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New approaches to the effectiveness of inhalation aromatherapy in controlling painful conditions: A systematic review with meta-analysis

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Abstract

Objective: Gather scientific evidence on the application of inhalation aromatherapy for pain relief and estimate the effect measure of this practice on pain reduction.

Methods: Searches were performed in 2021 in the Pubmed, Scopus, Web of Science, Cochrane, Science direct, Lilacs, Scielo databases. We selected 44 articles demonstrating the effect of aromatherapy on different painful conditions, of which 17 were inserted in the meta-analysis. The risk of bias was assessed according to Cochrane methodology.

Results: In 35 (79.55%) studies was observed a significant reduction in pain, especially pain labor and postoperative pain. Through the meta-analysis, it was found that inhalation aromatherapy reduces by up to -1.73 points of the visual analog scale (VAS), indicating that this practice contributes to the reduction of pain perception in different painful conditions. In addition, the meta-analysis indicated that the time after inhalation, the type of oil used and the type of pain treated are important variables that interfere with the magnitude of the effect. These effects are attributed to the ability of essential oils to modulate nerve control centers and neurotransmission systems involved in pain control.

Conclusion: From the gathering of articles on aromatherapy, it can be noted that aromatherapy appears to be helpful in alleviating acute pain, however there is an imminent need to improve aromatherapy studies to reduce the risk of bias and increase the power of its clinical evidence.

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Keywords: Aromatherapy; Neuromodulation; Pain.

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