

*Abstract*

# How Essential Oils Affect Children with Congenital Zika Virus Syndrome (CZVS)

Driany Tamami Yamashita de Carvalho <sup>1,\*</sup>

<sup>1</sup> Programa de Pós-Graduação Universidade Paulista (UNIP), São Paulo, SP, Brazil.

\* Correspondence: driany1505@hotmail.com.

**Introduction:** Within the field of dentistry, essential oils are well-known and extensively researched; eugenol is one of the most used, which until recently characterized the predominant smell of dental offices. Children with congenital Zika virus syndrome (CZVS) have various impairments, and in the dental area, the vast majority exhibit underdevelopment of the stomatognathic system compared to established normality standards. Many use various medications, such as anticonvulsants, muscle relaxants, sedatives, neuroleptics, among others, to control symptoms. These drug interactions can trigger involuntary muscle movements, including bruxism. There are several treatment proposals for teeth grinding and clenching, including appliance therapy, emotional therapies, medication, and also aromatherapy. **Material and method:** Syndromic and bruxist children were selected through validated questionnaires and clinical examination. A convenience sample of 19 syndromic children from Maceió was divided into two random groups: group 1 received a blend of essential oils, and group 2 received a control oil. They were instructed to apply it topically to the masseter, temples, and cervical area twice a day for two months. Sleep analysis was carried out through a questionnaire with 15 questions plus filling out a sleep chart for three days and collecting saliva in Salivette tubes for cortisol evaluation, with both data sets collected pre and post-use of essential oils. **Discussion:** Previous studies report that individuals with cognitive difficulties are more prone to bruxism due to spasticity, however, they are not definitive according to other studies. There are other factors such as stress, depression, external environmental stimuli that can influence this condition, in addition to the drug interaction they use to alleviate symptoms such as seizures, drooling, muscle spasms, muscle stiffness, insomnia. The etiology of bruxism is still considered multifactorial, requiring a multidisciplinary clinical team for more effective treatment. The use of essential oils as a stress and insomnia reliever is reported in studies with satisfactory results, being observed in this research. Result: In the finalization phase. **Conclusion:** Given the above, the proposal was to evaluate the efficacy of using essential oils in syndromic and bruxist children. Although we cannot confirm results yet, there are reports from mothers who evaluated the initiative positively, corroborating in some way the alleviation of symptoms and drug interactions, providing more emotional and physical comfort for those involved. However, more clinical trials are still necessary regarding the safety and efficacy aspects of essential oils.

**Keywords:** Bruxism; Children; Dentistry.

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