



Effectiveness of spiritual emotional freedom technique (SEFT) therapy in reducing dysmenorrhea pain intensity among women of reproductive age

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ABSTRACT

This study aimed to determine the effectiveness of the Spiritual Emotional Freedom Technique (SEFT) in reducing dysmenorrhea pain intensity among women of reproductive age. However, empirical evidence on the effectiveness of SEFT for dysmenorrhea pain management, particularly using experimental designs, remains limited. A quasi-experimental study with a one-group pretest–posttest design was conducted at PMB Lina, Palembang City. A total of 30 women experiencing mild to moderate primary dysmenorrhea were included using a total population sampling technique. The SEFT intervention consisted of guided sessions involving set-up affirmations, tune-in focus, and tapping on specific acupressure points for approximately 20–25 minutes. Pain intensity was measured using the Visual Analog Scale before and after the intervention. Data were analyzed using the Wilcoxon signed-rank test. The results showed a significant decrease in dysmenorrhea pain intensity after the SEFT intervention. Before treatment, most respondents experienced moderate pain, while after the intervention, the majority reported mild pain, and several respondents experienced a substantial reduction in discomfort. Statistical analysis indicated a significant difference between pretest and posttest pain scores ($p < 0.05$). In conclusion, SEFT therapy is effective in reducing dysmenorrhea pain intensity and can be recommended as a safe, practical, and low-cost complementary non-pharmacological intervention for menstrual pain management.

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1. Introduction

Dysmenorrhea is a highly prevalent gynecological complaint that affects the majority of women of reproductive age and often leads to reduced quality of life, absenteeism, and impaired daily functioning. Globally, between 70% and 90% of women report menstrual pain, with 20–25% experiencing symptoms severe enough to disrupt school, work, and social activities (Barbosa-silva et al., 2024) (Choonara et al., 2025). In Indonesia, the Ministry of Health reports that 64.25% of women experience primary dysmenorrhea, making it a significant public-health concern that affects physical comfort, emotional stability, and productivity (Kemenkes RI, 2022).

The impact of dysmenorrhea extends beyond physical pain. Studies show that menstrual pain is strongly associated with psychological distress, reduced concentration, sleep disturbances, and lower academic and occupational performance (Rondanelli et al., 2020). Despite the common use of pharmacological treatments such as NSAIDs, many women seek non-pharmacological alternatives due to concerns about side effects, accessibility, or personal preference. This has led to increasing interest in complementary and mind-body therapies as safe, effective, and culturally acceptable pain-management strategies (Sartika et al., 2023) (Mulyaningsih et al., 2025).

Various non-pharmacological interventions for dysmenorrhea have been studied, including heat therapy, physical exercise, yoga, acupressure, relaxation techniques, and cognitive-behavioral interventions. Physical-based approaches such as heat therapy and exercise primarily target uterine ischemia and muscle tension, whereas mind-body interventions focus on emotional regulation and central pain perception. However, several of these interventions require repeated practice, specific equipment, or trained personnel, which may limit their feasibility in routine community-based or midwifery care settings.

One promising mind-body approach is the Spiritual Emotional Freedom Technique (SEFT), which integrates emotional tapping on acupressure points with spiritual elements such as surrender and positive affirmation (Sara Herlina, Wiwi Sartika, 2023). Evidence indicates that tapping-based methods stimulate parasympathetic activation, reduce cortisol, and modulate limbic system pathways involved in pain perception (Dian Siti, Chodijah, 2022) (Andriana, 2023). SEFT has been shown to significantly reduce pain intensity in various Indonesian studies, including research by Izati, Rosadi, and Putri (2024) reported that SEFT not only significantly reduces menstrual pain intensity but also enhances participants' comfort during menstruation. Overall, the preliminary evidence indicates that SEFT is an easy-to-learn, safe complementary approach that has the potential to alleviate pain and improve emotional responses among adolescents experiencing dysmenorrhea (Izati et al., 2024).

Various studies in Indonesia have shown that SEFT has the potential to provide analgesic effects and reduce psychological tension across different population groups. Several studies on adolescent girls reported that SEFT is effective in reducing the intensity of primary dysmenorrhea, such as the study by Puspita (2018), which demonstrated a significant decrease in pain scores after the SEFT intervention. Similar findings were reported by Herlina, Sartika, and Qomariah, who stated that SEFT is an easy-to-learn non-pharmacological strategy that can reduce menstrual pain. In addition, the study by Wulandari, Nurmadinisia, and Nurdiana compared SEFT with acupressure and found that the group receiving SEFT experienced a greater reduction in pain intensity, indicating competitive effectiveness compared to other complementary techniques (Puspita, 2018).

The evidence of SEFT's effectiveness is not limited to adolescents with dysmenorrhea. This intervention has also been used in other clinical contexts. Yuniannisa et al. (2024) found that SEFT was able to reduce labor pain during the active phase of the first stage of labor, suggesting its potential as a non-pharmacological alternative in obstetric pain management (Yuniannisa et al., 2024). Among cardiovascular patients, the study by Fachrizal et al. (2025) reported a decrease in chest pain in patients with ST-Elevation Myocardial Infarction (STEMI) after SEFT, further expanding the evidence that this method may contribute to the management of acute pain (Fachrizal et al., 2025).

Overall, the pattern of findings across these studies indicates that SEFT may serve as a complementary therapy that is inexpensive, safe, and easy to perform to help reduce pain in various conditions. Although most studies still use pre-post designs without strong control groups, these consistent preliminary results support the need for further investigation into the mechanisms and effectiveness of SEFT across broader populations and clinical settings.

However, despite its growing use, research evaluating SEFT specifically in community maternity-care settings such as private midwifery practices (PMB) is still limited. Most existing studies focus on school-based or hospital-based populations, creating a gap in understanding its applicability and effectiveness within routine midwifery services. The novelty of this study lies in evaluating the effectiveness of SEFT within a community-based private midwifery practice, a setting that has been rarely examined in previous dysmenorrhea research.

Given the high prevalence of dysmenorrhea, the limitations of pharmacological interventions, and the need for accessible complementary approaches, investigating the effectiveness of SEFT at PMB Lina carries important implications. The findings may support midwives in adopting holistic, low-cost, non-invasive pain-management techniques that align with women's preferences and enhance reproductive health services. This research is expected to contribute to evidence-based midwifery practice and strengthen complementary interventions within maternal and reproductive healthcare.

2. Methods

This study employed a quasi-experimental design with a one-group pretest–posttest approach to determine the effectiveness of Spiritual Emotional Freedom Technique (SEFT) therapy in reducing dysmenorrhea pain intensity among women of reproductive age. The study was conducted at PMB Lina, Palembang City, in September-Oktober 2025. The study population consisted of all women of reproductive age who sought reproductive health services at PMB Lina and experienced primary dysmenorrhea. A total population sampling technique was applied, resulting in 30 participants who met the eligibility criteria and were included as the study sample. The one-group pretest–posttest design was selected to allow preliminary evaluation of the intervention effect in a real-world midwifery practice setting, where the inclusion of an active control group was not feasible due to service-related and ethical considerations.

The inclusion criteria were women aged 15–49 years who experienced primary dysmenorrhea with mild to moderate pain intensity (VAS score 4–7), had regular menstrual cycles, were not consuming analgesics within 12 hours prior to the intervention, and were willing to participate as respondents. The exclusion criteria included women with secondary dysmenorrhea due to underlying pelvic pathology, those currently undergoing hormonal therapy, respondents who did not complete the SEFT intervention session, or those who refused posttest measurement.

The SEFT intervention followed standardized procedures consisting of the *Set-up*, *Tune-in*, and *Tapping* phases. Participants were guided to identify the discomfort (tune-in), recite a set-up affirmation involving surrender and positive acceptance, and perform tapping on 18 acupressure points on the face, chest, and hands. Each session lasted approximately 20–25 minutes and was administered once during the menstrual pain episode. To ensure standardization, the SEFT intervention was delivered by a trained researcher who had received prior instruction and practice in SEFT techniques based on an established procedural guideline. All sessions followed the same sequence, duration, verbal instructions, and tapping points to maintain intervention fidelity across participants.

Pain intensity was measured using the Visual Analog Scale (VAS) before the intervention (pretest) and 30 minutes after completing the SEFT session (posttest). Data were analyzed using the Wilcoxon signed-rank test with a significance level of $p < 0.05$. The sample size represented the total number of eligible women experiencing primary dysmenorrhea who attended the study setting during the data collection period, which is considered appropriate for exploratory quasi-experimental research in a limited clinical population. The findings are presented in tables and narrative descriptions to illustrate the effectiveness of SEFT therapy in reducing dysmenorrhea pain intensity among women of reproductive age at PMB Lina, Palembang City.

3. Result

A total of 30 women of reproductive age participated in this study. Table 1 presents the demographic and clinical characteristics of respondents, including age distribution and baseline dysmenorrhea severity. Most respondents were in the 18–25-year age group (60%), and the majority reported moderate dysmenorrhea during the pretest phase.

Table 1.
Characteristics of Respondents (n = 30)

Variable	Category	n	%
Age (years)	15–17	4	13.3
	18–25	18	60.0

Variable	Category	n	%
Baseline Pain Intensity (VAS)	26-35	6	20.0
	36-45	2	6.7
	Mild (1-3)	5	16.7
	Moderate (4-7)	25	83.3
Menstrual Cycle	Regular	30	100

The majority of participants were young adults, with 60% aged 18–25 years. Most respondents (83.3%) experienced moderate dysmenorrhea at baseline, indicating that the sample was appropriate for evaluating the effectiveness of SEFT. All participants had regular menstrual cycles, meeting the inclusion criteria.

Table 2.
Comparison of Pain Intensity Before and After SEFT Therapy (n = 30)

Pain Intensity (VAS)	Mean ± SD	Effect Size	Z Value	p-value
Pretest	6.13 ± 1.02	0.87		
Posttest	3.07 ± 1.11		-4.782	0.000

There was a substantial reduction in dysmenorrhea pain intensity following the SEFT intervention. The mean VAS score decreased from 6.13 (moderate pain) in the pretest to 3.07 (mild pain) in the posttest. The Wilcoxon signed-rank test indicated a statistically significant difference ($p = 0.000$, $p < 0.05$), demonstrating that SEFT therapy was effective in reducing menstrual pain among women of reproductive age. The effect size for the Wilcoxon signed-rank test was calculated using the formula $r = Z/\sqrt{N}$, resulting in an effect size of $r = 0.87$, which indicates a large magnitude of intervention effect. Changes in individual pain scores before and after the intervention are further illustrated using boxplot visualization to demonstrate score distribution and variability across measurement points (Figure 1).

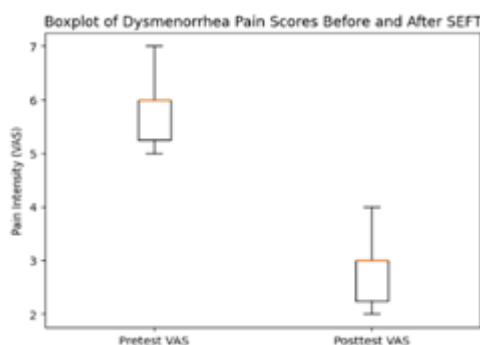


Figure 1. Presents boxplots of individual VAS scores before and after SEFT therapy

Figure 1 presents boxplots of individual VAS scores before and after SEFT therapy. The distribution of pain scores shifted markedly downward after the intervention. The median VAS score decreased from the moderate pain range at pretest to the mild pain range at posttest, with a narrower interquartile range, indicating both a reduction in pain intensity and decreased variability among participants.

Discussion

The findings of this study demonstrate that SEFT therapy was effective in significantly reducing dysmenorrhea pain intensity among women of reproductive age. The marked decrease in VAS scores between the pretest and posttest indicates that SEFT may contribute to pain reduction through combined psychological relaxation and emotional regulation processes, rather than purely physiological

mechanisms. This aligns with the growing body of evidence in Indonesia suggesting that tapping-based mind-body interventions can activate relaxation responses and reduce pain perception.

The present results are consistent with previous research. For example, Rahmana (2024) reported a significant decline in dysmenorrhea pain following SEFT sessions among adolescent girls, highlighting the method's effectiveness as a non-pharmacological pain-relief technique (Rahmana, M.F., Ariani F., 2024). Similar findings were also described by Herlina et al. (2023), who observed that SEFT not only reduced menstrual pain but also promoted emotional calmness among students experiencing dysmenorrhea. These studies strengthen the conclusion that SEFT can influence both somatic and affective components of pain, which is relevant since dysmenorrhea is strongly associated with emotional distress and heightened sympathetic activation (Sara Herlina, Wiwi Sartika, 2023).

Moreover, the results of this study resonate with the comparative work by Wulandari, Nurmadinisia, and Nurdiana (2025), who found that SEFT produced a greater reduction in menstrual pain intensity compared to acupuncture. Their study suggests that SEFT may offer competitive or even superior analgesic benefits compared to other complementary pain-management techniques. However, it should be acknowledged that differences in participants' expectations and therapeutic context may have contributed to the observed effects, particularly in non-blinded designs (Wulandari, P., Rahmi, 2025).

When viewed collectively, these findings reinforce SEFT's role as a simple, safe, and accessible complementary therapy for menstrual pain. The consistency across different studies suggests that SEFT may work through non-specific therapeutic mechanisms such as expectancy, focused attention, relaxation, and emotional reassurance, which are known to influence pain perception. Given that dysmenorrhea is multifactorial encompassing prostaglandin activity, uterine contractions, stress, and emotional factors SEFT's integrative approach appears particularly relevant for women in reproductive age groups.

Nevertheless, the potential influence of placebo effects and expectancy bias should be considered when interpreting these results. Because this study used a one-group pretest-posttest design without an active control group, participants' belief in the effectiveness of SEFT, the attention received during the intervention, and repeated pain assessment may have contributed to the observed pain reduction. Such expectancy-related effects are well documented in pain research and may partially explain improvements in self-reported outcomes.

Despite these promising findings, this study has several limitations. First, the quasi-experimental one-group pretest-posttest design limits causal inference because there was no control group for comparison. Pain reduction could partially reflect natural variation in menstrual cycles or placebo effects. Second, the sample size was relatively small and limited to one private midwifery clinic, which reduces generalizability to broader populations. Third, pain was measured using self-reported VAS scores, which may be influenced by subjective perception and individual pain thresholds. In addition, although SEFT is often hypothesized to affect biological pathways such as autonomic regulation, this study did not include neurophysiological measurements to support such mechanisms.

Future studies should employ randomized controlled designs, larger and more diverse samples, and multidimensional outcomes including physiological markers to better distinguish between specific treatment effects and non-specific placebo or expectancy-related responses, thereby clarifying SEFT's mechanisms and effectiveness.

4. Conclusion

This study demonstrated that the Spiritual Emotional Freedom Technique (SEFT) was associated with a significant reduction in dysmenorrhea pain intensity among women of reproductive age at PMB Lina, Palembang City. The observed decrease in VAS scores following the intervention suggests that SEFT may serve as a beneficial non-pharmacological approach for alleviating menstrual pain and improving comfort during dysmenorrhea episodes. These findings are consistent with previous studies indicating the potential of SEFT to support pain reduction and emotional regulation.

However, the interpretation of these findings should be made with caution due to several methodological limitations. The use of a one-group pretest–posttest design without a control or comparison group limits causal inference and does not allow the effects of SEFT to be clearly distinguished from placebo effects, expectancy bias, or natural variations in pain across the menstrual cycle. In addition, the relatively small sample size and single-site setting reduce the generalizability of the results to wider populations. Pain outcomes were assessed solely through self-reported measures, which may be influenced by subjective perception and individual pain tolerance.

Despite these limitations, SEFT remains a simple, safe, and low-cost complementary intervention with practical relevance for midwifery and reproductive health services. Future research should employ randomized controlled designs, include larger and more diverse samples, and incorporate both psychological and physiological outcome measures to strengthen evidence regarding the effectiveness and mechanisms of SEFT. Overall, SEFT shows promising potential as a supportive strategy for dysmenorrhea management and warrants further investigation to support its integration into evidence-based women’s reproductive healthcare.

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