



INTERNATIONAL JOURNAL OF PHARMACY & LIFE SCIENCES

Aromatherapy a holistic cure: Current approaches and future concerns

Abhishek Dwivedi^{1*}, Mishra Rahul² and Mohit Chaturvedi³

1, Ragiv Gandhi College of Pharmacy, Bhopal, M.P.-India

2, Guru Ram Das (PG) Institute of Management and Technology, Dehradun, U.K.-India

3, Central India Institute of Pharmacy, Indore, M.P.

Abstract

Aromatherapy is a form of alternative medicine that uses volatile liquid plant materials, known as essential oils and other aromatic compounds from plants for the purpose of affecting a person's mood or health. Essential oils differ in chemical composition from other herbal products because the distillation process only recovers the lighter phytomolecules. For this reason essential oils are rich in monoterpenes and sesquiterpenes, as well as other VOC substances (esters, aromatic compounds, non-terpene hydrocarbons, some organic sulfides etc.). The present paper enumerates the various aspects of aromatherapy.

Key-words: Oils, massages, herbs, aromatherapy

Introduction

Aromatherapy is the art, and science, of using plant essences, called essential oils, to gently bring about change in body, mind and spirit. It can assist in reducing stress, bring relief to muscular aches and pains, help with skin care and skin related problems, boost the immune system, lift spirit etc. The selection of which oils are appropriate for each individual depends on many factors, hence the word 'holistic', meaning whole. Aromatherapy is an alternative field of medicine used for the treatment or prevention of diseases. It involves use of herbal oils.^{1,2}

Aromatherapy is the practice of using volatile plant oils, including essential oils, for psychological and physical well-being. Essential oils, the pure *essence* of a plant, have been found to provide both psychological and physical benefits when used correctly and safely. The Essential Oil Profiles area details over 90 essential oils. Absolutes, CO₂s and Hydrosols are also commonly utilized in aromatherapy. Although essential oils, CO₂ extracts and absolutes are distilled in different manners, the term essential oil is sometimes used in writing as a blanket term to include CO₂s and absolutes.

Aromatherapy activates the limbic system and emotional centers of the brain, activate thermal receptors, and kill microbes and fungi. Aromatherapy is used in the treatment of various diseases such as bronchitis, fatigue, migraines, respiratory ailments, acne, arthritis, muscular aches and pains, cystitis, cold and flu. Aromatherapy also encourages emotional peace and calm with a gently calming effect on mind, body and emotions.

Aromatherapy is a generic term that refers to any of the various traditions that make use of essential oils sometimes in combination with other alternative medical practices and spiritual beliefs. Popular use of these products includes massaging products, medicine, or any topical application that incorporates the use of essential oils to their products. It has a particularly Western currency and persuasion. Medical treatment involving aromatic compounds may exist outside of the West, but may or may not be included in the term 'aromatherapy'.^{2,3,4}

***Correspondence Author:**

E.mail: abhiherbal@gmail.com, Mob. 09893077870

History

Aromatherapy began with the Egyptians, who used the method of infusion to extract the oils from aromatic plants which were used for medicinal and cosmetic purposes. Aromatics have also been used for centuries by Ancient Chinese civilizations, in Ayurveda which is the traditional medical system of India and uses dried and fresh herbs as important aspects of treatment and later by the Greeks and the Roman civilizations. The Greeks found that the fragrance of some flowers was stimulating while others had relaxing properties. Using olive oil as the base they infused the aroma from the herbs or flowers for both cosmetic and medicinal purposes. During the dark ages, after the decline of the Roman Empire, the use and knowledge of aromatics disappeared from Europe – retained only by healers and within monasteries, where monks used plants from herbal gardens to produce infused oils, herbal teas and medicines. The history of aromatherapy is lost in the mists of time - although there is evidence to suggest that crude forms of distillation were practiced in Persia, Egypt and India, thousands of years ago. In India, the use of plants and plant extracts as medicines has been practiced from at least 5000 years ago to the present day. The Egyptians also started to use plants and their extracts around that time, using perfumes to anoint themselves with in times of prayer, war and love. The Greeks started using a perfume called "Megaleion" about four or five hundred years before Christ, which was also capable of healing wounds and reducing inflammation. Being influenced by the Egyptians and the Greeks, the Romans also researched and used essential oils. The use of plants and their extracts continued throughout the Middle Ages, one of the most famous works was Nicholas Culpeper's herbal book, which is still referred to today.

By 1896, chemical constituents of plants were being synthesised to make the modern drugs today, however many of these produce side effects, so the early years of this century saw a renewal of interest in natural methods, and the Frenchman Maurice Gatte Fosse introduced aromatherapy as we know it today. In brief, aromatherapy is the use of volatile plant oils, including essential oils, for psychological and physical well-being. Although the term aromatherapy was not used until the 20th Century, the foundations of aromatherapy date back thousands of years. The use of essential oils in particular date back nearly one thousand years.

The Chinese may have been one of the first cultures to use aromatic plants for well-being. Their practices involved burning incense to help create harmony and balance. Later, the Egyptians invented a rudimentary distillation machine that allowed for the crude extraction of cedarwood oil. It is also thought by some that Persia and India may have also invented crude distillation machines, but very little is known. Oils of cedarwood, clove, cinnamon, nutmeg and myrrh were used by the Egyptians to embalm the dead. When a tomb was opened in the early 20th century, traces of the herbs were discovered with intact portions of the body. The scent, although faint, was still apparent. Although the cedarwood the Egyptians used was distilled by a crude distillation process, the other oils the Egyptians used were most likely infused oils. The Egyptians also used infused oils and herbal preparations for spiritual, medicinal, fragrant and cosmetic use. It is thought that the Egyptians coined the term *perfume*, from the Latin *per fumum* which translates as through the smoke. Egyptian men of the time used fragrance as readily as the women. An interesting method that the men used to fragrance themselves was to place a solid cone of perfume on their heads. It would gradually melt and would cover them in fragrance.

The Greeks learned a great deal from the Egyptians, but Greek mythology apparently credits the gift and knowledge of perfumes to the gods. The Greeks also recognized the medicinal and aromatic benefits of plants. Hippocrates, commonly called the "father of medicine" practiced fumigations for both aromatic and medicinal benefit. A Greek perfumer by the name of Megallus created a perfume called megaleion. Megaleion included myrrh in a fatty-oil base and served several purposes: (1) for its aroma, (2) for its anti-inflammatory properties towards the skin and (3) to heal wounds. The Roman Empire built upon the knowledge of the Egyptians and Greeks. Discorides wrote a book called *De Materia Medica* that described the properties of approximately 500 plants. It is also reported that Discorides studied distillation. Distillation during this period, however, focused on extracting aromatic floral waters and not essential oils. A major event for the distillation of essential oils came with the invention of a coiled cooling pipe in the 11th century. Persian by birth, Avicenna invented a coiled pipe which allowed the plant vapor and steam to cool down more effectively than previous distillers that used a straight cooling pipe. Avicenna's contribution led to more focus on essential oils and their benefits. Within the 12th century, an Abbess of Germany named Hildegard grew and distilled lavender for its medicinal properties.

During the 14th century, the Black Death hit and killed millions of people. Herbal preparations were used extensively to help fight this terrible killer. It is believed that some perfumers may have avoided the plague by their constant contact with the natural aromatics. Within the 15th century, more plants were distilled to create essential oils including frankincense, juniper, rose, sage and rosemary. A growth in the amount of books on herbs and their properties also begins later in the century. Paracelsus, an alchemist, medical doctor and radical thinker is credited with coining the term Essence and his studies radically challenged the nature of alchemy and he focused upon using plants as medicines. During the 16th century, one could begin purchasing oils at an "apothecary," and many more essential oils were introduced. During the 16th and 17th centuries, perfume starting being considered an art form, and it was more clearly defined as its own field. During the 19th century, perfumery remained a prosperous industry. Women would have their jeweler create a special bottle to hold their treasured perfume. The 19th century also was important scientifically as major constituents of essential oils became isolated. During the 20th century, the knowledge of separating the constituents of essential oils was used to create synthetic chemicals and drugs. It had been believed that by separating the major constituents and then using the constituents alone or in synthetic form would be beneficial therapeutically and economically. These discoveries helped lead to "modern medicine" and synthetic fragrances. This actually weakened the use of essential oils for medicinal and aromatic benefit. During the earlier part of the 20th century, a French chemist by the name of René-Maurice Gatte Fossé became interested in the use of essential oils for their medicinal use. Previously, he focused on the aromatic use of essential oils, but his interest in their medicinal use grew after an accident heightened his curiosity. While working, he burned his arm rather badly. By reflex, he plunged his burned arm into the closest liquid which happened to be a large container of lavender essential oil. The burn he suffered healed quickly and left no scar. Gattefossé is credited with coining the term *aromatherapy* in 1928 within an article where he supports the use of using essential oils in their whole without breaking them down into their primary constituents. In 1937, Gattefossé wrote a book called *Aromathérapie: Les Huiles essentielles hormones végétales* that was later translated into English and named Gattefossé's Aromatherapy. It is still in print and widely read. Other highly respected 20th century aromatherapists include Jean Valnet, Madam Marguerite Maury, and Robert B. Tisserand. Jean Valnet is most remembered for his work using essential oils to treat injured soldiers during the war and for his book, *The Practice of Aromatherapy*, originally entitled *Aromathérapie* in French. Austrian Madam Marguerite Maury is remembered as a biochemist who avidly studied, practiced and taught the use of aromatherapy for primarily cosmetic benefit. Robert B. Tisserand is an English aromatherapist who is responsible for being one of the first individuals to bring knowledge and education of aromatherapy to English speaking nations. He has written books and articles including the highly respected 1977 publication *The Art of Aromatherapy*. The Art of Aromatherapy was the first aromatherapy book published in English.

From the late 20th century and on into the 21st century, there is a growing resurgence to utilize more natural products including essential oils for therapeutic, cosmetic and aromatic benefit. The use of essential oils never ceased, but the scientific revolution minimized the popularity and use of essential oils in one's everyday life. Today's heightened awareness regarding the use of synthetics coupled with the increased availability of aromatherapy information within books and the Internet has refueled the use of essential oils for therapeutic, cosmetic, fragrant and spiritual use.^{12,4,5,6,7,8}

Applications

Essential oils are extracted, by different methods, from various varieties of trees, shrubs, herbs, grasses and flowers: the oil is stored in specialized oil or resin cells, glandular hairs, cells or scales. The oils enter and leave the body very efficiently, without leaving any toxins behind, but care must be taken when using the oils. Properly used, they are extremely safe; however there are a small number which are hazardous. It is always wise to seek the advice of a trained aromatherapist.

The modes of application of aromatherapy include:

- Aerial diffusion: for environmental fragrancing or aerial disinfection
- Direct inhalation: for respiratory disinfection, decongestion, expectoration as well as psychological effects
- Topical applications: for general massage, baths, compresses, therapeutic skin care

The Benefit of Physical Application

Essential oils that are applied to the skin can be absorbed into the bloodstream. The constituents of essential oils can aid in health, beauty and hygiene conditions. Since essential oils are so powerful and concentrated, they should never be applied to the skin in their undiluted form. To apply essential oils to the skin, essential oils are

typically diluted into a *carrier* such as a cold pressed vegetable oil, also known as a carrier oil. Common carrier oils include sweet almond oil, apricot kernel oil and grapeseed oil.

Other Benefits

In addition to therapeutic benefit at the emotional and physical level, essential oils are helpful in other applications. Essential oils can be used in household and laundry cleaners. Some oils act as a natural insect repellent and pesticide. You may recall using citronella candles during the summer to keep mosquitoes away. Citronella essential oil is the ingredient in the candles that is responsible for repelling the mosquitos.

Essential Oil Blends

Essential oils can be blended together to create appealing and complex aromas. Essential oils can also be blended for a specific therapeutic application. Essential oils that are carefully blended with a specific therapeutic purpose in mind may be referred to as an essential oil synergy. A synergistic essential oil blend is considered to be greater in total action than each oil working independently. Aroma web's Recipes area offers a variety of recipes and synergies.^{9,10,11,12}

Uses

There are about 300 essential oils in general use today by professional practitioners, and each oils has its own particular properties. They can be anti-viral, anti-bacterial, anti-fungal, antiseptic, anti-inflammatory, anti-depressant, deodorising, diuretic and stimulating, to name just a few properties.

Aromatherapy is helpful in the treatment of:

Depression • Frustration Grief • Hysteria • Anxiety • Insomnia Lack of Concentration • Irritability • Fear • Poor Memory • Hopelessness • Moodiness Panic Attacks • Nervous Tension • Sadness • Worry

Medicinal benefits of aromatherapy oils:

Bruises • Sprains • Strains • Burns (including sunburn) • Nervousness / Tension • Stress • Motion Sickness • Fatigue • Respiratory Conditions including colds, flu, sore throat, asthma and bronchitis • Muscular aches and pains • Fungal infections such as athletes foot and nail fungus • Reduce skin inflammation • Enhance wound healing • Digestive disorders such as Constipation • Skincare benefits^{13,14}

List of herbs

Today, with the moving time, health awareness has risen to a great extent. But with the increase in health awareness, the diseases have also increased. And, the most effective remedy hasn't been found so far. Still many therapies have been discovered out which an effective one is aromatherapy. Aromatherapy is a different kind of therapy in which a person's body and mind are tranquilized with oil massages and fragrance. It is not that easy to perform since it requires a lot of patience and delicacy. In this therapy oil which should be less sticky is poured over a person's body and is applied all over with soft hands. The soft massage loosens the muscles and soothes the flow of blood. This automatically results in a cool and calm mind and relaxed body. Aromatherapy is highly famous and people have shown interest in this therapy. The latest innovations of aromatherapy products have made aromatherapy quite significant in vast range of appliances. Perfumes, creams, chemical, soaps and many more products are there in which aromatherapy is available. Some of the most popular products of aromatherapy are aromatherapy oil, aromatherapy diffuser, aromatherapy cream, aromatherapy perfume, aromatherapy soap, aromatic oil etc. These products offer solutions to a wide number of problems of people. Aromatherapy is one of the most popular therapies all over the world and more and more people are opting for it these days.^{14,15,16,17,18}

Some of the major aromatherapy herbs are:

- Basil
- Bergamot (Citrus Bergamia)
- Birch
- Cajeput
- Cedarwood (Juniperus Virginiana)
- Chamomile (Anthemis Nobilis)
- Citronella
- Clary Sage (Salvia Sclarea)
- Clove
- Cypress (Cypessus Sempervirens)
- Fir

- Frankincense (*Boswellia Carteri*)
- Gardenia
- Geranium (*Pelargonium Graveloens*)
- Ginger
- Grapefruit (*Citrus Paradisi*)
- Jasmine (*Jasminum Officinale*)
- Jojoba
- Juniper berry (*Juniperus Communis*)
- Lavender (*Lavandula Officinalis*)
- Lemon (*Citrus Limonum*)
- Lemon grass
- Lime (*Citrus Aurantifolia*)
- Mandarin (*Citrus Reticulata*)
- Marjoram (*Origanum Marjorana*)
- Myrrh
- Neroli (*Citrus Aurantium*)
- Nutmeg
- Palmarosa (*Cymbopogon Martini*)
- Patchouli (*Pogostemon Cablin*)
- Peppermint (*Mentha Arvensis*)
- Pine
- Rose(*Rosa Damascena*)
- Rosemary (*Rosmarinus Officinalis*)
- Rosewood (*Aniba Rosaeodora*)
- Sandalwood (*Santalum Album*)
- Sage
- Sassafras
- Spearmint
- Spruce
- Tangerine fragrance
- Thyme (*Thymus Vulgaris*)
- Ylang Ylang (*Cananga Odorata*)

Ten Basic Essential Oils

| | |
|-------------------|---|
| Lavender | overall first aid oil; antiviral and antibacterial, boosts immunity, antidepressant, anti-inflammatory, antispasmodic |
| Chamomile | anti-inflammatory, antiallergenic, digestive, relaxant, antidepressant |
| Marjoram | antispasmodic, anti-inflammatory, antiseptic |
| Rosemary | stimulating to circulation, relieves pain, decongestant, improves circulation |
| Tea tree | antifungal, antiyeast, antibacterial |
| Cypress | astringent, stimulating to circulation, antiseptic, astringent |
| Peppermint | digestive, clears sinuses, antiseptic, decongestant, stimulant |
| Eucalyptus | decongestant, antiviral, antibacterial, stimulant |
| Bergamot | antidepressant, antiparasitic, anti-inflammatory |
| Geranium | balancing to mind and body, anti-fungal, anti-inflammatory |

Aromatherapy Therapeutic Applications

| Essential Oil | Used for |
|---------------|---|
| Allspice | Calming, mood uplifting, improves digestion |
| Anise | Breathing, digestion, calming |

| | |
|----------------|---|
| Basil | muscular pain, colds, depression, fatigue |
| Bergamot | disinfectant, depression, calming, mental clarity |
| Carnation | calming, |
| Atlas Cedar | anti-stress, anxiety, clear sinus, mental clarity, meditative aid |
| Cinnamon | improves digestion, disinfectant, mood uplifting, anti-stress |
| Clary Sage | pms discomfort, muscular pain, anti-stress, mood uplifting, aphrodisiac |
| Cypress | female hormonal, mood uplifting, skin care |
| Eucalyptus | clear sinus, sores and insect bites, disinfectant, mood uplifting |
| Frankincense | skin care, pms, anti-stress |
| Jasmine | mood uplifting, aphrodisiac, muscular pain, anti-stress |
| Juniper | skin care, pms, anti-stress, calming, muscular pain. |
| Lavender | calming, mood uplifting, skin care, pms |
| Sweet Marjoram | aids digestion, muscular pain, colds and flu, calming |
| Myrrh | skin care, calming, mood uplifting |
| Patchouly | skin care, anti-stress, mood uplifting, aphrodisiac, |
| Sandalwood | skin care, anti-stress, pms, depression, meditative aid, |
| Ylang Ylang | sleep aid, mood uplifting, anti-stress, pms, aphrodisiac |

Recommendations

Aromatherapist can take any or all of the following into consideration when deciding which oils to use:

- The presenting complaint, i.e. headaches, muscle pain, fatigue.
- The general character of the client
- The health of the client at that point, and in the past.
- The emotional state of the client at that point, and in the past.
- The astrological sign of the client
- The element which most influences the client
- How they react to situations/changes in the weather/phases of the moon
- Numerology of the client
- Intuition of the therapist

References

1. Kim HJ (June 2007). Effect of Aromatherapy Massage on Abdominal Fat and Body Image in Post-menopausal Women (in Korean). *Taehan Kanho Hakhoe Chi*, **37 (4)**: 603–12.
2. Rho K.H., Han S.H., Kim K.S. and Lee M.S. (2006). Effects of aromatherapy massage on anxiety and self-esteem in Korean elderly women: a pilot study. *Int J Neurosci*, **116 (12)**: 1447–1455.
3. Ohio State University Research, March 3, 2008 Study is published in the March 2008 issue of the journal Psychoneuroendocrinology

4. w.cancer.gov/cancertopics/pdq/cam/aromatherapy/HealthProfessional/page3 Aromatherapy and Essential Oils
5. Ballard C.G., O'Brien J.T., Reichelt K. and Perry E.K. (2002). Aromatherapy as a safe and effective treatment for the management of agitation in severe dementia: the results of a double-blind, placebo-controlled trial with Melissa. *J Clin Psychiatry*, **63** (7): 553–558.
6. International Journal of Aromatherapy, 2001, Volume 10, Issues 3-4, Pages 77-160
7. International Journal of Green Pharmacy, 2006, Issue1 -4
8. www.naturesgift.com
9. www.aromacures.com
10. The Aromatogram
11. www.pranarom.co.uk/en/essential_oil/aromatogramme Aromatogram
12. Price, Shirley. (1993). Shirley Price's Aromatherapy Workbook. London, UK: Thorsons, 2645-2658.
13. Tisserand Robert B. (1977). The Art of Aromatherapy. Rochester, VT: Healing Arts Press.
14. Lawless Julia (1995). The Illustrated Encyclopedia of Essential Oils. Rockport, MA: Element Books,.
15. Manniche Lise (1999). Sacred Luxuries: Fragrance, Aromatherapy & Cosmetics in Ancient Egypt. Ithaca, NY: Cornell University Press.
16. Gattefossé and René-Maurice (1993). Gattefossé's Aromatherapy. Saffron Walden, UK: The C.W. Daniel Company Limited, 236-238.
17. The Kevala Centre. Aromatherapy Origins and Background article.
18. Australasian College of Herbal Studies. AT 201 Certificate in Aromatherapy Course Book (version from 1999). Lake Oswego, OR.