



THE USE OF ESSENTIAL OILS IN LABOR AND CHILDBIRTH: SCOPE REVIEW

O USO DE ÓLEOS ESSENCIAIS NO TRABALHO DE PARTO E PARTO: REVISÃO DE ESCOPO

EL USO DE ACEITES ESENCIALES EN EL NACIMIENTO Y EN EL TRABAJO DE PARTO: REVISIÓN DE SU ALCANCE

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ABSTRACT

Objective: to describe the current state of knowledge about the use of essential oils in labor and childbirth. **Method:** a literature review was performed using the scoping review method in the CINAHL, PubMed, and Scopus databases between August 2008 and August 2018. We included experimental, quasi-experimental, randomized controlled, nonrandomized controlled trials before and after the study, and interrupted time series. In addition, observational analytical studies including prospective and retrospective cohort studies, case-control studies and cross-sectional analytical studies were considered. This review also considered descriptive observational study designs, including case series, individual case reports, and descriptive cross-sectional studies for inclusion. Qualitative studies of different research designs were also considered. **Results:** the review covered eight studies published between 2010 and 2018, focusing on publication by the Orient. From the analysis, several essential oils were cited, as well as their application, especially for lavender. The use of essential oils was summarized for the following purposes: decreased pain and anxiety, improved maternal satisfaction and decreased duration of labor, nausea and vomiting. **Conclusion:** essential oils may be an additional alternative for pregnant women because of their effectiveness in relieving pain, anxiety, improved satisfaction, simplicity of use, low cost and non-invasive.

Keywords: Complementary Therapies; Oils, Volatile; Aromatherapy; Labor, Obstetric; Parturition; Delivery Rooms.

RESUMO

Objetivo: descrever o estado atual dos conhecimentos sobre o uso de óleos essenciais no trabalho de parto e parto. **Método:** realizou-se revisão da literatura com o método scoping review, nas bases CINAHL, PubMed e Scopus, entre agosto de 2008 e agosto de 2018. Incluíram-se estudos experimentais, quasi-experimentais, controlados randomizados, não randomizados controlados, antes e depois de estudos e séries temporais interrompidas. Além disso, estudos observacionais analíticos, incluindo estudos prospectivos e retrospectivos de coorte, estudos caso-controle e estudos analíticos transversais foram considerados. Esta revisão também considerou projetos de estudos observacionais descritivos, incluindo séries de casos, relatos de casos individuais e estudos descritivos de corte transversal para inclusão. Foram também considerados estudos qualitativos de diferentes desenhos de pesquisa. **Resultados:** a revisão abrangeu oito estudos publicados entre 2010 e 2018, com enfoque na publicação pelo Oriente. Da análise, diversos óleos essenciais foram citados, bem como sua forma de aplicação, em destaque para a lavanda. A utilização dos óleos essenciais resumiu-se nas seguintes finalidades: diminuição da dor e da ansiedade, melhora da satisfação materna e diminuição da duração do trabalho de parto, náusea e vômito. **Conclusão:** os óleos essenciais podem ser uma alternativa adicional para as parturientes, pela sua eficácia para aliviar a dor, ansiedade, melhora da satisfação, simplicidade de uso, baixo custo e por não serem invasivos.

Palavras-chave: Terapias Complementares; Óleos Voláteis; Aromaterapia; Trabalho de Parto; Parto; Salas de Parto.

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RESUMEN

Objetivo: describir el estado actual del conocimiento sobre el uso de aceites esenciales en el trabajo de parto y en el parto. **Método:** se realizó una revisión de la literatura utilizando el método *scoping review* en las bases de datos CINAHL, PubMed y Scopus entre agosto de 2008 y agosto de 2018. Se incluyeron ensayos experimentales, cuasi-experimentales, controlados aleatorios, no aleatorios controlados antes y después de estudios y series temporales interrumpidas. Además, se consideraron estudios observacionales analíticos que incluyeron estudios de cohorte prospectivo y retrospectivo, estudios de casos y controles y estudios analíticos transversales. Esta revisión también consideró proyectos de estudios observacionales descriptivos incluyendo series de casos, informes de casos individuales y estudios descriptivos de corte transversal para su inclusión. También se consideraron estudios cualitativos de diferentes diseños de investigación. **Resultados:** la revisión incluyó ocho estudios publicados entre 2010 y 2018, centrándose en la publicación de Oriente. Se mencionaron varios aceites esenciales, así como su aplicación, especialmente para la lavanda. El uso de aceites esenciales se resumió para los siguientes propósitos: disminución del dolor y la ansiedad, mejora de la satisfacción materna y disminución de la duración del parto, náuseas y vómitos. **Conclusión:** los aceites esenciales pueden ser una alternativa adicional para las mujeres embarazadas debido a su efectividad para aliviar el dolor, disminuir la ansiedad, mejorar la satisfacción, su simplicidad de uso, el bajo coste y por no ser invasivos.

Palabras clave: Terapias Complementarias; Aceites Volátiles; Aromaterapia; Trabajo de Parto; Parto; Salas de Parto.

INTRODUCTION

Alternative therapeutic health treatments are used worldwide and may be termed differently, whether alternative, complementary, integrative or holistic.¹ Integrative and complementary practices (ICPs) encompass actions aimed at stimulating natural mechanisms for the prevention of diseases, and health recovery through effective and safe technologies. They emphasize listening in a welcoming way, developing the therapeutic bond and promoting the integration of the human being with the environment and society.²

In Brazil, in 2006, ICPs began to be incorporated into the Unified Health System/ *Sistema Único de Saúde* (SUS), especially in the scope of primary care, through the National Policy for Integrative and Complementary Practices/*Política Nacional de Práticas Integrativas e Complementares* (PNPIC), which is aimed at preventing health problems and health promotion and recovery, based on continuous, humanized and integral health care. Such a view meets the conception of health as a right of all and a duty of the State, thus moving away from proposals that enable the commercialization of health.²

The World Health Organization (WHO) encourages the integration of Western medicine techniques with the use of alternative/traditional medicine and advocates the elaboration of policies for the correct development of these actions. ICPs

are recognized by WHO as low-cost alternatives to treat various diseases, acting as an adjunct or as the main treatment.²

Among these practices, there is aromatherapy as a therapeutic practice that uses properties of essential oils (EO) to recover and harmonize the body's balance, promoting physical and mental health. EOs are concentrated volatile compounds formed from substances extracted from aromatic and medicinal plants. Its therapeutic actions can be anti-inflammatory and antibacterial and contribute to the treatment of mental disorders such as anxiety, insomnia and depression. The application of these oils can be through massages, inhalations, ambient perfumery, foot baths, aromatic collars, seat bathtubs and compresses.³ And, with correct orientation and indication, they can be used at different stages of life, such as: for example, in childbirth, a unique and special process for women and families.

Childbirth is associated with the development of painful and rhythmic contractions that result in dilation of the cervix. The use of EO during labor can be an important ally in the face of painful and psychological perceptions related to this moment, such as stress, fear and helplessness. For the proper development of labor, it is essential to provide the physical and emotional well-being of the parturient. In this context, WHO considers that humanized childbirth comprises individualized, woman-centered care supported by evidence-based practices and respect for the physiological evolution of childbirth.⁴

Focusing on the integrative practices that can be used by the parturient woman, this study established the research question: "what is being studied about the essential oil at work in the delivery room?" And aims to describe the current state of the knowledge about the use of EO in labor and childbirth.

METHOD

This is a scope review. The scoping review aims to map key concepts that underpin a particular area of knowledge, examine the extent, coverage and nature of research, summarize and disseminate research data, and identify existing research gaps.⁵

For the development of search strategies, an adaptation of the PICO strategy was used (P: patient, I: intervention, C: comparison, O: outcome). The PICO strategy guides the creation of the research question and the bibliographic search and allows the researcher to identify the best available scientific information.⁶ Considering the research question of this study, the search in the literature of the articles was guided by PICO adapted to PCC, being "P" the population (parturient), "C" the concept (essential oil) and "C" the context (delivery rooms). The descriptors and their combinations used to develop the strategies were: "Parturition" OR "Parturitions" OR "Birth" OR "Births" OR "Childbirth" OR "Childbirths" OR "Pregnant Women" OR "Labor, Obstetric") AND ("Aromatherapy" OR "Oils, Volatile" OR "Volatile Oils" OR "Oils,

Essential “OR” Essential Oils “OR” Complementary and alternative medicine “OR” Mind-Body Therapies “OR” Alternative Medicine “OR” Odors”) AND (“Delivery Rooms” OR “Birth Center Hospital” OR “Labor Pain” OR “Obstetric Pain”.

Included in this review were studies published in full text in English, Spanish or Portuguese, involving as participants, or as subjects of interest, women in labor and delivery in the delivery room or hospital setting. The search was performed in the CINAHL, PubMed and Scopus database for articles published from August 2008 (with the objective of searching current interventions and experiences) until August 2018, being limited to articles published in Portuguese, English and Spanish.

Article titles and abstracts, when available, were read and analyzed by one of the reviewers to identify those potentially eligible for the study. When there were doubts, the articles remained for the next phase, which involved the full reading of each of the selected by two independent reviewers to: a) confirm the pertinence to the review question and, if so, b) extract the data of interest. The three authors of this article participated in this phase and the doubt cases were resolved in a consensus meeting.

This scope review considered both experimental and quasi-experimental studies, including randomized controlled trials, nonrandomized controlled trials, before and after studies, and interrupted time series. In addition, observational analytical studies including prospective and retrospective cohort studies, case-control studies and cross-sectional analytical studies were considered for inclusion. This review also considered descriptive observational study projects, including case series, individual case reports, and descriptive cross-sectional studies for inclusion. Qualitative studies of different research designs were also considered.

This review extracted data on the characterization of the production, the type of study design and the quantitative and characteristics of the participants included in the studies. In addition, each essential oil used was highlighted, as well as its use when described in the methodology. In each publication the

research problems or hypotheses were identified and extracted, and the outcome was verified in the results, discussion and conclusion sections. Data were extracted from each publication using an instrument developed by the authors, which contained: title, author, author’s profession, country, journal, year of publication, study objective, methodology, study participants, essential oil used, application, outcomes and results.

The results of this review are fully reported and presented in the flowchart of preferred reporting items for systematic reviews and meta-analyzes (PRISMA).⁷ The findings were organized into tables and synthesized in narrative form to cover the description of the type of essential oil used in the study, the form and duration of oil application and the results observed during labor and childbirth. For the analysis of the data extracted from the articles, it was considered the main focus of interest of each publication, in the light of the key concepts of integrative practices aimed at the care of parturients.

RESULTS

In the first search, 722 articles were identified, however, 82 titles were repeated. Thus, 640 articles were analyzed. Of these, 616 were excluded by the review of titles, abstracts, methodology and language (Persian, German, Chinese and French). Thus, 24 articles were collected and, after reading in full, 16 were excluded due to the non-specification and detailing of the use of oil or the use of another substance as extracts. Thus, the sample consisted of nine studies.

Figure 1 represents the flow of analysis.

From the publications that have composed the scope review (Table 1), it is observed that the years of most publications were 2014 and 2018, with three articles per year. The other years of publication were 2015 and 2016. As for the journals, it was evidenced that three of them are productions directed exclusively to integrative therapies, the others are generalist journals.



Figure 1 - Flow of analysis.

Table 1 - Studies that comprised the scope review – Curitiba, PR – 2018

Title	Authors	Year	Journal	Country	Design	Essential oil
Effectiveness of aromatherapy and biofeedback in promotion of labour outcome during childbirth among primigravidas ⁸	Janula R, Mahipal S	2015	<i>Health Sci J.</i>	India	Randomized clinical trial	Lavender
The effect of lavender aromatherapy on pain perception and intrapartum outcome in primiparous ⁹	Kaviani M, Azima S, Alavi N, Tabaei MH	2014	<i>Br J. Midwifery</i>	Iran	Randomized clinical trial	Lavender
The effect of aromatherapy with lavender essence on severity of labor pain and duration of labor in primiparous women ¹⁰	Yazdkhasti M, Pirak A	2016	<i>Complement Ther Clin Pract.</i>	Iran	Randomized, single-blind clinical trial	Lavender
Comparing the effects of aromatherapy with rose oils and warm foot bath on anxiety in the first stage of labor in nulliparous women ¹¹	Kheirkhah M, Pour NSV, Nisani L, Haghani H	2014	<i>Iran Red Crescent Med J.</i>	Iran	Randomized clinical trial	Rose
Effects of Citrus Aurantium (Bitter Orange) on the Severity of First-Stage Labor ¹²	Namazi M, Akbari SAA, Mojab F, Talebi A, Majd HA, Jannesari S	2014	<i>Iran J Pharm Res.</i>	Iran	Randomized and open-labeled clinical trial	<i>Citrus aurantium</i>
Efficacy of aromatherapy for reducing pain during labor: a randomized controlled trial <i>Arch Gynecol</i> ¹³	Tanvisut R, Traisrisilp K, Tongsong T	2018	<i>Arch Gynecol Obstet.</i>	Thailand	Randomized, Controlled clinical trial	Lavender, rose geranium, citrus and jasmine
Effects of aromatherapy with Rosa damascena on nulliparous women's pain and anxiety of labor during first stage of labor ¹⁴	Hamdamian S, Nazarpour S, Simbar M, Hajian S, Mojab F, Talebi A	2018	<i>J Integr Med.</i>	Iran	Randomized clinical trial	Damask rose
The effect of chamomile odor on contractions of the first stage of delivery in primipara women: A clinical trial ¹⁵	Heidari-fard S, Mohammadi M and Fallah S	2018	<i>Complement Ther Clin Pract.</i>	Iran	Randomized clinical trial	Chamomile

Source: elaborated by the author.

The country with the largest number of publications on the subject was Iran, with six studies followed by one publication per country from India and Thailand. Thus, the Asian continent stands out in research on the subject to the detriment of the American continent. As for the methodological design, all studies were clinical trials.

The amount of the population studied in all articles analyzed in this study resulted in 1.350 pregnant women in labor. The inclusion criterion of the participants in the analyzed studies^{8,10,12,13,15} was to be nulliparous/primigravida. Some studies have defined gestational age (GA)⁹ equal or greater than 36 weeks¹⁰ or GA from 38 to 42 weeks^{11,12} or 37 to 41 weeks¹³ or still between 37 and 42 weeks for the inclusion of parturients in the study. Regarding the fetal position, all reviewed studies predicted that the fetus should be in the cephalic position. It is noteworthy that the setting of all studies was the hospital environment.

Regarding cervical dilation and the phase of labor, a study¹⁵ included women who were in the active phase of labor, characterized by having three to five contractions in 10 minutes. Other authors^{9,12} performed their studies on parturients who presented dilation between 3 and 4 centimeters. Inclusion criteria were defined as dilation greater than or equal to 4 centimeters and three uterine contractions in 10 minutes lasting at least 30 seconds.⁸ Another study¹¹ included women with 3 cm

dilation and yet another¹³ included those who were in true and spontaneous labor, with more than three uterine contractions in 10 minutes and with cervical progression, but did not determine this value. It was stated in one article¹² that the participant should be in the automatic phase of labor. In the studies analyzed the cervical dilation was verified by vaginal touch.

Some articles describe restrictions, exclusion criteria or important precautions for the use of EOs, such as the study using *Citrus aurantium* oil¹² that did not include pregnant women who had any liver, pancreatic or respiratory diseases identified or who had any known olfactory disorders or sensitivity to herbal medicine. The study on the damascena rose essential oil¹⁴ only considered that the participant should not have allergies. The study of rose essential oil¹¹ emphasizes that the participants, to be included in the study, could not have a history of asthma, allergies and skin disorders such as eczema or sensitivity to the use of EO.

For the study of chamomile oil,¹⁵ participants could not have a history of chamomile allergy, hearing and olfactory problems, and previous or current acute and chronic psychological illnesses. The study of lavender essential oil⁸ excluded participants with lavender allergy. A study cites as a criterion for exclusion of participants having medical problems or limitations for the practice of aromatherapy, such as asthma, allergy, cold and lavender-specific anosmia.⁹

Regarding lavender essential oil, one of the studies⁸ performed continuous light massage on the back and maternal abdomen until the end of the first stage of labor. As a result, pain and duration of labor were reduced. No maternal and neonatal adverse effects were associated to the therapy, and most women reported satisfaction with their labor experience.

Another study⁹ applied lavender essential oil of the species *Lavandula officinalis* to 15x15 cm tissues containing 0.1 mL of this oil mixed with 1 mL of distilled water and attached to their garments near the nostrils during labor and childbirth. As a result, there was a decrease in labor pain, and no changes were observed in the duration of the labor phases and in the newborn's Apgar score.

Regarding the use of lavender essential oil of the species *Lavandula angustifolia* it was described in a article¹⁰ that two drops of this 10% oil were applied, diluted 1:10 with distilled water and dripped on the parturient's palm, rubbing the hands and inhaling for three minutes while the hands were 2.5 centimeters away from the nose. The intervention was performed in three phases (dilation between 5 and 6 centimeters, between 7 and 8 centimeters and between 9 and 10 centimeters). No significant difference in the duration of labor was identified, however, there was a significant reduction in pain during labor. There was also no significant difference in the newborn's first and fifth Apgar scores.

Rose essential oil was used as an inhalation and footbath in water at 40° C for 10 minutes. Interventions were performed at the beginning of the active phase (4 cm cervical dilation) and at the beginning of the transition phase (8 cm dilation). Anxiety at different stages of labor after intervention has been significantly reduced and rose oil requires a short time to begin its effect. Women reported more safety, comfort and satisfaction. Thus, they recommend this complementary modality in care practice as a low risk, low cost and functional adverse strategy.¹¹

Another essential oil described was *Citrus aurantium*, applied to gauze squares soaked in 4 mL of distilled water, each attached to the necklaces that the participants used, and the intervention repeated every 30 minutes throughout labor. Aromatherapy using this oil reduced labor pain. The average Apgar scores of the 1st and 5th minutes for children born in both groups showed no significant difference. It was demonstrated that aromatherapy with this oil did not have negative effects on the fetus. Responses indicated that 88.1% of the participants in the aromatherapy group were satisfied with the applied oil. Thus, the method was recommended as a possibility to reduce labor pain based on its low cost, ease of application and noninvasiveness.¹²

One of the studies¹³ used EOs as lavender, rose geranium, citrus and jasmine according to the parturient's preference and continuously diffused them by aroma diffusers at the standard concentration of four drops of oil in 300 mL of water.

Aromatherapy was initiated when participants were admitted to labor and extended until the end of the first stage of labor. The pain scores during the latent and early active phase were significantly lower and there was a reduction in latent and early active phase labor. However, the use of EOs was not effective in late labor, when labor pain was more severe, and there was no difference in Apgar score at one and five minutes.

The use of rosemary essential oil in one article¹⁴ began the intervention at 4 cm of cervical dilation and continued until delivery. A 10 cm x 10 cm cotton gauze dosed with two drops (0.8 mL) of this oil was attached to each participant's necklace. The intervention significantly reduced women's perceived pain and anxiety levels. It is noteworthy that, as in other revised studies, the use of oil had no effect on the Apgar scores of newborns or on the manner of labor of the mothers.

Chamomile essential oil was used by adding two drops of this oil to a gauze. Participants were then asked to sniff this gauze 7 to 10 centimeters from the nose. The use of the oil was repeated every half hour for three times in the interval between contractions. Decreased contraction intensity was identified, however, no effect on duration and number of contractions was observed. There was also an improvement in women's satisfaction with the birth process.¹⁵

The use of oils followed several methods and had different purposes. Some studies have shown that the use of EOs was not associated with adverse outcomes for mother or child,^{8,12} not affecting Apgar scores.^{9,10,12-14} Lavender essential oil was the most efficient in reducing labor pain.⁸⁻¹⁰ Other oils have also been shown to be effective in reducing pain intensity, such as *Citrus aurantium*¹² and rose damascena.¹⁴

Anxiety was another reduced factor after the use of EOs such as rose¹¹ and damascena rose.¹⁴ Studies with lavender essential oil from *Lavandula officinalis*⁹ and *Lavandula angustifolia*¹⁰ species identified that there was no decrease or increase in the duration of the phases of labor, but one research⁸ showed a reduction in the duration of labor. The study with chamomile oil¹⁵ showed that its use may decrease the intensity of contraction, but without affecting the duration of labor.

The increased satisfaction of women was cited by the articles that used lavender^{8,11} and chamomile oils.¹⁵ The low cost of using EOs was highlighted by studies that used rose¹¹ and *Citrus aurantium* EOs.¹² There is a record of use in the literature of four EOs (lavender, geranium, rose, citrus and jasmine),¹³ reporting that they also reduce pain during labor.

DISCUSSION

The number of articles on the use of EO in labor by Asian countries may be since the countries of this region are considered the pioneers in the use and identification of benefits

related to aromatherapy, especially Egypt, China, and India.¹⁶ In India, it is estimated that aromatherapy has been practiced for over 6,000 years, maintaining its importance until today.¹⁷

In four studies analyzed in this review¹⁰⁻¹³ it was noticed that the application of oils occurred repeatedly during the procedure. This process is probably due to the fact that the essential oil is a volatile and variable fragrance substance.¹⁸ In addition, the oils are rapidly eliminated due to their volatility and low molecular weight, suggesting the need for this technique to be applied more than once during therapy.¹⁹ Moreover, the application in fractional doses is related to the reduction of possible adverse effects, a fact corroborated by studies that highlight the safety of single or multiple application of EOs.^{8,12}

In the articles analyzed in this review, EOs were applied by massage,⁸ inhalation after oil dripping onto some tissue,^{9,12} inhalation on hands¹⁰ and inhalation of essential oil during foot bath.¹¹ These different forms of therapeutic application are correct regarding its functionality, especially its dermal, olfactory or oral administration.²⁰

Aromatherapy is a non-invasive practice designed to act in pathological and psychological conditions.²¹ It is used as a complementary treatment, applied from the senses of touch and smell. When the herbaceous aromatic essence is inhaled, the impulses are transferred to the brain by the olfactory receptors, leading to the release of neurotransmitters capable of stimulating, suppressing, calming or intoxicating and ultimately resulting in physical and psychological changes.²²

In 2018, the *Instituto de Osmologia* and OE (IOOE) presented an intranasally administered EO preparation with effective reduction of cortisol parameters and regulation of glutamate release. This publication suggests that the use of the studied essential oil (Pinetone™) aids in the symptoms of stress and anxiety.²³

Systematic review cites the use of aromatherapy through techniques such as massage, inhalation, and foot baths. In this study, the most used EO was the *Lavandula angustifolia*. Its application was performed by obstetric nurses and most pregnant women opted for the inhalation technique. Significant reduction in pain in nulliparous women has been identified, in addition to reducing fear and anxiety.²⁴ These findings corroborate the results of the articles used in this review, which show the effects of EOs on pain and anxiety reduction.^{8-12,14}

The present research found that the greatest benefit of using essential oil during labor was pain relief. Some aromatic oils, when used, reduce pain and bring a feeling of tranquility, affecting the olfactory system through neurotransmitters in the olfactory glands and limbic system.²⁵

Two studies showed a reduction in anxiety^{11,14} during labor after the use of EOs. This may be justified by the fact that aromatherapy is capable of stimulating the limbic pathways and the hypothalamus, which leads to a decrease in corticotropin-

releasing hormone, a reduction in the release of corticotropin by the pituitary gland, and a consequent decline in cortisol by the adrenal gland, which contributes to attenuate anxiety.²⁶

Lavender essential oil was the most used by the studies analyzed here and authors argue that this is the most traditional and used in the world.²⁷ It is the main oil against stress, soothes and calm down immediately, assists in insomnia, promotes cellular tissue regeneration and has muscle relaxant effect to relieve stress and agitation tensions, possibly the reason why the results of the study have highlighted pain relief during labor. Because of its rich ester composition, lavender also has other effects, such as relief from the symptoms of stiff necks, menstrual and stomach cramps, muscle spasms, tendonitis, foot and back pain and as a sedative.²⁷

The main application of lavender oil found in the studies analyzed was olfactory, which promoted the reduction of pain and anxiety. This route of application induces soothing and tranquilizing effects. When used in environments through diffusers, it is related to feelings of peace, harmony, warmth and security.²⁷ These findings show that lavender is a complete essential oil for use during labor.

A retrospective study conducted with 105 users of the Integrative and Complementary Therapies Center of *Hospital Sofia Feldman*, in *Belo Horizonte-MG*, identified the most used integrative and complementary practices and the users' impressions about their application. We highlight the variations in the reports of women in different phases of the puerperal pregnancy cycle, understood by the different situations and peculiarities that these phases involve. Different perceptions were evidenced in women in the same phase of the cycle, differences resulting from the way each one experiences her pregnancy, labor and postpartum experience. The predominance of the positive impressions of women in relation to the use of integrative practices available in the hospital was highlighted, resulting in comprehensive care during the labor, delivery and postpartum process.²⁸

The various activities that can be performed during the pregnancy-puerperal cycle are satisfactory, positive and capable of promoting well-being and helping to reduce symptoms such as pain and nausea. The repercussion of integrative practices, the importance of singular, individualized and holistic care should be practices constantly adopted and refined by health professionals, with a view to consolidating themselves as humanized strategies for labor and childbirth care.

The Integrative and Complementary Practices are regulated nationwide by Ordinance No. 971 of May 3, 2006, which approves the PNPIC in the SUS. In Nursing professional practice, Resolution No. 197 of 1997 of the *Conselho Federal de Enfermagem (COFEN)* supports the professional nurse to perform a wide range of alternative therapies such as

acupuncture, iridology, phytotherapy, reflexology, chiropractic and massage therapy, after completing a specialization course of a specific field, in a recognized educational institution, with a minimum workload of 360 hours. Certainly, such rules enable the practice of nurses during their activities, providing more autonomy in the exercise of professional actions, and contribute to the humanization of health care.²⁹

Considering childbirth as a natural process, it is possible to introduce care that promotes the balance of environmental factors capable of providing women with the best management of their physical and psychic energy and favoring the coping and understanding of the processes that involve the moment of birth. Childbirth, like pain. These integrative actions are characterized as non-pharmacological pain relief methods and enable the replacement of prescription and use of analgesic and anesthetic drugs during labor and childbirth. Thus, they translate into tools capable of enhancing the action, space and performance of nurses in the scenario of women's health care in the pregnancy-puerperal cycle.³⁰

The results of the present research show the challenge of including the use of EO in care practices at labor and childbirth. A positive example for facing this problem can be found in the city of Recife-PE, where the Integrative Practices Policy is in transition, from a pioneer phase to an institutional phase, to include the health actions offered by the municipality, from the unification between clinic, management and human relations.³¹ In order for the integration of integrative practices to be effectively carried out by SUS, it is necessary to overcome political barriers and act to promote the financing of these practices in the planning of health care facility managers.

CONCLUSION

This study described the current state of knowledge about the use of EO in labor and childbirth. It was found that the volume of research on the effects of EOs during labor and childbirth is incipient. However, the results of the analyzed studies highlight potentialities of the use of different EOs during labor and childbirth.

As for pain reduction, the oil most used by the studies that made up this research was lavender, followed by *Citrus aurantium* and rose damascena. The authors also highlighted other positive aspects of using oils during labor and childbirth, such as the low cost and simplicity of use.

It is noteworthy that the use of EO during labor and childbirth was considered by the studies analyzed as non-aggressive and with minimal or no adverse effect for the mother-newborn binomial.

The Asian countries stood out regarding the production of knowledge about the use of EOs during labor and childbirth,

which can be explained by their historical tradition regarding the adoption of integrative health practices. The investigations produced by these nations are emerging as sources of successful experiences and knowledge and are important models to be replicated in health spaces that receive pregnant and parturient women.

This study had as limitation the fact that only one reviewer analyzed the titles and abstracts of the selected articles.

The results obtained here identified the need for investments in educational and training proposals in the scenario of undergraduate and postgraduate Nursing, about the potential of the use of EOs in daily obstetric care and the incentive for the development of scientific research on the subject.

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