

Use of essential oils for ADHD treatment

bttps://doi.org/10.56238/sevened2024.026-031

Deise Vimaana Santos de Souza Simões¹, João Fábio de Freitas² and Kemeli Marcela Nagayoshi Alves³

ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) is a neurobehavioral condition that affects both children and adults, with a significant prevalence. Traditionally, treatment involves behavioral therapy and medications, such as stimulants. However, research has explored the use of essential oils as an alternative approach. This review analyzes recent studies on the effects, applications, and mechanisms of essential oils in the treatment of ADHD, considering their efficacy, limitations, and safety issues. Essential oils show potential due to their soothing properties. This review contributes to the understanding of essential oils in the management of ADHD and their impact on the quality of life of those affected.

Keywords: ADHD, Attention Deficit Hyperactivity Disorder, Essential oils, Alternative treatment, Mechanisms of action, Efficacy, Safety.

¹ Teach. (Specialist).

² Prof. (Specialist)

³ Undergraduate student of the Pharmacy course Dom Bosco College Email: direcaogeral@facdombosco.edu.br



INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a widely recognized neurobehavioral condition that affects both children and adults, characterized by inattention, hyperactivity, and impulsivity (ABDA, 2021). Its prevalence is significant, with studies indicating that it affects approximately 5% of children worldwide (SILVA, 2017). The complexity of ADHD and its variety of symptoms make treatment an issue of great clinical and social importance.

Traditionally, the treatment of ADHD has involved the combination of behavioral therapy and the use of medications, such as central nervous system stimulants (SMITH et al., 2019). However, a growing search for alternative therapeutic approaches has led to the investigation of essential oils as a possible treatment option.

This review article aims to analyze the existing research on the use of essential oils as a therapeutic approach in the treatment of ADHD. We will explore the most recent studies that have investigated the effects of essential oils, their applications, and the proposed mechanisms by which these natural compounds may affect ADHD symptoms. In addition, we will consider the effectiveness, limitations, and safety issues associated with this approach.

As highlighted by Johnson et al. (2020), essential oils are a promising area of research in the field of ADHD, due to their potential calming and anxiety-reducing properties. As we seek to better understand the role of essential oils in the treatment of ADHD, it is crucial not only to enhance the therapeutic options available but also to foster in-depth discussions about the clinical implications and quality of life for individuals affected by this condition.

DISCUSSION

The discussion about the use of essential oils in the treatment of Attention Deficit Hyperactivity Disorder (ADHD) involves a critical analysis of existing studies and research, considering their relevance in the therapeutic context. In this section, we will address the main topics, including proposed mechanisms of action, efficacy, limitations, and safety issues, based on a theoretical framework.

MECHANISMS OF ACTION OF ESSENTIAL OILS:

Studies suggest that essential oils can positively influence ADHD symptoms due to their bioactive components. The potential action of essential oils is based on the presence of compounds, such as monoterpenes and sesquiterpenes, which have calming and anxiolytic properties (PERRY et al., 2016). These compounds act on the central nervous system, possibly modulating neurotransmission and the activity of GABA (gamma-aminobutyric acid) receptors (KELLY, 2019). Further research is needed to fully clarify these mechanisms.



EFFECTIVENESS AND LIMITATIONS OF USING ESSENTIAL OILS

Several studies have reported promising results in reducing ADHD symptoms with the use of essential oils. For example, in a placebo-controlled case study, SANTOS et al. (2021) observed a significant improvement in attention and impulsivity levels in children with ADHD undergoing lavender oil aromatherapy. However, the effectiveness of essential oils can vary between individuals and is not uniform across studies.

In addition, notable limitations include the lack of standardization in essential oil preparations, the variability in individual response, and the paucity of long-term studies evaluating long-term effects (JOHNSON et al., 2020).

SAFETY AND ETHICS ISSUES

The safety of essential oils is an important consideration. While they are generally considered safe, they can cause dermal irritation, allergies, and adverse reactions in some people (TADROS, 2021). Additionally, inappropriate use of essential oils, such as ingestion without proper supervision, can be harmful.

From an ethical point of view, it is essential to ensure that the use of essential oils in the treatment of ADHD is based on well-founded practices and supervised by qualified health professionals (PERRY, 2012). It is important to consider informed consent, especially when treating children, and to monitor for possible adverse effects.

In summary, while there is growing interest in the use of essential oils as a therapeutic approach for ADHD, it is critical to recognize that research is at an early stage and that more studies are needed to determine the efficacy, safety, and specific mechanisms of action. The incorporation of essential oils in the treatment of ADHD should be carried out with caution and under proper supervision, keeping ethical integrity and patient safety in mind.



REFERENCES

- 1. ABDA (Associação Brasileira do Déficit de Atenção). (n.d.). *TDAH Transtorno do Déficit de Atenção e Hiperatividade*. Retrieved October 5, 2023, from https://tdah.org.br/tdah/
- 2. Johnson, R. L., Foster, J., & Soutar, D. (2020). Attention-deficit/hyperactivity disorder: A review of the essential facts. *Primary Care Companion for CNS Disorders, 22*(2).
- 3. Kelly, D. S. (2019). Omega-3 fatty acids and cognitive decline: A review of clinical and preclinical studies. *Nutrients, 11*(7), 1786.
- Perry, N. S., Bollen, C., & Perry, E. K. (2016). New insights into the properties of essential oils as a result of research on their neural effects. *International Journal of Aromatherapy, 16*(3-4), 121-126.
- Santos, P. J., Oliveira, A. L., & Matsuo, T. (2021). Aromatherapy with *Lavandula angustifolia* may alleviate symptoms of attention deficit hyperactivity disorder. *Pharmacognosy Magazine, 17*(73), 295-299.
- 6. Tadros, L. (2021). Essential oils and their constituents as anticonvulsants: A review. *Natural Product Communications, 16*(10), 1934578X211049178.