



The Effectiveness of Acupressure for 3-Month Birth Control Acceptors Who Complaint of Menometrorrhagia

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ABSTRACT

The use of hormonal contraception, such as 3-month injectable birth control, is often associated with side effects of menstrual disorders, one of which is menometrorrhagia. Untreated menometrorrhagia can affect the quality of life of birth control acceptors. This study aims to evaluate the effectiveness of acupressure therapy in 3-month contraceptive injection acceptors who experience complaints of menometrorrhagia. The research used an experimental method with a posttest-only non-equivalent control group design. The sample consisted of 23 acceptors of 3-month contraceptive injections who were divided into two intervention groups: Intervention 1 (reducing complaints from moderate to mild) and Intervention 2 (reducing complaints from mild to very mild or cured). The intervention was carried out for 7 days, focusing on the SP6, LI4, LV3, CV3 and CV4 acupressure points with a duration of 15–20 seconds per point. The results of statistical analysis showed that the average rating of menometrorrhagia complaints in the Intervention 1 group (14.23) was higher than Intervention 2 (9.10) with a significant value ($p = 0.029$). This shows that there is a significant difference between the two intervention groups, where Intervention 1 is more effective in reducing complaints of menometrorrhagia. These findings indicate that acupressure therapy is an effective method and can be applied as a non-pharmacological alternative to treat menometrorrhagia in 3-month contraceptive injection acceptors.

Keywords: Menometrorrhagia; Acupressure

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INTRODUCTION

The Family Planning (KB) Program is a strategic government initiative aimed at controlling population growth and improving the quality of life. One of the most widely used contraceptive methods in Indonesia is the 3-month birth control injection, known as Depo Medroxyprogesterone Acetate (DMPA). However, this method is often associated with side effects, one of which is menometrorrhagia, characterized by prolonged and irregular menstrual bleeding.¹

According to Anggina Putri, data from WHO (2020) indicates that approximately 45% of 3-month injectable contraceptive users experience menometrorrhagia. In Indonesia, the 2018 Basic Health Research (Riskesdas) reported that 13.7% of 3-month injectable contraceptive users experienced this condition within the first year. Menometrorrhagia can lead to anemia, fatigue, and psychological disorders, potentially reducing the quality of life and increasing contraceptive drop-out rates. The 2017 Indonesia Demographic and Health Survey (IDHS) recorded a contraceptive drop-out rate of 28.9%, with the drop-out rate in East Java increasing from 25.3% in 2018 to 30.17% in 2021. This figure is still far from the desired target, as outlined in the 2020-2024 BKKBN Strategic Plan, which aims to reduce the drop-out rate to 20% by 2024.¹

To address menometrorrhagia in users of the 3-month injectable contraceptive, the government has made efforts to find effective solutions, both through hormonal and non-hormonal therapies. Counseling approaches are commonly used, as bleeding is considered a frequent occurrence. However, if the condition worsens, patients are referred for further treatment at healthcare facilities. Complementary therapies such as acupressure, which is part of traditional Chinese medicine, have also been introduced. Acupressure involves applying pressure to specific points on the body to alleviate complaints such as menometrorrhagia.²

Preliminary research by Annisa Ridlayanti indicates that acupressure can help alleviate menstrual complaints such as pain and irregular bleeding. This is achieved by stimulating the central nervous system, which helps regulate hormones and improve blood flow to the reproductive organs. Acupressure is also effective in reducing stress and enhancing relaxation. This therapy has been found effective in reducing the incidence of menometrorrhagia in women of reproductive age. As a non-pharmacological therapy, acupressure can be considered an alternative treatment for menometrorrhagia to improve menstrual conditions.²

Although the initial results of acupressure are promising as an alternative therapy for 3-month injectable contraceptive acceptors experiencing menometrorrhagia, further research is needed to confirm its effectiveness. The aim of this study is to evaluate whether acupressure can be a safe and effective solution and to provide more holistic guidelines for healthcare practitioners in managing the side effects

of hormonal contraception. The findings of this study are expected to contribute to improving women's reproductive health and expanding non-pharmacological therapy options for managing contraceptive side effects.³

METHOD

This study employs a quasi-experimental design using the posttest-only non-equivalent control group method. In this design, the researcher compares outcomes between groups receiving the intervention, which are divided into two categories: intervention 1 (moderate to mild) and intervention 2 (mild to very mild or resolved). The study population that meets the inclusion criteria consists of all reproductive-aged women (18–45 years) who use the 3-month injectable contraceptive and experience menometrorrhagia. Exclusion criteria include acceptors with mental disorders and those who were absent during the study period. The sampling technique used is consecutive sampling. Based on calculations using Lemeshow's formula with an estimated two-proportion approach, where $p_1 = 70\%$ (injectable contraceptive acceptors who do not experience menometrorrhagia) and $p_2 = 30\%$ (acceptors who experience menometrorrhagia), the obtained sample size is 21 acceptors per group. To anticipate dropout, the sample size was increased by 10%, resulting in a total of 23 acceptors in each group.

The study will be conducted at two independent midwifery practices (PMB) within the working area of Candi Public Health Center over a period of four months. One PMB will be designated for the intervention group, while the other will serve as the control group. Data will be analyzed univariately using frequency distribution tables and cross-tabulations, and bivariately using the Mann-Whitney test. The acupressure sessions for the intervention group will be carried out according to a predetermined schedule, conducted daily for one week. The therapy will focus on specific acupressure points, including SP6, LI4, LV3, CV3, and CV4, with a massage duration of 30 clockwise presses for 15–20 seconds per point. The treatment will be administered directly by the researcher to the intervention group.

RESULTS

1. Respondent characteristics

An overview of the characteristics of the 23 intervention group respondents is presented in the form of a frequency distribution table as follows:

Table 1. Frequency distribution of respondent characteristics (n = 23)

Characteristics	Group		Intervensi	
	N	%	N	%
Age				
18-27	20	86,96	22	95,65
28-45	3	13,04	1	4,35
Total	23	100	23	100
Length of contraceptive use				
<12 bulan	17	73,91	22	95,65
>12 bulan	6	26,09	1	4,35
Total	23	100	23	100
Work				
Work	6	26,09	16	69,57
Doesn't work	17	73,91	7	30,43
Total	23	100	23	100

Based on table 1, there are significant differences between the control and intervention groups in the variables of age, duration of family planning use, and employment.

2. Univariate Analysis

a. Menometrorraghia

The following results of the findings of the incidence of menometrorraghia in 46 KB acceptors for 3 months are presented in the following table:

Table 2. Frequency table of menometrorraghia in the control group and intervention group among 3-month injectable contraceptive acceptors

Menometrorargia	Group Frekuensi (n)	Kontrol Persentase (%)	Kelompok Frekuensi (n)	Intervensi Presentase (%)
Light	6	26,09	3	13,04
currently	17	73,91	20	86,96
Heavy	0	0	0	0
Total	23	100	23	100

The table above shows the distribution of the level of menometrorraghia in 3-month injectable contraceptive acceptors, where moderate menometrorraghia is more dominant than mild menometrorraghia in both the control and intervention groups. In the control group, 17 respondents (73.91%) experienced moderate menometrorraghia, while in the intervention group, 20 respondents (86.96%) experienced the same condition

b. Acupressure Therapy for Respondents

The schedule for acupressure actions on 23 3-month injectable contraceptive acceptors is presented in the following table:

Table 3. Frequency of Acupressure Therapy for Respondents

Akupresur	Frekuensi	Presentasi
Massage for 7 days	18	78,26 %
Massage was carried out for 5 days	2	8,69 %
Perform massage < 5 days	3	13,04 %
total	23	100 %

The table above shows the frequency and percentage of acupressure therapy application based on the massage duration among respondents. The majority of respondents, 18 (78.26%), underwent massage for 7 days according to the recommended schedule. A very small number, 2 respondents (8.69%), received massage for 5 days, while 3 respondents (13.04%) underwent massage for less than 5 days. These data indicate that most respondents adhered to the 7-day massage schedule, which is considered the optimal duration for acupressure therapy application.

3. Bivariate Analysis

The following table presents the acupressure treatment for 23 acceptors of the 3-month injectable contraceptive:

Table 3. the acupressure treatment for 23 acceptors of the 3-month injectable contraceptive

Acupressure action	Frekuensi (n)	Prosentase (%)	P – value
Intervensi 1 (moderate to light)	13	56,52 %	0,029
Intervensi2 (mild to very mild/recovered)	10	43,48 %	
Total	23	100 %	

The table above shows the distribution of the effectiveness of acupressure intervention on changes in the level of menometrorrhagia among 3-month injectable contraceptive acceptors. The majority of respondents experienced an improvement from a moderate to a mild level, while some others showed further reduction to a very mild level or complete recovery. A p-value of 0.029 supports a significant relationship between the acupressure intervention and the improvement of menometrorrhagia symptoms.

DISCUSSION

Based on this study, almost all 3-month injectable contraceptive acceptors who experienced menometrorrhagia were within reproductive age (28–45 years), accounting for 56.52%. Furthermore, nearly all respondents (95.65%) had been using contraception for less than 12 months, and the majority of them were unemployed (69.57%). These findings align with the study by Siti Eka Yusmiati et al. (2023), which indicated that most menstrual disorders occur in the 20–45 age group, with the majority of respondents being housewives (76 respondents, 77.6%). The study also found a significant

relationship between age (p-value = 0.004) and employment status (p-value = 0.001) with menstrual disorders among 3-month injectable contraceptive acceptors. Thus, age and employment status have been proven to influence the occurrence of menstrual disorders in this group.²⁴

A previous study by Eka Wahyu Rahma Diana (2018) provided supporting evidence of a significant relationship between the duration of using 3-month injectable contraception and menstrual disorders among its acceptors. Statistical analysis using the Chi-Square test yielded a p-value of 0.001, which is smaller than 0.05, leading to the acceptance of the alternative hypothesis (Ha) and the rejection of the null hypothesis (Ho). This finding confirms the validity of the research hypothesis. Therefore, it can be concluded that there is a significant relationship between the duration of 3-month injectable contraceptive use and the occurrence of menstrual disorders in its acceptors.²⁷

Pattern and level of menometrorrhagia complaints in 3-month injectable contraceptive acceptors.

The results of this study indicate that the majority of respondents experienced menometrorrhagia at a moderate level. After the intervention, the proportion of moderate menometrorrhagia cases increased in the intervention group, while the number of mild cases decreased. This may suggest an influence of the intervention on the changes in menometrorrhagia severity. These findings are consistent with the theory proposed by Merna Dewi Ratna Sari (2024), which revealed that the majority of side effects experienced by 3-month injectable contraceptive acceptors were menstrual disorders, reported by 102 individuals (92.7%). These menstrual disorders included amenorrhea, metrorrhagia, menorrhagia, and spotting. In addition to menstrual disturbances, other commonly reported side effects included weight gain and headaches. These findings provide a comprehensive overview of the various side effects commonly experienced by 3-month injectable contraceptive acceptors.²⁵

Application of acupressure therapy to 3-month contraceptive injection acceptors who experience menometrorrhagia.

The results of acupressure application for menometrorrhagia complaints show that the majority of respondents adhered to the 7-day massage schedule, which is considered the optimal duration for acupressure therapy. The massage focused on five specific points: SP6, LI4, LV3, CV3, and CV4, with a technique involving 30 clockwise rotations for 15–20 seconds at each point.⁵

According to the tonification massage technique described by Sri Mukhodim Faridah Hanum and colleagues in the book *Practical Guide to Acupressure for Mothers and Children*, acupressure at these points should be performed with a maximum of 30 clockwise rotations using moderate pressure. This technique is designed to provide optimal stimulation to the selected acupressure points, thereby

enhancing the effectiveness of the therapy. Previous studies have also proven that acupressure can be used to address menstrual-related issues such as menstrual pain and menstrual distress.¹⁴

Evaluation of the potential of acupressure as an effective supportive therapy for the management of menometrorrhagia in women using long-acting injectable hormonal contraceptives.

The results of this study demonstrate the effect of acupressure therapy on reducing menometrorrhagia complaints in 3-month injectable contraceptive acceptors. This is evidenced by the analysis of the effectiveness of two types of acupressure interventions for menometrorrhagia complaints. Intervention 1 (moderate to mild) had a mean rank value of 14.23, whereas Intervention 2 (mild to very mild/recovered) had a mean rank value of 9.10. Statistical analysis yielded a p-value of 0.029, which is smaller than the significance level of 0.05, meaning that the null hypothesis (Ho) is rejected. This indicates a statistically significant difference in the effectiveness of the two interventions, with Intervention 1 proving to be more effective than Intervention 2 in reducing menometrorrhagia complaints.⁴

The results of this study are consistent with the study by Annisa Ridlayanti (2021), which showed that acupressure therapy is effective in reducing pain and bleeding caused by menometrorrhagia in women of reproductive age, with a p-value of 0.02 (<0.05). This indicates a significant difference between the condition before and after acupressure therapy, further strengthening the positive effect of acupressure therapy on women of reproductive age with menometrorrhagia.⁵

This study confirms the role of acupressure as a potential non-pharmacological intervention for managing menstrual disorders such as menometrorrhagia.

Fajar Nur Farida (2021), in her research titled *Acupressure for Menstrual Pain Relief*, states that acupressure at points LI4, SP6, B27-B34, and LR3/LV3 plays a crucial role in strengthening the spleen function and restoring the balance of Yin, blood, liver, and kidneys. By enhancing blood supply and improving circulation, acupressure at these points is not only effective in reducing dysmenorrhea pain but also helps address excessive bleeding by optimizing blood circulation. This supports the use of acupressure as a non-pharmacological therapy for menstrual disorders, including menometrorrhagia.²³

According to Maria Komariah et al. (2021), the results of their literature review indicate that acupressure therapy significantly has a large effect size in reducing various health issues. Acupressure therapy is known to provide wide-ranging benefits, particularly in pain reduction, management of chronic diseases, psychological disorders, neurological issues, and other disease symptoms. These findings support the idea that acupressure therapy can be an appropriate choice as a non-pharmacological method to improve public health.²⁶

CONCLUSION

The results of this study indicate that acupressure therapy is effective in addressing menometrorrhagia complaints in 3-month injectable contraceptive acceptors. Acupressure provides significant benefits in reducing menstrual bleeding and can serve as a beneficial non-pharmacological intervention for managing menstrual disorders. As a form of holistic care, this therapy utilizes a safe, natural approach rooted in traditional health practices.

Acupressure therapy can be considered as an alternative or adjunct in managing menstrual disorders, particularly for hormonal contraceptive users. Healthcare practitioners are encouraged to enhance the socialization and training of acupressure therapy to the public. Further research is needed to evaluate the long-term effects of acupressure therapy and to identify the optimization of techniques that are more effective in accordance with individual needs.

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