

Use of Aromatherapy in the Perinatal Period

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Abstract

The entire process of pregnancy, birth and postpartum falls within the perinatal period. The perinatal period is a process that must be closely monitored in order to protect and ensure the continuity of the health of the woman and her baby. Many physiological, anatomical and emotional changes occur in the woman during pregnancy and birth. These changes can negatively affect the woman's health and reduce her quality of life. In order to cope with these changes and increase her quality of life, women may prefer non-pharmacological applications instead of pharmacological applications due to the thought of harming their baby and themselves. One of the non-pharmacological methods that can be used in the perinatal process is aromatherapy. Aromatherapy reduces the woman's fatigue and stress levels, allows her to relax and have a more positive experience. The purpose of this review is to examine the use of aromatherapy in the perinatal period and present it in line with the literature.

Keywords: Aromatherapy, Perinatal period, Pregnancy, Birth, Postpartum

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Introduction

Aromatherapy is a method among traditional and complementary medicine practices in which volatile, essential oils obtained from the roots, trunks, stems and leaves of plants and fruits are used (1). Aromatherapy is used to increase the physical and mental well-being of the individual, to provide spiritual balance, to prevent and treat diseases (1, 2). The history of aromatherapy dates back approximately 6000 years and it is known that it was first used in the ancient Egyptian Civilization for the production of mummies (3). The use of the therapeutic properties of aromatherapy was seen in ancient Greek civilizations (3). In the Middle Ages, it is known that Ibn-i Sina used rose oil, which he obtained by distilling aromatic oils from plants, in his treatments (3, 4). In 1936, French chemist Rene Maurice Gattefosse observed that when he was burned on his arm while performing the distillation process during a perfume production study with volatile essential oils, he poured a jar of lavender oil on the burned area, and that the pain decreased and that the wound healed faster when he applied it regularly to the wound (2). During World War II, Dr. Valnet used essential oils such as lemon, clove, thyme and chamomile to treat wounded and burnt soldiers (2, 3).

Aromatherapy Mechanism of Action

Aromatherapy is a very effective supportive treatment method when applied at the right time and in the right way (2). The use of volatile essential oils changes body chemistry, relieves pain, provides spiritual and emotional balance and relaxation of the body. Aromatherapy can be applied with methods such as inhalation, dermal; massage, bath and compress, oral; gargle. Aromatherapy application by inhalation is the most effective and oldest method and the scent of the volatile essential oil is converted into electrical impulses through the olfactory receptors in the nose. The resulting electrochemical message is transmitted to the limbic system. The message is activated by the hypothalamus and the resulting response is sent to other parts of the body (2, 3). As a result of the message, actions such as pleasure-giving, relaxation and sleepiness are created. It is known that the analgesic components found in some volatile oils are effective on the release of dopamine, endorphin, noradrenaline and serotonin in the brain (2, 5). As a result of aromatherapy application via dermal route, essential oils penetrate the skin barrier rapidly and reach the target area. Essential oils applied orally reach the target area and other parts of the body via

blood circulation and create biochemical and physical effects (2, 3, 5)

Aromatherapy During Pregnancy

Although pregnancy is a natural process, it causes anatomical, physiological, physical and psychological changes in women. As a result of the changes experienced, nausea, vomiting, fatigue, constipation, back pain, increased frequency of urination during the day and breast tenderness may occur (6, 7). The most common discomfort is nausea with a rate of 88%. It is reported that vomiting affects approximately 40% of women in the first trimester (7). These changes can negatively affect the health of the woman and reduce her quality of life (8, 9). Many women avoid pharmacological methods due to the thought that they will harm themselves and their babies and because of the ease of control, and they may resort to complementary therapy methods such as non-pharmacological herbal therapies, vitamin and mineral supplements, relaxation and relaxation exercises, music therapy and aromatherapy in order to cope with the changes experienced (7, 8). In a study conducted in our country, it was determined that 68.3% of pregnant women preferred vitamins, 45.1% massage and 3.6% aromatherapy applications as non-pharmacological methods. The lack of sufficient evidence about herbal and aromatherapy applications during

pregnancy significantly affects the rate and reliability of application (9, 10).

During pregnancy, aromatherapy can be used for relaxation, relief, reducing stress, fatigue, stress and physical symptoms. There is little evidence regarding the use of essential oils during pregnancy. When essential oils are used during this process, it is recommended that they be diluted in small doses and that appropriate oils be used. Before application, essential oils can be diluted to 0.5-1% and applied by pouring 1-3 drops onto cotton when applied by inhalation. It is reported that the most commonly used oil during pregnancy is lavender. It is recommended that no essential oil be used during the first trimester, including in diluted form (11, 12). The oils that are suitable for use during pregnancy are cardamom, chamomile, frankincense, geranium, tangerine, lemon, melissa, lavender, ylang ylang, jasmine, sandalwood, rose, tea tree, rosemary, cedarwood, eucalyptus, bergamot, patchouli, bitter orange, cypress, and orange blossom oils (11, 12). Although the plants are completely natural, the oils that are not safe to use during pregnancy and for which there is insufficient evidence are anise seed, camphor, melon, sage, basil, buchu, cumin, cinnamon, juniper, cinnamon, sage, clove, cedarwood, cypress, bitter fennel, geranium, ginger, jasmine, sassafras, rue,

hyssop, mustard, marjoram, myrrh, nutmeg, and oregano (12, 13, 14).

Studies have shown that lemon and mint oils, when applied to women individually or in combination via inhalation, reduce the severity of nausea and vomiting, and that applying mint oil alone has no significant effect on anxiety (15, 16). Other studies have found that massage with rose oil reduces pain in low back and waist pain during pregnancy, orange flower aromatherapy applied in the last trimester of pregnancy increases the mood and endurance of the pregnant woman, Citrus aurantium essential oil aromatherapy reduces anxiety but has no effect on sleep quality, and massage with rosehip oil on the breast, hip and abdomen of pregnant women from the 12th week of pregnancy until birth reduces striae gravidarum (17, 18, 19, 20, 21).

Aromatherapy During Labor

Birth is a biological and physiological process in a woman's life, but it is also a normal, inevitable and multidimensional experience that includes feelings such as happiness, excitement and fear (13, 22). As the act of birth approaches, women experience pain in the lower back due to the descent of the fetus, nausea, diarrhea, regular/irregular uterine contractions, increased vaginal discharge and cervical plug expulsion (22, 23). In addition to these

changes, becoming a parent, acquiring new roles and responsibilities, the unpredictability and uncertainty of birth, past birth experience, the meaning that the society in which they live attaches to birth, and the thought of experiencing pain suppress the feeling of reunion with the baby in the woman and cause feelings of fear, anxiety, restlessness and restlessness (24, 25). It has been determined that approximately 80% of women experience fear of birth, and it is reported that the fear of birth can negatively affect the pregnancy, birth and postpartum process (24).

Aromatherapy is used to reduce pain, anxiety and stress during the labor process (26, 27). One of the oldest non-pharmacological methods used to cope with labor pain is aromatherapy. Essential oils should not be used undiluted during the labor process, as they are during pregnancy. Studies examining the effect of aromatherapy on labor pain increased between 1996 and 2002 (27, 28). Today, data from aromatherapy studies are generally expressed as level III evidence (29, 30). It can be applied during labor by diluting it by 1-2% and pouring 1-3 drops onto cotton when applied by inhalation (13). The most commonly used aromatic oils during this process are lavender, mint, rose, sage and neroli oils and can be applied

by applying to the skin, massaging or inhaling (26).

In the study conducted by Tanvisut et al. (2018), women in the first stage of labor were applied one of the oils chosen by them, namely lavender, rose geranium, citrus, and jasmine, and the control group was not applied at all, and it was found that the pain levels of the latent and early active phases were significantly lower in the experimental group (28). In the study conducted by Tadokoro et al. (2023), it was determined that the sage and lavender aromatherapy foot bath applied to the women increased the oxytocin level but had no effect on uterine contractions and cortisol levels (31). In the study conducted by Sriasih et al. (2019) with frangipani oil, it was reported that aromatherapy massage reduced pain during labor (32). In meta-analysis study, it has been reported that aromatherapy reduces the level of pain, fatigue and stress felt during the birth process, reduces nausea and vomiting, positively affects the maternal mood, and facilitates episiotomy recovery (33).

Aromatherapy After Labor

The postpartum period is a transition period in which women experience intense physical, social and psychological changes as they begin to return to their pre-pregnancy state (34). As a result of the changes experienced, women may

experience pain, fatigue, restlessness, sleep disorders and lack of energy, and 60% of women in this period may experience severe fatigue (35, 36).

The purpose of aromatherapy application after birth is to reduce pain, restlessness, fatigue, stress levels, accelerate episiotomy healing, and improve sleep quality (37). It can be applied in the postpartum period by diluting it by 1-2% and using methods such as massage, steam, and bath (12).

In the study conducted by Abedian et al. (2020), in an aromatherapy study conducted to improve the healing of postpartum episiotomy and reduce pain scores, it was determined that a sitz bath with lavender oil was effective in healing episiotomy and reducing pain scores (38). In a study conducted by Chen et al. (2022) to investigate the effect of aromatherapy on the psychology of women after birth, it was observed that bergamot oil had a positive effect on depressive mood in women, while it had no effect on sleep quality (39). In a systematic review, it was determined that aromatherapy applied after birth improved physiological and psychological health; It had a positive effect on anxiety, depression, stress, fatigue, weakness, pain, nausea, episiotomy healing and sleep quality, and in addition, it was reported that no serious side effects were observed during the intervention in most of the studies (37). In a

study by Çerçer and Nazik (2018), it was found that aromatherapy applied during childbirth was effective in coping with birth pain and increasing the level of comfort and satisfaction (40).

Conclusion and Recommendations

This review article examines the areas of aromatherapy application during pregnancy, birth and postpartum, how it is applied and for what purposes it is applied. The areas of aromatherapy use in the perinatal period are used to reduce the rates of fatigue, stress and anxiety in women and to increase psychological well-being, and the method of application and the type of essential oil applied vary. The limited number of data in the literature on the areas of aromatherapy application in the perinatal period may affect the rate of use, and it would be beneficial to increase evidence-based studies in this field, contribute to the literature and for health professionals, especially midwives, to follow current information on this subject and improve themselves.

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