.

Population

The population is all elements or elements that are the object of research that want to know and want to be examined for their characteristics (Ahmad *et al.*, 2023). The population in the study is based on the results of a preliminary study by researchers At PMB Yulia Tri Jayanti, S.Keb Turen, Malang Regency; there are 33 IUD users until November 2023.

Sample

Samples are a portion of the number and characteristics of the studied population, and conclusions are drawn (Ahmad *et al.*, 2023). Based on the results of a preliminary study dated November 8, 2023, researchers at PMB Yulia Tri Jayanti, S.Keb Turen, Malang Regency. The sample used in this study was 18 IUD users.

The inclusion criteria in this study are:

1. Located at PMB Yulia Tri Jayanti, S.Keb Turen, Malang Regency
2. IUD users who are willing to become respondents
3. Women of childbearing age (WUS) aged 20 - 40 years, IUD users who feel mild, moderate to severe pain after installation.
4. A new acceptor who has only been in the last 3 months

The exclusion criteria in this study are:

1. Females of reproductive age who do not have any discomfort after their procedure.

2. Unprotected reproductive-aged women
3. Women of childbearing age who experience pain after IUD insertion for more than the last 3 months.

Research Sites

Independent Midwife Practice in Yulia Tri Jayanti, S.Keb whose address is Jalan Tendean 3 No. 42 Turen, Malang Regency, East Java.

Research Procedure

In data collection techniques, the steps that must be taken in this study include:

- a. Researchers visited the homes of respondents who, after installing the IUD, would be given intervention with the administration of red ginger oil.
- b. Researchers introduce themselves and explain to prospective respondents the purpose and purpose of this research in the research area. To become a respondent, researchers provide a consent form containing information to prospective respondents who are willing and agree.
- c. After being a respondent, researchers provided education about the Importance of Red Ginger Oil Complement and its Benefits in Reducing Pain Intensity After IUD Installation. In addition, prospective respondents to the experimental group will be explained how to give Red Ginger Oil which is given through video tutorials on mobile phones.
- d. After the data is collected, researchers will divide into 2 categories, making respondents into 1 group, pretest and posttest experimental groups.
- e. The researcher conducted the controlling stage with complementary post-care

interviews with respondents related to pain after using the IUD using a questionnaire sheet shortly after being given the intervention, which was divided into several stages, namely:

- 1) Giving Red Ginger Oil before therapy, then measuring pain intensity with a questionnaire sheet.
- 2) Giving Red Ginger Oil after therapy, then measuring pain intensity with a questionnaire sheet.

Instruments

In this study, the instrument used was the SOP for Giving Red Ginger Oil and a questionnaire with 16 questions, using the Guttman scale with an interval measuring scale, selected category 2 = Yes, 1 = No. Where the Min value is 32 - 0 and the Max value is 32 - 16, Which is the higher.

The total score is the more severe the pain after the installation of the IUD, which is proven by the formula: the number of questions x the highest score, and to get the ordinal score, the results are divided by the highest score,

$$\begin{aligned} &= 16 \times 2 = 32 \\ &= 32 : 2 = 16 \end{aligned}$$

Data Processing Techniques and Data Analysis

Data processing technique using step-by-step editing, coding, scoring, tabulating, entering, and cleaning. Data analysis using Wilcoxon Match Pairs Test with SPSS V. 25. Ethical approval by Institut Teknologi Kesehatan STRADA with No: 001239/EC/KEPK/I/04/2024.

Research Results

This research was conducted at PMB Yulia Tri Jayanti, S.Keb Turen Malang Regency, on Jl. Tendean 3 No. 42, Turen Malang Regency. This self-service Midwife operates 24 hours a

day. In this study, studies, interviews, observations, and administration of red ginger oil were carried out at PMB with the number of research subjects, namely 18 respondents. The number of respondents was taken from the population in this study of 33 respondents.

Meanwhile, samples based on inclusion criteria, namely 18 respondents, were obtained from general maternal data and questionnaire sheets. The processing of the questionnaire sheet given is the description presented. Interpretation of the interpretation of respondents' answers based on Questionnaire results from respondents' answers based on questionnaire results. With mothers who are willing to be respondents, the category is determined in Women of Childbearing aged 20-40 years who feel mild, moderate, to severe pain after the installation of the IUD in the last 3 months.

Data collected before data collection has been analyzed and tabulated first, after analysis, and before. The next step in applying coding is to calculate the value of the respondent's answer sheet to see whether it meets the criteria or not. The identity of maternal respondents was determined based on specified criteria based on questionnaire responses, so the results of 18 respondents who experienced post-installation pain during the last 3 months were obtained. Results of data analysis using computerized SPSS version 25.

After Results

After the data analysis, the study found relevant results on how red ginger oil helped reduce pain after IUD use.

First, the statistical analysis showed that the pain scores of subjects who received red ginger oil

were lower than those of the control group. The difference in pain scores between these two groups was statistically significant ($p < 0.05$), and the group that received red ginger oil showed lower pain intensity post-IUD insertion.

In addition, additional analysis showed that the group that received red ginger oil also reported increased mobility after the IUD procedure. Compared to the control group, subjects in the treatment group reported being able to perform daily activities without experiencing significant pain.

During the study, subjects using red ginger oil reported no

significant side effects. This suggests that red ginger oil is a safe and well-tolerated option for patients after IUD insertion.

The results showed that red ginger oil can reduce post-IUD pain and improve patient mobility. The clinical conclusion of these findings is that red ginger oil may be a beneficial adjunct in treating post-IUD pain and improve the quality of life of patients undergoing the procedure. In this study, the characteristics of respondents based on maternal age in PMB Yulia Tri Jayanti, S.Keb Turen, Malang Regency. The following is an explanation of these categories.

Table 1. Age Frequency Distribution of Respondents in PMB Yulia Tri Jayanti, S.Keb Turen Malang Regency

No.	Age	Control Group	
		Frequency (F)	Percentage (%)
1.	<20	3	16
2.	21-25	6	33
3.	26-30	8	44
4.	31-35	1	5
5.	36-40	0	0
Jumlah		18	100

Age	Freq	%
< 20	3	16
21 - 25	6	33
26 - 30	8	44
31 - 35	1	5
36 - 40	0	0.00
Total	18	100

(Source: Research Primary Data, 2023)

Based on Table 1 above, it can be seen that from 18 respondents, almost all of them were aged 26-30

years, 8 people (40.0%), and none of them aged 36-40 years, which was 0 people (0%).

Table 2. Frequency Distribution of IUD patient activity in PMB Yulia Tri Jayanti, S.Keb Turen Malang Regency

PMB Activity	Freq
New installation	33
IUD Control	12
Last 3 Months Data	45

(Source: Research Primary Data, 2023)

Based on Table 2 above, it can be seen that from 18 respondents, most were aged 26-30 years, as many as 8 people (44%), and almost half were aged 21-25 years, as many as 6 people (33%).

CONCLUSION

This section will answer the research problem: Is There an Effect of Giving Red Ginger Oil on Pain After IUD Installation at PMB Yulia Tri Jayanti, S.Keb Turen, Malang Regency. It can be concluded that:

1. Giving red ginger oil affects pain after IUD installation at PMB Yulia Tri Jayanti, S.Keb Turen, Malang Regency.
2. There is a decrease in the Pain Scale After IUD Installation after Administering Red Ginger Oil.
3. Post-IUD Installation Pain can be Reduced by Administering Red Ginger Oil as a Complementary Care Media.

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