
Abstract

Essential Oils from the Perspective of Dentistry

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Introduction: With a significant increase in interest in recent years regarding essential oils, the purpose of this work was to identify how Dentistry has researched and utilized these substances through an integrative review of articles available in indexed databases. The bibliographic survey was conducted in November and December 2022, through electronic research, consulting the PubMed and LILACS databases. The descriptors and boolean operators used were: "volatile oils" OR "essential oils" AND "dentistry". The material published between 2018 and 2022 indexed in the mentioned databases and with a free version was included. Studies that did not address the proposed study theme were excluded. **Material and Method:** Out of 104 scientific articles found, 29 studies were reviewed and analyzed. **Result and Discussion:** A variety of plant derivatives have been studied for their inhibitory effect on *C. albicans* biofilms and for cytotoxicity, several are considered promising for the development of future research and bioproducts applicable to human health. Clinical studies indicated that the EOs from *Pelargonium graveolens* and *Zataria multiflora* are potentially effective in treating oral candidiasis, and the most promising EOs were obtained from *Alium tubeerosum*, *Cinnamomum cassia*, *Cinnamomum zeylanicum*, and *Coriandrum sativum* L. Further non-clinical and clinical studies with these EOs are necessary to determine their potential use and safety for the treatment of oral candidiasis. Listerine mouthwash was often compared with other chemical agents, mainly chlorhexidine, which in terms of plaque control is considered the gold standard in efficacy and substantivity. However, the use of chlorhexidine has disadvantages like altered taste sensations, teeth discoloration. With all this, the World Health Organization (WHO) recommended that researchers analyze the use of natural products, such as extracts of herbs and plants, to combat these negative effects. In another randomized study, they concluded that the mouthwash containing aqueous extracts of essential oils was as effective antibacterial agents as chlorhexidine mouthwashes, corroborating with other descriptive and experimental studies. **Conclusion:** The articles demonstrated extensive study regarding essential oils in Dentistry, presenting various applications that are still being explored: they have potential in the development of preventive or therapeutic agents for various oral diseases, use in dental materials, and popular applications. There is still a need for more clinical trials to establish safety and efficacy in oral health due to the wide variety of existing essential oils.

Keywords: Essential oils; Volatile oils; Dentistry.

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