



## Ambient odors of orange and lavender reduce anxiety and improve mood in a dental office

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### Abstract

The goal of this study was to investigate the impact of the essential oils of orange and lavender on anxiety, mood, alertness and calmness in dental patients. Two hundred patients between the ages of 18 and 77 years (half women, half men) were assigned to one of four independent groups. While waiting for dental procedures patients were either stimulated with ambient odor of orange or ambient odor of lavender. These conditions were compared to a music condition and a control condition (no odor, no music). Anxiety, mood, alertness and calmness were assessed while patients waited for dental treatment. Statistical analyses revealed that compared to control condition both ambient odors of orange and lavender reduced anxiety and improved mood in patients waiting for dental treatment. These findings support the previous opinion that odors are capable of altering emotional states and may indicate that the use of odors is helpful in reducing anxiety in dental patients.