



Kocaeli Üniversitesi Sağlık Bilimleri Dergisi

e-ISSN: 2149-8571

Journal of Health Sciences of Kocaeli University

<https://dergipark.org.tr/kusbed>

ORIGINAL ARTICLE

Full Text of The Paper

doi:10.30934/kusbed.496775

Expanded English Abstract

<https://doi.org/10.30934/kusbed.496775>

AROMATHERAPY IN CHILDBIRTH: A SYSTEMATIC REVIEW

Ayla Ergin^{1*}, Pınar Mallı²

¹Kocaeli University, Faculty of Health Sciences, Department of Midwifery, Kocaeli, 41380, Turkey

²Kocaeli University, Institute of Health Sciences, Department of Midwifery, Masters Degree Programme, Kocaeli, 41380, Turkey

ARTICLE INFO

ABSTRACT

Article History

Received: 13.12.2018

Accepted: 15.04.2019

Available Online (Published): 20.05.2019

*Correspondence

Ayla Ergin

Kocaeli University, Faculty of Health Sciences, Department of Midwifery, Kocaeli, 41380, Turkey

E-mail

ayla.ergin@gmail.com

Objective: The purpose of this study was to analyze the current studies and knowledge about aromatherapies used during childbirth, to bring evidence-based recommendations to our countries midwifery care model and to shed light into the fore-coming studies.

Methods: Scopus, PubMed, EBSCO host, Science Direct ve Ulusal Tez Merkezi, Dergi Park, Ulakbim, Turk Medline, Turkish Citation Index were used to search the current literature and 82 articles were retrieved. The key words used for search included "aromatherapy and labor pain" and "aromatherapy and childbirth". Articles published within the past 18 years (January 2000 - November 2018) either in Turkish or in English were considered if they were performed as controlled randomized experimental studies.

Results: Thirty studies were excluded due to their unsuitability to the study. The studies were evaluated based on PRISMA (2009) assessment criteria. In the analysis, it was determined that 18 studies were randomized controlled and 6 studies were experimental studies. In addition, 2 systematic reviews, 2 meta-analyzes and 1 retrospective, 1 prospective study were also observed. Most of the studies (15) reviewed were from Iran. Only two studies were found from our country.

Conclusion: The aromatherapy used during labor may decrease anxiety, increase relaxation, and ease labor pain. Studies reported positive effects of aromatherapy on exhaustion, labor duration, labor outcomes and the mother's satisfaction of the birth. In addition, it is our opinion that the authorization of nurses and midwives to use aromatherapy on their patients in our country and further randomized controlled studies are needed to provide more evidence for the use of aromatherapy.

Keywords: Aromatherapy, labour pain, complementary and alternative therapy, nursing midwifery

Abstract

In this systematic review study, 18 randomized controlled, 6 experimental, 2 systematic reviews, 2 meta-analyzes, 1 retrospective and 1 prospective study were evaluated in accordance with the keywords. Most of the studies (15) reviewed were from Iran. Only two studies were found from our country.

Introduction and The Aim of This Study

Each woman and child are unique and thus each experienced delivery pain is affected by many factors such as physical, psychological, environmental, psychological, political and emotional conditions of the pregnant woman. Although various methods are used in coping with delivery pain, one of the oldest non-

medication methods is aromatherapy. Studies have shown that aromatherapy is an effective way to manage pain and improve psychological effects at birth. The number of evidence-based aromatherapy studies have been increasing in recent years¹⁻⁷.

Therefore, the purpose of this study was to systematically evaluate the current aromatherapies used at birth, present a model based on strong evidence-based studies for the midwifery care practices in our country and lead the research on this subject.

Study Subject

Lamadah and Nomani (2016) demonstrated that aromatherapy massage with lavender oil can reduce the pain and anxiety during childbirth, and effectively decrease the duration of labor. In a study carried out in Turkey, Karabulut (2014) evaluated the effect of aromatherapy and found that in the latent phase of labor, there was no significant difference between the groups in terms of the mean pain scores, except in the aromatherapy group which experienced statistically significant reduction in labor pain. However, there is no systematic review article evaluating the recent work in the literature. This study is thus important for providing positive feedback to the literature.

Method

In this systemic review study, details regarding about publication selection, categorization, and other criteria were carried out using the guidelines in PRISMA (Systematic Analyzes and Preferred Reporting Elements for Meta-Analyzes-2009). The study covered 82 papers which were retrieved from Scopus, PubMed, EBSCO Host, Science Direct and national thesis center, Dergi Park and Ulakbim. Publications of the last 18 years (January 2000-December 2018) were retrieved using the key words e.g., aromatherapy and labour, aromatherapy and labour pain, aromatherapy and birth, aromatherapy and complementary therapies and aromatherapy and clinical studies. Among the retrieved publications, the ones written in English and Turkish with full-text were considered. The first retrieval effort yielded 82 publications but after elimination of the publications that did not meet the selection criteria, only 30 used for the analysis.

Results and Discussion

There appeared to be 18 randomized controlled, 6 experimental, 2 systematic reviews, 2 meta-analyzes, 1 retrospective and 1 prospective study about the subject matter. The studies were evaluated in this study were carried out in Italy (1), Australia (1), Turkey (2), India (3), Egypt (1), Indonesia (1), Saudi Arabia (1), Tayland (1), China (2) and Iran (15). It was determined that the frequently used aromatherapies were lavender, jasmine oil, olive oil, orange, citrus and tangerine oils, various rose oils, Roman and yellow daisy, sage, akgünlük, indian incense, chamomile oil, almond oil and valerian. These aromatherapies were applied to the pregnant women by the researchers with midwifery education via single inhalation or by massage or with a combination of different methods.

Aromatherapy is considered as a non-pharmacological method to relieve pain, and it is widely used by pregnant women because it is safe and cost-effective. In recent years, many researchers in the field of obstetrics and midwifery have been interested in this topic and relevant studies on the subject have been increasing since 2011.

Research has been reported that aromatherapy used at birth not only relieves physical ailments, but also helps to develop a relationship of empathy, love and trust between health care staff and pregnant women when used in conjunction with other methods such as massage. In a study conducted by Saeieh et al with 126 women in 2018, pain intensity was significantly found to be lower in the aromatherapy group. Studies in general have shown that aromatherapy is effective on delivery pain, shorten the time of delivery and also decrease the general anxiety and the anxiety at birth^{7,20,23,25-27,48}

Conclusions

The aromatherapy used during labor may decrease anxiety, increase relaxation, and ease labor pain. Studies reported positive effects of aromatherapy on exhaustion, labor duration, labor outcomes and the

mother's satisfaction of the birth. In addition, it is our opinion that the authorization of nurses and midwives to use aromatherapy on their patients in our country and further randomized controlled studies are needed to provide more evidence for the use of aromatherapy.

References

- Demirgöz Bal M, Dereli Yılmaz S, Berkiten Ergin A. Ebelere Yönelik Kapsamlı Doğum (1.baskı). Akademisyen Kitabevi, Ankara, 2017.
- Kheirkhah M, Valipour NS, Neisani L, Haghani H. A controlled trial of the effect of aromatherapy on birth outcomes using " rose essential oil " inhalation and foot bath. *J Midwifery Reprod Health*. 2013;(1):4-9. doi:10.22038/jmrh.2013.2058
- Luo T, Huang M, Xia H, Zeng Y. Aromatherapy for laboring women : a meta-analysis of randomized controlled trials. *OJN*. 2014;3(4):163-168. doi:10.4236/ojn.2014.43021
- Namazi M, Ali Akbari SA, Mojab F, Talebi A, Majd HA, Jannesari S. Effects of citrus Aurantium (bitter orange) on the severity of first-stage labor pain. *Iran J Pharm Res*. 2014;13(3):1011-1018.
- Smith CA, Collins CT, Crowther CA. Aromatherapy for pain management in labour. *Cochrane Database Syst Rev*. 2011;6(7): doi:10.1002/14651858.CD009215
- Tanvisut R, Traisrisilp K, Tongsong T. Efficacy of aromatherapy for reducing pain during labor: a randomized controlled trial. *Arch Gynecol Obstet*. 2018;297(5):1145-1150. doi:10.1007/s00404-018-4700-1
- 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;25:81-83. doi:10.1016/j.ctcp.2016.08.008
- Alleemudder DI, Kuponiyi Y, Kuponiyi C, McGlennan A, Fountain S, Kasivisvanathan R. Analgesia for labour: an evidence-based insight for the obstetrician. *Obstet Gynaecol*. 2015;17(3):147-155. doi:10.1111/tog.12196
- Bodeker, Gerard, Ong, et al. WHO global atlas of traditional, complementary and alternative medicine. Kobe, Japan, 2005. <https://apps.who.int/iris/handle/10665/43108>. 13 Aralık 2018'de erişildi.
- Amanak K, Karaöz B, Sevil Ü. Alternatif / Tamamlayıcı tıp ve kadın sağlığı. *TAF Prev Med Bull*. 2013;12(4):441-448.
- Asazawa K, Kato Y, Yamaguchi A, Inoue A. The effect of aromatherapy treatment on fatigue and relaxation for mothers during the early puerperal period in Japan : A Pilot Study. *Int J Community Based Nurs Midwifery*. 2017;5(4):365-375.
- Igarashi T. Physical and Psychologic effects of aromatherapy inhalation on pregnant women: A randomized controlled trial. *J Altern Complement Med*. 2013;19(10):805-810. doi:10.1089/acm.2012.0103
- Kaviani M, Maghbool S, Azima S, Tabaei MH. Comparison of the effect of aromatherapy with Jasminum officinale and Salvia officinale on pain severity and labor outcome in nulliparous women. *J Nurs Midwifery Res*. 2014;19(6):666-672.
- Burns E, Zobbi V, Panzeri D, Oskrochi R, Regalia A. Aromatherapy in childbirth: A pilot randomised controlled trial. *BJOG An Int J Obstet Gynaecol*. 2007;114(7):838-844. doi:10.1111/j.1471-0528.2007.01381.x
- Smith CA, Collins CT, Crowther CA. Aromatherapy for pain management in labour. *Cochrane Database Syst Rev*. 2011;7. doi:10.1002/14651858.CD009215.
- Bilgiç Ş. Hemşirelikte holistik bir uygulama; Aromaterapi. *Namık Kemal Tıp Derg*. 2017;5(3):134-141.
- Şar S, Kahya E, Ataç A. Aromaterapinin tarihçesi ve bu alanda kullanılan tıbbi bitkilerden örnekler. *Lokman Hekim Derg*. 2011;5(3):32-33.
- Karagöz Arıhan S. Antik Dönemde Tıp ve Bitkisel Tedavi [Yüksek Lisans Tezi]. Ankara: Ankara Üniversitesi Sosyal Bilimler Enstitüsü; 2003.
- Ali B, Al-Wabel NA, Shams S, Ahamad A, Khan SA, Anwar F. Essential oils used in aromatherapy: A systemic review. *Asian Pac J Trop Biomed*. 2015;5(8):601-611. doi:10.1016/j.apjtb.2015.05.007
- Vakilian K, Keramat A, Gharacheh M. Controlled breathing with or without lavender aromatherapy for labor pain at the first stage : A randomized clinical trial. *CJMB*. 2018;5(3):172-175.
- Ernst E. Prevalence of use of complementary/alternative medicine: A systematic review. *Bull World Health Organ*. 2000;78(2):252-257. Doi:10.1590/S0042-96862000000200015
- World Health Organization. WHO Traditional Medicine Strategy 2014-2023. *Altern Integr Med*. 2013;1(1):1-78. https://www.who.int/medicines/publications/traditional/trm_strategy14_23/en/
- Tillett J, Ames D. The Uses of Aromatherapy in Women's Health. *J Perinat Neonatal Nurs*. 2010;24(3):238-245. doi:10.1097/JPN.0b013e3181e3e75d.
- Yılar Erkek Z, Pasinlioğlu T. Doğum ağrısında kullanılan tamamlayıcı tedavi yöntemleri. *Anadolu Hemşirelik ve Sağlık Bilim Derg*. 2016;19:71-77. doi:10.17049/ahsbd.09559
- Rashidi-Fakari F, Tabatabaeichehr M, Mortazavi H. The effect of aromatherapy by essential oil of orange on anxiety during labor: A randomized clinical trial. *Iran J Nurs Midwifery Res*. 2015;20(6):661-664. doi:10.4103/1735-9066.170001.
- Lamadah SM, Nomani I. The effect of aromatherapy massage using lavender oil on the level of pain and anxiety during labour among primigravida women. *Am. J. Nurs. Sci*. 2016;5(2):37-44. doi:10.11648/j.ajns.20160502.11
- Michal M, Dorota T, Andrzej T. Non-pharmacological methods of labor pain relief. *J Educ Heal Sport*. 2018;8(9):1105-1114. doi:10.5281/zenodo.1421220
- Karabulut H. Doğum Eyleminde Aromaterapinin Etkileri [Yüksek lisans tezi]. İstanbul: İstanbul Üniversitesi; 2014.
- Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA Statement. *Anticancer Res*. 2015;35(8):4419-4424. doi:10.1371/journal.pmed.1000097
- Burns EE, Blamey C, Ersser SJ, Barnetson L, Lloyd AJ. An Investigation into the use of aromatherapy in intrapartum midwifery practice. *J Altern Complement Med*. 2000;6(2):141-147. doi:10.1089/acm.2000.6.141
- Vardanjanı SA, Shafai FS, Mohebi P, et al. Wound healing benefits of curcumin for perineal repair after episiotomy: results of an iranian randomized controlled trial. *Life Sci J*. 2012;9(4):5536-5541.
- Dhany AL, Mitchell T, Foy C. Aromatherapy and massage intrapartum service impact on use of analgesia and anesthesia in women in labor: A retrospective case note analysis. *J Altern Complement Med*. 2012;18(10):932-938. doi:10.1089/acm.2011.0254.
- Vakilian K, Keramat A. The effect of the breathing technique with and without aromatherapy on the length of the active phase and second stage of labor. *Nurs Midwifery Stud*. 2013;1(3):115-119. doi:10.5812/nms.9886

34. Alavi A, Askari M, Nejad ED, Badheri P. Study the effect of massage with jasmine oil in comparison to aromatherapy with jasmine oil on childbirth process in hospitals of Abadan city in 2013. *Ann Trop Med Public Health*. 2017;10(4):904-909.
35. Zahra A, Leila MS. Lavender aromatherapy massages in reducing labor pain and duration of labor : A randomized controlled trial. *Afr J Pharm Pharmacol*. 2013;7(8):426-430. doi:10.5897/AJPP12.391
36. Joseph RM, Fernandes P. Effectiveness of jasmine oil massage on reduction of labor pain among primigravida mothers. *Nitte Univ J Heal Sci*. 2013;3(4):104-107. doi:10.1037/0021-843X.113.4.592
37. Kaviani M, Azima S, Alavi N, Tabaei MH. The effect of lavender aromatherapy on pain perception and intrapartum outcome in primiparous women. *Br J Midwifery*. 2014;2(22):125-128. doi:10.12968/bjom.2014.22.2.125
38. Raju J, Signh M. Effectiveness of aromatherapy and biofeedback in promotion of labour outcome during childbirth among primigravidas. *Health Science Journal*. 2015;9(1):1-5.
39. Poongodi V. A Descriptive Clinical Study on the Effectiveness of Aromatherapy during First Stage of Labour in Selected Hospitals at Kolar District Karnataka. *JNHS*. 2015;4(5):34-38. doi:10.9790/1959-04533438
40. Makvandi S, Mirteimoori M, Najmabadi KM, Sadeghi R. A review of randomized clinical trials on the effect of aromatherapy with lavender on labor pain relief. *NCOAJ*. 2016;1(3):42-47. doi:10.15406/ncoaj.2016.01.00014
41. Kamalifard M, Delazar A, Satarzade N, Mirghafourvand M, Dousti R. The comparison of the impact of lavender and Valerian aromatherapy on reduction of the active phase among Nulliparous women: A double blind randomized controlled trial. *Int J Med Res Heal Sci*. 2016;5:532-538.
42. Koro HY, Pramono N, et al. Lavender (*Lavandula Angustifolia*) aromatherapy as an alternative treatment in reducing pain in primiparous mothers in the active first stage of labor. *Belitung Nursing Journal*. 2017;3(4):420-425. doi:10.33546/bnj.159.
43. Indra V. Research A study to assess the effectiveness of aromatherapy during first stage of labour among women in selected hospitals, Puducherry. *AJNER*. 2017;7(4):495-499. doi:10.5958/2349-2996.2017.00096.9
44. Cenkci Z, Nazik E. The effect of aromatherapy on pain, comfort and satisfaction during childbirth. *New Trends and Issues Proceedings on Humanities and social sciences*. 2017;4(2):11-19.
45. Heidari-Fard S, Mohammadi M, Fallah S. Complementary Therapies in Clinical Practice The effect of chamomile odor on contractions of the first stage of delivery in primipara women: A clinical trial. *Complement Ther Clin Pract*. 2018;32(4):61-64. doi:10.1016/j.ctcp.2018.04.009
46. Hamdamian S, Nazarpour S, Simbar M, Hajian S, Mojab F. 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. doi:10.1016/j.joim.2018.02.005
47. Chen S, Wang C, Chan P, et al. Labor pain control by aromatherapy: A meta-analysis of randomized controlled trials. *Women Birth*. 2018. doi:10.1016/j.wombi.2018.09.010.
48. Esmaelzadeh-Saeieh S, Rahimzadeh M, Khosravi-Dehaghi N, Torkashvand S. The effects of inhalation aromatherapy with *boswellia carterii* essential oil on the intensity of labor pain among nulliparous women. *Nurs Midwifery Stud*. 2018;6(4):162-167. doi:10.4103/nms.nms.