The Effectiveness of Aromatherapy in Reducing Pain: A Systematic Review and Meta-Analysis

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Received 1 September 2016; Accepted 7 November 2016

Academic Editor: Giustino Varrassi

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Abstract

Background. Aromatherapy refers to the medicinal or therapeutic use of essential oils absorbed through the skin or olfactory system. Recent literature has examined the effectiveness of aromatherapy in treating pain. Methods. 12 studies examining the use of aromatherapy for pain management were identified through an electronic database search. A meta-analysis was performed to determine the effects of aromatherapy on pain. Results. There is a significant positive effect of aromatherapy (compared to placebo or treatments as usual controls) in reducing pain reported on a visual analog scale (SMD = −1.18, 95% CI: −1.33, −1.03; p < 0.0001). Secondary analyses found that aromatherapy is more consistent for treating nociceptive (SMD = −1.57, 95% CI: −1.76, −1.39; p < 0.0001) and acute pain (SMD = −1.58, 95% CI: −1.75, −1.40; p < 0.0001) than inflammatory (SMD = −0.53, 95% CI: −0.77, −0.29; p < 0.0001) and chronic pain (SMD = −0.22, 95% CI: −0.49, 0.05; p = 0.001), respectively. Based on the available research, aromatherapy is most effective in treating postoperative pain (SMD = −1.79, 95% CI: −2.08, −1.51; p < 0.0001) and obstetrical and gynecological pain (SMD = −1.14, 95% CI: −2.10, −0.19; p < 0.0001). Conclusion. The findings of this study indicate that aromatherapy can successfully treat pain when combined with conventional treatments.
