



# Prior Literature Analysis: The Reduction of Employee Perceived Stress through Aromatherapy

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## Abstract

**Purpose:** The therapeutic process has various benefits since it relieves most of the stresses that people are undergoing in their various working places. Thus this study will determine this process's impact on workers in their different working places. Most of the workers that are being affected by stress and use this technique are the nurses. **Research design, data and methodology:** The present research conducted the PRISMA process which are important in research as it provides information that individual studies cannot. Guided by a specific research question, systematic reviews collate empirical evidence that fits particular criteria to provide a summary of available evidence. **Results:** The findings of all fifteen investigations were reviewed, but those with the strongest evidence were given more weight. Observers should be aware that the findings on aromatherapy approaches for nurses and patients are so uniform that advice might apply to both in a high acuity workplace. **Conclusions:** This research concludes that with the exception of a few rare exceptions, aromatherapy is a very efficient and safe treatment that does not build up in the body, but instead is expelled via the lungs, liver and kidneys. Non-invasive aromatherapy immediately affects the brain, and anyone may give the treatment at any time or place, regardless of the location.

**Keywords :** Employee Management, Perceived Stress, Aromatherapy

**JEL Classification Code** M54, M12, J53

## 1. Introduction<sup>a</sup>

Aromatherapy's origins cannot be pinpointed to a certain period or culture. Fragrance, on the other hand, has been there since the dawn of time. Essential oil distillation was used as early as 1500 B.C. in India and Egypt. There are several myths and traditions about the sacredness of certain scents from all around the world (Kinzurik, Deed, Herbst-Johnstone, Slaghenaufi, Guzzon, Gardner, & Fedrizzi, 2020). Aromatherapy is the use of the therapeutic and health-promoting properties of essential oils or synthetically

reproduced fragrances extracted from natural sources. For the Aromatherapist, this means harnessing both the conscious and unconscious impacts of different smell combinations and applying them to a particular problem. Besides treating physical ailments, this method is used to enhance one's mental and even spiritual well-being (Puvača, Milenković, Galonja Coghil, Bursić, Petrović, Tanasković, & Miljković, 2021). Any of the different traditions that employ essential oils, often in conjunction with other alternative medical practices and spiritual beliefs, is referred to as aromatherapy. Essential oils are often used in massage

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treatments, medication, or any other topical application that integrates essential oils into its products.

Stress is described as a danger to equilibrium, either real or imagined. People who are under long-term stress are more likely to suffer from hypertension and heart attacks as well as arrhythmias and sudden death (Flesia, Monaro, Mazza, Fietta, Colicino, Segatto, & Roma, 2020). Anxiety, impatience, and exhaustion are all symptoms of chronic stress, as is a rise in bad habits like smoking and binge eating, as well as depression and a lack of social support. Among alternative therapies, aromatherapy is one of the most popular since it is non-invasive and easy to acquire. Aromatic molecules travel through the nasal cavity lining during scent inhalation (Daviu, Bruchas, Moghaddam, Sandi, & Beyeler, 2019). In addition to the hypothalamus, the autonomic nervous system and the endocrine system may also be affected by these aromatic compounds. These chemicals may reduce stress, boost blood circulation, control heart rate and blood pressure, and improve hormonal coordination... Stress-related burnout and tiredness have been shown to be reduced by scent inhalation as well, according to research.

Workers have been experiencing a great impact on their quest to adapt to a given working environment. There are different kinds of stress that workers undergo together with their various working environments. On the other hand, there are also several ways of removing the stress from these different workers. One of the main ones are the likes of aromatherapy which this study is going to critically look into (Sarkic & Stappen, 2018). Natural plant extracts are used in aromatherapy, a holistic therapeutic method, to enhance good health and well-being. Essential oil treatment is another name for it. Aromatherapy is a kind of alternative medicine that makes use of fragrant essential oils to promote well-being on all levels: physical, mental, and spiritual. Both physical and mental well-being are benefited by this practice. Aromatherapy is regarded as both a science and an art form. Recent years have seen a growing interest in aromatherapy in scientific and medical circles. Natural plant extracts are used in aromatherapy, a holistic therapeutic practice that aims to improve overall health and well-being via the use of these extracts. It is also known as "essential oil treatment" in certain circles (Feng, Li, Li, Wan, & Yang, 2020)

The therapeutic use of aromatic essential oils in aromatherapy aims to benefit the physical, emotional, and spiritual well-being of patients. It improves one's physical and mental well-being. The process has various benefits since it relieves most of the stresses that people are undergoing in their various working places. Thus this study will determine this process's impact on workers in their different working places. Most of the people that are being affected by stress and use this technique are the nurses.



**Figure 1:** Three Steps to Adapt to a Given Working Environment.

## 2. Literature Review

Literature review is an overview of the most recent research on aromatherapy as a stress-relieving treatment is presented in this chapter. Are aromatherapy therapies useful for nurses and patients in the acute care context in reducing verbal ratings and physiological markers of stress? This is the PICOTS question used to lead this search. There are several themes that are going to lead this process of literature review.

### 2.1. Effects of Aromatherapy on Stress

Stress is an important factor in a patient's recovery and well-being, despite the fact that stress is typically not the major focus of a patient's treatment during hospitalization (Hesselink, Smits, Doedens, Nijenhuis, van Bavel, van Goor, & van de Belt, 2020). As a result, reducing patient anxiety in the midst of an acute care environment is critical. Patients in the acute care situation often feel stress, and aromatherapy may be used to help reduce it (Dahlia, Massie, & Sari, 2021),

When compared to a control group that did not get aromatherapy treatment, predicted that aromatherapy would reduce stress and enhance sleep quality (Kang, Noh, & Lee, 2020). The researchers designed a non-randomized experimental investigation to verify their theory. A total of 64 patients in an ICU at a university hospital were recruited for the research via convenience sampling, and data on 60 of them were included owing to attrition. An aromastone was placed in the room for the intervention, which involved deep breathing with lavender essential oil and then sleeping with an aromastone in the room (Valerie Cooksley, 2021). An aroma stone was used in conjunction with deep breathing on both the first and second nights of my stay. Prior to and during the aromatherapy intervention, stress reduction was

evaluated by pre- and post-tests.

Participants in the experimental group showed substantial decreases in subjective and objective stress, a drop in systolic blood pressure, heart rate, and sleep quality, with p-values less than 0.001. Between the experimental and control groups, there was no discernible change in diastolic blood pressure. There was no statistical difference between the experimental and control groups in demographic information or baseline health status, according to the researchers of this study. Sample size homogeneity helps researchers better account for confounding variables and enhances the study design, but it also limits the generalizability of the findings. In terms of application, this research is limited by the fact that it was done in a single hospital's intensive care unit.

## 2.2. Psychology Stress

Having a rudimentary understanding of how the body responds to stress is essential (Bennett & Molofsky, 2019). The brain processes information gathered via the senses, including hearing, seeing, smelling, and tasting. Whenever the amygdala detects a danger, it rapidly sends a signal to the hypothalamus, causing a chain reaction of neurological and hormonal signals to take place (Assogna, Piras, & Spalletta, 2020). Adrenal glands are positioned on the kidneys, and the hypothalamus communicates with them through the autonomic nervous system.

Epinephrine is a hormone produced by the adrenal glands and released into the circulation, where it is subsequently transported throughout the body to cause numerous physical changes (Berger, Werdermann, Bornstein, & Steenblock, 2019). Some of the changes that occur include an increase in blood pressure and heart rate, dilatation of the airways and pupils, and the release of fat and glucose from the body's reserves.

Both patients and healthcare workers, such as nurses, are concerned about the stress they are under. Stress has a deleterious effect on patient outcomes (Kelly, 2020). Chronic stress affects hormonal balances, reduces immunological function, inhibits digestion and food absorption, depletes energy storage, and modifies cardiovascular and respiratory processes among other consequences on a patient's capacity to recover from disease. These systemic alterations may hasten the beginning of a disease, or they may impede the body's capacity to heal and recover if an illness is caused by another factor, such as heredity. Therefore, patients who are stressed may have a longer recovery period, an incomplete recovery, or long-term harm to their health while in acute care (Vijayan, Abdel-Rahman, Liu, Goldstein, Agarwal, Okusa, & Cerda, 2021).

The stress of healthcare personnel is just as important as

the stress of patients (Raudenská, Steinerová, Javůrková, Urits, Kaye, Viswanath, & Varrassi, 2020). Nurses may be unable to offer high-quality treatment because of stress, which may lead to poorer patient safety and satisfaction, as well as higher healthcare expenses (Johnson, Hall, Berzins, Baker, Melling, & Thompson, 2018). The following articles look at aromatherapy as a stress-relieving solution for nursing staff.

Lavender essential oil was studied to see whether it may reduce stress in the workplace for nurses. An experimental investigation was undertaken in two stages to achieve this goal. In the first stage, a cross-sectional design was used with a sample of 259 nurses, and in the second stage, 110 nurses were picked from the first stage's group (Kheloul, Kellouche, Bréard, Gay, Gadene, & Anton, 2019). The sample comprised nurses who worked at teaching hospitals in southern Taiwan and provided direct patient care, with an average age of 33.18 years (Chen, Guo, Chin, Cheng, Ho, & Shiao, 2019). To begin, nurses tracked how much stress they were under over the course of a week's worth of shifts. Phase two included the recruitment of nurses who had more than 4.6 stress symptoms connected to their work and divided them into two groups: control and experimental. A bottle containing 3% lavender essential oil was worn by the experimental group over their right chest for four days, whereas a container containing no essential oil was worn by the control group (Tüzün Özdemir & Akyol, 2021). The stress symptom scale was completed by both groups at the conclusion of their shift before to the intervention, on each of the four days of the intervention, and then four days after the intervention ended. The ANOVA mean comparison, the chi-square test, and the mixed-model analysis were used to investigate the results (Chen et al., 2019).

As the authors' overall analysis leads them to conclude, while numerous research suggest that aromatherapy, massage, or aromatherapy massage considerably reduces stress among nurses, there is insufficient data to draw any conclusions about its efficacy (Guo, Li, Zhang, Liu, Wang, Yang, & Zhang, 2020). This topic has only been studied in 10 papers, which indicates a dearth of study in this area. It is difficult to generalize the results because of the tiny sample sizes used in the research. There was also a considerable potential for bias in several studies owing to nonrandomization, attrition and ambiguous reporting techniques among others. Subjective stress scores did not match up with objective stress scores in a number of research, indicating that the assessment methods were not reliable (Wynne, McHugh, Gao, Keegan, Byrne, Rowan, & Mulcahy, 2019).

## 2.3. Summary of Literature Review

The efficacy of aromatherapy treatment in lowering

stress is explored in nine research in this chapter. Both nurses and patients benefit from aromatherapy therapies studied in this study, which comes to comparable conclusions for both groups. As a consequence, these research found statistical significance in the decrease of stress as a result of using aromatherapy. The statistically significant results will be studied in further detail and suggestions for clinical practice will be translated in the next chapter.

**Table 1:** Summary of Literature Review

Prior Resources	Contents
Hesselink et al, 2020; Dahlia et al., 2021; Kang et al., 2020; Valerie Cooksley, 2021;	<Effects of Aromatherapy on Stress> When compared to a control group that did not get aromatherapy treatment, predicted that aromatherapy would reduce stress and enhance sleep quality.
Bennett & Molofsky, 2019; Assogna et al., 2020; Berger et al., 2019; Kelly, 2020; Vijayan et al., 2021; Raudenská et al., 2020; Johnson, 2018; Kheloul et al., 2019; Chen et al., 2019; Tüzün Özdemir & Akyol, 2021; Guo et al., 2020; Wynne et al., 2019	<Psychology Stress> - Having a rudimentary understanding of how the body responds to stress is essential. The brain processes information gathered via the senses, including hearing, seeing, smelling, and tasting. - Workers are concerned about the stress they are under. Stress has a deleterious effect on patient outcomes.

### 3. Research Methods

The present research conducted the PRISMA process which are important in research as it provides information that individual studies cannot. Guided by a specific research question, systematic reviews collate empirical evidence that fits particular criteria to provide a summary of available evidence (Krnicek, Martinic, Pieper, Glatt, & Puljak, 2019). On the other hand, meta-analyses analyze, measure, and compare findings from individual studies using statistical methods to provide data trends on a specific research topic (Jampel & Villarreal, 2019). These studies synthesize the findings of various studies on a particular subject or phenomena, analyzing them to identify trends as observed in single studies. As such, they can be a great source of a summary of the information available in a particular field of study, which is also essential for decision-makers and

researchers (Sarkis-Onofre, Catalá-López, Aromataris, & Lockwood, 2021). The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) ensures that these studies are conducted and reported accurately and transparently.

#### 3.1. Justification for PRISMA

The Systematic reviews and meta-analyses provide healthcare professionals, policymakers, and researchers with a single source of knowledge that provides a conclusion based on a broad scope of research. Without these studies, stakeholders would be overwhelmed by evidence to consider in the decision-making process. Since these publications are held in high regard in academia and practice, a criterion that ensures research findings are trustworthy, reliable, and applicable is necessary. Using PRISMA provides users of these publications with a highly reliable source of evidence-based information. This is because PRISMA helps researchers prepare accurate descriptions of their reviews, including what was done, how it was done, and what the researchers found (Nguyen, Nantharath, & Kang, 2022). Moreover, PRISMA allows readers to assess the quality of the review, allowing them to identify strengths and weaknesses. This benefits researchers planning to replicate the methodologies used in reviews as the procedures are well outlined.

#### 3.2. Data collection process for PRISMA

The PRISMA provides an elaborate procedure for gathering information to be included in the report. The following are the essential components of the report compilation process in line with the updated explanation and elaboration for PRISMA 2020.

The first three items of the checklist include the study's title, abstract, and rationale. The title should address the key research question and mention "systematic review" or "meta-analysis" in its wording to enable easy indexing and finding by users. The abstract summarizes key aspects of the study, including objectives, methods, findings, and implications, using words that accurately describe the study to enable users to decide on its relevance to their purpose. The rationale of the review should provide readers with a justification of the review and its significance using existing knowledge (Nguyen et al., 2022).

Items 4 to 6 outline the objectives, eligibility criteria, and information sources. Objectives or research questions need to be explicitly stated that adhere to recommended frameworks. The eligibility criteria are defined by describing in detail all the characteristics used to determine inclusion in line with the PICO framework. Such characteristics include the report status, the year of publishing, and how the outcome

of interest was addressed. Authors should describe in detail the information sources such as websites, databases, and references used in gathering studies for use in the review. This also includes names of sources, the date restrictions applied, and the dates when these information sources were consulted.

## 4. Results

When it comes to aromatherapy in the therapeutic context, this chapter will provide some suggestions. Textual evidence includes six research that found aromatherapy to be beneficial in lowering stress in both patients and nurses in the acute care context (MahdaviKian, Rezaei, Modarresi, & Khatony, 2020). These suggestions are based on these studies. Based on the literature analysis, the best-practice suggestions will be centered on five areas of implementation: essential oil scent and dilution level, distribution mechanism, time of implementation, qualified persons, and ways of monitoring the impact. The findings of all nine investigations were reviewed, but those with the strongest evidence were given more weight. Observers should be aware that the findings on aromatherapy approaches for nurses and patients are so uniform that advice might apply to both in a high acuity workplace.

### 4.1. Finding 1: Diversify Ways of Delivery

Aromatherapy may be delivered in a variety of ways. Diffusers, aroma stones, direct inhalation, aroma baths, aroma sprays, and roll-on essential oils are just a few examples of frequent aromatherapy applications. Having a wide range of delivery techniques makes aromatherapy more widely available, but it also makes it more difficult to decide which one is ideal for achieving your goals. This section of the present study analyzes and comes up with two ideas for providing aromatherapy in high-acuity environments. Direct inhalation aromatherapy is the first recommended best practice and involves placing two drops of essential oil on a cotton material and inhaling straight from this (Horváth & Ács, 2015; Worwood & Worwood, 2003).

Ambient inhalation of essential oils is a second option for providing essential oil aromatherapy (Johnson et al., 2018). The term "ambient inhalation" refers to any process that releases a diffuse scent into the surrounding air. Both an aroma stone and a nebulizing diffuser may be utilized to relieve stress in the acute care situation, according to a review of the literature. Aromatherapy should be performed in a closed environment when using ambient delivery to keep the effects contained to the targeted region (Dijkstra, Pieterse, & Pruyn, 2006).

### 4.2. Finding 2: Monitoring of Aromatherapy Interventions

A thorough evaluation of an intervention's effectiveness is necessary after an intervention. As part of an evaluation of the intervention, it is important to determine whether or not the anticipated outcomes were met; for example, whether stress reduction was accomplished. Literature reviews, such as the one above, give a wide range of assessment methods. Key examples are the STAI Y-1, Beck Anxiety Inventory, visual analogue scale, qualitative descriptions of experienced stress, and vital sign (Albert, Gillinov, Lytle, Feng, Cwynar, & Blackstone, 2009). In terms of effectiveness and reliability, two of these measures were judged to be the best. Pre- and post-intervention use of felt stress ratings is the first best practice suggestion. Quantitative stress ratings may be obtained by employing a numeric stress rating instrument. Heart rate and systolic blood pressure readings are the second-best practice suggestion. Using aromatherapy did not consistently affect other vital signs, however stress levels as evaluated before to and after the intervention are sufficiently reflected in heart rate and systolic blood pressure (Arslan, Aydinoglu, & Karan, 2020; Korkut, Ülker, Çidem, & Şahin, 2021).

### 4.3. Finding 3: Identifying of a Workers Problem

In deciding whether or not a health intervention has anticipated advantages for a patient, healthcare practitioners must assess the risk vs benefit of that intervention. It is imperative that health care practitioners have rules in place to assist them determine whether or not aromatherapy is safe for patients in the high-acuity environment, or whether it may be safely used (Connor & Howett, 2009). A comprehensive review of aromatherapy research results in an extensive list of preconditions for obtaining aromatherapy treatment (Frawley, Adams, Sibbritt, Steel, Broom, & Gallois, 2013; Maddocks-Jennings, & Wilkinson, 2004).

These precautionary steps are designed to prevent any possible side effects from aromatherapy usage. The following are the five aims that these suggestions are meant to help you achieve: Because the essential oil may cause an allergic response, to prevent aggravating any respiratory problems that may already be present. Preventing the misuse or dependence on essential oils, to ensure that a person has the ability to express when something is incorrect in a clear and concise manner the parasympathetic nervous system should not be overstimulated (Eddleston & Chowdhury, 2016).

### 4.4. Finding 4: Application of a Variety of Essential Oil for Aromatherapy



Aromatherapy's wide range of essential oils and delivery systems means that the treatment may be administered at various times and for varying lengths of time. If employees want to use aromatherapy at any time of day or night, they may. Aromatherapy may have a positive impact on stress reduction if it is used at the right moment and for the right length of time. Direct inhalation approaches are best used by using aromatherapy for 10-20 minutes at any time of the day. This may be done only once or many times in a row to get the desired results. For example, ambient delivery, the literature suggests using aromatherapy for at least three days in a row, for a total of 12-24 hours (Johnson et al., 2018; Sarkis-Onofre et al., 2021).

**4.5. Finding 5: Ensuring the Workers Live a Healthy Life other than the Therapy Process**

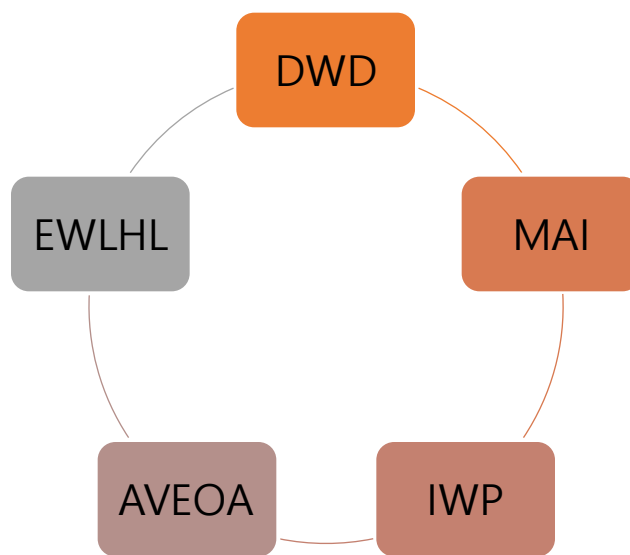
A healthy and vibrant life is possible if you learn about natural techniques, and you've come to the correct place for information on how to do just that. Explore the pages and articles about meditation, yoga, relaxation methods, and other resources that are available on this website (Medina & Mead, 2021).

Although there are numerous methods to relieve stress outside of the job, there are only several approaches acceptable for usage in the office environment. Relaxation practices like exercise and meditation, for example, are frequently inconvenient in the midst of a hectic workday. Aromatherapy (the therapeutic use of essential oils produced from plants) is a practice that may be applied in the workplace. Stress-relieving properties of many essential oils are well-known, and many of these oils may also assist with attention and focus, as well as productivity and mood (Calogiuri & Chroni, 2014).

Aromatherapy is a popular practice in the home nowadays, but it may also be utilized in the workplace to relieve stress (Buckle, 2014). Stress-busting aromatherapy employees may use Aroma Stress Buster to relieve stress in the workplace with its innovative aromatherapy dispenser. Use only natural pure essential oils in this revolutionary aromatherapy diffuser that rests on top of your computer monitor (so it does not take up desk space or need an electric plug) and delivers stress-relieving scents exclusively into your personal area. It is now possible to purchase the Aroma Stress Buster in a wide variety of new colors and styles, as well as with a wider selection of pure natural essential oils. Essential oils are used in Aroma Stress Buster, which is a brightly colored means of beautifying any working environment and providing rapid stress relief.

Job stress and a range of illnesses have been studied extensively in the past. Disrupted relationships with family and friends are among the many symptoms of stress that may occur with Linked issues that might arise quickly. Despite the

hype, aromatherapy seems to be a reliable stress reliever, even if it isn't a cure-all. Using aromatherapy passively (by filling the room with smell while you attend to other activities and reduce tension) and in combination with other stress relievers might help it work even better as a stress reliever. In addition, aromatherapy items are readily accessible, making aromatherapy a viable alternative for many people (Dave & Yadav, 2013).



- (1) DWD: Diversify Ways of Delivery
- (2) Monitoring of Aromatherapy Interventions
- (3) Identifying of a Workers Problem
- (4) Application of a Variety of Essential Oil for Aromatherapy
- (5) Ensuring the Workers Live a Healthy Life other than the Therapy Process

**Figure 2:** Summary of Solutions

**5. Conclusions and Implications**

There is no biochemistry degree necessary to understand how aromatherapy works, unlike other more typical stress treatments! The answer is found in the way the human body perceives and processes various aromas. The olfactory nerves in the nose get the aroma of the essential oil when it is breathed. Thus, brain activity is stimulated in a region that deals mostly with emotions and memories. Endorphins,

which are released when the Limbic System is stimulated, are a kind of "feel-good" molecule (Sarkic & Stappen, 2018). It is this endorphin release that is responsible for the various positive effects (and good times) that aromatherapy has on the body. In addition to massage, essential oils may be put into bath water and breathed. People with asthma should avoid using essential oils because of the risk of inhalation (Samitas, Kampouris, & Polyzos, 2022).

Using essential oils, aromatherapy provides a therapeutic benefit. Aromatherapy essential oils are the most dependable, inexpensive, and efficient method for relieving stress. From Egypt to Russia to Spain to Brazil to Europe to Canada to France to Germany the solutions have been employed by a wide range of people. Anxiety, stress, and nervous tension are all said to be alleviated by essential oils. Scent oils and essential oils are included in the oil selection. You may get a wide choice of oils on the internet. Each of the essential oils has a specific role in the process of healing the body and the psyche. Be careful to read all the directions before using the oils. It is possible to use aromatherapy diffusers to distribute essential oils in the air. If you do not want to risk a fire, you may use a candle or batteries instead. This is an easy way to create a calming environment (Halder, Barik, Dasgupta, & Saumendu, 2018).

There is no biochemistry degree necessary to understand how aromatherapy works, unlike other more typical stress treatments! The answer is found in the way the human body perceives and processes various aromas. The olfactory nerves in the nose get the aroma of the essential oil when it is breathed. Thus, brain activity is stimulated in a region that deals mostly with emotions and memories (Zhang, Long, Yu, Li, Yang, Guan, & Peng, 2021). Endorphins, which are released when the Limbic System is stimulated, are a kind of "feel-good" molecule. It is this endorphin release that is responsible for the various positive effects (and good times) that aromatherapy has on the body. In addition to massage, essential oils may be put to bath water and breathed. Asthma patients should avoid inhaling essential oils.

Aromatherapy has a long list of well-documented advantages. Along with promoting relaxation and stress reduction, aromatherapy has been shown to improve your mood and overall well-being. Aromatherapy has also been proved to reduce mild aches and discomfort and to improve circulation and the immune system, in case that is not enough for you. These additional advantages include better sleep, alleviation of period cramps and improved digestion (Chauhan, Singh, Kumar, Kumar, Kumari, Rathore, Kumar, & Singh, 2021). From the fragrant plant remedies of our ancestors have evolved the physical therapeutic advantages of Aromatherapy. Although allopathic medicine has evolved throughout the years, it still relies on nature as its primary source of inspiration. Aspirin, lavender, and slippery elm bark are all examples of plants that may be used to treat a

variety of ailments.

For aromatherapy, the medicinal qualities of the plant's essence are offered in their entire, full, integrated condition, unlike traditional medicine. Honoring and treating a person's whole being rather than just their physical body is an important part of this approach (Singh, Panda, & Satapathy, 2020). Yoga, like Buddhism, sees the individual as part of a broader whole that is both complex and complete. It is possible to retain or reclaim the completeness of your specific bodily manifestation of the Source via physical postures, breath work, meditation, food, spiritual ritual and practices, and introspective activities (Sehgal, 2022). There are several allusions to the holistic view of yoga's philosophical principles, which holds that all components of a whole are interconnected, are so intertwined that they cannot exist or be understood without reference to the whole, which is thus seen as larger than the sum of its parts (Kapadia & Dagar, 2022). Yoga is an age-old practice that is constantly growing (Knippenberg, De Groot, Van Den Born, Knights, & Muraca, 2018).

As an alternative treatment, aromatherapy has just lately acquired popularity. Humans are seen as integral parts of nature, and as such, their harmony and balance are emphasized. Using the therapeutic properties of essential oils extracted from numerous natural plants, stems, and roots, aromatherapy improves physical, emotional, and psychological wellbeing. In aromatherapy, essential oils are used to soothe the mind, body, and spirit of the patient, resulting in a more harmonious state of well-being. Also, it's employed in therapies to give you a boost of energy (Parihar, Chattarpal, & Sharma, 2022). With the exception of a few rare exceptions, aromatherapy is a very efficient and safe treatment that does not build up in the body, but instead is expelled via the lungs, liver and kidneys. Non-invasive aromatherapy immediately affects the brain, and anyone may give the treatment at any time or place, regardless of the location.

## 6. Limitations of the Research

A number of drawbacks are inherent in the evidence map technique and in the body of evidence as a whole. These evidence maps provide a comprehensive look at the SR-collected evidence. Maps like this simply show the broad strokes of what these efforts might do. It's important to evaluate these evidence maps with caution since they aren't intended to make clear findings regarding benefits. There were no trials or situations for which there was no SR available, therefore I relied only on published studies (Möller, Beck, Rydén, & Malmström, 2019). There is no way that I can speak to the amount of a treatment effect since I have depended on other people's judgments of research quality, and our confidence level cannot approach the rigor

indicated by standardized procedures because of the previously described limits. Since these results were designed to help researchers prioritize their study efforts, caution should be used when considering the possibility for positive impact findings.

There were significant limitations to the evidence of aromatherapy as a whole. Bias was shown to be an issue in several studies because they neglected to publish quantitative data, utilized insufficient placebos, or did not adequately standardize their treatments (Mele, Bellussi, & Felder, 2022). Some aromatherapy practitioners claim that their method does not lend itself well to standardization in trials since it requires a high degree of individualization in dose, dilution, and fragrance. This might be one reason for the low research quality. Insufficient patient blinding or the use of a non-odor placebo were frequent complaints among the reviews that were included. Controls over attention were seldom employed.

The SRs used to compile this report have their own set of flaws. According to the findings of some of the SRs, there was a treatment effect or not, but no effect sizes or p-values were reported (Cordell, 2019). A more in-depth analysis of the main trials included in these systematic reviews may have been presented, however this was not taken into consideration while preparing our study.

## References

- Albert, N. M., Gillinov, A. M., Lytle, B. W., Feng, J., Cwynar, R., & Blackstone, E. H. (2009). A randomized trial of massage therapy after heart surgery. *Heart & Lung, 38*(6), 480-490.
- Arslan, I., Aydinoglu, S., & Karan, N. B. (2020). Can lavender oil inhalation help to overcome dental anxiety and pain in children? A randomized clinical trial. *European Journal of Pediatrics, 179*(6), 985-992.
- Assogna, F., Piras, F., & Spalletta, G. (2020). *Neurobiological basis of childhood trauma and the risk for neurological deficits later in life. In Childhood trauma in mental disorders* (pp. 385-410). Springer, Cham.
- Bennett, F. C., & Molofsky, A. V. (2019). The immune system and psychiatric disease: a basic science perspective. *Clinical & Experimental Immunology, 197*(3), 294-307.
- Berger, I., Werdermann, M., Bornstein, S. R., & Steenblock, C. (2019). The adrenal gland in stress-Adaptation on a cellular level. *The journal of steroid biochemistry and molecular biology, 190*(June), 198-206.
- Buckle, J. (2014). *Clinical aromatherapy-e-book: essential oils in practice*. Elsevier Health Sciences.
- Calogiuri, G., & Chroni, S. (2014). The impact of the natural environment on the promotion of active living: An integrative systematic review. *BMC public health, 14*(1), 1-27.
- Chauhan, R., Singh, S., Kumar, V., Kumar, A., Kumari, A., Rathore, S., ... & Singh, S. (2021). A Comprehensive Review on Biology, Genetic Improvement, Agro and Process Technology of German Chamomile (*Matricaria chamomilla* L.). *Plants, 11*(1), 29.
- Chen, Y. C., Guo, Y. L. L., Chin, W. S., Cheng, N. Y., Ho, J. J., & Shiao, J. S. C. (2019). Patient-nurse ratio is related to nurses' intention to leave their job through mediating factors of burnout and job dissatisfaction. *International Journal of Environmental Research and Public Health, 16*(23), 4801.
- Connor, A., & Howett, M. (2009). A conceptual model of intentional comfort touch. *Journal of Holistic Nursing, 27*(2), 127-135.
- Cordell, G. A. (2019). Cyberecoethnopharmacolomics. *Journal of Ethnopharmacology, 244*(November), 112134.
- Dahlia, D., Massie, J. G., & Sari, E. P. (2021). Providing high-touch through high-tech during pandemic in the intensive care unit: A narrative review. *Malaysian Journal of Medicine and Health Sciences, 17*(June), 157-162.
- Dave, V., & Yadav, S. (2013). Aromatherapy for stress relive. *International Journal of Research and Development in Pharmacy and Life Sciences [Internet], 2*(3), 398-403.
- Daviu, N., Bruchas, M. R., Moghaddam, B., Sandi, C., & Beyeler, A. (2019). Neurobiological links between stress and anxiety. *Neurobiology of stress, 11*(November), 100191.
- Dijkstra, K., Pieterse, M., & Pruyn, A. (2006). Physical environmental stimuli that turn healthcare facilities into healing environments through psychologically mediated effects: systematic review. *Journal of advanced nursing, 56*(2), 166-181.
- Eddleston, M., & Chowdhury, F. R. (2016). Pharmacological treatment of organophosphorus insecticide poisoning: the old and the (possible) new. *British journal of clinical pharmacology, 81*(3), 462-470.
- Feng, Z., Li, M., Li, Y., Wan, X., & Yang, X. (2020). Characterization of the orchid-like aroma contributors in selected premium tea leaves. *Food Research International, 129*(March), 108841.
- Flesia, L., Monaro, M., Mazza, C., Fietta, V., Colicino, E., Segatto, B., & Roma, P. (2020). Predicting perceived stress related to the Covid-19 outbreak through stable psychological traits and machine learning models. *Journal of Clinical Medicine, 9*(10), 3350.
- Frawley, J., Adams, J., Sibbritt, D., Steel, A., Broom, A., & Gallois, C. (2013). Prevalence and determinants of complementary and alternative medicine use during pregnancy: results from a nationally representative sample of Australian pregnant women. *Australian and New Zealand Journal of Obstetrics and Gynaecology, 53*(4), 347-352.
- Guo, P., Li, P., Zhang, X., Liu, N., Wang, J., Yang, S., ... & Zhang, W. (2020). The effectiveness of aromatherapy on preoperative anxiety in adults: A systematic review and meta-analysis of randomized controlled trials. *International Journal of Nursing Studies, 111*(November), 103747.
- Halder, D., Barik, B. B., Dasgupta, R. K., & Saumendu, D. (2018). Aroma therapy: An art of healing. *Indian Research Journal of Pharmacy and Science, 5*(3), 1540-1558.
- Hesselink, G., Smits, M., Doedens, M., Nijenhuis, S. M., van Bavel, D., van Goor, H., & van de Belt, T. H. (2020). Environmental needs, barriers, and facilitators for optimal healing in the postoperative process: A qualitative study of patients' lived experiences and perceptions. *HERD: Health Environments Research & Design Journal, 13*(3), 125-139.



- Horváth, G., & Ács, K. (2015). Essential oils in the treatment of respiratory tract diseases highlighting their role in bacterial infections and their anti-inflammatory action: a review. *Flavour and Fragrance Journal*, 30(5), 331-341.
- Jampel, H. D., & Villarreal, G. (2019). *Evidence-based medicine in glaucoma. Ophthalmology*: 5th ed. Philadelphia, PA: Elsevier.
- Johnson, J., Hall, L. H., Berzins, K., Baker, J., Melling, K., & Thompson, C. (2018). Mental healthcare staff well-being and burnout: A narrative review of trends, causes, implications, and recommendations for future interventions. *International journal of mental health nursing*, 27(1), 20-32.
- Kang, J., Noh, W., & Lee, Y. (2020). Sleep quality among shift-work nurses: A systematic review and meta-analysis. *Applied nursing research*, 52(April), 151227.
- Kapadia, M., & Dagar, C. (2022). *Understanding Self and Well-Being Based on Ayurveda: Implications for Indian Management. In Indigenous Indian Management* (pp. 157-197). Palgrave Macmillan, Cham.
- Kelly, L. (2020). Burnout, compassion fatigue, and secondary trauma in nurses: Recognizing the occupational phenomenon and personal consequences of caregiving. *Critical Care Nursing Quarterly*, 43(1), 73-80.
- Kinzurik, M. I., Deed, R. C., Herbst-Johnstone, M., Slaghenaufi, D., Guzzon, R., Gardner, R. C., ... & Fedrizzi, B. (2020). Addition of volatile sulfur compounds to yeast at the early stages of fermentation reveals distinct biological and chemical pathways for aroma formation. *Food Microbiology*, 89(August), 103435.
- Kheloul, L., Kellouche, A., Bréard, D., Gay, M., Gadenne, C., & Anton, S. (2019). Trade-off between attraction to aggregation pheromones and repellent effects of spike lavender essential oil and its main constituent linalool in the flour beetle *Tribolium confusum*. *Entomologia Experimentalis et Applicata*, 167(9), 826-834.
- Knippenberg, L., De Groot, W. T., Van Den Born, R. J., Knights, P., & Muraca, B. (2018). Relational value, partnership, eudaimonia: A review. *Current Opinion in Environmental Sustainability*, 35(December), 39-45.
- Korkut, S., Ülker, T., Çidem, A., & Şahin, S. (2021). The effect of progressive muscle relaxation and nature sounds on blood pressure measurement skills, anxiety levels, and vital signs in nursing students. *Perspectives in Psychiatric Care*, 57(4), 1782-1790.
- Krnic Martinic, M., Pieper, D., Glatt, A., & Puljak, L. (2019). Definition of a systematic review used in overviews of systematic reviews, meta-epidemiological studies and textbooks. *BMC medical research methodology*, 19(1), 1-12.
- Maddocks-Jennings, W., & Wilkinson, J. M. (2004). Aromatherapy practice in nursing: literature review. *Journal of advanced nursing*, 48(1), 93-103.
- MahdaviKian, S., Rezaei, M., Modarresi, M., & Khatony, A. (2020). Comparing the effect of aromatherapy with peppermint and lavender on the sleep quality of cardiac patients: a randomized controlled trial. *Sleep Science and Practice*, 4(1), 1-8.
- Medina, A. M., & Mead, J. S. (2021). An exploration of mindfulness in speech-language pathology. *Communication Disorders Quarterly*, 42(4), 257-265.
- MahdaviKian, S., Rezaei, M., Modarresi, M., & Khatony, A. (2020). Comparing the effect of aromatherapy with peppermint and lavender on the sleep quality of cardiac patients: a randomized controlled trial. *Sleep Science and Practice*, 4(1), 1-8.
- Mele, M., Bellussi, V., & Felder, L. (2022). *Analgesia And Anesthesia. In Obstetric Evidence Based Guidelines* (pp. 137-151). CRC Press.
- Möller, U. O., Beck, I., Rydén, L., & Malmström, M. (2019). A comprehensive approach to rehabilitation interventions following breast cancer treatment—a systematic review of systematic reviews. *BMC cancer*, 19(1), 1-20.
- Nguyen, L. T., Nantharath, P., & Kang, E. (2022). The Sustainable Care Model for an Ageing Population in Vietnam: Evidence from a Systematic Review. *Sustainability*, 14(5), 2518.
- Parihar, S., Chattarpal, C., & Sharma, D. (2022). To Review on Aromatherapy and Herbs List Use in Aromatherapy. *Asian Journal of Pharmaceutical Research and Development*, 10(1), 29-31.
- Puvača, N., Milenković, J., Galonja Coghil, T., Bursić, V., Petrović, A., Tanasković, S., ... & Miljković, T. (2021). Antimicrobial activity of selected essential oils against selected pathogenic bacteria: In vitro study. *Antibiotics*, 10(5), 546.
- Raudenská, J., Steinerová, V., Javůrková, A., Urits, I., Kaye, A. D., Viswanath, O., & Varrassi, G. (2020). Occupational burnout syndrome and post-traumatic stress among healthcare professionals during the novel coronavirus disease 2019 (COVID-19) pandemic. *Best Practice & Research Clinical Anaesthesiology*, 34(3), 553-560.
- Samitas, A., Kampouris, E., & Polyzos, S. (2022). Covid-19 pandemic and spillover effects in stock markets: A financial network approach. *International Review of Financial Analysis*, 80(March), 102005.
- Sarkic, A., & Stappen, I. (2018). Essential oils and their single compounds in cosmetics—A critical review. *Cosmetics*, 5(1), 11.
- Sarkis-Onofre, R., Catalá-López, F., Aromataris, E., & Lockwood, C. (2021). How to properly use the PRISMA Statement. *Systematic Reviews*, 10(1), 1-3.
- Sehgal, G. (2022). The Usefulness of Yoga Towards Interconnected Environmental Liberation. Say Something Theological. *The Student Journal of Theological Studies*, 5(1), 3.
- Singh, Y. D., Panda, M. K., & Satapathy, K. B. (2020). *Ethnomedicine for drug discovery. In Advances in pharmaceutical biotechnology* (pp. 15-28). Springer, Singapore.
- Tüzün Özdemir, S., & Akyol, A. (2021). Effect of inhaler and topical lavender oil on pain management of arteriovenous fistula cannulation. *The Journal of Vascular Access*, 00(0), 1-10.
- Valerie Cooksley, R. N. (2021). Inhalation of *Lavandula angustifolia* Essential Oil as an Effective Aid to Sleep-A Holistic Nurses' Evaluation. *Alternative therapies in health and medicine*, 27(2), 8-10.
- Vijayan, A., Abdel-Rahman, E. M., Liu, K. D., Goldstein, S. L., Agarwal, A., Okusa, M. D., & Cerda, J. (2021). Recovery after Critical Illness and Acute Kidney Injury. *Clinical Journal of the American Society of Nephrology*, 16(10), 1601-1609.
- Worwood, S. E., & Worwood, V. A. (2003). *Essential Aromatherapy: A pocket guide to essential oils and*

*aromatherapy*. New World Library.

Wynne, B., McHugh, L., Gao, W., Keegan, D., Byrne, K., Rowan, C., ... & Mulcahy, H. E. (2019). Acceptance and commitment therapy reduces psychological stress in patients with inflammatory bowel diseases. *Gastroenterology*, *156*(4), 935-945.

Zhang, Y., Long, Y., Yu, S., Li, D., Yang, M., Guan, Y., ... & Peng, W. (2021). Natural volatile oils derived from herbal medicines: a promising therapy way for treating depressive disorder. *Pharmacological Research*, *164*(February), 105376.