


Anxiety and its relationship with the integrative practice of aromatherapy

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ABSTRACT

Anxiety is one of the most concerning health issues today, with approximately 264 million people worldwide suffering from some form of anxiety disorder. Symptoms can range from nervousness and restlessness to debilitating panic attacks. The World Health Organization (WHO) points out that Brazil is the country with the highest number of anxious people: 9.3% of the population, this percentage represents about 18.6 million Brazilians (WHO, 2023).

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INTRODUCTION

Anxiety is one of the most concerning health issues today, with approximately 264 million people worldwide suffering from some form of anxiety disorder. Symptoms can range from nervousness and restlessness to debilitating panic attacks. The World Health Organization (WHO) points out that Brazil is the country with the highest number of anxious people: 9.3% of the population, this percentage represents about 18.6 million Brazilians (WHO, 2023).

This percentage has also increased due to the COVID-19 pandemic, the prevalence of pathological anxiety is 19.4% of patients, due to social isolation. The main factors associated with isolation were women between 18 and 20 years old, living abroad and reduced physical activity due to the pandemic.

With the restrictions, the population has made adaptations to improve its quality of life and thus becoming a central concern in contemporary society, as the daily demands and pressures of the modern world significantly impact people's physical and mental well-being. In this context, anxiety emerges as a prevalent challenge, affecting individuals in different age groups and socioeconomic contexts (SOUZA, 2021).

Throughout history, reports of manifestations of anxiety can be found in diverse cultures and periods. However, the understanding and formal categorization of anxiety as a specific disorder has evolved over time (TELES, 2023).

In the nineteenth century, anxiety began to be more widely studied and categorized as a medical condition. However, the understanding of anxiety as we understand it today really gained prominence in the twentieth century, with the development of psychoanalysis and the contribution of thinkers such as Sigmund Freud. Beginning in the late twentieth and early twenty-first centuries, there has been a significant increase in awareness of anxiety disorders. The classification of specific conditions, such as generalized anxiety disorder (GAD), panic disorder, obsessive-compulsive disorder (OCD), and post-traumatic stress disorder (PTSD), allowed for a more targeted approach to treatments (GONÇALVES, 2023).

Given this historical context, the search for complementary therapeutic approaches to anxiety is understandable. Aromatherapy emerges as a practice that uses essential oils to assist in the management of anxiety symptoms (TELES, 2023).

Conventional pharmacological treatments used to combat anxiety mostly have intense adverse effects, tolerance and drug dependence. Several studies involving Integrative and Complementary Health Practices have been carried out in search of safe and effective non-pharmacological therapeutic alternatives for the treatment of anxiety (GNATTA, 2010). Among these practices, Aromatherapy, a therapeutic technique that aims to promote the physical, mental, and emotional health of the individual through the use of essential oils from aromatic plants, has had its



use significantly increased in recent years in treatments to reduce anxiety and improve quality of life (SOUZA, 2021).

In the contemporary scenario, where stress is a constant, people are increasingly interested in holistic approaches that complement conventional treatments. Aromatherapy offers a non-invasive alternative, based on the influence of aromas on the mind and body (BOARETO, 2020).

By integrating essential oils such as lavender, chamomile, bergamot, and orange, aromatherapy seeks to provide natural relief from anxiety. These aromas stimulate the nervous system, promoting relaxation, reducing tension, and contributing to emotional balance.

Lavender, for example, is known for its relaxing properties and can be used to promote a state of calm. Chamomile is often associated with relieving tension and stimulating restful sleep. Bergamot oil is recognized for its potential to lift spirits and reduce anxiety, while orange oil can have invigorating effects and calm the mind. The relationship between anxiety and aromatherapy is based on the influence of odors on the nervous system and emotions. It is believed that essential oils, when inhaled or applied topically, can activate areas of the brain associated with emotions and emotional balance (DIAS, 2019).

The integration of aromatherapy into anxiety management reflects the ongoing search for holistic strategies that consider physical and emotional well-being in an integrated manner.

Considering this problem, it is important to establish other therapeutic offers in health systems, which go beyond the biomedical model (SOUSA et al., 2017). To this end, in 2006, the Ministry of Health (MS) approved the National Policy on Integrative and Complementary Practices (PNPIC) (BRASIL, 2018) with the inclusion of 5 integrative practices and, in 2017 and 2018, 24 more ICPs were approved in the SUS, including Aromatherapy.

Among these practices, several studies have been carried out with the aim of investigating the application of Aromatherapy, which refers to the use of aroma of oils and herbs (TABARI, 2021). It has the purpose of modifying a person's mood or behavior and improving their physical, mental, and emotional well-being.

Integrative Practices can be elements of support for the treatment and prevention of health problems and complications of patients with anxiety, also constituting a device for forming and strengthening the bond between individuals (BRASIL, 2017).

From an academic point of view, a priori there are two pillars that underlie the importance of investigating the issue of quality of life, anxiety and its relationship with the practice of aromatherapy. The first, more general, is related to the knowledge shared by researchers about contextual influences on interventions to improve the quality of life of patients with anxiety, using the PICs that is provided for in the National Policy for Integrative and Complementary Practices



(PNPIC). And it is of great relevance to search for evidence that proves the efficacy and safety of PICs in the context of interventions.

The word "anxiety" originates from the Latin *anxietas*, which means "anguish." Anxiety is considered normal when it consists of an adaptive response of the body in order to promote performance. However, when the intensity or frequency of the response does not correspond to the situation that triggered it, it is considered pathological (CASTILLO et al., 2000; XIMENES; NEVES, 2018).

According to the World Health Organization (WHO, 2020) and the Pan American Health Organization (PAHO) indicate that mental health is the most neglected area with almost 1 billion people in the world living with mental disorders. These values are alarmingly sufficient to classify Brazil as the most depressed country in Latin America and the most anxious in the world, demonstrating the urgency with which a health intervention must be carried out in the nation in order to promote the reduction of these rates (WHO, 2020).

Anxiety, in turn, is understood by the presence of feelings of fear, anguish, excessive thoughts about the future, which can cause excitability or even sadness. Anxiety is part of human life, and depending on the intensity with which it is felt and the way it is managed, it can be considered beneficial or harmful (SCHÖNHOFEN, NEIVA-SILVA, ALMEIDA, VIEIRA, & DEMENECH, 2020).

In the contemporary scenario, anxiety emerges as one of the most common and impactful psychological experiences, affecting people of all ages and backgrounds. This emotional state, characterized by apprehension, nervousness, and excessive worry, transcends cultural and socioeconomic boundaries, becoming a significant reality in the lives of millions of individuals. With deep roots in the evolutionary "fight or flight" response, anxiety plays a crucial adaptive role, preparing the body to face challenges.

However, when this natural response becomes dysregulated, turning into a persistent and disproportionate state, anxiety disorders arise, constituting a global mental health challenge. By understanding the complexity of this phenomenon, it becomes possible to outline effective prevention, intervention, and support strategies, seeking to promote emotional balance and a better quality of life for those who face this challenge.

Anxiety, intrinsically linked to human survival, has evolved as an adaptive response to alert the body to potential threats. However, in a modern world marked by constant stimuli and varying pressures, anxiety can take many forms, from everyday worries to clinically significant mental disorders.



The manifestations of anxiety span a broad spectrum, which vary from person to person, including cognitive, emotional, and physical symptoms. Here are some of the most common manifestations of anxiety:

Physical Symptoms: Palpitations or rapid heartbeat; Muscle tension and body aches; Tremors or feeling weak; Rapid breathing or shortness of breath; Excessive sweating; Gastrointestinal disorders, such as abdominal pain or nausea. **Emotional Symptoms:** Constant nervousness; Feeling of apprehension or fear; Irritability; Difficulty concentrating; Feeling out of control; Excessive worry. **Behavioral Symptoms:** Difficulty coping with day-to-day tasks; Insomnia or sleep problems; Compulsive behaviors; Difficulty relaxing. **Cognitive Symptoms:** Constant worry about the future; Difficulty in turning off the mind; Negative self-evaluation; Difficulty making decisions. **Social Symptoms:** Social isolation; Difficulty interacting with others; Fear of judgment or criticism. **Difficulty expressing emotions.** **Triggers:** Several factors can trigger or contribute to the development of anxiety. Chronic stress, traumatic events, genetic predisposition, brain chemical imbalances, and underlying health conditions are some elements that can play a significant role. In addition, social, financial, and environmental concerns can intensify anxious symptoms. These symptoms can develop into disorders that are mental health conditions characterized by excessive and persistent levels of anxiety, fear, or worry. They are characterized when it transcends the spectrum from normal to pathological when it interferes with daily activities and general well-being. Common disorders include Generalized Anxiety Disorder (GAD), Panic Disorder, Obsessive-Compulsive Disorder (OCD), Specific Phobias, and Post-Traumatic Stress Disorder (PTSD).

The disorder has a profound impact on quality of life. It can affect interpersonal relationships, academic and professional performance, sleep, and physical health. Additionally, anxiety can be a barrier to seeking opportunities and fulfilling potentials, creating an adverse cycle of emotional challenges.

Thus, the approach and implementation of anxiety treatment involves a multifaceted approach, which may include psychotherapy, anti-anxiety medications, cognitive-behavioral therapies, and self-care strategies. In addition, practices such as aromatherapy, physical exercise, and mindfulness have been shown to be beneficial in managing anxious symptoms.

Treatment strategies for anxiety are numerous and the Mental Health Policy, enacted by Law 10.216 in April 2001, provides for the protection of these rights related to effective and individualized treatment when necessary for these patients, thus improving symptoms and providing a better quality of life for individuals (BRASIL, 2001).

The mental health policy approach to anxiety is essential to deal with the most prevalent and impactful mental health problems worldwide (BRASIL, 2001).



Complementary integrative practices are increasingly being used in the treatment of various pathologies such as tension headache, anxiety, depression according to Kai Song who carried out a meta-analysis carried out in 2020 on the effectiveness of complementary therapies in patients who suffered from stroke and had depression after stroke, 46% of patients used complementary therapy and 16% reported that they felt effectively psychologically relaxed with the use of therapy, corroborating the effect of the therapies.

In recent years, integrative practices are increasingly being sought to improve symptoms and consequently provide a better quality of life, due to people's routine, tension pathologies only grow and thus making it difficult to carry out daily activities. With these tensions and anxieties, the tendency is to search for pharmacological treatments that can cause adverse effects. According to Zhai Xixi (2021) in their meta-analysis, they observed that non-pharmacological treatments mainly include psychotherapy, behavioral therapy, acupuncture therapy, and other integrative practices, usually combined with other pharmacological treatments, their efficacy was confirmed. Research has shown that integrative therapies, alone or in combination, can reduce headache activity in nearly 50% of cases.

Guo et al. (2020) in their study identified that aromatherapy significantly reduced anxiety in adults who were waiting for surgical procedures, these effects are beneficial, cause well-being to the patient and thus have an effective method with fewer side effects.

Aromatherapy is currently recognized and used in many industrialized countries as an extremely effective method of therapy. When it comes to knowledge and advancement in the area, England and France are the countries that stand out the most, with serious and quality work. It is worth mentioning that in England there is an Aromatherapy Council and in France there are colleges that have the discipline "Aromatherapy" in their medical courses. Brazil is positioned as the 3rd largest exporter of essential oils in the world. According to the United Nations Commodity Trade Statistics Database, the largest consumers of essential oils in the world are the USA (40%), the European Union – EU (30%), with France being the leading country in imports and Japan (7%), along with the United Kingdom, Germany, Switzerland, Ireland, China, Singapore and Spain, thus observing the growth of the widespread practice in the world (BRITO, 2013).

Rodriguez et al. (2015) observed that Integrative and Complementary Health Practices (ICPs), such as aromatherapy, are increasingly being used as key tools to reduce anxiety levels, due to the more efficient method and obtaining fewer adverse effects and thus providing a better quality of life to individuals who make use of the practice. In this context, the use of ICPs is very promising, "due to the mode of care that, in this case, focuses attention on the individual as a whole and not only on the disease, providing a holistic approach to care" standing out mainly for its low cost, fewer side effects and accessibility (GNATTA; DAY; SILVA, 2011).



In order to expand the clinical approach and therapeutic options offered to users of the Unified Health System (SUS), the National Policy for Integrative and Complementary Health Practices (PNPICS) was implemented, through Ordinance 971, of May 3, 2006, and Traditional Chinese Medicine/Acupuncture, Homeopathic Medicine, Phytotherapy and Thermalism were inserted in the SUS (BRASIL, 2006). After the results obtained in several states, fourteen other activities were incorporated into the PNPIC through Ordinance 849 of March 27, 2017. They are: Art Therapy, Ayurveda, Biodance, Circular Dance, Meditation, Music Therapy, Naturopathy, Osteopathy, Chiropractic, Reflexotherapy, Reiki, Shantala, Integrative Community Therapy and Yoga.

Almost a year later, on March 21, 2018, the Ministry of Health published Ordinance No. 702, amending Consolidation Ordinance No. 2/GM/MS, of September 28, 2017, to include new practices in the PNPIC. They are: Aromatherapy, Art Therapy, Bioenergetics, Family Constellation, among others. Thus, to date, 29 integrative practices can be offered in the SUS, including Aromatherapy. This reality makes Brazil a leading position in the provision of these therapies (BRASIL, 2018).

Among the practices, aromatherapy is the one that uses essential oils extracted from aromatic plants for the treatment of clinical symptoms and the promotion of the well-being and health of the individual by integrating body, state of mind and mind. It is admitted that the benefits of aromatherapy are due to the characteristic and particular chemical constituents of essential oils, many of which have an action in relieving stress and anxiety. The name of the aromatherapy practice comes from the combination of the words aroma, which means aroma or smell, and therapy, which means treatment (DIAS, 2019).

In this sense, it is possible to glimpse, in the search for non-pharmacological strategies to cope with anxiety and improve quality of life, which is one of the benefits of Integrative and Complementary Health Practices (ICPs). It is noted that complementary therapies approach the subject holistically and are represented by safe, non-invasive and cost-effective techniques, listed in the co-responsibility between the professional and the user. Lavender oil is a widely used essential oil that is extracted from the *Lavandula angustifolia* plant, known as true lavender or English lavender. This oil is used in alternative therapies to promote beneficial effects in relation to anxiety. *Lavandula angustifolia* is the scientific name of the lavender plant, from which the oil for aromatherapy is extracted, working in a holistic and scientifically proven way to offer the essential oils to individuals (Patsalis et al., 2022).

The form of extraction of this oil is obtained by steam distillation of the flowers of the lavender plant, the flowers are harvested when they are in full bloom, and water vapor is used to extract the volatile components. The oil also has a floral, sweet and fresh aroma and has relaxing, soothing properties which is why it is widely used in aromatherapy (Giuliani et al., 2020).



Among the variety of medicinal plants, the genus of *Lavandula* belongs to the Lamiaceae family, with 28 different species it has stood out for centuries in the cosmetic industry and for its therapeutic effects (Cavanagh, Wilkinson, 2002). Its therapeutic effects vary according to the concentration of the compounds present in its species, such as camphor, terpinen-4-ol, linalool, linalyl acetate, beta-ocimene, and 1,8-cinelol (Ali et al., 2015; Bouazama et al., 2017; Justus et al., 2018)

Studies have proven that using aromatherapy with lavender oil generates anxiety reduction, sedative, antidepressant, calming, antispasmodic, analgesic, antibacterial and antifungal effects. Human studies using this oil have shown reduced levels of anxiety and stress in different contexts (Ebrahimi et al., 2022; Genc & Saritas, 2020).

As anxiety generates an activation of the sympathetic autonomic nervous system, causing agitation and stress, and can be perceived through tachycardia, tachypnea, sweating, among others, lavender has an inhibitory action on the hypothalamic-pituitary-adrenal axis, thus reducing the release of cortisol, the stress hormone. On the other hand, it promotes the release of serotonin that acts on the feeling of pleasure and well-being (Karimzadeh et al., 2021).

In general, lavender oil is appreciated not only for its physical properties but also for its positive impact on emotional and mental well-being. By integrating lavender oil into self-care and aromatherapy practices, many people find significant benefits for their health and emotional balance.



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