



Aromatherapy: A Review

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ABSTRACT

Aromatherapy is one of the most actively growing forms of alternative medicines that use essential oils and aromatic plant compounds combining massage together with counselling and nice odour. Aromatherapy using essential oils can help to relieve stress, insomnia and anxiety symptoms, which may help improve sleep indirectly. A study found aromatherapy improved both depression and anxiety in a group of post - partum women. essential oil is a very popular and a very effective medicine in its own right and as an additive over the counter as well as it is used in cosmetic products as well. The smell of essential oil transmit signal to brain, as it can interfere with the capable of releasing neurotransmitters stimulus and helpful to generate analgesic effect and it can influence our physical, emotional, mental health, sense of wellness and relaxation. Aromatherapy can do more than soothe your mind.

Before using Aromatherapy one should follow the safety guidelines strictly this will help to reduce the adverse effects and helpful for better outcomes. Health professionals should have a basic knowledge about the constituents and properties present in essential oils of aromatherapy.

KEYWORDS: Aromatherapy, Essential oils, Alternative medicines, Insomnia.

INTRODUCTION

Aromatherapy is based on the use of aromatic materials, including essential oils and other aroma compounds, with claims for improving psychological well- being. It is offered as a complementary therapy or as a form of alternative medicine. Fragrances used in aromatherapy are not approved as prescription drugs in the United States.

People may use blends of essential oils as topical application, massage, inhalation, or water immersion. There is no good medical evidence that aromatherapy can either prevent, treat or cure any disease. There is disputed evidence that it may be effective in combating postoperative nausea and vomiting.

[1]

Stress can cause anxiety, tension, and depression, which can lead to things like clouded memory, reduced concentration, and frequent mood swings. In addition to the negative mental effects, stress can put us at risk for high blood pressure, poor digestion, skin problems, and can make us more susceptible to infections, such condition can be manage by some complementary therapies like, massage, relaxation technique, mindfulness, aromatherapy.^[2]

What Is Aromatherapy?

Aromatherapy is an alternative form of holistic therapy that uses essential oils to help improve and balance us both emotionally and physically. The aromas experienced through aromatherapy and essential oils have a dynamic effect on the mind and body. Essential oils can be inhaled through a humidifier or by soaking gauze and placing it near the patient. Olfactory and tactile sensory stimulation produced by these oils can enhance ordinary human activities such as eating, social interaction, and sexual contact.

Also Aromatherapy, referred to as Essential Oil therapy, which can be defined as the art and science of utilizing naturally extracted aromatic essences from plants to balance, harmonize and promote the health of body, mind and spirit. It seeks to unify physiological, psychological and spiritual processes to enhance an individual's innate healing process.^[3]

History of Aromatherapy

The actual term "aromatherapy" first originated in 1937 when French chemist Rene-Maurice Gatte fosse invented the word after a burn incident spurred his curiosity about the healing power of essential oils. On the heels of Gatte fosse's "discovery" that lavender oil helped to cure his burn, French surgeon Jean Valnet used essential oils to help heal soldiers' wounds in World War II, proving the medical benefits of aromatherapy.^[4]

Indian history of Aromatherapy

India was one of the first civilisations that started treating people holistically. Traditional Indian medicine, known as Ayurvedic (life knowledge), is the most ancient script of medical practice. Plants and plant extracts have been used

continuously there from at least 5000 years ago up to the present day in various ways. About 2000 BC, the most ancient book, called "Vedas" on plants and their abilities was written. It highlights the medicinal and religious uses of over 700 plants, roots and other substances, such as ginger, sandalwood, cinnamon, myrrh and coriander. The purpose of aromatic plants and oils were not only for medicinal purposes, but were honored as a part of nature and played role to the spiritual and philosophical outlook in this part of the world.^[5]

How Aromatherapy Works?

1) **Inhalation:** Essential oils stimulate the powerful sense of smell; as human beings, we have the capability to distinguish 10,000 different aromas. Apart from providing a pleasant smell, aromatherapy oils can provide respiratory disinfection, decongestant, and psychological benefits. As aroma float into the nostrils and make direct contact with the nerves, they spark off a reaction in the brain. During the inhalation of essential oils, the part of the brain connected to smell, the olfactory system, sends a signal to the limbic system of the brain which is the home of memories and emotions. Interestingly, doctors have found that, when dealing with patients who have lost their sense of smell, a life without fragrance can lead to high incidence of psychiatric problems such as anxiety and depression.^{[6][7]}

2) **Topical Application:** When the essential oils are applied topically, and they enter the body by absorption through the skin. Massage is one of the most popular ways to enjoy aromatherapy because it stimulates all of the organs in the body, revitalises and soothes the skin, muscles, nerves and glands. It also increases blood circulation and lymph flow, which in turn assists with the clearing away of body toxins. During massage, the recipient receives the wonderful therapeutic properties of essential oils both topically and via passive inhalation. Aromatherapy using only the Fragrance or Sense of Smell or Olfaction. In this method of aromatherapy, essential oils are perceived through the sense of smell to give a therapeutic benefit.^{[6][7]}

Classification of Aromatherapy

1. **Cosmetic Aromatherapy:** The cosmetic industry is currently utilizing the benefits of aromatherapy to revitalize and rejuvenate the body besides catering to the essential cleaning, toning, moisturizing and protective properties of essential oils for various skin and hair types.

2. **Aromatherapy using only the Fragrance or Sense of Smell or Olfaction:** In this method of aromatherapy, essential oils are perceived through the sense of smell to give a therapeutic benefit. This is done by a direct or indirect inhalation or aerial diffusion of essential oils.

3. **Aromatherapy using Massage or Topical Application:** Essential oils can be absorbed through the skin by massage or topical application. This promotes a holistic healing of the whole body by traveling through the bloodstream and affecting various organs of the body. Some of these oils are also potent anti-viral, antifungal and antiseptic in nature.^[8]

Some Benefits of Aromatherapy

- Relieves Stress
- Acts as Antidepressant
- Boosts Memory
- Increases Energy Levels
- Speeds up Healing
- Reduces Headaches
- Regulates Sleep

- Improves Digestion.^[9]

Safety Precaution

Aromatherapy essential oils are concentrated liquids. They can be harmful if not used carefully. By following the steps outlined below, we can safely enjoy the many benefits that aromatherapy has to offer.

These set of safety precautions are not comprehensive safety reference for the proper use of essential oils. Consult your doctor and/or a qualified and trained aromatherapy practitioner, when we have a doubt in our mind.

1. Discard old oils.
2. Don't ingest essential oils.
3. Be on the lookout for reactions.
4. Avoid low quality oils
5. Pregnant women should consult their physician
6. Consult your doctor before using on children
7. Choose a diffuser with an auto shut-off feature
8. Keep out of reach of children
9. Don't use near an open flame
10. Start small and go bigger.^[10]

Side Effects of Aromatherapy

1) Toxicity: Even natural substances like essential oils can be toxic. There are many essential oils that should never be used in aromatherapy because they are potentially toxic. Toxic oils can cause damage to our liver, kidneys and nervous system. Toxic effects are exacerbated if we take the oils internally. According to the University of Maryland Medical Centre, taking a toxic oil by mouth is potentially fatal.

2) Photosensitizing: Some essential oils used in aromatherapy produce a negative side effect from prolonged direct sun exposure. We should not use oils like cumin, lemon or orange on any part of our body that is going to be exposed to the sun as we will easily get sunburn.

3) Skin Irritation: One of the most common negative side effects in aromatherapy is using oils that can cause skin irritation. Oils with skin irritant properties can cause rashes, itching and burning sensation sit is one of the most varied negative effects depending on how sensitive the person's skin is. While there are some oils that should never be used on the skin, there are others such as peppermint and lemon, that can be used safely if diluted sufficiently. If we are using an essential oil in aromatherapy that may act as a skin irritant, be cautious and use the oil in a very low concentration about 1%.

1) Lavender

Botanical name: *Lavandula angustifolia*

Biological source: It consists of fresh flower of *Lavandula angustifolia*. Family: Lamiaceae.

English name: Lavender.

Description: Lavender is the name given to several species of herbaceous, perennial shrubs in the genus *Lavandula* which are grown as ornamental plants or for essential oil. Lavender plants are small, branching and spreading shrubs with grey-green leaves and long flowering shoots. The flowers are lilac or blue in color. Lavender can grow to 0.4 m (1.3 ft) in height and live for 20–30 years.

Distribution: Native to Spain, France and Italy, *Lavandula angustifolia* is a commercially important and highly aromatic shrub cultivated for its flowers, for the production of essential oil for aromatherapy and medicinal use. In India it is cultivated in Shimla and Himachal region.^[11]

Therapeutic indication

- 1) Reduce anxiety and emotional stress.
- 2) Protect against diabetes symptoms.
- 3) Improve brain function.
- 4) Help to heal burns and wounds.
- 5) Improve sleep.
- 6) Restore skin complexion and reduce acne.
- 7) Slow aging with powerful antioxidants.

Chemical constituent

- 1) It contains Monoterpenes: linalool, borneol, isoborneol, nerollanandulol.
- 2) Terpenes esters: Linalylacetate, geranyl acetate, neryl acetate.
- 3) Terpenoid oxides: Eucalyptol. Uses

- 1) Lavender oil is used in the production of perfume.
- 2) Used in massage therapy.
- 3) As a insect repellent. In Aromatherapy

- 1) Insomnia or Agitation.
- 2) Alopecia areata.
- 3) Inhalation therapy to headache.
- 4) Skin lesions.^[13]

Methods For Using Plants in Aromatherapy

1) Essential oil

A natural oil typically obtained by distillation and having the characteristic odour of the plant or other source from which it is extracted.

Essential oils are steam distilled, which involves simmering the plant material to produce a steam, which travels through a tube, which is then run through cold water. The liquid that forms from condensation will be in two parts, a water compound and an oil compound. The water compound is where floral waters,

such as lavender and rose water, come from. The oils that rise to the top are essential oils.

2) Infused oil

Infused oil is made by soaking herbs in particular oil to extract the active compound.

An infused oil, also referred to as a macerated oil, consists of a carrier oil that has been permeated (“infused” or “macerated”) with one or more herbs. The benefit to using an infused oil as opposed to a plain carrier oil is that the infused oil will contain the properties of both the carrier oil and the herbs that were infused into the oil.

Plants producing essential oils

Sr. No.	Essential oils	Parts of the plants
1.	Bergamot, lemon, lime, sweet orange, tangerine, mandarin	Fruit peel
2.	Cinnamon	Bark
3.	Citronella, lemongrass, petitgrain, palmarosa, patchouli	Leaves
4.	Geranium, lavender, rosemary, spike lavender	Entire plant
5.	Ginger, vetiver	Roots
6.	Jasmine, neroli (orange blossom), rose, ylang ylang	Flowers

Preparation of Oils for Aromatherapy Requirements

- Steel pot
- Distilled water
- Fresh plant material.

Flow diagram of preparation of flower oil

Take two steel pots large and small Transfer distilled water into large pot

Placed the small pot into the large pot Add fresh petals into large pot

Closed the pot with steel plate Placed the ice bugs over the steel plate

Heat for 30 min

After 30 min the the extracted material should collect into the bottle.

It contain fresh oil of flower.

Miscellaneous use of aromatherapy

Usage of aromatherapy in managing cancer: In cancer patients, aromatherapy inhibits GABA (gamma amino butyric acid) and reduces pain by affecting the glutamate bonds of neurotransmitters. In reducing pain, especially the substance linalool that is found in lavender oil is effective. Lavender oil also plays a role in regulation of emotional responses, heart rate, blood pressure and respiration (Singh & Chaturvedi, 2015). In a study on patients with breast

cancer, massage was applied with essential oils to manage symptoms such as pain, anxiety, depression, emotional problems, insomnia, nausea and vomiting.

The essential oils that were applied to 135 women in 7 massage sessions based on their preference (lavender, bergamot, lemongrass, neroli, grapefruit, frankincense, sandal wood) were diluted in the ratio of 1%. While there were no significant changes in the pain and insomnia scores in comparison to the pre- intervention scores, it was concluded that fatigue and depression decreased, and the emotional statuses of the patients were better.^[25]

Studies Supporting Aromatherapy for Dementia

Many studies have shown that the use of aromatherapy benefits patients living with dementia. Plants can provide beneficial effects to people with a variety of diseases, including dementia.

For instance, Japanese scientists have isolated active compounds in several plant medicines. These techniques helped the scientists identify and isolate active compounds found in *Drynaria rhizome*, a plant medicine that can improve memory. It has been proven to reduce disease characteristics in mice models with Alzheimer's disease.

A 2012 study shows that rosemary (*Rosmarinus officinalis*), a common plant used to distill essential oil, can also help improve cognitive performance in healthy adults. Also, rosemary can boost brain performance.

In another study in 2013, scientists found that rosemary may enhance the ability to remember events. Also, it helps people keep future tasks in mind. Since memory loss is one of the hallmark symptoms of dementia, this function could make rosemary oil an important component of therapy to combat dementia.

Scientists also found that six essential oils, namely thyme, rose, clove, eucalyptus, bergamot, and fennel, are capable of suppressing the inflammatory COX-2 enzyme. The effect is similar to that of resveratrol, one of the important compounds that give red wine its health benefits.^[24]

SUMMARY AND CONCLUSION

Thus we can conclude that aromatherapy is a growing practice of people today to help reduce stress and invoke certain moods and feelings. While aromatherapy massage, bath, and candles do have positive short term effect on most people, it is not an actual science or medicine that should be used to treat illness. Not all aromatherapy is beneficial to one's health. There are precaution people must take before practicing aromatherapy. Some oils are unhealthy and some can have negative effect on pregnant women or people with certain conditions. The study of aromatherapy relatively new and unexplored. More research must be done to make scientific conclusion about the use and effect of aromatherapy.

REFERENCES

- 1) "Aromatherapy". Better Health Channel. Archived from the original on 27 February 2012. Retrieved 14 August 2014 1.
- 2) Ayensu Edward. "Our green and living world". New York, NY: Cambridge university press, 1984. Gabriel Mojay. What is Aromatherapy? National Association for Holistic Aromatherapy.

- 3) <https://naha.org/explore-aromatherapy/about-aromatherapy/what-is-aromatherapy/>.
- 4) Aromatherapy History. <http://www.aromatherapy.com/history.html>.
- 5) John Lee. History of Aromatherapy. Providence Apothecary & Holistic Center; August 24, 2016. <https://providenceapothecary.com/history-of-aromatherapy/>.
- 6) https://www.medicalnewstoday.com/articles/10884#using_aromatherapy
- 7) Types of Aromatherapy – Fragrance, Massage, Cosmetic. Medicine Content Team. <https://www.medindia.net>.
- 8) <https://www.medindia.net/alternativemedicine/aromatherapy/aromatherapy-types.html>
- 9) John Staughton. 10 Amazing Benefits of Aromatherapy; March 12, 2019. <https://www.organicfacts.net/health-benefits/other/benefits-of-aromatherapy.html>.



- 10) <https://artnaturals.com/blog/10-aromatherapy-safety-rules-you-should- always-follow.html>
- 11) Aromatherapy Safety & Precautions. www.aromaworld4u.com.
- 12) Aaron Matthew. Negative Effects of Aromatherapy. <https://www.livestrong.com>.
- 13) Dr. Josh Axe. Jasmine Oil- Mood Booster and Stress Buster. Dr. Axe Food is Medicine; July 23, 2018. <https://draxe.com>.
- 14) Ulbricht E. Catherine, Ethan M. Basch. Natural standard (Herb & Supplement Reference). USA: Elsevier Mosby, 2005; 483- 489.
- 15) Lavender oil. Wikipedia. <https://en.m.wikipedia.org>.
- 16) Cathy Wong. Lemon Essential <https://www.verywellhealth.com>.
- 17) Oil Benefits and Uses; March 31, 2019.
- 18) Cathy Wong. Health Benefits of Rose Essential Oil; March 17, 2019.
- 19) <https://www.verywellhealth.com>.
- 20) Debra Maslowski. Learn How To Make Your Own DIY Essential Oils. DIY Natural. <https://www.diynatural.com>.
- 21) Babar Ali, Firoz Anwar. Essential oils used in aromatherapy: A systemic review. Asian Pacific Journal of Tropical Biomedicine, August 2015; 5(8): 601-611.
- 22) Sadler, Julie. "Aromatherapy for home Matters". New York, NK: Sterling Publishing Company, 1991.
- 23) Adrienne Santos- Longhurst. Everything You Need to Know About Jasmine Essential Oil; November 26, 2018. <https://www.healthline.com/health/jasmine-essentailoil#benefits-and- uses>.
- 24) 12 Top Essential Oils and Their Uses (60+ Tips & Ideas). <https://organixx.com>
- 25) Article in Nursing in Critical Care · July 2015 DOI: 10.1111/nicc.12198 · Source: PubMed
- 26) <https://www.news-medical.net/health/Aromatherapy-for-Dementia.aspx>
- 27) www.internationaljournalofcaringsciences.org International Journal of Caring Sciences January – April 2020 Volume 13,| Issue 1,Page 545.