



Essential oils for healing and/or preventing infection of surgical wounds: a systematic review

Óleos essenciais para a cicatrização e/ou prevenção de infecção de feridas cirúrgicas: revisão sistemática

Aceites esenciales para la cicatrización y/o prevención de infecciones de heridas quirúrgicas: una revisión sistemática

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ABSTRACT

Objective: To analyze the evidence available in the literature on the use of essential oils for healing and/or preventing infection in surgical wounds. **Method:** Systematic review according to the JBI model and PRISMA statement. The search was carried out in November/2020 and updated in December/2021, using descriptors and keywords, in the CINAHL, LILACS, CENTRAL, EMBASE, PUBMED, Scopus, and Web of Science databases. The quality of the evidence was assessed using the JBI critical appraisal tool for randomized controlled trials. **Results:** Five publications were included. Three studies evaluated healing and the presence of infection after episiotomy using the Redness-Edema-Ecchymosis-Discharge-Approximation (REEDA) scale; one study evaluated healing after periodontal surgery using the plaque index and Modified Gingival Index; the other four studies considered the presence of infection after episiotomy. Most studies used lavender oil, associated or not with other oils (80%). Two studies showed an improvement in healing. The infection outcome, although mentioned by 60% of studies, was not assessed as a primary outcome. **Conclusion:** The promising efficacy of essential oils, especially lavender, was verified in the healing of surgical wounds, especially in episiotomies.

DESCRIPTORS

Aromatherapy; Oils Volatile; Lavandula; Surgical Wound; Surgical Wound Infection; Wound Healing.

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INTRODUCTION

Traditional, Complementary, and Integrative Medicines (TCIM), as called by the World Health Organization (WHO), refer to the set of health care practices based on theories from different cultures used for health promotion and recovery. And disease prevention, considering individuals in a comprehensive way in their biopsychosocial-spiritual dimensions. These practices constitute an important model of health care, being in many countries the only service offered to the population, or used as a complementary way to the conventional system⁽¹⁾.

In Brazil, TCIM are offered by the National Policy on Integrative and Complementary Practices in Health (NPICPH/*PNPIC*), which was implemented by the Brazilian Ministry of Health with the publication of the Ministerial Ordinances No. 971, of May 3, 2006, and No. 1600, of July 17, 2006. The NPICPH refers to practices performed by health care professionals and offered in the Brazilian Unified Health System (SUS) and reinforces the recognition and appreciation of traditional knowledge of the territory and local culture by health professionals⁽²⁾.

Aromatherapy is part of TCIM and is characterized by the promotion of healing and well-being by the use of essential oils (EO), which are highly concentrated and volatile substances extracted from plants⁽³⁾.

In Brazil, by Ministerial Ordinance No. 702, of March 21, 2018, aromatherapy was recognized as an integrative and complementary practice, with broad individual and/or collective use. As a multiprofessional practice, it has been adopted by several health professionals to help, in a complementary way, establishing the individuals' physical and/or emotional balance⁽⁴⁾.

Nurses with graduate degrees in the area of Integrative and Complementary Health Practices (IChP/*PICS*) are supported by Resolution No. 581/2018 of the Federal Nursing Council (FNC/*COFEN*) to act as specialists⁽⁵⁾. Regarding aromatherapy, FNC Technical Chamber Opinion no. 034/2020 addresses the legality of the prescription by nurses of essential oils in their various possibilities of use, whether in aromatherapy, skin hydration, or even other applications comprised by IChP⁽⁶⁾.

Essential oils can be administrated through three routes: oral, cutaneous, or inhalation. When the route is oral, the oil molecules are ingested, come into contact with the intestines, are absorbed, and enter the bloodstream; by the cutaneous route, there is direct contact between the molecules and the skin, where they are absorbed until they reach the deeper and more vascularized layers, entering the bloodstream; finally, the inhalation route, which is also stimulated by the other routes, albeit to a lesser extent. Through the airways, the essential oil molecules instigate the olfactory nerves which, in turn, have a direct connection with the limbic system, responsible for arousing emotions, feelings, and motivational impulses⁽⁷⁾.

Essential oils are produced by more than 17,500 aromatic plants and are stored in several structures of plant, such as flowers, leaves, bark, roots, rhizomes, fruits, and seeds. They are secondary metabolites with a strong aroma, consisting of a multicomponent system, mainly volatile terpenes and hydrocarbons⁽⁸⁾.

The active principles of EO have an effective role in the wound healing process. Several studies have investigated the

biological activities of active principles obtained from plants; among them, *Copaifera langsdorffii* (copaiba) oil showed healing properties in wounds⁽⁹⁾ and *Lavandula officinalis* (lavender) oil was able to promote collagen synthesis, fibroblast differentiation, and wound contraction by upregulation of the transforming growth factor beta⁽¹⁰⁾.

In addition to the healing potential, there are reports on the effectiveness of EO in controlling the growth of fungi, yeasts, and bacteria⁽¹¹⁾. The antiseptic characteristics of essential oils are described in the literature: for example, *Melaleuca alternifolia* oil, also known as tea tree, is a promising agent in the care practice in stomatherapy for collaborating in the cicatrization of infected wounds⁽¹²⁾. *Salvia sclarea* (sage) oil has shown inhibitory effects on the colonization and growth of bacteria in the wound bed⁽¹³⁾. In this sense, studies that show the indications of essential oils for wound treatment are relevant to the clinical nursing practice, since nurses work directly in the management of wounds.

Although there are reports in the literature on the healing and antimicrobial potential of EO, there are still few studies carried out in humans and little evidence of the application of these oils for healing wounds. The largest range of studies conducted is experimental with animals, and national publications are non-existent. Therefore, the relevance of this study to evidence the topical use of EO as a potential healing and antimicrobial agent in surgical wounds is justified.

Thus, this study aimed to analyze the evidence available in the literature on the use of essential oils for healing and/or preventing infection in surgical wounds.

METHOD

This is a systematic review of the scientific literature following the JBI model⁽¹⁴⁾ and the recommendations of the PRISMA statement (preferred reporting items for systematic reviews and meta-analyses)⁽¹⁵⁾. The review protocol was submitted to PROSPERO, with registration CRD42021222300.

The guiding question of this systematic review was: "is there scientific evidence on the use of essential oils for healing and/or preventing infections in surgical wounds?"

DATA SOURCES AND RESEARCH STRATEGY

The search was carried out with the help of a professional librarian in November 2020, and updated in December 2021, using indexed descriptors and keywords (supplementary material), in the databases Cumulative Index to Nursing and Allied Health Literature (CINAHL), Latin American and Caribbean Health Sciences Literature (LILACS), Cochrane Central Register of Controlled Trials (CENTRAL), Excerpta Medica Database (EMBASE), and in the search portals PUBMED, Scopus, and Web of Science. The citation search was conducted from the references cited in the included articles, published research reports, and preprint articles.

INCLUSION AND EXCLUSION CRITERIA

Randomized clinical trials that evaluated only the topical application of EO in the open area of surgical wounds were included. Review articles, letters to the reader, editorials, comments, abstracts of papers presented at events, opinions of

experts who were not guided by research, theoretical studies, experimental animal studies, chronic wounds, wounds of burns, administration of essential oils by ingestion, and primary articles that scored less than six points or obtained “no” as an answer to questions Q3, Q7, and Q10 in the JBI critical appraisal checklist for randomized controlled trials⁽¹⁴⁾ were excluded.

STUDY SELECTION

Study selection was performed by three reviewers, who independently assessed the title and abstracts of potentially relevant studies using the selection criteria. A fourth reviewer was consulted in case of disagreement about the eligibility of the document. The articles considered eligible had their texts examined in full.

DATA EXTRACTION

Data were extracted by two reviewers and verified for completeness and accuracy by a third party. The data extracted from the included studies were related to the following characteristics: author, year of publication, country of origin, participant characteristics, number of participants, groups, intervention, name of the essential oil, place of application of the essential oil, type of surgery, use of placebo, assessment tool, and outcome.

RISK OF BIAS AND ASSESSMENT OF THE QUALITY OF EVIDENCE

Risk of bias and quality of evidence were assessed using the JBI critical appraisal tool for randomized clinical trials, applied by two independent evaluators and, in case of disagreement, by a third one⁽¹⁴⁾.

The tool: The JBI critical appraisal checklist for randomized controlled trials consists of 13 questions related to the internal validity of the study, blinding, allocation of participants, administration of the intervention, data analysis, statistical analysis, and outcome assessment. The authors recommend a minimum score of six points for the synthesis of eligible articles and obtaining “yes” as an answer to questions Q3 (“Were treatment groups similar at the baseline?”), Q7 (“Were treatment groups treated identically other than the intervention of interest?”), and Q10 (“Were outcomes measured in the same way for treatment groups?”)⁽¹⁴⁾. The JBI recommends that authors establish criteria to assess the methodological quality of studies, since the questions have dichotomous answers⁽¹⁶⁾. Thus, for this study, the following cut-off points were established for this methodological quality assessment instrument: studies that obtained 13 “yes” answers in the tool’s criteria were considered of high methodological quality; those with 12 to 10 positive responses were classified as having moderate methodological quality; and those with nine or fewer positive responses were classified as having low methodological quality.

DATA SYNTHESIS

Due to the heterogeneity of the studies included in this systematic review, their synthesis was qualitative and presented in tables.

RESULTS

SAMPLE DESCRIPTION

By the search strategy, 2,009 articles were retrieved. After removing duplicates, the remaining 1,687 were peer-reviewed for titles and abstracts, and of these 211 full-text articles were retrieved and evaluated for eligibility. In the last evaluation stage, 73 articles were excluded, as they were letters to the reader, pilot studies, review studies, in vitro studies, chronic wound studies, abscess and cellulite studies, studies with the use of extracts in wounds, studies of surgical wounds in the oral mucosa, studies of skin wounds using biofilm, laboratory test studies concerning essential oil composition, dermatological studies using essential oil; another 133 articles were excluded for being studies with animal models. The five remaining articles were submitted to methodological quality assessment by the application of critical appraisal tools for randomized clinical trials⁽¹⁴⁾. By the citation search, 118 articles were found by reviewing the references of the included articles or using the “find similar” function while reading the article in full; these articles were peer-reviewed regarding titles and abstracts, and from these, only one full-text article was retrieved and evaluated for eligibility, but it was excluded because of its low quality.

The sample consisted of the inclusion of five studies. The study selection flowchart is shown in Figure 1.

METHODOLOGICAL QUALITY

The evaluation of the methodological quality of the studies by the JBI critical appraisal tools showed that five of the six clinical trials included in the review fulfilled six or more items of the 13 assessment criteria (Chart 1).

Although all studies had achieved scores equal to and/or higher than the minimum value of six, one of them⁽²³⁾ was not in agreement with one of the mandatory items of the methodological evaluation, item Q7 on the equivalence of treatment between control and intervention groups, being excluded from the later stages of analysis.

Of the 13 methodological quality assessment criteria, two studies^(18,20) met nine criteria (69.3%), indicating a low level of quality; one study⁽¹⁹⁾ met 10 criteria (76.9%), indicating a moderate level of quality; and two studies^(21–22) met all (100.0%) criteria, indicating a high level of quality.

Two studies^(18–19) presented potential selection biases, because there was not enough information about the concealment of their allocation (Q2), although the participants were randomized to the treatment group.

Four studies showed inconsistencies regarding blinding, with the absence of reference to the process for treatment, placebo, or evaluators^(18,20), or even reported impossibility to perform it, due to the aroma of the substance^(19,23) (Q4).

In three studies there was no reference to the scales used to measure the results^(18–20) (Q11).

Three studies mentioned the age of the participants, which ranged between 17 and 34 years old⁽¹⁸⁾, control group with a mean age of 23.47 years old and 22.23 years old for the intervention group⁽²⁰⁾, in addition to mean age of 49.5 years old in dental patients⁽²¹⁾.

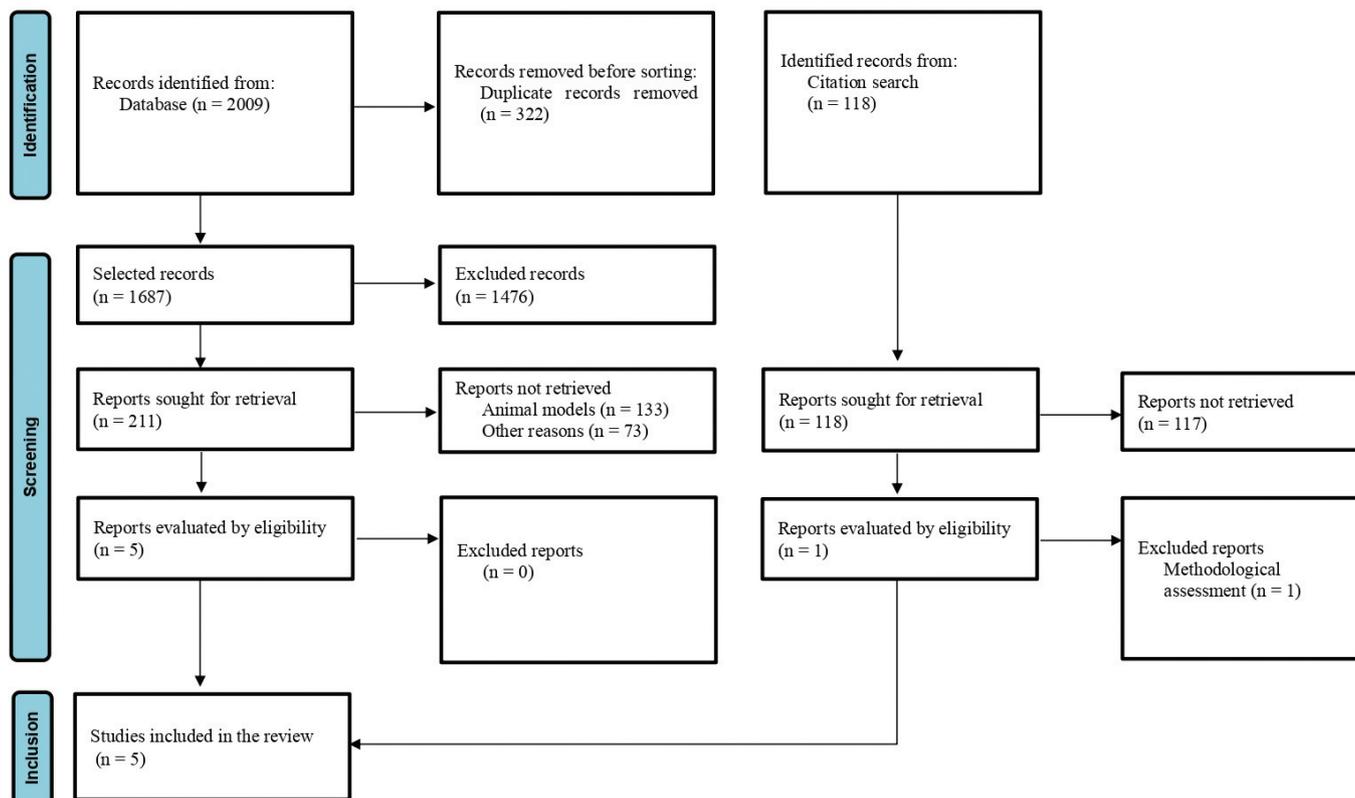


Figure 1 – PRISMA flowchart of the study search and selection process⁽¹⁷⁾.

Chart 1 – Assessment of methodological quality (clinical trials) – São Paulo, Brazil, 2021.

Reference	Criteria														TOTAL (n)	TOTAL %
	Randomization	Allocation	Similarity between groups	Blinding			Treatment	Follow-up	Analysis	Results		Statistical analysis	Design			
	Q1	Q2	Q3*	Q4	Q5	Q6	Q7*	Q8	Q9	Q10*	Q11	Q12	Q13			
Behmanesh et al., 2011 ⁽¹⁸⁾	Y	UN	Y	UN	UN	Y	Y	Y	Y	Y	UN	Y	Y	9	69.3	
Dale, Cornwell, 1993 ⁽¹⁹⁾	Y	UN	Y	N	Y	Y	Y	Y	Y	Y	UN	Y	Y	10	76.9	
Sheikhan et al., 2012 ⁽²⁰⁾	Y	Y	Y	UN	UN	UN	Y	Y	Y	Y	UN	Y	Y	9	69.3	
Katsaros et al., 2020 ⁽²¹⁾	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	13	100	
Marzouk et al., 2014 ⁽²²⁾	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	13	100	
Vakilian et al., 2011 ⁽²³⁾	Y	Y	Y	N	N	Y	UN	Y	Y	Y	Y	Y	Y	10	76.9	

Y = yes; N = no; UN = unclear; * mandatory items.

Table 1 – Characteristics of the studies included in the systematic review – São Paulo, Brazil, 2021.

Author/Year	Population	n	Intervention	Outcome/tool	Outcome
Behmanesh et al., 2011 ⁽¹⁸⁾	Primiparous	89	Group 1: 2% Lavender EO in Olive Oil (10 drops: 5 L warm water) Group 2: Olive Oil (10 drops: 5 L warm water) G3 (control): distilled water Sitz bath 2x/day for 10 days Professional responsible for outcome assessment: obstetrician	Pain – VAS Cicatrization – REEDA	– Significant pain reduction in the three groups – Improved cicatrization (p < 0.05) in Group 1 and Group 2 compared to Group 3
Dale, Cornwell, 1993 ⁽¹⁹⁾	Vaginal delivery	635	Group 1: 100% lavender EO Group 2: synthetic lavender oil Group 3 (aromatic placebo): 2-methyl, 3-isobutyl pyrazine diluted in 10 ⁻¹⁰ distilled water Daily sitz bath for 10 days Professional responsible for outcome assessment: obstetrician	Perineal discomfort – VAS Mood – VAS	– No difference was found between groups regarding perineal discomfort or mood for the three groups (p > 0.05)
Sheikhan et al., 2012 ⁽²⁰⁾	Primiparous	60	Group 1: 100% lavender EO (0.25 mL EO: 5 L water) Group 2: 10% Betadine (10 mL Betadine: 4 L water) Sitz bath 2x/day for 5 days Professional responsible for the outcome assessment: not mentioned	Cicatrization – REEDA Perineal discomfort – VAS	– No difference in cicatrization was found between the groups (p > 0.05) – Lavender reduced pain and there was less use of analgesics (p < 0.05)
Katsaros et al., 2020 ⁽²¹⁾	Periodontal surgery patients	80	Group 1: EO (thymol + eucalyptol + menthol) Group 2: chlorhexidine (CHX) Group 3: 10% EO Group 4: 5% CHX Group 5: water Mouthwash 2x/day, exclusive for 2 weeks, brushing introduced in the 3 rd week Professional responsible for the outcome assessment: dentist	Plaque index (PI) and Modified Gingival Index (MGI) Epithelization	– Modified Gingival Index (p > 0.05) – 1 st and 2 nd evaluation equal plaque index between groups (p > 0.05). 3 rd evaluation Group 2 CHX better than Group 5 water (p < 0.05). In the 1 st evaluation Group 2 CHX all wounds open, in the 3 rd evaluation all groups were equal (p > 0.05).
Marzouk et al., 2014 ⁽²²⁾	Primiparous	69	Group 1: Thymol EO + 2% lavender diluted in jojoba oil (7 drops: 4 L water) Group 2: routine solution (10 mL 0.9% saline solution: 4 L water) Local hygiene 2x/day for 7 days Professional responsible for the outcome assessment: not mentioned	Pain – VAS Dyspareunia – VAS Cicatrization – REEDA	– Group 1 EO better cicatrization, less pain at episiotomy and dyspareunia (p < 0.05) than Group 2

Table 1 presents a summary of the included studies. Mostly, samples of 60 to 80 people were used, composed of postpartum women^(18, 20–22), with the exception of one, which included 635 parturients⁽¹⁹⁾. Only one study covered a sample of individuals undergoing periodontal surgery, with 35 men and 45 women⁽²¹⁾.

Concerning the types of EO used: three studies used *Lavandula officinalis* (lavender) oil^(18–20); one study used a combination of *Lavandula officinalis* (lavender) and *Thymus vulgaris* (thymol) oil⁽²²⁾; and another a combination of phenol-related EO including thymol (0.060%), eucalyptol (0.091%), menthol (0.042%), and salicylate of methyl (0.064%) in a 26.9% hydroalcoholic vehicle⁽²¹⁾.

Given the characteristics of the participants, most used the EO in sitz baths^(18–20, 22), except for the study with dental patients, who used the EO as mouthwash⁽²¹⁾.

Three studies evaluated the healing of surgical wounds and the presence of infection after right medial-lateral episiotomy^(18, 20, 22) using the REEDA (Redness, Oedema, Ecchymosis, Discharge, Approximation) scale^(24–25); one addressed the healing of surgical wounds after periodontal surgery⁽²⁰⁾ using the plaque index (PI) and the Modified Gingival Index (MGI); and another, the presence or absence of infection in the surgical wound after episiotomy⁽¹⁹⁾.

Pain intensity was assessed as an outcome in four studies by the Visual Analogue Scale (VAS)^(18–20, 22); mood was also analyzed by VAS⁽¹⁹⁾; and the presence of infection in the open wound was assessed by the plaque index (PI) and the Modified Gingival Index (MGI)⁽²¹⁾.

Of the five studies included in this review, two of them showed benefits in the use of EO in the healing process of surgical wounds^(18, 22) and three showed improvement in pain at the wound site^(18, 20, 22). No study evaluated the prevention of infection and its relationship with the use of EO; only one research⁽¹⁹⁾ observed the variable presence or absence of exudate, evaluated as one of the items on the REEDA scale, which can be considered an indication of surgical site infection⁽²⁶⁾.

DISCUSSION

This review highlights the scarcity of studies conducted in humans on the topic of the use of EO for healing and/or preventing surgical wounds, with a variable of methodological quality. In addition, lavender EO was the object of investigation in most of the studies identified, possibly because it has already been shown to be a promising healing agent since the beginning of the history of aromatherapy⁽³⁾.

Doctors and patients have been looking for potential alternative therapies that can improve wound healing. Lavender EO has been identified as an agent capable of accelerating wound contraction and exerting antimicrobial activity, since it has the potential to be used as a topical therapy and applies to both purposes^(27–28,10,29–30).

Most studies identified in this review^(18,20,22) support the use of lavender EO in wound healing and suggest several unique mechanisms through which this oil may exert such an effect. Some evidence corroborates the results presented here^(18,20,22). In one study, lavender EO was used to significantly increase the levels of TGF- β and type I collagen⁽¹⁰⁾. TGF- β induces fibroblast proliferation and their subsequent differentiation into myofibroblasts, which play an essential role in wound contraction through tissue shrinkage, evidencing the clinical finding of increased and rapid wound contraction in the lavender-treated group compared to the control group.

In addition, the combination of lavender and thymol EO was also used⁽²²⁾, and the study shows that thyme EO (Quimiotipo timol) is an excellent antioxidant, as it is capable of considerably increasing the activity of superoxide enzymes dismutase and glutathione peroxidase in various tissues⁽³¹⁾. In practice, this means that it prevents the deleterious action of free radicals on the body's cells, by neutralizing these substances.

The combination of essential oils composed mostly of phenols, including thymol (0.060%), eucalyptol (0.091%), menthol (0.042%), and methyl salicylate (0.064%), in a hydroalcoholic vehicle was not successful in showing effects superior to chlorhexidine in the process of maintaining the microbial reduction present in the oral mucosa and teeth⁽²¹⁾. Plant phenolic compounds fall into several categories, such as simple phenols, phenolic acids (derived from benzoic and cinnamic acids), coumarins, flavonoids, stilbenes, condensed and hydrolysable tannins, lignans, and lignins⁽³²⁾. The antioxidant activity of phenolic compounds is mainly due to their reducing properties and chemical structure. These characteristics play an important role in the neutralization or scavenging of free radicals and chelation of transition metals, acting both in the initiation stage and in the propagation of the oxidative process. Intermediates formed by the action of phenolic antioxidants are relatively stable, due to the resonance of the aromatic ring present in the structure of these substances^(33–35).

Some studies in the literature have shown the benefits of EO as potential agents to prevent infections^(23,12). Phenols and alcohols are the main chemical components responsible for their antimicrobial properties⁽¹²⁾. One of the oils with potential to prevent infections is lavender, with antimicrobial

characteristics demonstrated *in vitro*⁽³⁶⁾ or in infected chronic wounds⁽¹²⁾. This review did not identify studies that exclusively evaluated the action of EO as an agent for preventing surgical wound infection.

Regarding the outcome of infection in the surgical wound, four of the six studies^(18–20,22) used the REEDA scale, in which one of the assessment items is the presence or absence of secretion, that is considered an indication of infection of the surgical wound⁽²⁶⁾; despite this, these studies did not consider this variable in the analysis of their primary outcomes.

Only one study⁽¹⁹⁾ proposed the observation of the presence or absence of infection among the secondary outcomes, since its main objective was to assess mood and perineal discomfort after episiotomy. Thus, the scarcity of evidence on the outcome of infection may represent a vast potential to be explored.

Most studies evaluated open wounds caused by episiotomy. Nursing is a profession that is close to TCIM and acts more autonomously in the care of parturient and postpartum women, which can facilitate and justify the conduction of studies in this field. Nursing interventions aim to reduce discomfort and allow the woman to take care of herself and her baby⁽³⁷⁾. A simple intervention capable of reducing the discomfort associated with perineal trauma and that can be performed by nursing is the EO sitz baths, which was explored by the studies presented in this review^(18,20).

A limitation of this study was the non-conduction of meta-analysis, due to the diversity of methodological quality scores of the studies and the heterogeneity regarding the different types of EO, concentrations, frequency of application, and the way in which the results were reported. Although most of the articles included evaluated episiotomy, the interventions were different.

CONCLUSION

This study allowed us to observe the promising effectiveness of essential oils, especially lavender, in the healing of surgical wounds, in particular those arising from episiotomies. This finding contributes to the construction of knowledge within TCIM. Notably, the treatments of surgical wounds require skills and nursing care and, in this sense, essential oils can represent an adjuvant agent or a therapeutic alternative in healing, and can be applied by nursing interventions.

Aspects related to the prevention of infection of surgical wounds and the use of EO deserve to be explored in new studies in human beings, due to the scarcity of research that evaluates this relationship between the primary outcomes.

RESUMO

Objetivo: Analisar as evidências disponíveis na literatura sobre o uso de óleos essenciais para a cicatrização e/ou prevenção de infecção em feridas cirúrgicas. **Método:** Revisão sistemática segundo modelo JBI e declaração PRISMA. Busca realizada em novembro/2020 e atualizada em dezembro/2021, utilizando-se descritores e palavras-chave, nas bases CINAHL, LILACS, CENTRAL, EMBASE, PUBMED, Scopus e Web of Science. A qualidade das evidências foi avaliada usando a ferramenta JBI critical appraisal para ensaios clínicos randomizados. **Resultados:** Cinco publicações foram incluídas. Três estudos avaliaram a cicatrização e presença de infecção após episiotomia por meio da escala REEDA (Redness-Edema-Ecchymosis-Discharge-Approximation); um avaliou cicatrização após cirurgia periodontal por meio do índice de placa e Índice Gengival Modificado; o restante considerou a presença de infecção após episiotomia. A maioria dos estudos utilizou o óleo de lavanda, associado ou não a outros óleos (80%). Em dois estudos houve melhora da cicatrização. O desfecho infecção, embora mencionado por 60% estudos, não foi avaliado como primário. **Conclusão:** Verificou-se a eficácia promissora de óleos essenciais, sobretudo do de lavanda, na cicatrização de feridas cirúrgicas, especialmente em episiotomias.

DESCRITORES

Aromaterapia; Óleos Voláteis; Lavandula; Ferida Cirúrgica; Infecção de Feridas Cirúrgicas; Cicatrização.

RESUMEN

Objetivo: Analizar la evidencia en la literatura sobre el uso de aceites esenciales para la cicatrización y/o prevención de infecciones en heridas quirúrgicas. **Método:** Revisión sistemática de acuerdo con el modelo JBI y el PRISMA. Se realizó una búsqueda en las bases de datos CINAHL, LILACS, CENTRAL, EMBASE, PUBMED, Scopus y Web of Science, en el periodo de noviembre/2020, con actualizaciones en diciembre/2021, utilizando descriptores y palabras clave. La calidad de la evidencia se evaluó por la herramienta JBI critical appraisal para ensayos controlados aleatorizados. **Resultados:** Se incluyeron cinco publicaciones. Tres estudios evaluaron la curación y la presencia de infección tras episiotomía mediante la escala REEDA (Redness-Edema-Ecchymosis-Discharge-Approximation); uno evaluó la curación después de cirugía periodontal utilizando el índice de placa y el índice gingival modificado; y los demás consideraron la presencia de infección posterior a la episiotomía. La mayoría de los estudios utilizaron aceite de lavanda, asociado a otros aceites o no (80%). Dos estudios demostraron mejorar la cicatrización. El resultado infección, aunque mencionado por el 60% de los estudios, no se evaluó como resultado primario. **Conclusión:** Se verificó la prometedor eficacia de los aceites esenciales, especialmente el de lavanda, en la cicatrización de heridas quirúrgicas, especialmente en episiotomías.

DESCRIPTORES

Aromaterapia; Aceites Volátiles; Lavandula; Herida Quirúrgica; Infecção de la Herida Quirúrgica; Cicatrización de Heridas.

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