

Effectiveness of Acupressure For Dysmenorrhoe Patients: A Literature Review

Alif Sri Wahono, Fandiza Rizkina Putri Asad Andiza, Rillo Tri Subagia, Dini Nur Alfiah

Universitas Binawan, Indonesia

Sriwahonoalif@gmail.com, fandizarizkina122@gmail.com, rillotrisubagia@gmail.com,

dininuralviah@gmail.com

Abstract

Constipation is the most common problem in the elderly with a prevalence of 3.8%-6.3% in Indonesia. Abdominal massage or abdominal massage is non-invasive that is easy to apply without causing side effects. This study aims to determine the effectiveness of Abdominal Massage (AM) on constipation in the elderly. Literature review research was conducted using PICO searches in several databases such as Google Scholar, Science Direct, and Pubmed. There were 9 journals that met the criteria and showed the results that Abdominal Massage performed 5 times a week for 4 weeks, with a duration of 15 minutes applied with moderate pressure (2 cm depth) and 2 hours after eating with p -value < 0.05 showed a significant effect on decreased constipation symptoms in the form of abdominal pain, stool frequency, straining during defecation and prevention of constipation in both the elderly and stroke patients. It can be concluded that abdominal massage is effective in reducing constipation symptoms and also preventing constipation.

Keywords: acupressure, dysmenorrhea, women

INTRODUCTION

During adolescence, the transition to adulthood occurs biologically, psychosocially, and cognitively. A sign of puberty is menstruation, another term for biological changes that occur during puberty. They generally appear during menstruation, especially in pregnant women. The disease can affect reproductive health problems and women's daily routines (Kusmiran et al., 2019).

Premenstrual dysmenorrhea is a common gynecological condition, especially in adolescent girls, characterized by lower abdominal cramps that usually occur during menstruation.

The endometrium produces more prostaglandins (PGF-) during the secretion phase. This causes the myometrium to become thicker and vasoconstrictive, leading to pain, ischemia, endometrial disintegration, and bleeding (Zarker Morgan, 2003) (Wiknjastro, 2007) (Hillard et al., 2006)

Based on the cause, menstrual pain can be classified into 2, namely primary menstrual pain and secondary menstrual pain. The first is pain caused by gynecological conditions such as fibroids

or endometriosis. The second is menstrual pain for three years since menstruation and is not caused by any particular disease.

Dysmenorrhea can be treated with several techniques, medically or non-medically. It is possible that painkillers and anti-inflammatory drugs such as mefenamic acid and mother profen, as well as calcium antagonists such as verapamil and nifedipine, may decrease uterine activity and contractions. These drugs are also often used.

In (Sulistyorini, 2017), the World Health Organization (WHO) stated that the number of dysmenorrhea cases is quite high worldwide. WHO data shows that 90% of women feel dysmenorrhea, 10–15% feel severe dysmenorrhea. The incidence of menstrual pain in adolescent women averages between 16.8% and 81%. Research in different countries shows that more than 50% of the incidence of primary dysmenorrhea is reported in each country.

In contrast, data from the World Health Organization shows that as many as fifty-five percent of women in Indonesia have dysmenorrhea, and 15%

Among them make them unable to do anything because of this condition. Research shows that 54.9 percent of women have had dysmenorrhea; It consists of 24.5%, 21.28 percent, and 9.36 percent. The United States recognizes that dysmenorrhea is the main reason young women refuse school. In addition, surveys in 113 U.S. women found prevalence between 29% and 44%, the majority at ages 18 to 45.

Acupressure is a traditional healing method from China that has been famous from ancient times by stimulating at certain points in the body with massage or pressure. Acupressure therapy is an evolution of the acupuncture method, according to Ali (2005). However, the tool worn is not a needle, using the hand or a blunt-shaped tool. The goal is to help the body's natural ability to heal itself by restoring the body's positive energy balance.

The sanyinjiao point (spleen 6) is a spleen point that helps reduce pain during menstruation. One point that can help overcome dysmenorrhea is the second spleen point. With clockwise massage for 30 minutes can help overcome menstrual pain. Make sure the massage is not too tight or hurts the patient. The correct technique should produce suppleness, tenderness, warmth, itching, soreness, tingling, etc. When chi (energy) and xue (blood) circulate smoothly, endomorphine hormones can be produced.

Hegupoint acupressure method (LI4) can be used in this study. Apply strong vertical pressure around the hand between the 1st and 2nd radial metacarpals or thumb in the middle of the 2nd metacarpal for 20 minutes. Endorphin levels can be increased with acupressure.

The aim of this study is to explore the effectiveness of acupressure methods in reducing menstrual pain among adolescents. Menstrual pain is a common issue experienced by young women, often disrupting daily activities and impacting quality of life. Focusing on specific acupressure points such as sanyinjiao (spleen 6) and hegu (LI4), the research aims to determine whether acupressure techniques can provide significant relief from menstrual pain naturally, without the use of medications.

The benefits of this research include developing non-pharmacological alternatives for managing menstrual pain, which could serve as safe and effective therapy options for adolescents who prefer to avoid pharmaceutical interventions. By employing acupressure methods, it is hoped that the study can enhance their quality of life by reducing pain intensity and minimizing its negative impacts on daily activities like school and social interactions.

The novelty of this research lies in its therapeutic approach that integrates ancient Chinese medical traditions with modern treatment methods. While many previous studies have explored various pharmacological approaches, this research explores the potential of acupressure therapy as a widely accessible and relatively inexpensive non-pharmacological alternative. It focuses on harnessing the body's natural mechanisms to alleviate pain through energy regulation and blood circulation. Therefore, this study has the potential to significantly contribute to our understanding of managing menstrual pain in adolescents through a holistic and integrated approach.

METHODS

This study used a literature review. A literature review is a systematic process that summarizes and evaluates knowledge or practices related to a particular topic (Knopf, 2006).

The study used the PICO format, where P is the population of constipated adults, I is the abdominal massage intervention, C is the comparison, and O is the result. Studies show that effective abdominal massage can reduce constipation. adults and improve their quality of life.

The number of research journal articles reviewed is limited by inclusion and exclusion requirements; Journal retrieval is limited to 2013–2023.

Articles will be evaluated if they meet the following inclusion criteria: (i) the study subject is a woman aged around 15 and 45 years who has complaints of menstrual pain.

A research article will be rejected if it meets any of the following criteria: (i) systematic review methods were used in the study, (ii) the research journal was not published before 2013, or (iii) the subject refused to participate. Journal databases like Google Scholar help authors get information. To avoid research bias, authors will accept every intervention influence of each article, whether it impacts the research sample or not. The author summarizes the article based on the research subject, the age and gender of the respondents, the type of intervention provided (both frequency, duration, and tools to measure its effectiveness), the effectiveness of the intervention, and conclusions to compile the data.

The research instrument uses **Visual Analog Scale (VAS)**: its function is to measure the intensity of pain. VAS is a 10cm long graphic scale with the left end showing no pain and the right end showing very severe pain.

Numeric Rating Scale (NRS): Simple measuring instruments used in a linear way, mostly used in every clinical practice aimed at measuring pain. In NRS there are numbers 1 to 10. Number 0 indicates no existPain The number 5 indicates moderate pain, and the number 10 indicates severe pain.

Acupressure: One method of traditional Chinese medicine is acupressure. Acupressure uses finger massage to facilitate the patient's blood circulation, unlike acupuncture, where needles are used as a treatment tool. Acupressure and acupuncture points are almost similar. PatientIt is enough to know about meridian points that can connect organs in the body to perform

acupressure. The benefit of suppressing acupressure points is that it can increase endorphin levels, which are useful for analgesics, in the blood and endogeneous opioid peptides in the central nervous system. Nerve networks encourage the endocrine system to release endorphins as needed, so that there can be a decrease in pain during menstruation (Widyaningrum et al., 2013).

Sensory nerve cells located at acupressure points will be stimulated by acupressure. Furthermore, it will be forwarded to the spinal cord and mesencephalon as well as the hypothalamus pituitary complex, which will later be activated to secrete endorphin hormones, which will later cause a sense of calm and comfort (Majid & Rini, 2016).



Figure 1. Acupressure (source: www.alodokter.com)

During menstruation, acupressure treatment is carried out thirty times at the pressure points of Fact Sheet 4 (hagu) and ST 36 bilaterally. The Wilcoxon test is useful for identifying data. The results showed that the quality of dysmenorrhea pain decreased before treatment by 2.67 and SD 0.687, and after three consecutive days of acupressure treatment the average pain intensity was 1.19 and SD 0.552. If the intensity of dysmenorrhea pain is 0.22 on the first day, 0.43 on the second day, and 0.83 on the third day, it is concluded that acupressure treatment is carried out at the LI. 4 (Hegu) and bilateral ST 36 are effective in reducing dysmenorrhea in adolescents.

RESULTS AND DISCUSSION

Of the 5 journals studied, they have gone through the stages of screening, eligibility and inclusion. acupressure massage, which is physiotherapy physical therapy by massaging and stimulating certain body points (energy flow lines or meridians) to reduce menstrual pain and proven useful in disease prevention (Setyowati et al., 2018).

Table 1. Comparison of Experimental Group and Control Group

Reviewer	Participant		Intervention		Measurement	Results	Design Study
	Intervention group	Control group	Experimental group	Control group			
(N. Chen et al., 2013)	n= 30 Unknown	n= 30 unknown	Acupressure	Electroacupuncture	VASE	P<0.05	Meta Analysis
(Rahmawati et al.,	n= 33	-	Acupressure	-	VASE	P<0.001	Quasi

2019)	Unknown						Experiment
(Wahyuningsih, 2020)	n= 107 Unknown	-	Acupressure	-	pretest and posttest questionnaires,	P<0.05	Intervention study
(S. R. Yulianti et al., 2014)	n= 52 16-17 years	n= 52 16-17 years	Acupressure	Acupressure	VASE	P<0.05	Quasi Experiment
(Astiza et al., 2023)	n= 40 15 years	n= 20 15 years	Acupressure	Acupressure	NRS	P<0.05	Quasi Experiment

Based on a literature review study, the authors found that of the 282 sample results the average was dominated by the age of 15 > / = 17 years. Of the many literature found, most literature uses Quasi Experiment research design and VAS measurement, pretest and posttest questionnaires, NRS with p <0.05. Experimental group using Acupressure intervention while control group given Electroacupuncture and Acupressure intervention

Table 2. Dosage of Abdominal Massage Intervention Therapy

Reviewer	Type of Intervention	Therapeutic Dosage				Duration Therapy
		F	I	T	T	
(N. Chen et al., 2013)	Acupressure in SP6	3 days	Emphasis on points associated with menstrual pain	Acupressure	20 - 30 min	During the first 3 days of the menstrual cycle
(Rahmawati et al., 2019)	Acupressure in SP6	7 times	Emphasis on the point, not too hard	Acupressure	15 min	During the menstruation phase
(Wahyuningsih, 2020)	Acupressl	2-3 days	By pressing a dot for just half a second, the body will start responding	Acupressure	2 – 3 min	During the 2-3 days menstruation phase
(S. R. Yulianti et al., 2014)	Emphasis on the Hoku/hequ point (L14) and on the Neiguan point (PC6). Emphasis on the Hoku/he-qu point (L14)	3 days	Suppression is carried out luteal phase.	Acupressure	3- 5 min	During the first 3 days of the menstrual phase
(Astiza et al., 2023)	Sanyinjiao point or spleen 6 is the spleen point where one of the functions of the spleen is to reduce pain during menstruation	2 days	Massage done in the direction of the needle, not too hard	Acupressure	3-5 min	1-2 days during menstruation

Based on the research that has been done, researchers found that there are several types of acupressure points that can be applied to women during menstruation with points such as SP 6, LI 4, ST 36, and PC 6 with a frequency of 2-3 days, Intensity of Emphasis that is not too hard, with a duration of 3-5 minutes and a maximum of 20 minutes, during the menstrual period.

Table 3. Mean of Study Characteristics

Reviewer	Measurement	Group experiment		Control group		Significant
		Pre	Post	Pre	Post	
(N. Chen et al., 2013)	VASE	5:01pm ± 3:01pm	9.10± 4.35pm	52.91±41.46	58.91±37.91	P<0.05
(Rahmawati et al., 2019)	VASE	4.73± 2.11	2.61± 1.77	-	-	P<0.001
(Wahyuningsih, 2020)	pretest and posttest questionnaires,	-	-	-	-	P<0.05
(S. R. Yulianti et al., 2014)	VASE	3.04 ±13.58	2.42±8.77	3.04±13.58	2.65±14.19	P<0.05
(Astiza et al., 2023)	NRS	5,10	1,55	4,60	3,70	P<0.05

Based on the table above, when compared with the control group, the intervention group showed a good and significant improvement.

Discussion

According to (N. Chen et al., 2013), acupressure trials found in our literature review consistently show that, compared to control treatment, acupressure at the SP6 acupoint provides better pain relief. Not surprisingly, our meta-analysis also found that acupressure at the SP6 acupoints provided significantly better pain relief.

Sanyinjiao Point (SP6) is a meridian point that connects the liver, kidneys, and spleen. It is located four fingers above the ankle. Studies have been conducted on how effective SP6 is for treating dysmenorhea. For example, (X.-P. Chen & Chen, 2004) suggest that acupressure is an effective and safe treatment method for the treatment of dysmenorrhea. In addition, acupressure is a simple and free treatment method. According to research by (Habek & Mehmet, 2007), (Bostani & Dehghani, 2010), and (Reno, 2001), acupressure is effective in reducing dysmenorrhea pain. In a study on the effect of Sanyinjiao acupressure (SP6), Wong, Lai, and Tse (2009) also stated the same thing.

The results showed that SP6 acupressure therapy can help respondents reduce menstrual pain for approximately three months.

Touch and contact techniques known as acupressure, also known as Qi, are used to balance the body's energy channels. Acupressure therapy that uses massage or pressure at the LI 4 (Hegu) and ST 36 (Zusanli) points increases the number of endorphins so that pain disappears faster (Efriyanti et al., 2015). According to Desideria (2019), there are three points that can be massaged to reduce menstrual cycle irregularities: above the ankle (LV 3), between the thumb and forefinger (Fact Sheet 4), and under the kneecap (ST 36). There is evidence that ELI4 acupressure points can reduce dysmenorrhea. The results of Hasanah's research (2014) showed that acupressure at the LI 4 point reduced pain intensity by 0.615 points and pain quality by 0.577 points, which showed a significant decrease in dysmenorrhea.

(Y. Yulianti & Lestari, 2021) stated that acupressure can reduce quality pain averaged 0.577 points after acupressure treatment; In other words, there was a significant difference between the group that received acupressure and the group that did not.

In (Renityas, 2020) research that conducted acupressure interventions on 22 respondents, dysmenorrhea pain intensity was obtained before acupressure was carried out on a scale of 1 (3 respondents), a scale of 2 (9 respondents), and a scale of 4 (10 respondents). After acupressure at the sp6 point, the intensity of dysmenorrhea pain on a scale of 1 (3 respondents), on a scale of 2 (9 respondents), and on a scale of 3 (10 respondents).

CONCLUSION

Menstrual pain that is often experienced by women of childbearing age is called the menstrual cycle. The study found that acupressure helped reduce dysmenorrhea pain. In addition, acupressure is one of the therapeutic methods that is safe and easy to learn (practical) and needs to be done independently and repeatedly to improve women's reproductive health. Further research is needed to obtain more relevant and valid results regarding the effect of SP6 acupressure on dysmenorrhea in Indonesia.

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