

A REVIEW ON AROMATHERAPY**Sameer A. Hedaoo* and Payal A. Chandurkar**

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Pharmacy, Dixit Nagar,
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440026.**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 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. Aromatherapy can do more than soothe your mind. Scientific studies show that aromatherapy – inhaling or absorbing aromatic plants extracts also may help soothe your body and relieve pain. Studies have shown that essential oils have an effect on

brainwaves and also alter behavior. It is possible that most of the effect of the oils is probably transmitted through the brain via the olfactory system. Used professionally and safely, aromatherapy can be of great benefit as an adjunct to conventional medicine or used simply as an alternative.

KEYWORDS: Aromatherapy, Essential oils, Alternative medicines.**INTRODUCTION**

When we think of health, we often think about how we can be slimmer, prettier, and physically feel better, but we often forget about mental health, which is just as important! Stress affects everyone and can have a negative effect on your mental health, as well as your physical health. That is why it is important to find ways to reduce stress in your day to day fast moving life so we can feel more motivated, which is essential for living a balanced life.

Stress can impact our body as a whole, by affecting both our mental and physical health. Without proper stress management, the stress of day-to-day life can throw our entire being out of whack, with a lot of undesirable side effects.

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.^[1]

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.

Also aromatherapy can be defined as the controlled use of essential oils to maintain and promote physical, psychological, and spiritual wellbeing.

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.^[2]

History of Aromatherapy

The Greeks also played a role in the history of aromatherapy. Megallus, a Greek perfumer, developed a fragrance he called megaleion, which consisted of myrrh. The "father of medicine" Hippocrates is said to have practiced aromatherapy (before it was dubbed so) for healing purposes. Greek mythology claims the gods were gifted with the knowledge of perfume and fragrance.

Little is known about the history of aromatherapy, or where it originated specifically, but the Egyptians are credited with developing one of the first distillation machines to extract oils from certain plants -- cedarwood, clove, cinnamon, to name a few -- which were used to embalm the dead. The practice of using infused aromatic oils as a mood enhancer, however, is thought to have root in china.

The actual term "aromatherapy" first originated in 1937 when French chemist Rene-Maurice Gattefosse invented the word after a burn incident spurred his curiosity about the healing power of essential oils. On the heels of Gattefosse'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.^[3]

Indian history of Aromatherapy

Traditional Indian system of medicine called Ayurveda, has been incorporating essential oils into their healing traditions for at least 3000 years. Ancient Ayurvedic literature includes over 700 medicinal plants including cinnamon, ginger, myrrh and sandalwood as effective for healing. 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.^[4]

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. As aroma p 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. Through the limbic system, the hypothalamus and pituitary glands are stimulated. This causes reactions in the autonomic nervous system, affecting nerves, hormones, body temperature, appetite, thirst, digestion, insulin production, stress, repulsion and sexual arousal.

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.

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. This is done by a direct or indirect inhalation or aerial diffusion of essential oils. Olfactory aromatherapy is beneficial because the brain is conditioned from memory for various kinds of odors. This is made use of to synchronize and regulate the natural forces of the body to establish an innate balance and peace.^[5]

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 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. This, coupled with the sense of touch is a completely natural and safe way of detoxifying and making use of nature's bounty!^[6]

Some Benefits of Aromatherapy

- Relieves Stress
- Acts as Antidepressant
- Boosts Memory
- Increases Energy Levels
- Speeds up Healing
- Reduces Headaches
- Regulates Sleep
- Strengthens Immune System
- Relieves Pain
- Improves Digestion.^[7]

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) Do not use Essential oils undiluted on the skin

Sources on Aromatherapy say that 'Lavender' and 'Tea Tree' essential oils, even if you want to use them undiluted consult an aromatherapy practitioner or at least do a patch test on your skin. But, the safest is to never use any essential oil undiluted.

Some oils can be allergic or cause allergic reactions to some people. So it is very important to test it before using new oil. Put only small amount of diluted essential oil (never use pure essential on the skin) on the skin and see if there is a reaction or not. Wait at least for 24 hrs before deciding that there is no reaction. This is very important so do not skip this test.

Certain essential oils should not be used during pregnancy, or by people with special conditions like asthma, epilepsy, etc. When using essential oils, use the least amount necessary. If one drop will do the job, don't use two.

2) Not every essential oil is suited for use in aromatherapy

Wintergreen, Pennyroyal, Onion, Bitter Almond, Camphor, etc. are some example of essential oils that should only be used by qualified aromatherapy practitioners.

Children should not use essential oils by themselves. They should only use essential oils only with the presence of an adult who is knowledgeable about their use. Most essential oils smell great, which may tempt one to consume or drink them, specially children. Keep essential oils out of reach from children. Treat the oils like medicines that are poison in unknowing hands.

Essential oils are to be used externally only. Essential oils should only be taken internally after consultation from a trained and qualified aromatherapy practitioner. Essential oils are flammable so take care while using them.^[8]

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 Center, 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 sensations it 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%.^[9]

Some Plants Which Can Be Used In Aromatherapy

1) Jasmine



Fig. 1.

Botanical name: *Jasminum officinale*.

Biological source: It consist of fresh leaves and flowers of *Jasminum officinale*.

Family: Oleaceae.

English name: Jasminum sambac.

Hindi name: Mogra, Chameli

Description: Jasmine has small white flowers, although some species have bright yellow, with long shoots that climb. Typically, each flower will have about four to nine petals, two locules, and one to four ovules, with two stamens and very short filaments.

Distribution: In India, jasmines are cultivated throughout the country but the commercial cultivation is confined to Coimbatore, Madurai, and Dindigul (Tamil Nadu); Bangalore and Maharashtra.

Therapeutic indications

- Antidepressant
- Antiseptic
- Antispasmodic
- Cicatrisant
- Expectorant
- Emmenagogue
- Sedative
- Uterine
- Antibacterial

Chemical Constituent

1. It contain volatile oil jasminol and indol.
2. Essence also contain of benzyl acetate, linalool.
3. Ethereal extract from the leaves yield an alkaloid and jasminine.

Uses

1. Skin disease and wound healing
2. Used for the treatment of arthritis and gout.

In Aromatherapy

1. Relieves Depression
2. Stimulates Sexual Desires

3. Fades Scar Marks
4. Treats Insomnia
5. Emmenagogue
6. Facilitates Lactation.^[10]

2) Lavender



Fig .2.

Botanical name: *Lavandula angustifolia*

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

Family: Lamiaceae.

English name: Lavender.

Hindi name: Baingani rang ka phool.

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

- Reduce anxiety and emotional stress.
- Protect against diabetes symptoms.

- Improve brain function.
- Help to heal burns and wounds.
- Improve sleep.
- Restore skin complexion and reduce acne.
- Slow aging with powerful antioxidants.
- Relieve pain.

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.^[12]

3) Lemon



Fig. 3.

Botanical name: *Citrus limonis*.

Biological Source: Lemon peel is the outer part of pericarp of the ripe fruit or nearly ripe of *Citrus limonis*.

Family: Rutaceae.

English name: Lemon.

Hindi name: Nimbu.

Description: The true lemon tree reaches 10 to 20 ft (3-6 m) in height and usually has sharp thorns on the twigs. The alternate leaves, reddish when young, become dark-green above, light-green below;. The mildly fragrant flowers may be solitary or there may be 2 or more clustered in the leaf axils. Buds are reddish; the opened flowers have 4 or 5 petals 3/4 in (2 cm) long, white on the upper surface (inside), purplish beneath (outside), and 20-40 more or less united stamens with yellow anthers. The fruit is oval with a nipple-like protuberance at the apex.

Distribution: In india lemon is cultivated in Andhra Pradesh, Maharashtra, tamil nadu, gujrat, rajasthan, and bihar.

Therapeutic indication

- Treats Indigestion
- Treats Fever
- Dental Care
- Hair Care
- Skin Care
- Cures Burns
- Internal Bleeding
- Weight Loss
- Soothes Respiratory Disorders
- Treats Cholera

Chemical constituent

1. It contains Volatile oil 2 to 4 percent. Limonine, citral.
2. Other constiuent of the peels are Hesperidin, pectin, Calcium oxalate and bitter substance.
3. Aromatic substances are gernyl acetate.

Uses

1. Carminative and stimulant
2. Oil is used as perfuming and flavouring agent.

In Aromatherapy

1. Skin irritation
2. Immunity booster, Mood enhancer.^[13]

4) Rose**Fig. 4.**

Botanical name: *Rosa rubiginosa*.

Biological Source: It consists of woody perennial flowering plant of *Rosa rubiginosa*.

Family: Rosaceae.

English name: Rose.

Hindi name: Gulab.

Description: The flower of the rose plant can be different sizes. It may be as small as 1/2 inch across to a diameter of almost 7 inches. The scent of the rose comes from tiny perfume glands on the petals, which can be seen through a powerful microscope.

Distribution: Roses are native to China but are now grown across the world and thrive in sunny, well-drained soil.

Chemical constituent

1. It contains the principle chemical component of rose flower is 2-phenylethanol.
2. 1% ethereal oil.
3. It also contains 30-40% geraniol.
4. Also contains small traces of linalool fernesol and citral.

Uses

1. Preparation of perfume and cosmetics.
2. Flavouring agents.
3. Lungs treatment.
4. Skin treatment.
5. Pain relief.
6. Astringent.
7. Bactericidal.
8. Aphrodisiac

In Aromatherapy

1. Mental stimulant
2. Antidepressant
3. Headache and migraines.
4. Relieve anxiety and stress.
5. Strengthen the hair and prevent from wrinkles.
6. Relieve cramps.
7. Skin lightening.^[14]

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.^[15]

Plants producing essential oils

Table 1: Plants producing essential oils.^[16]

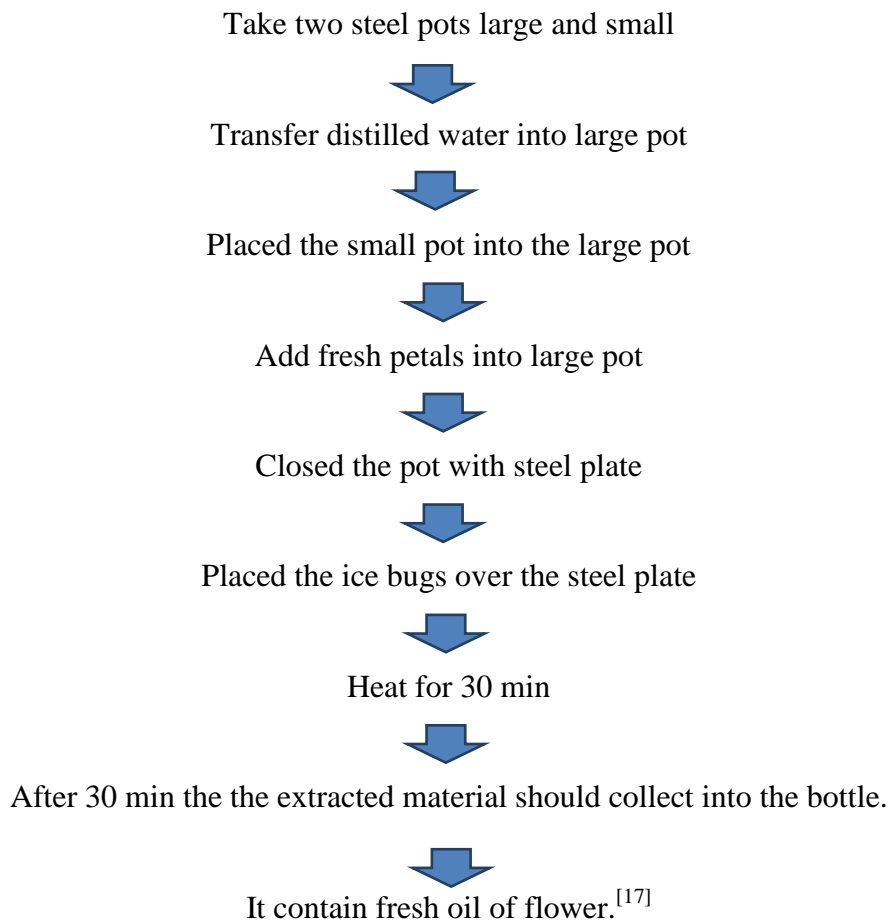
Sr. No.	Essential oils	Parts of the plants
1.	Bergamot, lemon, lime, sweet orange, tangerine, mandarin	Fruit peel
2.	Cinnamon	Bark
3.	Citronella, lemongrass, petitgrain, palmarosa, patchouli	Leaves
4.	Geranium, lavender, rosemary, spike lavender	Entire plant
5.	Ginger, vetiver	Roots
6.	Jasmine, neroli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

Method of Preparation of Oils For Aromatherapy

Requirements

- Steel pot
- Distilled water
- Fresh plant material.

Flow diagram of preparation of flower oil



How to use various essential oils?**Jasmine essential oil**

1) Like most essential oils, there are a number of ways in which we can use jasmine essential oil.

2) Aromatherapy

It can be diffused which will uplift our spirits, ease our anxiety and help us to get a good night's sleep. Diffusing jasmine essential oil has the added bonus of making the house smell sweet and fresh.

3) It can be applied topically

When added a drop or two to our forehead or neck whenever we feel the need. we can also dilute it with a carrier oil and massage it into our body to help with joint soreness and muscular pain.

4) Bath

Add a few drops to our bath to multiply the relaxing effects.

5) Low tech Aromatherapy

Inhale it either from our palms or from a small handkerchief or cloth. we could also put a drop on our pillow to help us sleep well.^[18]

Lavender essential oil

1) Added to our bath or shower that may help relieve aching muscles and stress.

2) Massaged on our skin as a relief for muscle or joint pain, as well as for skin conditions like burns, acne and wounds. Make sure to dilute it with a carrier oil.

3) Inhaled or vaporized

We can use an oil burner or add a few drops to a bowl of hot water, and then breathe in the steam.

4) Added to our hand or foot soak

Add a drop to a bowl of warm water before soaking our hands or feet.

5) Used as a compress by soaking a towel in a bowl of water infused with a few drops of lavender oil. Apply this to sprains or muscle injuries.

6) Bee sting / Insect bite

Put a drop of Lavender oil on a bee sting or insect bite to stop itching reduce swelling.

Lemon essential oil

- 1) Spiritual Experience: Diffuse or add lemon oil to our water for spiritual and psychic awareness, the connection between spirit (consciousness) and soul, and for conflict in our thoughts and intellect.
- 2) Concentration: Lemon oil helps in increasing concentration and alertness. Good for energy and mind clarity.
- 3) Immune system: Lemon oil is high vitamin content, which makes it incredible for the body's immune system. It further stimulates white blood cells, thus increasing our ability to fight off diseases. Lemon oil also improves circulation throughout the body.
- 4) Fever: Lemon oil is effective against infectious diseases such as fever, malaria, and typhoid. Add one drop of lemon and peppermint oil to the bottoms of your feet to reduce fever and provide infection relief. Combine with Thieves essential oil for additional support.
- 5) Asthma/Allergy: inhaling the aroma of lemons can clear the nasal passages and sinuses, promoting good air flow and steady breathing. Allergy Bomb: Combine 3 drops of Lemon, Lavender and Peppermint Oil to the bottoms of feet, behind the ears and neck every day.

Rose essential oil

- 6) Enhance our bath time. Blend five to six drops of rose absolute oil in a teaspoon of carrier oil or full-fat milk, and then add to our bathwater.
- 7) Relieve tired and cramped muscles. Make a soothing massage oil by diluting two to three drops in three tablespoons of carrier oil.
- 8) Get rid of unpleasant odors, or simply to relax and rejuvenate our mind or body. Add two to four drops of essential oil to a burner, diffuser, aroma stone, or aroma steam, and inhale its invigorating scent.
- 9) Diluted rose absolute oil can also be applied topically, such as in skin formulas. It can be added to creams, soaps, and lotions not only for its fragrance, but also for its mild antiviral and bactericidal properties.
- 10) Apply one to two drops to face, neck, and décolletage. Follow with the moisturizer of your choice.
- 11) Apply one drop directly to skin imperfections twice daily.
- 12) Diffuse in the morning to promote energy and vitality.

- 13) Rose oils benefits the limbic system when used aromatically. Consider massaging a small amount over the heart daily, inhaling from the hands afterward.
- 14) Diffuse as desired, inhale from cupped hands, or massage a diluted drop (or less) into the reflex points of the feet daily for peace and relaxation.^[19]

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.

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