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EFFECT OF SEFT INTERVENTION (*SPIRITUAL EMOTIONAL FREEDOM TECHNIQUE*) AND INHALATION OF LEMON (*CYTRUS*) AROMATHERAPY FOR REDUCTION OF DYSMENORRHEA PAIN

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Abstract

Background: Dysmenorrhea is one of the menstrual disorders experienced by young women which can interfere with daily activities, so it must be treated using non-pharmacological therapies, namely SEFT Intervention (Spiritual Emotional Freedom Technique) and Lemon Aromatherapy Inhalation (Cytrus) to Reduce Dysmenorrhea Pain.

Objective: To analyze the Effect of SEFT (Spiritual Emotional Freedom Technique) Intervention and Lemon (Cytrus) Aromatherapy Inhalation on Reducing Dysmenorrhea Pain

Methods: The design used in this study is *Quasy experimental design* with a one group *pretest posttest design* using techniques *Purposive sampling*. The sample of this research was conducted in the Wonokromo subdistrict, Surabaya, as many as 38 young women who experienced dysmenorrhea. The treatment was a combination of SEFT (Spiritual Emotional Freedom Technique) Intervention and Lemon (Cytrus) aromatherapy inhalation performed 2 times a day for approximately 10 minutes for 3 days, namely 1 day before menstruation and the first 2 days of menstruation. Data collection on dysmenorrhea pain level using *Numeric Rating Scale* namely assessing pain using a scale of 0-10. Data analysis using test *Wilcoxon rank test*.

Results: The results of this research analysis show that $\alpha < 0.05$, $p\text{Value} = 0.000$, which means that there is an influence of the SEFT (Spiritual Emotional Freedom Technique) Intervention and Inhalation of Lemon (Cytrus) Aromatherapy on Reducing Dysmenorrhea Pain

Conclusion: SEFT (Spiritual Emotional Freedom Technique) Intervention Therapy and Lemon (Cytrus) aromatherapy inhalation can reduce dysmenorrhoea pain, so that it can be used as an alternative or additional therapy which has few side effects and is easily performed by young women when experiencing dysmenorrhoea pain.

Keywords: SEFT, lemon aromatherapy, Dysmenorrhoea, Adolescents

1. Introduction

Dysmenorrhea is one of the most common complaints felt by young women during menstruation, such as discomfort in the lower abdomen, nausea, dizziness and some even faint(1). In Indonesia, the incidence of primary dysmenorrhea is 54.89%, while the rest are sufferers of the secondary type(2). Based on the East Java Province Youth Reproductive Health Survey (SKRR) data in 2021, around 4,653 adolescents were found to have dysmenorrhea(3). Primary dysmenorrhea is menstrual pain that occurs not due to physical disturbances but due to excessive amounts of prostaglandins in menstrual blood resulting in uterine hyperactivity. Prostaglandin F_{2α} is the result of metabolism of arachidonic acid by enzyme *scyclooxygenase* causes an inflammatory response, which triggers strong contractions of the myometrium and reduced blood supply to the endometrial tissue which then leads to necrosis of the endometrial lining which leads to pain during menstruation(4).

The impact of dysmenorrhea on young women includes feeling comfortable being disturbed, activities decreased, disturbed sleep patterns, disturbed appetite, disturbed interpersonal relationships, difficulty concentrating on work and study. Pain also affects the emotional status of the feelings of adolescents who experience dysmenorrhea, and interferes with learning activities at school(5). Dysmenorrhea can be treated in 2 ways, namely pharmacology and non-pharmacology. Pharmacology includes administering analgesic drugs, hormonal therapy, non-steroidal prostaglandin drugs and dilation of the cervical canal. The side effects of these drugs, if used freely and repeatedly without a doctor's supervision, can pose risks that harm the body, such as gastrointestinal disturbances such as nausea, dyspepsia, and vomiting(6). Non-pharmacologically, you can do warm compresses or warm baths, massage, acupuncture and acupressure, aromatherapy, physical exercise, adequate sleep, hypnotherapy, distractions such as listening to music and relaxation such as yoga and deep breathing(7).

SEFT (Spiritual Emotional Freedom Technique) is a non-pharmacological technique using a combination of the power of psychological energy with the power of prayer or spirituality therapy using the tapping method at certain points on the body which can reduce pain, one of which is menstrual pain. Spiritual Emotional Freedom Technique (SEFT) therapy is a very easy therapy to do because it doesn't need to carry out complicated diagnostic procedures, doesn't use drugs and can be learned quickly. Only use light tapping (tapping) on only 18 key points along the 12 energy bodies, and the healing effect can be felt immediately. In addition to healing both physically and emotionally, it can also be used to increase achievement and peace of mind(8).

Another non-pharmacological therapy that can reduce menstrual pain is relaxation using aromatherapy. One of the aromatherapy that can overcome the problem of pain is lemon aromatherapy. Lemon aromatherapy can reduce pain and anxiety, in lemon aromatherapy there is its main ingredient, namely limeone which functions to inhibit the prostaglandin hormone work system so that it can reduce pain and can produce a calming effect(9). The aroma response resulting from lemon aromatherapy will stimulate the brain's neurochemical cells. Therefore, a pleasant aroma will stimulate the thalamus to secrete encefalins which are useful as pain relievers and cause a feeling of calm(10).

Based on the description above, the researchers wanted to combine SEFT (Spiritual Emotional Freedom Technique) and lemon aromatherapy relaxation to reduce dysmenorrhoea pain, so the purpose of this study was to analyze the effect of SEFT (Spiritual Emotional Freedom Technique) Intervention and Lemon Aromatherapy Inhalation (Citrus) on Reducing Dysmenorrhea Pain.

2. Materials and methods

2.1 Materials

This research was conducted on young women who experienced dysmenorrhea in the Wonokromo subdistrict, Surabaya, as many as 38 young women who experienced dysmenorrhea. The independent variables of SEFT (Spiritual Emotional Freedom Technique) Intervention and Lemon (Citrus) aromatherapy inhalation and the dependent variable Reduction of Dysmenorrhea Pain. The question of this research is how the influence of SEFT Intervention (Spiritual Emotional Freedom Technique) and Inhalation of Lemon (Citrus) Aromatherapy on Reducing Dysmenorrhea Pain.

2.2 Data collection procedures

This research design uses *Quasy experimental design* with a plan *one group pretest posttest design*. Respondents are recruited using techniques *Purposive sampling* by determining the inclusion criteria, namely regular menstrual cycles seen from the last 3 months, female adolescents who experience primary dysmenorrhea on the first day of menstruation, have never been married and given birth, are easy to communicate with and are willing not to use either pharmacological or non-pharmacological therapy during the study.

The data collection method used in this study refers to previous research conducted by Zakiyah, (2013) with a few modifications(11). Briefly, the stages of data collection are as follows. Outreach to members of the population who experience dysmenorrhea so that understanding is obtained and they are willing to become a voluntary sample. Done *screening* to ensure that the samples are primary dysmenorrhea sufferers who meet the inclusion and exclusion criteria. This is supported by the signing of an agreement letter. First, measurement of pain intensity before treatment was carried out on the first month of the first day of menstruation using *Numeric Rating Scale*. Then the treatment is based on an estimate of the menstrual cycle based on the previous menstrual cycle. The treatment given is the SEFT (Spiritual Emotional Freedom Technique) Intervention and combined with Lemon (Citrus) aromatherapy inhalation done 2 times a day for about 10 minutes for 3 days before menstruation and the first day of menstruation. After undergoing treatment for 3 days, namely 1 before menstruation until the first 2 days of menstruation. In the second month of the first day of menstruation, the sample will again measure the intensity of menstrual pain using *Numeric Rating Scale*. Retrieval of data on decreased menstruation using *Numeric Rating Scale* namely assessing pain using a scale of 0-10 with the following scoring values 0: no pain, 1-3: mild pain, 4-6: moderate pain, 7-9: severe pain and 10: very severe pain.

2.3 Research Ethics

The research procedure received a letter from ethics from the research ethics commission of the Chakra Brahmanda Lentera Institute with a decision letter Number: 036/016/V/EC/KEP/LCBL/2023.

2.4 Data analysis

The analysis used in this research is to determine the decrease in dysmenorrheal pain in young women before and after the SEFT (Spiritual Emotional Freedom Technique) intervention and inhalation of lemon aromatherapy (Citrus) using the *Wilcoxon signed-rank test*.

3. Results and discussion

3.1 Results

Table 1. Characteristics of Respondents According to Age, Menarche and Menstrual Period.

Characteristics of Respondents	Amount	Presentase (%)
Age		
10-14 years	10	26,3
15-16 years	8	21,1
17-21 years	20	52,6
Menarche		
< 10 years	7	18,4
10-14 years	29	76,3
> 14 years	2	5,3
Menstrual Length		
< 4 days	0	0
4-7 days	32	84,2
> 7 days	6	15,8
Number of Respondents	38	100

Source: Primary Data, 2023

Based on the table above, it shows that the characteristics of the respondents are mostly between the ages of 17-21 years 20 people (52.6%), the characteristics according to menarche were mostly 10-14 years old as many as 29 people (76.3%) and the characteristics of respondents according to the length of menstruation 4-7 days were 32 people (84.2%).

Table 2. Reduction of dysmenorrheal pain in young women before being given the SEFT (Spiritual Emotional Freedom Technique) intervention and inhalation of lemon (Citrus) aromatherapy

No.	Dysmenorrhea Pain Level	Amount	Presentase (%)
1	Light	8	21,1
2	Currently	23	60,5
3	Heavy	7	18,4
Total		38	100

Source: Primary Data, 2023

Based on the table above, it shows that most of the respondents experienced moderate levels of menstrual pain before being given the SEFT (Spiritual Emotional Freedom Technique) intervention and lemon (Citrus) aromatherapy inhalation with a total of 23 people (60.5%).

Table 3. Reduction of dysmenorrheal pain in young women after being given SEFT (Spiritual Emotional Freedom Technique) intervention and inhalation of lemon (Citrus) aromatherapy

No.	Dysmenorrhea Pain Level	Amount	Presentase (%)
1	Light	29	76,3

2	Currently	7	18,4
3	Heavy	2	5,3
Total		38	100

Source: Primary Data, 2023

Based on the table above, it shows that most of the respondents experienced mild dysmenorrhea after being given the SEFT (Spiritual Emotional Freedom Technique) intervention and inhalation of lemon aromatherapy (Cytrus) with a total of 29 people (76.3%).

Table 4. Effect of SEFT (Spiritual Emotional Freedom Technique) Intervention and Lemon (Cytrus) Aromatherapy Inhalation on Reducing Dysmenorrhea Pain.

Dysmenorrhea Pain Level	Before Intervention		After Intervention	
	Amount	%	Amount	%
Light	8	21,1	29	76,3
Currently	23	60,5	7	18,4
Heavy	7	18,4	2	5,3
Amount	52		52	100

Uji Wilcoxon $\alpha < 0.05$, pValue = 0,000

Source: Primary Data 2023

The table above shows that almost the majority of respondents as much 29 people (76.3%) felt a decrease in the level of dysmenorrhea pain after being given SEFT (Spiritual Emotional Freedom Technique) Intervention and Inhalation of Lemon (Cytrus) aromatherapy to reduce dysmenorrhea pain. The results of the analysis using the Wilcoxon test showed the results of $p\text{Value} = 0.000 < 0.05$ means that H_0 is rejected and H_1 is accepted so that there is an effect of the SEFT (Spiritual Emotional Freedom Technique) Intervention and Inhalation of Lemon (Cytrus) Aromatherapy on Reducing Dysmenorrhea Pain.

3.2 Discussion

One of the early changes that appear in adolescents is biological development. One of them is that adolescents begin to experience menstruation, but there are several adolescents during this period experiencing menstrual problems, one of which is dysmenorrhea. This can be seen in the characteristics of this study, most of the young women aged 17-21 years (52.6%). Age less than 20 years is a risk factor for primary dysmenorrhea. The peak incidence of primary dysmenorrhea is in the late teens to young adults, which is 15 to 25 years old and will decrease after passing that age range. Many young women experience pain during menstruation and it is estimated that 50% of women are between 15-24 years old(12). This happens because the older a person is, the more often they experience menstruation and the wider the cervix so that the secretion of the hormone prostaglandin will decrease. In addition, primary dysmenorrhea will later disappear with decreased uterine nerve function due to aging(13).

The characteristics in this study were mostly menarche or first menstruation at the age of 10-14 years. *Menarche* at the age of 11 years or younger have a higher risk of primary dysmenorrhea compared with women with menarche over the age of 11 years. *Menarche* occurs at an earlier age than normal, where the reproductive organs are still not ready to experience changes and there is still narrowing of the cervix, so there will be pain during menstruation(14). In the characteristics in this study, most of the menstrual duration was 4-7 days (84.%). Menstrual duration is a factor in the occurrence of primary dysmenorrhea. Long menstruation results in longer uterine contractions so that the uterus will often experience

contractions so that the blood supply to the uterus stops and more and more prostaglandin hormones will be released which causes dysmenorrheal pain(15).

Based on research results shows that $\alpha < 0.05$, $p\text{Value} = 0.000$, which means that there is an effect of the SEFT (Spiritual Emotional Freedom Technique) Intervention and Inhalation of Lemon (Citrus) Aromatherapy on Reducing Dysmenorrhea Pain. SEFT is the development of the emotional freedom technique and the combination of spirituality through prayer, sincerity and surrender. SEFT (Spiritual Emotional Freedom Technique) has a technique using light tapping on 18 key points along the body's 12 energy pathways which are very influential on the body's health and the healing effect can be felt immediately. This technique has minimal side effects, is easy to do and simple, only uses the index finger and middle finger to tap on the body(8). SEFT (Spiritual Emotional Freedom Technique) combines elements of spirituality and the body's energy system by tapping at certain points accompanied by relaxation involving the patient's beliefs so that positive thoughts arise and an amplifying effect so that all problems can be overcome both physically, emotionally, calm and happy heart thus making the pain felt reduced(16). This is supported by research conducted by Zakiyyah in 2013 which said that SEFT had an effect on the treatment of dysmenorrheal pain(11). This is also supported by the research by Wijayanti and Nurseskasatmata in 2021 saying that SEFT can reduce the intensity of primary menstrual pain(17). The research conducted by Hamidiyah and Jannah in 2018 also supports previous research which says that there are differences in the intensity of primary dysmenorrhea pain before and after being given SEFT therapy(18).

Aromatherapy is the use of essential oil extracts derived from plants that are beneficial for health and restore one's mood. One of the aromatherapy that is often used is lemon aromatherapy. Lemon aromatherapy contains one of the ingredients is limone which is the main compound owned by oranges which has a reaction in inhibiting the prostaglandin work system so that it can reduce pain. The way limone works is to control cyclooxygenase I and II so that it inhibits prostaglandin activity thereby reducing muscle tension which will reduce pain(19). The linalool substance that lemons possess also has properties to stabilize the nervous system so as to create a calming effect(20). The concept of naturopathy in the use of complementary therapy using lemon aromatherapy has many benefits, namely there are no side effects, it is cheap and natural compared to using pharmacological treatment(21). This is supported by research conducted by Christien et al in 2019 which said that there was an effect of lemon aromatherapy on reducing dysmenorrhea(22). This is also supported by research conducted by Faola in 2022 saying that lemon aromatherapy can be used and applied by the community to help reduce dysmenorrhea(23).

The SEFT (Spiritual Emotional Freedom Technique) intervention and lemon (Citrus) aromatherapy inhalation had an effect on reducing dysmenorrhoea pain in young women. SEFT is a non-pharmacological therapeutic action that combines psychological energy with the power of prayer. Patients are guided to pray according to their beliefs after feeling sincere and then proceed to do light tapping or tapping on certain meridian points which are then combined with inhaling lemon aromatherapy which will make the body's energy flow normal again so that emotions and pain are reduced. Aromatherapy that is captured by receptors through the nose then gives an information signal to the spinal cord in the brain so that it releases endorphins and serotonin which have a role to relieve pain naturally and improve mood so as to provide a physiological change reaction in the physical, mind and spirit, namely feeling relaxation, peace of mind so that it causes pain to decrease(24).

4. Conclusion

SEFT (Spiritual Emotional Freedom Technique) intervention and inhalation of lemon (Citrus) aromatherapy can significantly reduce dysmenorrhea pain. The SEFT (Spiritual Emotional Freedom Technique) intervention combined with lemon (Citrus) aromatherapy

inhalation is a non-pharmacological therapy that can reduce dysmenorrhea pain with minimal side effects, easy to do because it only uses simple techniques, so it can be used as an alternative therapy by paramedics. young women to overcome complaints of dysmenorrhea pain.

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Conflict of interest

The author declares that there is no conflict of interest in this manuscript

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