



A REVIEW ON AROMATHERAPY

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ABSTRACT

Aromatherapy is most commonly used therapy for the relaxation purpose to overcome symptoms associated with psychological or physical disorder. For this purpose essential oils are most commonly used. Aromatherapy is one of the complementary therapies which use essential oils as the therapeutic agents to treat several diseases. The essential oils obtained from various parts of plant species including leaves, flowers, fruits and others. It came into existence after the scientists deciphered the antiseptic and skin permeability properties of essential oils. The major method used in aromatherapy inhalation, local application and baths that utilize these oils to penetrate the human skin surface with market aura. This type of therapy to get relief from numerous ailments like depression, headache, insomnia, muscular pain and respiratory problems. This review explore the information available in the literature regarding psychological, medical, therapeutic, massage aromatherapy safety issues and different plant used in aromatherapy.

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INTRODUCTION

Aromatherapy is one of the fastest growing therapies in world today. A therapy using fragrance obtained from essential oil of definite origin for the treatment purpose. Fragrance has attracted number of people. Since the 6th millennium B.C, use of essential oils is quite significant in various purposes. Since, it is being using for treatment aromatherapy involves the use of high quality essential oils that enter the body through skin or airway. Number of countries is being using the essential oils for making perfume, cosmetic and ointments (1).

The Egyptians used aniseed, cedar and myrrh for the same. Other countries like China and India more than 700 substances were used for therapeutic purpose including cinnamon, ginger, myrrh and sandal tree, whereas thyme, saffron, marjoram, caraway and peppermint were applied in ancient Greece (2). The time passed by the therapeutic and cosmetic importance of essentials gained the limelight. The use of essential oil or aromatherapy has made its name in treatment of various condition and diseases (3).

Aromatherapy procedure includes used of only oils obtained by natural methods, other obtained by using chemical methods can be applied for room aromatisation or as the ingredient of fragrance composition (4).

Origin of aromatherapy

The term "aromatherapy" was first used by Rene Maurice Gattefosse in the early 20th century. "Aromatherapie" was

actually used by French cosmetic chemist G. Fossein, a book first published in 1936. In a laboratory accident Dr. Maurice G.Fosse's hand and forearm got a third degree thermal burn, in a hurry Dr. Fosse plunged his arm into a vessel of lavender oil, mistakenly assuming it was water. To his surprise, the pain ceased within moments and with regular application of lavender oil, the wound healed without a scar (5).

The accident made him analyse the further chemical constituents of lavender oil, which he concluded had tremendous healing properties. He then began researching the healing properties of other essential oils, taking into consideration their chemical properties as well as their smells (6). It is a holistic therapy and an art of using essential oils for the well-being. The word "aroma" means 'fragrance or sweet smell' and "therapy" means 'treatment'. Aromatherapy is the use of essential oils which are distilled from aromatic plants to obtain holistic effects on the mind, body, and spirit (7, 8).

Essential oils

Essential oils are often used in aromatherapy. Essential oils are made by using various parts of plants like leaves, herbs, barks and flowers. (9) The oils capture the plant's scent and "essence". Most essential oils have antiseptic properties as well (10). Essential oils can be useful for balancing hormones. Essential oils often have a much stronger smell than the plants they come from and contain higher levels of active ingredients (11).

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Essential oils are colourless, pleasant smelling liquids with high refractive index. They possess healing powers of plants (12). Many essential oils act as antibacterial, antiviral, antimicrobial, antitumor, anti-infectious and anti-fungal agents. Essential oils also detoxify the cells and blood in the body (13).

Essential oils containing plants

Lavender oil (*Lavandula angustifolia*):- Lavender oil is an essential oil obtained by distillation from the flower spikes of certain species of lavender.

- It shows antibacterial and antifungal properties.
- Relieve headache and skin related problems.
- Reduce anxiety.
- Stress relief.
- Calming and relaxing.



Figure no 1 *Lavandula angustifolia*

Peppermint oil (*Mentha piperita*):- Peppermint oil contains limonene, menthol and cineol. It is obtained from the fresh leaves of peppermint by steam distillation.

1. It is used to relieve pain spasms and arthritic problems.
2. Also it shows antifungal, antispasmodic, analgesic, carminative, antiseptic, anti-infectious, and antimicrobial properties.
3. Ease headaches.
4. Relief allergy.
5. Mental stimulation.



Figure no 2 *Mentha piperita*

Lemon (*Citrus limon*):- Lemon peel consists of the dried outer part of the pericarp of *Citrus limonis* and *Citrus medica*.

1. Detoxifying properties.
2. Its oil brightens and rejuvenates dull skin.
3. Lemon essential oil is used to boost the immune system.
4. Lemon oil is effective in controlling vomiting and nausea along with its mood-elevating properties.
5. Mood enhancement.



Figure no 3 *Citrus limon*

Tea tree oil (*Melaleuca alternifolia*):- Tea tree oil is an essential oil distilled from the leaves of the native Australian plant *Melaleuca alternifolia*.

1. It is used to fight infections and boost immunity.
2. Commonly used for acne, burns, dandruff, oily skin, athlete's foot and insect bites.
3. The tea tree oil possesses antibacterial, antiviral, anti-inflammatory and immune stimulant properties.
4. Improves respiratory function.
5. Soften dry cuticles.



Figure no 4 *Melaleuca alternifolia*

Eucalyptus oil (*Eucalyptus globules*):- Eucalyptus oil is the generic name for distilled oil from the leaf of Eucalyptus.

- Decrease anxiety.
- Boost immune system.
- It is a good relief for arthritis, swelling and pain.
- Blood circulation improves as it calms and soothes after a body massage.
- Used to prevent human diseases.



Figure no 5 *Eucalyptus globules*

Most popular essential oils

1. Lavender oils
2. Lemongrass oil
3. Ginger oil
4. Rosemary oil
5. Eucalyptus oil
6. Peppermint oil
7. Tea tree oil
8. Fennel oil

Classification of Aromatherapy

Cosmetic Aromatherapy

This therapy utilizes certain essential oils for skin, body, face and hair cosmetic products. These products are used for their various effects as cleansing, moisturizing, drying and toning. A healthy skin can be obtained by use of essential oils in facial products (14). On a personal level, cosmetic aromatherapy of full-body or foot bath will be a simple and an effective way to have an experience. Similarly, few drops of appropriate oil give a rejuvenating and revitalizing experience (15).

Massage Aromatherapy

The use of grape seed, almond, or jojoba oil in pure vegetable oil during massage has been shown to have wonderful effects. This is also known as healing touch of massage therapy (16).

Medical Aromatherapy

The founder of modern aromatherapy Rene-Maurice Gattefosse has used essential oils to massage patients during surgery, thus utilizing the medical aromatherapy knowledge of the effect of essential oils on promoting and treating clinically diagnosed medical ailments (17).

Olfactory Aromatherapy

Inhalation of essential oils has given rise to olfactory aromatherapy, where simple inhalation has resulted in enhanced emotional wellness, calmness, relaxation or rejuvenation of the human body. The release of stress is welded with pleasurable scents which unlock odor memories. Essential oils are complemented to medical treatment and can never be taken as a replacement for it (18).

Psycho-Aromatherapy

In psycho-aromatherapy, certain states of moods and emotions can be obtained by these oils giving the pleasure of relaxation, invigoration or a pleasant memory. The inhalation of the oils in this therapy is direct though the infusion in the room of a patient. Psycho-aromatherapy and aromacology, both deal with the study and effects of aroma be it natural or synthetic. Psycho-aromatherapy has limited itself with study of natural essential oils. (19)

Table No. 1 Plants producing essential oils (2, 20)

Essential oils	Parts of the plant
Bergamot, lemon, lime, sweet orange, tangerine, mandarin	Fruit peel
Cinnamon	Bark
Citronella, lemongrass, palmarosa, patchouli	Leaves
Geranium, lavender, rosemary, spike lavender	Entire plant
Ginger	Roots
Jasmine, neroli (orange blossom), rose, ylang ylang	Flowers

Benefits of Aromatherapy

1. Boosts immune system and digestive system.
2. Helps in treating constipation, indigestion and bloating.
3. Reduces severity and discomfort cause by eczema and psoriasis.
4. Provides relief from insomnia and stress.
5. Eliminates feelings of depression
6. Increases circulation and energy levels in body.
7. Treat headaches and migraines.
8. Fight virus, bacteria or fungus.

Pharmacological actions of essential oils

Antibacterial: Essential oils were screened for their antibacterial activity against Gram-positive and Gram-negative bacteria. These essential oils are well studied for their antibacterial properties and they have shown some very promising results on *Salmonella*, *Staphylococci* and other oral pathogens. They can be very good alternatives for antibiotics if properly and thoroughly studied for these effects. (21, 22, 23). One such oil is Basil essential oil, this oil showed a good antimicrobial potential. It has bactericidal properties against *Aeromonas*, *Hydrophila* and *Pseudomonas* fluorescence (24). Essential oils from the leaves of *P. undulatum* and *Hedychium gardnerianum* have highest activities against *Staphylococcus epidermis*. *P. undulatum* additionally, have good anti-thrombin activity (25).

Antifungal: *Melaleuca alternifolia* (tea tree) oil tested positive for its all constituents for in vitro antifungal activity except beta-myrcene. Hammer *et al.* identified that most of the components of tea tree oil had wide range of fungicidal potential, especially against dermatophytes. (26) They are in the initial phase of clinical trials and if the results are as per the expectation, they will be a very good alternative for existing antifungal drugs which are not frequently used for their toxic systemic effects (27).

Antiviral: The antiviral activity evaluated by Deans and Ritchie for the essential oils of *M. ericifolia*, *M. leucadendron*, *M. armillaris* and *Melaleuca styphelioides* on kidney cells of African green monkey through plaque reduction assay on herpes simplex virus type1 gave the remarkable results for *M. armillaris* (up to 99%) followed by *M. leucadendron* (92%) and *M. ericifolia* (28).

Anti-inflammatory: Histamine reaction of weal and flare were reduced by tea tree oil in human. The topical applications of 100% tea tree oil are able to reduce the inflammation induced by histamine diphosphate after a period of 10 min. Existing data on various essential oils shows that non-cytotoxic concentrations exert an anti-inflammatory action by increasing interleukin-10 production (29).

Anti-dandruff: In a single blind study, it was observed that shampoos which contain five percent tea tree oil were effective and well tolerated by patients having mild to moderate dandruff and at least 41% improvement was observed. Not much have been explored on the antidandruff potential of plant products, and especially on volatile products, some efforts have been made by Anjum *et al.*, but the results are not promising (30).

Anti-oxidant: The essential oil from seeds of *Nigella sativa* L. is a potent antioxidant in vitro, with effective hydroxyl radical scavenging activity. The essential oil from the *M. armillaris* has marked antioxidant potential; it alters the parameters of superoxide dismutase, improves vitamin E and vitamin C concentration. The free radicals produced during inflammation can induce gene mutations and post-translational modifications of various proteins, if not remove may turn injurious radicals to the whole system (31).

Applications for Aromatherapy

- Aromatherapy in holistic medicine has taken a long leap within a couple of years.
- The health benefit of Aromatherapy is ability to relieve stress, depression, anxiety, boost energy levels, speedup

the healing process, reduce pain, improve digestion and strengthen the immune system (32).

- Aromatherapy is not used widely administered via ingestion (33).
- Aromatic oils may exert analgesic, anti-bacterial and anti-inflammatory effects.
- These oils have well proven antiviral, antibiotic, antibacterial properties, and it also used many other diseases like cardiovascular, cancer, pregnancy and Alzheimer etc.
- Inhalation of rosemary oils, and lavender oils, which are used in phytotherapy as activating and refreshing remedy for exhaustion (34).

CONCLUSION

From above reports and study, we can conclude that Aromatherapy is like a non-invasive and natural gift of nature. It's such a disguise created by the nature "A beautiful, peaceful and such a sweet fragrance" is being used for treatment purposes. Aromatherapy is not only having the ability to cure several diseases but also use of essential oils provides soothing effect and pleasure.

Aromatherapy is used for cosmetic and therapeutic purposes. Essential oils have holistic properties, the organic, mental and spiritual structure of a human being.

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