



## The Use of Aromatherapy in Women's Health

### Abstract

Women face problems in different stages of life such as menstruation, prenatal, postnatal, and menopause. The commonality of women's health problems is that they affect women's productivity, performance, and quality of life. The diversity of problems related to women's health and the absence of a drug or treatment that can completely eliminate these problems have led women to traditional and alternative therapy methods. Aromatherapy is one of the traditional and alternative therapies that help women cope with their health problems and relieve symptoms. This review article was conducted to investigate the use of aromatherapy in women's health.

*Keywords: Aromatherapy, women's health, nursing*

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### Introduction

Traditional and complementary therapies are widely used around the world. The World Health Organization states that 80% of traditional and complementary therapies are used as part of primary care services in Africa and Asia. Herbal medicines used in traditional treatments constitute 30-50% of the medicine used in China.<sup>1</sup> Complementary and traditional therapies are a newly developing field in Turkey. In the literature, the rate of use of complementary and alternative therapies in Turkey is 35-48% in individuals with chronic diseases such as heart, diabetes, and kidney failure<sup>2-4</sup> and 65.8% in healthy individuals.<sup>5</sup>

Traditional and complementary therapies, which are increasingly used in the field of health, have also started to attract the attention of women. The risk of reproductive health problems in women increases after adolescence. Women experience various health problems, especially during normal physiological processes such as their menstrual cycle, pregnancy, childbirth, postpartum, and menopause. The side effects of medicines used to cope with these problems, the inability to completely eliminate health problems, and the obstacles encountered in the health system have led women to traditional and complementary therapies.<sup>6-9</sup>

Aromatherapy, one of the traditional and complementary methods, is widely used in women's health.<sup>10</sup> Aromatherapy is a traditional and complementary treatment method in which essential oils are used. The problems experienced in women during their menstrual cycle, pregnancy, and menopause affect their physical and mental health negatively, and aromatherapy is an effective method that can be used in coping with these problems.<sup>11-14</sup> This review study was performed to examine the use of aromatherapy in women's health.

### Aromatherapy Methods

Correct application of aromatherapy is essential for the therapy to be effective. Aromatherapy can be implemented in three ways: oral, topical, and inhalation method. The oral route is the digestion and metabolism of essential oils through the digestive tract. Gelatin is administered in capsules. The oral route is not similar to the methods in which herbal teas are used.<sup>14,15</sup>

Topical administration is applied by bath, massage, or compress. In these ways, essential oils are applied to a certain part of the body. The application of aromatherapy with the massage method accelerates the absorption of essential oils from the skin and spreads

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the healing effect to the tissues. The oil applied to a certain part of the body by massage passes through the skin to the veins and enters the circulation within 10 minutes. The soluble nature of the essential oil accelerates the absorption in the oil-rich areas of the body surface. Thus, very small molecules of the oil show their effect by crossing the blood-brain barrier.<sup>14,15</sup>

Inhalation is the method of breathing the aroma of essential oil through the nostrils. The fact that the lungs have a large surface and the alveoli are connected with the circulatory system increases the effect of this method. Receptors in the brain detect the odor chemical in the essential oil. When a person breathes, this chemical is carried to the brain through the nose. The message detected from the odor transmitted to the brain by the inhalation method is sent to the body and has an immediate effect.<sup>14</sup>

The inhalation method is applied in two ways: direct and indirect. In the direct inhalation method, 1-5 drops of essential oil are dropped on a material such as cotton and inhaled for 5-10 minutes. The second way is to drop the essential oil into boiling water and inhale the mist for 5-10 minutes. Indirect inhalation is also administered by dripping the essential oil into boiling water and then placing it in a censer in the room—spreading the fragrance to the environment.<sup>14-16</sup>

#### Use of Aromatherapy in Women's Health

When complementary and traditional treatments are applied at the appropriate dose, route, and time, there is no harm to health.<sup>14</sup> The reasons why aromatherapy is preferred in the field of women's health are its ease of application, its ability to be performed independently in the home environment, and its rapid physiological and psychological effects.<sup>14,15</sup> Literature reveals that aromatherapy applied by massage or inhalation method is effective against the problems experienced by women in normal physiological women's processes such as menstrual cycle, pregnancy, childbirth, postpartum period, and menopause.

#### Dysmenorrhea and Aromatherapy

Dysmenorrhea is one of the most common gynecological complaints in women during menstruation and affects many women. Abdominal pain which begins a few days before menstruation is a typical symptom and may persist for up to 3 days. Abdominal cramps may also be accompanied by symptoms such as low back pain, headache, dizziness, vomiting, nausea, or diarrhea. Aromatherapy with essential oils is the most widely used method among complementary applications to alleviate the pain of dysmenorrhea.<sup>17</sup>

Aromatherapy massage applied to the abdomen with essential oils (such as almond oil, marjoram oil, rose oil, and lavender oil) of women with dysmenorrhea reduces menstrual pain. When aromatherapy massage is applied to the abdominal region with essential oils, the oil is absorbed through the skin and spreads to the tissues.<sup>18</sup> Massage improves the spasm that causes menstrual pain by accelerating blood circulation, decreasing stress hormone levels by increasing the release of endorphins, and increasing serotonin release by providing parasympathetic activation—thus alleviating menstrual pain.<sup>19-21</sup> Song et al<sup>22</sup> found that the inhalation aromatherapy method was effective in reducing menstrual cramps and that aromatherapy massage is more effective than other lavender blends of oils in coping with menstrual pain. A systematic review by Lee et al<sup>23</sup> revealed

moderate evidence for the effectiveness of aromatherapy (i.e., inhalation, massage, and oral route) in relieving the pain of dysmenorrhea.

#### Premenstrual Syndrome and Aromatherapy

Aromatherapy is also used to cope with premenstrual syndrome. In the study conducted by Uzunçakmak and Ayaz-Alkaya,<sup>11</sup> it was determined that lavender inhalation aromatherapy is effective in coping with anxiety, depressive affect, fatigue, irritability, pain, swelling, and depressive thoughts, which are among the symptoms of premenstrual syndrome. It is thought that lavender oil relieves the symptoms of premenstrual syndrome, as the active ingredient enters the body through respiration and enters the circulation in a short time, showing its analgesic, sedative, and muscle relaxant properties.<sup>11</sup>

#### Pregnancy, Birth, Postpartum Period, and Aromatherapy

Nausea and vomiting during pregnancy are common problems. Due to the harmful effects of the medicines used on the fetus and the mother, the interest in complementary and alternative treatments has increased. In a systematic review by Ozgoli et al.<sup>24</sup> it was found that aromatherapy with ginger, cardamom, lemon, and mint was effective in coping with nausea and vomiting, alleviating the symptoms experienced without any side effects. Joulaeerad et al<sup>25</sup> found that inhalation aromatherapy with peppermint oil was effective in reducing the severity of nausea and vomiting.

Birth is one of the most painful experiences of life and is a complex process involving many physiological and psychological interactions.<sup>26</sup> Although labor pain is natural, extreme pain causes significant physiological changes in cardiopulmonary functions, oxygen consumption, stress response, and uterine contractility. Due to its simplicity and ease of application, aromatherapy can be used in some medical treatments, either alone or in combination with a standard pain control protocol.<sup>27</sup>

Aromatherapy reduces labor pain and duration at birth, providing relaxation and satisfaction.<sup>28</sup> The molecules in the essential oil stimulate the limbic system. Since there is a direct relationship between the limbic system and emotions—the feelings of depression, anxiety, and pain experienced during childbirth are reduced.<sup>26</sup> Aromatherapy can also help relieve anxiety by reducing cortisol levels and increasing serotonin.<sup>29</sup> In a study using 10 different essential oils at birth, no side effects were observed in mothers. In addition, half of the mothers stated that they were satisfied with the relief of their pain and depression levels.<sup>30</sup> Chen et al<sup>27</sup> found that aromatherapy is an effective and safe method in reducing labor pain and duration. Hamdamian et al.<sup>29</sup> determined that rose aromatherapy is a reliable method of reducing pain and anxiety in the first stage of labor.

Aromatherapy has an important place in the postpartum period as well as childbirth. Aromatherapy reduces the risk of anxiety and depression in the postpartum period when administered by inhalation.<sup>12,31</sup> Essential oils are effective on the hypothalamus and limbic system in the body and increase the secretion of soothing, stimulating, and relaxing neurotransmitters.<sup>29,32,33</sup> Kianpour et al<sup>34</sup> found that there was a significant decrease in depression levels after lavender inhalation was administered to postpartum women. The linalool in the lavender binds to serotonin and plays a carrier role, thereby relieving the symptoms of depression.

## Breastfeeding and Aromatherapy

To increase milk secretion during breastfeeding, mothers use herbs such as fenugreek, ginger, chamomile, garlic, and thistle as complementary and alternative methods, in conjunction with acupuncture, massage, and chiropractic.<sup>35,36</sup> Kurniyati et al<sup>36</sup> determined that aromatherapy massage administered to mothers during the postpartum period increased milk secretion. More studies are needed to show how aromatherapy is effective during breastfeeding.

## Menopause and Aromatherapy

Menopause is a natural biological process that affects the lives of all women. In this process, women may experience physical, psychological, and genitourinary symptoms. Complementary and alternative treatment methods are frequently used by women in coping with menopause. In a study conducted with lavender inhalation, it was found that aromatherapy reduced menopausal symptoms such as anxiety, depression, physical, and vasomotor symptoms.<sup>37</sup> In another study conducted with women in the menopause period, it was determined that women experienced serious psychological symptoms such as depression, irritability, anxiety, physical, and mental fatigue before aromatherapy massage, and there was a significant decrease in the symptoms experienced after the application.<sup>12</sup> A study using lavender inhalation found that aromatherapy reduced menopausal hot flashes.<sup>38</sup> In a meta-analysis, Khadivzadeh et al<sup>39</sup> determined that combined oil aromatherapy with lavender, fennel, geranium, and rose significantly improved sexual function in menopause, but there was no significant change in serum estrogen level.

The alleviation of symptoms experienced during menopause is related to the decrease in stress hormones and the regularity of beta-endorphin production. Scientifically, it is suggested that aromatherapy can be effective both psychologically and physiologically. Essential oils activate olfactory nerve cells, leading to limbic system stimulation. Depending on the aroma type, nerve cells secrete different neurotransmitters such as encephalin, noradrenaline, and serotonin. Considering the relationship between the sense of smell and the human spirit and emotions, aromas can be effective on people's souls and bodies. In fact, it appears that odors can alter emotions in humans.<sup>40</sup>

## Aromatherapy and Nursing

In recent years, the increase in diversity in traditional and complementary treatments and the benefit of individuals from these treatments have enabled nurses to enter this field.<sup>14,16</sup> The healthcare professionals who want to learn about traditional and complementary therapies are usually nurses. For this reason, it is important for nurses to be educated on this issue, to know the benefits and risks of treatments, and to add their contribution to the protection of health.<sup>41</sup>

Aromatherapy is administered using various oils and different methods. Therefore, nurses can inform the women about the appropriate aromatherapy method after evaluating the condition of the women, observing the effectiveness of aromatherapy by following the women with the role of counseling, and helping them alleviate the problems they experience. In addition, the nurses can conduct research on the effects of aromatherapy methods on health problems by using different essential oils.<sup>42,43</sup>

The implementation of complementary and traditional therapies in Turkey is regulated within the scope of "Traditional and Complementary Medicine Practices Regulation." Within the scope of the regulation, it is stated that applications can only be made by physicians and dentists.<sup>44</sup> In other countries, nurses and other health professionals who have been trained in this subject can apply complementary and traditional practices.<sup>1</sup> Nurses who have theoretical and practical knowledge can take an active role in this field by making the necessary arrangements in Turkey.

## Conclusion

Aromatherapy is an easily applicable method among traditional and complementary treatment methods. Studies examining the effectiveness of aromatherapy in coping with processes and problems related to women's health such as dysmenorrhea, premenstrual syndrome, pregnancy, childbirth, postpartum period, and menopause have shown that the method is useful. Therefore, aromatherapy could be used as a complementary and traditional method for women's reproductive health problems, and strategies could be developed for nurses to take an advanced role in the application of this method.

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## References

1. World Health Organization. *Traditional and Complementary Medicine Policy*. Available at: <http://apps.who.int/medicinedocs/documents/s19582en/s19582en.pdf>. Accessed January 10, 2019.
2. Erdoğan Z, Oğuz S, Erol E. Kalp Hastalarının Tamamlayıcı Tedavileri Kullanma Durumu. *Spatula*. 2012;2(3):135-139.
3. Kaynak İ, Polat Ü. Diabetes Mellitus'lu Hastaların Tamamlayıcı ve Alternatif Tedavileri Kullanma Durumları ve Diyabet Tutumları ile İlişkisi. *Genel Tıp Derg*. 2017;27(2):56-64.
4. Erdoğan Z, Çınar S, Şimşek S. Hemodiyaliz Hastalarında Tamamlayıcı Tıp Yöntemlerini Kullanma Durumu ve Umutsuzluk Düzeyi ile İlişkisi. *Spatula*. 2013;3(3):107-112.
5. Oral B, Öztürk A, Balcı E, Sevinç N. Aile Sağlığı Merkezine Başvuranların Geleneksel /Alternatif Tıpla İlgili Görüşleri ve Kullanım Durumu. *TSK Koruyucu Hekimlik Bul*. 2016;15(2):75-82.
6. Warriner S, Bryan K, Brown AM. Women's attitude towards the use of complementary and alternative medicines (CAM) in pregnancy. *Midwifery*. 2014;30(1):138-143. [CrossRef]
7. Pallivalappilla AR, Stewart D, Shetty A, Pande B, Singh R, Mclay JS. Complementary and alternative medicine use during early pregnancy. *Eur J Obstet Gynecol Reprod Biol*. 2014;181:251-255. [CrossRef]
8. Yusuf J, Mahdy ZA, Noor RM. Use of complementary and alternative medicine in pregnancy and its impact on obstetric outcome. *Complement Ther Clin Med. Complement Ther Clin Pract*. 2016;25:155-163. [CrossRef]
9. Shaukat Ali RS, Gnanasan S, Farooqui M. Women's perspectives towards traditional and complementary medicine used to conceive, during pregnancy and the postpartum period. *Complementary Therapies in Clinical Practice*. 2018;30:109-115. [CrossRef]
10. Tillett J, Ames D. The uses of aromatherapy in women's health. *J Perinat Neonat Nur*. 2010;24(3):238-245. [CrossRef]
11. Uzunçakmak T, Alkaya AS. Effect of aromatherapy on coping with premenstrual syndrome: a randomized controlled trial. *Complement Ther Med*. 2018;36:63-67. [CrossRef]

12. Taavoni S, Darsareh F, Joolae S, Haghani H. The effect of aromatherapy massage on the psychological symptoms of postmenopausal Iranian women. *Complement Ther Med*. 2013;21(3):158-163. [\[CrossRef\]](#)
13. Hur MH, Lee MS, Seong KY, Lee MK. Aromatherapy massage on the abdomen for alleviating menstrual pain in high school girls: a preliminary controlled clinical study. *Evid Based Complement Alternat Med*. 2012;2012:187163. [\[CrossRef\]](#)
14. Freeman L. *Mosby's Complementary Alternative Medicine: A Research-Based Approach*. 3rd ed. UK: Mosby Elsevier Inc; 2009.
15. Buckle J. *Clinical Aromatherapy Essential Oils in Healthcare*. 3rd rev. ed. London: Churchill Livingstone; 2015.
16. Fontaine KL. *Complementary Alternative Therapies for Nursing Practice*. 4th ed. NJ: Pearson Education Inc; 2014.
17. Rathfisch G, *Kadın Sağlığında Klinik Aromaterapi*. Adana: Çukurova Nobel Tıp Kitabevi; 2019.
18. Süt N, Kahyaoglu-Sut HK. Effect of aromatherapy massage on pain in primary dysmenorrhea: a meta-analysis. *Complement Ther Clin Pract*. 2017;27:5-10. [\[CrossRef\]](#)
19. Ou MC, Hsu TF, Lai AC, Lin YT, Lin CC. Pain relief assessment by aromatic essential oil massage on outpatients with primary dysmenorrhea: a randomized, double-blind clinical trial. *J Obstet Gynaecol Res*. 2012;38(5):817-822. [\[CrossRef\]](#)
20. Sadeghi Aval Shahr HSA, Saadat M, Kheirkhah M, Saadat E. The effect of self-aromatherapy massage of the abdomen on the primary dysmenorrhoea. *J Obstet Gynaecol*. 2015;35(4):382-385. [\[CrossRef\]](#)
21. Marzouk TMF, El-Nemer AMR, Baraka HN. The effect of aromatherapy abdominal massage on alleviating menstrual pain in nursing students: a prospective randomized cross-over study. *Evid Based Complement Alternat Med*. 2013;2013:742421. [\[CrossRef\]](#)
22. Song JA, Lee MK, Min E, Kim ME, Fike G, Hur MH. Effects of aromatherapy on dysmenorrhea: a systematic review and meta-analysis. *Int J Nurs Stud*. 2018;84:1-11. [\[CrossRef\]](#)
23. Lee MS, Lee HW, Khalil M, Lim HS, Lim HJ. Aromatherapy for managing pain in primary dysmenorrhea: a systematic review of randomized placebo-controlled trials. *J Clin Med*. 2018;7(11):2-14. [\[CrossRef\]](#)
24. Ozgoli G, Saei Ghare Naz M. Effects of complementary medicine on nausea and vomiting in pregnancy: a systematic review. *Int J Prev Med*. 2018;9:75. [\[CrossRef\]](#)
25. Joulaerad N, Ozgoli G, Hajimehdipoor H, Ghasemi E, Salehimoghaddam F. Effect of aromatherapy with peppermint oil on the severity of nausea and vomiting in pregnancy: a single-blind, randomized, placebo-controlled trial. *J Reprod Infertil*. 2018;19(1):32-38.
26. McKinney ES, James SR, Murray SS, Nelson K, Ashwill J. *Maternal-Child Nursing*. St. Louis: Elsevier Health Sciences; 2017:362-401.
27. Chen SF, Wang CH, Chan PT, et al. Labor pain control by aromatherapy: a meta-analysis of randomized controlled trials. *Women Birth*. 2019;32(4):327-335. [\[CrossRef\]](#)
28. Lakhani SE, Sheaffer H, Tepper D. The effectiveness of aromatherapy in reducing pain: a systematic review and meta-analysis. *Pain Res Treat*. 2016;2016:Article ID 8158693. [\[CrossRef\]](#)
29. Hamdadian S, Nazarpour S, Simbar M, Hajian S, Mojab F, Talebi A. Effects of aromatherapy with *Rosa damascena* on nulliparous women's pain and anxiety of labor during first stage of labor. *J Integr Med*. 2018;16(2):120-125. [\[CrossRef\]](#)
30. Burns E, Zobbi V, Panzeri D, Oskrochi R, Regalia A. Aromatherapy in child-birth: a pilot randomised controlled trial. *Int J Obstet Gynaecol*. 2007;114(7):838-844. [\[CrossRef\]](#)
31. Conrad P, Adams C. The effects of clinical aromatherapy for anxiety and depression in the high risk postpartum woman: a pilot study. *Complement Ther Clin Pract*. 2012;18(3):164-168. [\[CrossRef\]](#)
32. Yazdkhasti M, Pirak A. The effect of aromatherapy with lavender essence on severity of labor pain and duration of labor in primiparous women. *Complement Ther Clin Pract*. 2016;25:81-86. [\[CrossRef\]](#)
33. Frawley J, Adams J, Sibbritt D, Steel A, Broom A, Gallois C. Prevalence and determinants of complementary and alternative medicine use during pregnancy: results from a nationally representative sample of Australian pregnant women. *Aust N Z J Obstet Gynaecol*. 2013;53(4):347-352. [\[CrossRef\]](#)
34. Kianpour M, Moshirenia F, Kheirabadi G, Asghari G, Dehghani A, Dehghani-Tafti A. The effects of inhalation aromatherapy with rose and lavender at week 38 and postpartum period on postpartum depression in high risk women referred to selected health centers of Yazd, Iran in 2015. *Iran J Nurs Midwifery Res*. 2018;23(5):395-401. [\[CrossRef\]](#)
35. Sim TF, Sherriff J, Hattingh HL, Parsons R, Tee LB. The use of herbal medicines during breastfeeding: a population-based survey in Western Australia. *BMC Complement Ther*. 2013;13(1):1-10.
36. Kurniyati K, Bakara DM, Susanti E. The effect of oxytocin massage method using lavender essential oils on the smooth production of breast milk at mother postpartum in Rejang Lebong Regency. *Adv Health Sci Educ*. 2019;14:91-94.
37. Nikjou R, Kazemzadeh R, Asadzadeh F, Fathi R, Mostafazadeh F. The effect of lavender aromatherapy on the symptoms of menopause. *J Natl Med Assoc*. 2018;110(3):265-269. [\[CrossRef\]](#)
38. Kazemzadeh R, Nikjou R, Rostamnegan M, Norouzi H. Effect of lavender aromatherapy on menopause hot flushing: a crossover randomized clinical trial. *J Chin Med Assoc*. 2016;79(9):489-492. [\[CrossRef\]](#)
39. Khadivzadeh T, Najafi MN, Kargarfard L, Ghazanfarpour M, Dizavandi FR, Khorsand I. Effect of fennel on the health status of menopausal women: a systematic and meta-analysis. *J Menopausal Med*. 2018;24(1):67-74. [\[CrossRef\]](#)
40. Herz RS. Aromatherapy facts and fictions: a scientific analysis of olfactory effects on mood, physiology and behavior. *Int J Neurosci*. 2009;119(2):263-290. [\[CrossRef\]](#)
41. Buchan S, Shakeel M, Trindade A, Buchan D, Ah-See K. The use of complementary and alternative medicine by nurses. *Br J Nurs*. 2012;21(11):672-676. [\[CrossRef\]](#)
42. Khorshid L, Yapucu Ü. Tamamlayıcı tedavilerde hemşirenin rolü. *Atatürk Univ Hemşirelik Yüksekokulu Derg*. 2005;8(2):124-130.
43. Price S, Price L. *Aromatherapy for Health Professionals*. 4th ed. London: Churchill Livingstone Elsevier; 2012.
44. Geleneksel Ve Tamamlayıcı Tıp Uygulamaları Yönetmeliği. *Resmi Gazete*. Available at: <http://www.resmigazete.gov.tr/eskiler/2014/10/20141027-3.htm>. Accessed January 10, 2019.