

## HOLISTIC THERAPY FOR DYSMENORRHEA TREATMENT IN ADOLESCENTS

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### Abstract

**Introduction:** Dysmenorrhea is menstrual pain that causes discomfort and can interfere with daily activities, causing women to consume painkillers. Painkillers will only relieve pain temporarily and consuming regularly increases risk of side effects. Holistic therapy is a therapy that considers all aspects of human such as biological, emotional, social, and spiritual aspects. All of these aspects are connected and inseparable. If there is a change in one aspect of an individual's life, it can cause changes in other aspects. Holistic therapy can lead to overall healing. **Objective:** The objective of this study was to determine several types of holistic therapy that can be applied in treating dysmenorrhea. **Methods:** This research method used is a literature study analyzed from several journals related to the research topic. Journals are searched through Science Direct, PubMed, GARUDA, and Google Scholar which are then selected according to the topic to be discussed. **Results:** The results of this study obtained 12 research articles were analyzed, such as yoga (n = 4), hypnotherapy (3), breathing relaxation (n = 3), and spiritual emotional freedom technique (n = 2). **Conclusion:** Holistic therapies that can be used in the treatment of dysmenorrhea are yoga, hypnotherapy, breathing exercises, and spiritual emotional freedom techniques. These holistic therapy alternatives can provide comprehensive treatment for every aspect of adolescents with dysmenorrhea.

**Keywords:** Dysmenorrhea, Yoga, Hypnotherapy, Breathing Relaxation, Spiritual Emotional Freedom Technique.

### 1. INTRODUCTION

Adolescence is a transition period from childhood to adulthood that occurs at the age of 11 to 20 years. During this transition period, physical, psychological, and social growth and development occur. The development of adolescent girls is marked by the emergence of primary sexual characteristics, such as menstruation. Menstruation is the process of blood coming out of the uterus through the vagina which normally occurs every month during the fertile age. Dysmenorrhea is one of various complaints related to menstruation [1], [2].

Based on research, the prevalence of dysmenorrhea worldwide varies from 45% to 95% [3]. According the World Health Organization, the incidence of dysmenorrhea in Indonesia is 55% among productive age groups, with 15% of them complaining of limited activities due to dysmenorrhea [2], [4]. The prevalence of dysmenorrhea in high school adolescents in Central Java states that most adolescents experience dysmenorrhea with a percentage of 65.2% every time they menstruate [2].

Dysmenorrhea is menstrual pain that occurs in the lower abdomen and often causes adolescents to come to health workers for consultation and treatment regarding their menstrual problems [1]. Dysmenorrhea is a pain that occurs before or during menstruation along with nausea, headaches, lower back pain to the upper legs that interfere with the sufferer's daily activities [3], [5]. Dysmenorrhea occurs due to the secretion of natural fat prostaglandin F2 alpha (PGF2α) along with a decrease of hormone progesterone which secreted excessively and causes uterine muscle hyperactivity and increased sensitivity of pain terminal nerve fibers [1], [6].

The impacts of dysmenorrhea include disrupting learning activities with decreased concentration in learning activities at school, school absence, lower student activity, inability to

present optimally, inability to ask and answer subject questions optimally, and even greater impact of students who are taking exams [7]. Some ways to reduce pain during dysmenorrhea are pharmacological and non-pharmacological treatment [8]. Nowadays, adolescents tend to use pharmacological therapy because they consider non-pharmacological therapy less effective. However, excessive use of drugs can cause side effects such as toxicity, liver damage, nausea, vomiting, breast tenderness, and bleeding outside the menstrual cycle. In addition, the reaction of drugs only works for 4 hours, then the pain will recur [7], [8].

According to Potter (2005), non pharmacological therapy is better to overcome mild or moderate pain. Non-pharmacological therapy uses physiological processes which is safer to use without side effects like pharmacological treatment [7]. The term "Holistic" comes from the Greek word "ὅλος-holos" means all, entire, whole, and total. Holistic therapy is one of non pharmacological therapy that considers humans as whole beings by considering biological, emotional, intelligence, social, and spiritual aspects. Health can be obtained with balance or harmony in all of these aspects [9]. This concept support of the theory of WHO which states that health is a perfect state both physically, mentally and socially, not only free from disease or weakness/disability [10].

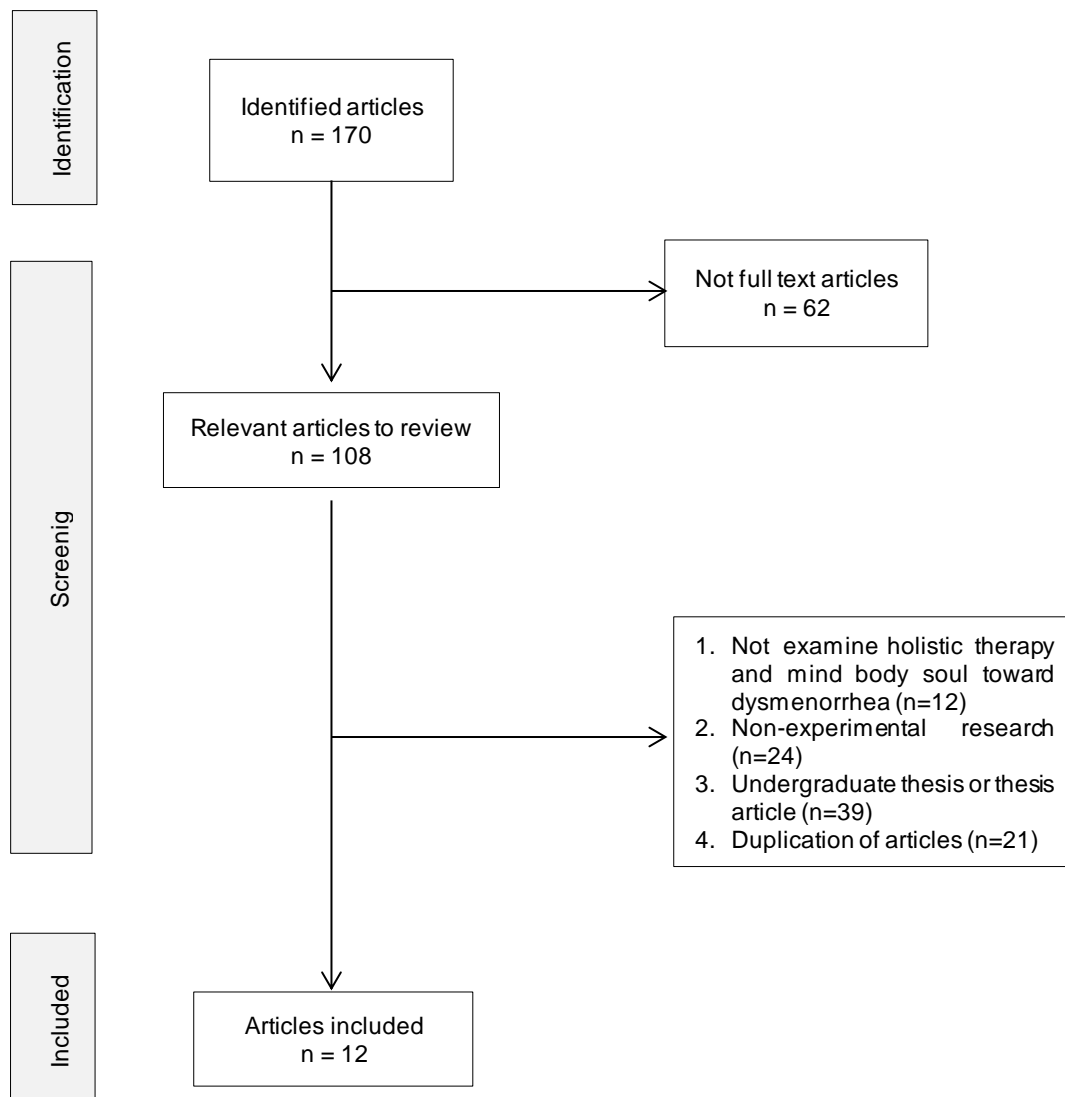
Holistic therapy is based on the principle that each individual is able to improve their own knowledge, skills, and behavior so that they can be responsible for the recovery of their own health status. The main focus of holistic therapy is not the disease or discomfort felt, but their own self being [9]. The purpose of this study was to analyze several holistic therapies that can be applied in the treatment of dysmenorrhea in adolescents.

## 2. METHODOLOGY

This research method used is a literature study analyzed from several journals related to the research topic. Journal analysis was conducted from July 1, 2024 to July 12, 2024. Journals were searched through Science Direct, PubMed, GARUDA, and Google Scholar which were then selected according to the topic to be discussed. The search keywords for the articles are dysmenorrhea, holistic therapy, and mind body soul.

The inclusion criteria in this study were articles that examined holistic therapy and mind body soul toward dysmenorrhea, samples in human, and experimental research. The exclusion criteria in this study were articles that did not examine holistic therapy and mind body soul toward dysmenorrhea, samples not human, and not an experimental research, undergraduate thesis or thesis, and not a full text articles.

A total 170 articles collected from the Science Direct (n=27), PubMed (n=31), GARUDA (44), and Google Scholar (68) databases after entering the first and second keywords. From 170 articles, there are 12 articles matched with inclusion criteria that analyzed included yoga therapy (n = 4), hypnotherapy (3), breathing relaxation (n = 3), and spiritual emotional freedom technique (SEFT) (n = 2).



### 3. RESULTS

**Table 1.** Article Reviews : Yoga

| No | Title   | Writer  | Year | Respondent  | Intervention   |
|----|---|---|------|---|--|
| 1. | Pengaruh Terapi Yoga (Paschimottanasana dan Adho Mukha Padmasana) terhadap Intensitas Nyeri pada Remaja Putri yang Mengalami Dismenore Primer                         | R. Tri Rahayuning Lestari, Ni Made Nopita Wati, I Gede Juanamasta, Ni Luh Putu Thrisnadewi, Ni Komang Ayu Sintya Paramita   | 2019 | 28 junior high school students with dysmenorrhea        | Yoga therapy (Paschimottana sana and Adho Mukha Padmasana) |
| 2. | Application of Mind-Body Practice: Yoga for Reducing Long Pain Primary Dysmenorrhea   | Mar atun Ulaa, Renny Triwijayanti, Maya Fadlilah, Windy Astuti Cahya Ningrum, Trilia, Inne Yelisni, Annisa Rahmania   | 2019 | 88 female students aged 14 – 18 years with dysmenorrhea | 30 minutes of yoga therapy                                 |
| 3. | Effect of yoga on the menstrual pain, physical fitness, and quality of life of young women with primary dysmenorrhea  | Ponlapat Yonglitthipagon, Somruthai Muansiangsai, Wilanee Wongkhumngern, Wanida Donpunha, Raoyrin Chanavirut, Wantana Siritaratiwat, Lukana Mato, Wichai Eungpinichpong, Taweesak Janyacharoen. | 2017 | 34 women aged 18 – 22 years with dysmenorrhea           | 30 minutes of yoga therapy twice a week.                   |
| 4. | Effects of a Yoga Program on Menstrual Cramps and Menstrual Distress in Undergraduate Students with Primary Dysmenorrhea: A Single-Blind, Randomized Controlled Trial | Yang Nam Young, Kim Sang Dol  | 2016 | 40 women aged 18 – 25 years with dysmenorrhea           | 60 minutes of yoga therapy once a week for 12 weeks        |

**Table 2.** Article Reviews : Hypnotherapy

| No | Title   | Writer                                   | Year | Respondent  | Intervention  |
|----|---|--|------|---|---|
| 1. | Intervention Study on Hypnotherapy of Primary Dysmenorrhea in Female College Students         | Yu Wang, Ting Wang                       | 2021 | 23 women aged 18-23 years with dysmenorrhea           | Hypnotherapy is given twice, 14-20 days after menstruation and 3-7 days before the next menstruation. |
| 2. | Efektifitas Spiritual Hipnoterapi terhadap Penurunan Nyeri Dismenore pada Mahasiswi Kebidanan | Iva Gamar Dian Pratiwi, Laylatul Hasanah | 2020 | 30 female students aged 18-20 years with dysmenorrhea | Hypnotherapy was given twice in two menstrual cycles for 40 minutes.                                  |
| 3. | The Effect of Hypnotherapy on Primary Dismenore in Adolescents                                | Hemi Fitriani, Achmad                    | 2018 | 13 female students with dysmenorrhea                  | Hypnotherapy  |

**Table 3.** Article Reviews : Breathing Relaxation

| No | Title  | Writer   | Year | Respondent  | Intervention                            |
|----|--|--|------|---|---|
| 1. | The Effects of Relaxation Technique and Wam Compress on Decreasing Dysmenorrhea Scale  | Jumita, Muhammad Kristiawan  | 2021 | 66 female students aged 11-20 years with dysmenorrhea | Deep breathing relaxation               |
| 2. | The Effect of Deep Breathing Exercises on Menstrual Pain Perception in Adolescents with Primary Dysmenorrhea   | Kurniati Devi Purnamasari, Tita Rohita, Dini Nurbaeti Zen and Widya Maya Ningrum | 2020 | 47 adolescents aged 13-15 years with dysmenorrhea     | 30 minutes of deep breathing relaxation |
| 3. | Pengaruh Pemberian Teknik Relaksasi Nafas Dalam Terhadap Penurunan Intensitas Nyeri Haid (Dismenore) pada Mahasiswi di Asrama Sanggau Landungsari Malang | Fidhi Aningsih, Ni Luh Putu Eka Sudiwati, Novita Dewi                            | 2018 | 23 women aged 19-24 years with dysmenorrhea           | 15 minutes of deep breathing relaxation |

**Table 4.** Article Reviews : SEFT

| No | Title   | Writer  | Year | Respondent  | Intervention |
|----|---|---|------|---|--------------|
| 1. | Pengaruh Spiritual Emotional Freedom Technique (Seft) Terhadap Penurunan Dismenore Primer Pada Remaja Putri     | Erlin Puspita                                   | 2018 | 97 adolescents aged 11-13 years with dysmenorrhea | SEFT         |
| 2. | The Effect of Spiritual Emotional Freedom Technique (SEFT) Therapy on Primary Dysmenorrhea Intensity Perception | Hidayanti Desi, Titi Legiati, Dewi Purwaningsih | 2020 | 36 adolescents with dysmenorrhea                  | SEFT         |

## 4. DISCUSSION

Holistic therapy is a therapy that considers humans as whole beings by considering their biological, emotional, intelligence, social, and spiritual aspects. Health can be obtained with balance or harmony in all of these elements [9]. Holistic therapy carried out based on the principle that each individual is able to improve their knowledge, skills, and behavior for themselves so they can be responsible for restoring their own health status. The main focus of holistic therapy efforts is not the disease or discomfort felt, but their own self being [9].

### 4.1 Yoga

Yoga has been shown to improve health, reduce stress, increase flexibility and muscle strength, and reduce physical symptoms such as pain [11]. Yoga therapy can reduce pain intensity in people with dysmenorrhea [4], [11]–[13]. Yoga therapy significantly reduce the average duration of dysmenorrhea ( $p < 0,05$ ) [11]. Yoga is a mind-body practice from ancient Indian consisting of physical postures (asana), breathing exercises (pranayama), and meditation (dhyana) that integrates the balance of body and mind harmoniously which has an impact on improving physical fitness and psychological health [4], [11].

Each pose in yoga requires the practitioner to be able to hold and move between a sequence of static poses that use isometric muscle contractions and antagonistic muscle relaxation to maintain a certain body balance [11]. Yoga can play a role in pain relief through down-regulation of the hypothalamic-pituitary-adrenal (HPA) axis, activating the pain modulation system in the brain that projects to the spinal cord and the sympathetic nervous system. Yoga therapy has been shown to reduce prostaglandin and homocysteine levels and stimulate the secretion of beta-endorphins as nonspecific analgesics which are pain-relieving hormones in the body [11], [14].

Slow and calm breathing exercises in yoga can reduce tension [12]. Relaxation from yoga interventions can reduce anxiety, tension, and fear, thereby reducing the intensity of menstrual pain. Anxiety has a reciprocal relationship with pain perception, namely when anxiety increases, pain perception will also increase. People with stable emotions will have a higher pain tolerance compared to people with unstable emotions [4], [14].

### 4.2 Hypnotherapy

Hypnotherapy is one of the holistic therapies that has been proven to reduce the intensity of dysmenorrhea [15]–[17]. Since 1955, the British Medical Association has officially recommended the use of hypnotherapy in the medical field [15].

Hypnotherapy is a therapy to change a person's perception in dealing with pain so that they can adapt and divert the pain. Hypnotherapy is a non-invasive therapy and suitable for patients with pain who require holistic treatment that intervenes in the psyche and prevents irrational consumption of analgesic drugs [17].

Hypnotherapy will reduce the intensity of dysmenorrhea through two mechanisms, induction and suggestion mechanisms. The induction mechanism in hypnotherapy is the first mechanism to reduce the intensity of pain in dysmenorrhea. The induction mechanism is a relaxation stage through deep breathing relaxation which aims for the brain to reach theta wave conditions. Theta wave conditions will stimulate the body through the HPA pathway to produce Corticotropin Releasing Factor (CRF) [16].

Furthermore, CRF stimulates the pituitary gland to reduce the production of Adenocorticotrophin (ACTH) and thereby increasing the production of endorphins which reduce cortisol and other stress hormones. Endorphins work to suppress pain impulses in the spinal cord and ultimately no pain impulses are transmitted to the cerebral cortex [16].

The second mechanism is the suggestion stage. The suggestion stage received by the subconscious will change the perception of pain in the cerebral cortex. The suggestion stage in hypnotherapy is the act of giving suggestions and motivation by entering the subconscious mind in the limbic system. Suggestions and motivations can be described as feelings of happiness and feelings of expectation that will be stored in the subconscious memory. In a conscious state, the subconscious mind will affect the cerebral cortex, providing memories of suggestions and motivations that have been stored. When the cerebral cortex receives an impulse contraction, the impulse will be felt as feelings of happiness and gratitude [15], [16].

Currently, hypnotherapy is also effectively used in dealing with other problems, such as psychological disorders, which change a person's thought mechanisms lead to changes in a person's perception and behavior [17].

### 4.3 Breathing Relaxation

Relaxation using breathing exercises has been shown to reduce pain intensity in dysmenorrhea sufferers [18]–[20]. Deep breathing relaxation techniques involve breathing slowly and using the diaphragm, allowing the abdomen to lift slowly and the chest to expand fully. A relaxed state causes blood vessels in the muscles to vasodilate, which increases oxygen in the body and decreases sodium and potassium secretion. A relaxed state of the body also stops the production of adrenaline and other hormones related to stress [18], [20].

Repeatedly done deep breathing relaxation techniques will increase relaxation and calmness, reduce anxiety, and increase tolerance to pain. People who have good pain tolerance will be able to adapt to pain and good coping mechanisms [18], [19].

### 4.4 Spiritual Emotional Freedom Technique

Spiritual emotional freedom technique (SEFT) is a holistic therapy used to reduce pain intensity [21], [22]. SEFT (Spiritual Emotional Freedom Technique) is a non-pharmacological technique to reduce menstrual pain that combines the efficacy of psychological energy with the power of prayer. This technique combines the body's energy system and spiritual therapy by using the tapping method at 12 meridian points of the body [21], [22].

SEFT tapping stimulation is able to stimulate A-Beta nerve fibers to be transmitted to the dorsal column nucleus and nerve impulses are transmitted through the medial lemniscus through collateral pathways connected to the periaqueductal gray area (PAG). This PAG stimulation produces enkephalins and endorphins to reduce pain intensity [22], [23].

In addition, SEFT involves spiritual aspects by reciting religious prayer sentences according to the patient's beliefs, which make SEFT experience an amplifying effect to larger overcome of problems or concerns, including physical, psychological, spiritual, self-success, happiness and making the path to personal greatness [21].

The application of holistic therapy can be used as an alternative treatment for dysmenorrhea for adolescents because it has been proven to reduce the intensity of pain in dysmenorrhea sufferers. In addition, holistic therapy that involves all aspects of humans, such as physical, psychological, emotional, and spiritual aspects, cause comprehensive treatment that decreases in the intensity of dysmenorrhea pain and increases in a person's psychological, emotional, and spiritual health conditions such as the emergence of feelings of relaxation, and increased self-awareness. Holistic therapy suitable for adolescents because holistic therapy does not require preparation of tools or materials, can be done at any time, easy to be practiced, and does not cause side effects in either the short or long term.

## 5. CONCLUSIONS

Holistic therapy is a therapy that considers humans as whole beings by considering their biological, emotional, intelligence, social, and spiritual aspects. Health can be obtained with balance or harmony in these aspects. Some holistic therapies that can be used to treat dysmenorrhea are yoga, hypnotherapy, breathing relaxation, and spiritual emotional freedom technique (SEFT). This holistic therapy does not require preparation of tools or materials, can be done at any time, easy to be practiced, and does not cause side effects.

Holistic therapy alternatives can provide comprehensive treatment for every aspect of dysmenorrhea sufferers, such as physical aspects, psychological aspects, spiritual aspects, and emotional aspects lead to comprehensive healing in dysmenorrhea sufferers, including those experienced by adolescents.



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