

Aromatherapy for Laboring Women

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Clinical Question:

For women in labor, does aromatherapy reduce labor pain and anxiety?

Sources of Evidence:

Fakari, F., R., Tabatabaeichehr, M., Kamali, H., Fakari, F.R. & Naseri, M. (2015). Effect of inhalation of aroma of geranium essence on anxiety and physiological parameters during the first stage of labor in nulliparous women: A randomized clinical trial. *Journal of Caring Sciences*, 4(2), 135 –144. doi:10.15171/jcs.2015.014

Kaviana, M., Azima, S., Alavi, N., & Tabaei, M. H. (2014). The effect of lavender aromatherapy on pain perception and intrapartum outcome in primiparous women. *British Journal Of Midwifery*, 22(2), 125 –128.

Namazi, M., Akbari, A. A. S., Mojab, F., Talebi, A., Majd, H. A., & Jannesari, S. (2014). Aromatherapy with citrus aurantium oil and anxiety during the first stage of labor. *Iran Red Crescent Medical Journal*. 16(6). doi: 10.5812/ircmj.18371

Yazdkhasti, M., Pirak, A. (2016). The effect of aromatherapy with lavender essence on severity of labor pain and duration of labor in primiparous women. *Complementary Therapies in Clinical Practice* 25, 81 –86. doi: 10/1016/j.ctcp.2016.08.008

Synthesis of Evidence

Four articles were reviewed as evidence in this report. All four articles are randomized control studies.

Fakari, Tabatabaeichehr, Kamali, Fakari & Naseri (2015) conducted a randomized control study. The study was to examine the effect of inhalation of geranium essential oil on the level of anxiety and physiological parameters in the first stage of labor of nulliparous women. The study included 97 participants being nulliparous, full-term pregnant, 18-35 years old, cervical dilation of 3-5cm on vaginal exam, and having no complications or history of chronic disease. One group received inhalation of germanium essence and the other group did not receive the inhalation. Vital signs were measured before the inhalation and 20 minutes after the inhalation. To measure anxiety Spielberger's State-Trait Anxiety Inventory (STAI) was used, it has 40 questions but only the first 20 questions focusing on anxiety were used. The only limitation of the study was that there was not a possibility of blinding because of the diffusion of oil molecules into the environment. In the study the anxiety levels were lowered in both the experimental group and the control group. Results of this study conclude using geranium essential oil for aromatherapy is an effective method of reducing state anxiety.

Kaviana, Azima, Alavi and Tabaei (2014) conducted a random control trial to determine the effect of lavender aromatherapy on labor pain. The 160 participants were divided equally into

two groups. The experimental group received the inhalation of lavender and the control group did not receive the inhalation. This study used the Visual Analogue Scale before the intervention and then again at 30 and 60 minutes after implementing the intervention to examine the effectiveness of lavender aromatherapy amongst the control group and the group who received aromatherapy, it was found that lavender had a clinical significance on reducing labor pains for primiparous women. This study suggested that the intervention of lavender aromatherapy would be helpful for women in labor and had no effect on any of the baby's Apgar scores or the duration of labor stages.

Namazi, Akbari, et al (2014) conducted a randomized control to study the effects of using aromatherapy with citrus aurantium oil in reducing anxiety during labor. The study was conducted at Vali-Asr Hospital in Iran. There was a initial sample size of 126 women, the inclusion criteria was Iranian primiparous women between the ages of 18 – 35 yrs old. These women had to have a single pregnancy with no complications to be included in the study, they were randomly assigned to one of two groups, the control group or experimental group. The control group received distilled water and the experimental group received citrus aurantium. The sample size was collected between June and September of 2013. The sample size at the end of the study was 113. The study was conducted by using gauze that had either the 4 ml of oil or distilled water. These gauzes were changed every 30 minutes. The level of anxiety in both groups was measured at baseline and after the interventions at 3-4 cm dilated and 6 – 8 cm dilated. Apgar scores were also checked after delivery, there was no impact to apgar scores. To assess anxiety the Spielberger state-trait anxiety questionnaire was used. Both groups had the same level of anxiety before the intervention, but the aromatherapy groups anxiety was significantly lower than the control group after the intervention.

The fourth study was a randomized control trial conducted by Yazdkhasti and Pirak (2016). They evaluated 120 pregnant women ages 15-32 years old who are delivering vaginally and were not using any other form of analgesia. For the study, Yazdkhasti and Pirak wanted to test the effectiveness of using lavender aromatherapy for reducing labor pain. They used 2 drops of lavender essence between 4-5 cm, 6-7 cm and 8-9 cm cervical dilation and would assess the laboring women's pain before and after the lavender inhalation. There is clinical significance showing that the lavender essence helped with reducing pain in laboring women. Although there is no evidence of a change with the mean duration of the active phase of labor, it is an inexpensive and noninvasive way to manage pain in laboring women.

Conclusion:

All four studies indicated a decrease in pain and/or anxiety in laboring women when they used aromatherapy. However, the use of aromatherapy seems to be more effective during the latent stage of labor.

Implications for Nursing Practice:

Our recommendation would be to use aromatherapy as an alternative to pain medication during the latent stage of labor for it to be effective against pain and anxiety. The essential oils that we would recommend are lavender, germanium essences, and citrus aurantium.