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The Effect of Lavender on Dysmenorrhea: A Systematic Review

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Abstract

Introduction: Dysmenorrhea is a common general and personal health problem in young and middle-aged women. Various methods have been used to reduce the pain of dysmenorrhea, including psychotherapy, TENS, nutrition, vitamins and medications. Two widely used methods are inhalation aromatherapy and massage with various essential oils with sedative properties such as lavender. Concerning the effects of dysmenorrhea, negative impact on quality of life, job and educational performance, the important role of midwives in pain management, and the use of complementary interventions, and due to the low cost and availability of lavender oil, the aim of this study was to evaluate the effect of Lavender on dysmenorrhea. **Methods:** In this systematic review study, the search was performed using words related to lavender and dysmenorrhea from 2000 to 2022 in banks and reputable Persian and English information search engines. 1176 articles were obtained that with the inclusion criteria and similarity of title, content and consistency with the present study, 22 articles were selected. **Results:** Lavender massage and aromatherapy have a great effect on reducing pain and anxiety caused by dysmenorrhea. Massage therapy with oil reduces tension, pain and relaxation, and if they contain lavender, they cause significant pain relief. Lavender essential oil significantly reduced the severity of dysmenorrhea compared to mefenamic acid. To reduce the pain and the period of pain, Lavender aromatic candle therapy is used, which was effective in reducing abdominal cramps in dysmenorrhea. Pain tolerance levels were higher in people who used lavender cream. **Conclusion:** Due to the positive effects of lavender, it is recommended to use lavender aromatherapy in various types of dysmenorrhea.

Keywords: Dysmenorrhea-Lavender-pain

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Introduction

Dysmenorrhea is a major public and personal health problem in women that is common in both young and middle-aged women (1). Based on pathology, it is divided into two types of primary and secondary dysmenorrhea. Primary dysmenorrhea is pain without pelvic pathology (2). The pain usually starts a few hours before or immediately after menstruation and may last up to 48 to 72 hours. The cramped-like-pain resembles labor pain and sometimes spreads to parts of the anterior thigh (2). Primary dysmenorrhea occurs 1 to 2 years after the onset of menstruation when ovulation occurs, and most often occurs between the ages of 13 and 19, sometimes with nausea, vomiting, and headache (3,4). The severity of dysmenorrhea varies in women and on average 10-15% of women have severe dysmenorrhea (5). The exact pathogenesis of primary dysmenorrhea is unknown, but prostaglandins have been shown to be effective in contractions and pain caused by primary dysmenorrhea (6). Different options and different nutritional methods have been used to reduce the pain of dysmenorrhea, including psychotherapy, use of TENS, vitamins and medications (7). Two most common and widely used methods are inhalation aromatherapy and massage aromatherapy (9). One of the most widely used essential oils is Lavender oil. Among the effective ingredients in the composition of this medicinal plant, there are Linalool and Linalyl acetate, which Linalool acts as a sedative by acting on gamma aminobutyric acid in the central nervous system. Given that dysmenorrhea is highly prevalent in young women and negatively affects their quality of life, job and educational performance, and concerning the important role of midwives in managing and reducing pain in these patients, plus that midwives can use supplementary therapeutic interventions in therapeutic measures, and due to the low cost and availability of lavender oil, the aim of this study was to investigate the effects of lavender in relieving dysmenorrhea.

Methods

The present study is a systematic review article. Article research was made with key words "Dysmenorrhea 'Lavender 'Lavandula" in Persian and English, since 2000 to 2022, through banks and information search engines like GOOGLE SCHOLAR, SCOPUS, SCIENCE DIRECT, PUBMED, WEB OF SCIENCE, MAGIRAN, SID, OVID. 1176 articles were obtained that after reviewing the inclusion criteria and reviewing several articles in terms of title and content similarity and alignment with the objectives of this study, finally 22 articles were selected.

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Results

In many studies, the severity of dysmenorrhea decreased after aromatherapy compared with placebo. Also, massage therapy generally reduces stress, pain and relaxation, and of course, the simultaneous use of aromatherapy and massage therapy would be more effective. Massage therapy inherently relieves the pain of dysmenorrhea, but the use of combined essential oils during massage further reduces the pain, which, if these oils contain Lavender, significantly relieves the pain of dysmenorrhea. Massage with lavender aromatherapy has a great effect on reducing pain and anxiety caused by dysmenorrhea. Also, in one study, the use of lavender essential oil significantly reduced the severity of dysmenorrhea compared to mefenamic acid. They also used Lavender scented candle therapy to reduce the pain and period of dysmenorrhea pain, which was more effective in reducing dysmenorrhea in contrast to the placebo. It was also found in a study that the use of lavender perfume has a good effect in reducing abdominal cramps during dysmenorrhea. Pain tolerance levels were also higher in people who used creams containing lavender. The results showed differences in the severity of dysmenorrhea due to differences in family history, but no significant differences between dysmenorrhea and age, diet, salt, tea, coffee or alcohol, smoking status, sleep duration, regular menstruation, age of first Menstruation or the number and frequency of menstruation were not observed. However, a regular menstrual cycle was a statistically significant factor, and the risk of dysmenorrhea was 2.43 times higher in students with regular menstruation than in the irregular cycle.

Conclusion

Studies on the analgesic effects of massage and massage aromatherapy have shown that this technique can reduce dysmenorrhea in patients. It is recommended that lavender aromatherapy can be used in patients with primary and secondary dysmenorrhea.

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