# EFFECT OF HERBAL THERAPY ON DECREASING MENSTRUAL PAIN AT PONDOK PESANTREN AL-JIHAD SURABAYA

*By* Astrida Budiarti

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# EFFECT OF HERBAL THERAPY ON DECREASING MENSTRUAL PAIN AT PONDOK PESANTREN AL-JIHAD SURABAYA

**Astrida Budiarti**

Maternity Departement Stikes Hang Tuah Surabaya
Surabaya, Indonesia
Phone Number: 081803164280; email: as3da_ns@yahoo.com

## ABSTRACT

Menstruation is a bleeding proccess of uterus lining in women. Dysmenorrhea is a pain which occured on menstruation period. To reduce dysmenorrhea there are two kind therapy by using the drug and complementary therapies are herbal therapies. The aim of this research is analysing the effect of herbal therapy to decreasing pain menstrual. This research design is quasy experiment. The sample of this research is taken by using jenuh sampling and gotten as much as 30 sample. The instrument of this observation to know the pain level of menstruation uses pain numerical intencity according to hayward (0-10) to the controller and treatment group. Data analyzing uses Mann – Whitney U Test and Wilcoxon Sign by the meaning level $\rho < 0,05$. Mann – Whitney U Test was gotten result $\rho = 0,003$, but Wilcoxon Sign Test was gotten result $\rho = 0,000$. We can conclude that there is a different result to both of group and herbal therapy giving (turmeric, galangal, and black ginger) effected to the menstrual pain decreasing. This research implication is herbal therapy giving (turmeric, galangal and black ginger) can decrease the pain of adolescent who got dismenorea.

**Keyword: Menstrual Pain, Herbal Therapy**

## Introduction

Menstruation is the process of bleeding from the uterus lining of the uterine wall with fragments of adult women that occurs periodically. During and before menstruation, women often experience discomfort in the lower abdomen as the condition is called dysmenorrhoea. Not all menstrual pain can be treated using anti-pain medication but can use complementary therapies. Many plants TOGA which can be utilized as a therapeutic herb herbal one that can be used in reducing menstrual pain are turmeric, galangal, black ginger, ginger and others

## Literatur Review

According to data from the WHO incidence of 1,769,425 people (90%) of women with severe dysmenorrhea. In East Java, the number of young women of reproductive age is 10-24 years amounted to 56 598 inhabitants. While experiencing dysmenorrhoea and came to the midwifery of 11565 people (1.31%) (BPS Propinsi Jawa Timur, 2010).

In the process of menstruation, estrogen issued increased which causes the lining of the uterus growth and development. Increased estrogen suppress the hormone (FSH) and LH stimulates the follicle Graaf that can stimulate adult. The hormone estrogen causes the endometrium to grow and grow in the form of proliferation. once stimulated by the corpus luteum secrete estrogen and progesterone. So the more dominant veins and remove the fluid. Reduced and the disappearance of estrogen and progesterone, causing phase vasoconstriction of blood vessels, so that the inner lining of the uterus deficient blood flow. Followed by vasodilation of blood vessels and release of blood. An increase in endometrial prostaglandin

following declines in the late luteal phase progesterone lead to increased tone of the myometrium and excessive uterine contractions that cause pain during menstruation (Ayu, Ida.. 2009).

Herbs turmeric and black ginger contain active compounds or chemicals that will inhibit the reaction curcumin cyclooxygenase (COX-2) so as to inhibit the contractions of the uterus. In addition to the active compound curcumin, turmeric also contain active compounds that will inhibit the release kurkumenol excessive prostaglandin during menstruation occurs. Galangal contains iron to prevent anemia. So it can affect the decrease menstrual pain.

Based on the above, the researchers tried to further investigate the effects of herbal therapy to decrease menstrual pain in adolescent girls in Pondok Pesantren Al-Jihad Surabaya.

**Methodology**

Design of Experiment quasy research method is design that seeks to reveal causal relationships by engaging with the control group in addition to the experimental group (Nursalam, 2013). The population in this study were girls in Pondok Pesantren Al-Jihad Surabaya who experience menstrual pain and without taking anti-pain during menstruation by 30 respondents and the total sample of 30 respondents.

This study was conducted on May 18, 2015 until June 10, 2015 in Pondok Pesantren Al-Jihad Surabaya. The instrument used in this study is the observation to determine the level of menstrual pain using the Numeric Pain Intensity Scale by Hayward (0-10) in the control group and the treatment group. This study used herbal therapy of TOGA are turmeric, ginger and black ginger. Ways of making it that after the materials were ready, clean turmeric (25 grams), black ginger (20 g) and ginger (25 grams) to clean and cut. Prepare the water in a clay pot with 600 cc and then enter all the ingredients, boil using a fire and not too often to open the lid of the pot. Boiling is carried out for approximately 10 minutes until the water in the pot the remaining 200 cc. Then strain then add the palm sugar 150 g as a sweetener. Numeric Pain Intensity Scale measurement according to Hayward (0-10)
ratings:

0 = No pain
1-3 = mild pain
4-6 = moderate pain
7-9 = Very painful, but it can still be controlled with regular activity
10 = Very painful and uncontrollable

**Result and Discussion**

1. Characteristics of Respondents by Age

Tabel 1 Characteristics of respondents in the treatment group and the control group based on the age of the young women in Pondok Pesantren Al-Jihad Surabaya (n = 15) on May 18, 2015 until June 10, 2015

| Characteristics | treatment group | | control group | |
|---|---|---|---|---|
| | (f) | (%) | (f) | (%) |
| 17 old year | 0 | 0 | 4 | 26,7 |
| 18 old year | 4 | 54,5 | 6 | 40 |
| 19 old year | 11 | 18,2 | 5 | 33,3 |
| **Total** | 15 | 100 | 15 | 100 |

2. Characteristics of Respondents Based Currently Experiencing Pain Often Perceived Stress

Tabel 2 Characteristics of respondents in the treatment group and the control group based in times of stress, often felt during menstruation dysmenorrhea in adolescent girls in Pondok Pesantren Al-Jihad Surabaya (n = 15) on May 18, 2015 until June 10, 2015

| Characteristics | treatment group | | control group | |
|---|---|---|---|---|
| | (f) | (%) | (f) | (%) |
| Yes | 5 | 33,3 | 3 | 20 |
| Sometimes | 8 | 53,3 | 9 | 60 |
| No | 2 | 13,3 | 3 | 20 |
| **Total** | 15 | 100 | 15 | 100 |

3. Effect of Herbal Therapy Against Menstrual Pain Decrease In teenage girls in Pondok Pesantren Al-Jihad Surabaya

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Tabel 3. Effect of herbal therapy to decrease menstrual pain in adolescent girls in Pondok Pesantren Al-Jihad Surabaya pre post test treatment group on May 18, 2015 until June 10, 2015

| Characteristics | *Pre test* | | *Post test* | |
|---|---|---|---|---|
| | (f) | (%) | (f) | (%) |
| No pain | 0 | 0 | 6 | 40 |
| Mild pain | 5 | 33,3 | 9 | 60 |
| Moderate pain | 6 | 40 | 0 | 0 |
| Very painful, but it can still be controlled with regular activity | 4 | 26,7 | 0 | 0 |
| Very painful and uncontrollable | 0 | 0 | 0 | 0 |
| **Total** | 15 | 100 | 15 | 100 |
| ***Wilcoxon Sign Rank Test* ρ = 0,000** | | | | |

Tabel 4. Effect of herbal therapy to decrease menstrual pain in adolescent girls in Pondok Pesantren Al-Jihad Surabaya pre-post test control group on May 18, 2015 until June 10, 2015.

| Characteristics | *Pre test* | | *Post test* | |
|---|---|---|---|---|
| | (f) | (%) | (f) | (%) |
| No pain | 0 | 0 | 1 | 6,7 |
| Mild pain | 5 | 33,3 | 9 | 60 |
| Moderate pain | 5 | 33,3 | 4 | 26,6 |
| Very painful, but it can still be controlled with regular activity | 5 | 33,3 | 1 | 6,7 |
| Very painful and uncontrollable | 0 | 0 | 0 | 0 |
| **Total** | 15 | 100 | 15 | 100 |
| ***Wilcoxon Sign Rank Test* ρ = 0,005** | | | | |

Based on the results of Wilcoxon signed rank test showed that ρ = 0.005 which means there is the effect of herbal therapy to decrease menstrual pain.

Tabel 5. Post test differences menstrual pain in the treatment group and the control group the effect of herbal therapy to decrease menstrual pain in adolescent girls in Pondok Pesantren Al-Jihad Surabaya on May 18, 2015 until June 10, 2015.

| Characteristics | treatment group | | control group | |
|---|---|---|---|---|
| | (f) | (%) | (f) | (%) |
| No pain | 6 | 40 | 1 | 6,7 |
| Mild pain | 9 | 60 | 9 | 60 |
| Moderate pain | 0 | 0 | 4 | 26,6 |
| Very painful, but it can still be controlled with regular activity | 0 | 0 | 1 | 6,7 |
| Very painful and uncontrollable | 0 | 0 | 0 | 0 |
| **Total** | 15 | 100 | 15 | 100 |
| ***Mann Whitney U Test* ρ = 0,003** | | | | |

Based on the test results Mann Whitney U test showed ρ = 0.003 which means that there are significant differences between post-test results in the treatment group and the control group.

**1. Menstrual Pain before herbal therapy**

The results showed that the intensity of menstrual pain before administration of herbal therapies in the treatment group as much as five respondents (33.3%) had mild pain, 6 respondents (40%) had moderate pain and 4 respondents (26.7%) experienced severe pain may move . While the control group there were five respondents (33.3%) had mild pain, 5 respondents (33.3%) had moderate pain. and 5 respondents (33.3%) experienced severe pain can be a long day.

Results of cross tabulation specific data with demographic data obtained characteristics of respondents by age of respondents to the treatment group who experienced moderate pain (scale 4-6) as 6 respondents (66.7%) at the age of 19 years. while respondents with a control group who experienced a very painful can live (scale 7-9) of 4 respondents (66.7%) at the age of 18 years. The results of research suggested Junizar (2004) in Novia Ika (2006), that the primary dysmenorrhea usually occurs at age 15-30 years and often between the ages of 15-25 years who then lost at the age of late 20s or early 30s. The incidence of primary dysmenorrhea is influenced by a woman's age. The pain is felt a few days before menstruation and during menstruation usually due to increased secretion of the hormone prostaglandin. The older the person, the more often he menstruate and widening the cervical secretion of the hormone prostaglandin will wane. In addition, primary dysmenorrhea will disappear by decreasing uterine nerve function due to aging.

Results of cross tabulation specific data with demographic data characteristics when experiencing stress. pain felt during menstruation dysmenorrhea often showed an average of respondents who experience stress as much as 4 respondents (50%) with a scale so the pain can be a long, mild pain and moderate pain. One of the factors that influence the incidence of dysmenorrhea during menstruation is stress. Handrawan (2008) says that in

times of stress, the body produces the hormone adrenaline, estrogen, progesterone and prostaglandin excessive. The hormone estrogen can cause uterine contractions increase excessively, while progesterone is blocking it. An increase in excessive contraction that causes the pain.

**2. Menstuation Pain after herbal therapy**

The results showed that post-test in the treatment group after being given herbal therapy of 15 respondents who experienced pain were 9 respondents (60%), which did not experience the pain as much as 6 respondents (40%), whereas in the control group that was not given herbal therapy of 15 found that respondents who experienced mild pain as much as 9 respondents (60%), experienced moderate pain as much as 4 respondents (26.6%), experienced no pain and very painful can move as much as one respondent (6.7%).

Turmeric contains curcumin and black meeting that can inhibit the reaction cyclooxygenase (COX-2) and kurkumenol which can inhibit the release of prostaglandins inhibit excessive, while galangal contain iron that can control the decay of the endometrium, thereby reducing inflammation. A study published in November 2006 in the journal Arthritis & Rheumatism indicate the effectiveness of curcumin as a reliever inflames the joints. This compound is a natural inhibitor of the enzyme COX-2.

**3. Effect of Herbal Therapy Against Menstrual Pain Intensity Decrease**

**a. The observation of the pre-test and post-test in the treatment group**

Pre test results in the treatment group showed that as many as six respondents (40%) had moderate pain, mild pain is experienced by 5 respondents (33.3%), and experienced a very painful can move as much as 4 respondents (26.7%) , In the post-test results in the treatment group showed that as many as nine respondents (60%) had moderate pain, and as much as 6 respondents (40%) did not experience pain.

Herbal therapy in this study using turmeric, ginger and black meeting thus contributing to reduction in menstrual pain. Turmeric contains curcumin and black meeting that can inhibit the reaction cyclooxygenase (COX-2) and kurkumenol which can inhibit the release of prostaglandins inhibit excessive, while galangal contain iron that can control the decay of the endometrium, thereby reducing inflammation. A study published in November 2006 in the journal Arthritis & Rheumatism indicate the effectiveness of curcumin as a reliever inflames the joints. This compound is a natural inhibitor of the enzyme COX-2. The test results Wilcoxon signed rank test by connecting the pre-test and post-test in the experimental group showed $\rho = 0.000$.

The observation of the pre-test and post-test in the treatment group after being given herbal therapy as much as 200 cc each time a drink in one day twice and supported by test results Wilcoxon signed rank test showed that there is a reduction in menstrual pain, and there are differences decrease menstrual pain before being given and after given the herbal therapy.

**b. The observation of the pre-test and post-test in the control group**

The results of the pre-test in the control group showed that as many as five respondents (33.3%) had mild pain, moderate pain that is experienced by 5 respondents (33.3%), and experienced a very painful can move as much as 5 respondents (33.3 %). While in the post test results in the control group showed as much as 9 respondents (60%) had mild pain, as many as four respondents (26.6%) had moderate pain, which experienced a very painful can move as much as one respondent (6.7%), and who did not experience the pain as much as one respondent (6.7%).

Dysmenorrhea is often accompanied by headache, nausea, constipation or diarrhea and frequent urination. Sometimes until there is vomiting. The test results Wilcoxon signed rank test in the control group by connecting pre-test and post test results obtained ρ = 0.005. The observation of the pre-test and post-test in the control group that was not given herbal therapy and also the results of tests Wilcoxon signed rank test, researchers can conclude that there are differences in reduction in menstrual pain, although not too significance.

**c. The observation post test in the treatment group and the control group**

Post test results in the treatment group and the control group who had been tested using the Mann Whitney U test to compare the post-test decrease in pain in the treatment group and the control group showed ρ = 0.003. From these results it can be concluded that there are differences in outcomes in the treatment group and the results of the control group. In the treatment group obtained are subjected to moderate pain and no pain, whereas the control group obtained the majority of respondents mengalamu mild pain, but there are also respondents who experienced a very painful can move

**Conclusion and Recommendation**

The results of research that has been done can be concluded as follows:

1. Most respondents before being given herbal therapy has pain with moderate pain scale.
2. Once given herbal therapies decrease menstrual pain scale into a mild pain in adolescent girls in Pondok Pesantren Al-Jihad Surabaya.
3. There is the influence of herbal therapy to decrease menstrual pain in adolescent girls in Pondok Pesantren Al-Jihad Surabaya

Suggestions given are as follows:

1. For Further Research

In a subsequent study suggested to carry this title with the topic of the effectiveness of herbal therapy with relaxation therapy to decrease menstrual pain.

2. For the Respondents

Respondents should not only seek medical therapy drugs such as analgesics, etc. to reduce pain during menstruation. There are still many ways you can do other than using drugs such as using herbal therapy, relaxation, sleep, etc.

3. For Nursing Profession

Professionals in the field of nursing would that help provide information about treatment komplamenter not only medical therapy

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