



REVIEW PAPER

Pharmaceutical Science

FRAGRANCES IN HEALTH AND HEALING

KEY WORDS: Aromatherapy, emotional distress, dental clinic, floral fragrance, perfumes

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ABSTRACT

The influence of fragrances such as perfumes and room fresheners on human health has been known for a long time, and its significance is gradually increasing in the medicinal and cosmetic industries. The concept of using fragrances for health benefit is known as aromatherapy. It is mainly used in the treatment of emotional distress. Various other purpose in which aromatherapy is involved are altering a person's mind, mood swings, cognitive function etc. Aromatherapy plays an important role in dental clinic; floral fragrance is used to determine the efficiency of the dental practitioner.

INTRODUCTION

The aroma products or fragrances have been used for various health problems since ancient times, used for mental, spiritual and physical healing. Fragrances are used in various disorders such as headache, pain, insomnia, eczema, stress induced anxiety, depression and digestive problems [1]. The medicinal use of aromatic oils extends back to ancient Egyptian Chinese cultures.

Physiological effects of scents

More than 1000 different genes are there in human nose which regulate the production of specialized receptors in the nose. Each kind of receptors is only able to detect few molecule odours and the responses to an odour are detected by olfactory bulb in the brain [2].

Benefits of an aroma inhaling essential oils

Essential oils give effect in both ways either they stimulate the brain to trigger a reaction or when inhaled into the lungs offer both psychological and physical benefits. Essential oils can also be applied on skin for therapeutic benefit, but these are so powerful and concentrated, they should never be applied to the skin in their undiluted form always used in the combination of cold pressed vegetable oil or carrier oil [3].

Various plants used in aromatherapy

- 1) **Clary sage:** Large hairy green leaves of clary sage are the main source of essential oils, the chemical constituents are linalool, linalyl acetate, alpha terpineol, germacrene D, and geranyl [4]. The oils of clary sage is found to be very effective in controlling cortisol levels in women along with its antimicrobial activity [5].
- 2) **Eucalyptus:** Eucalyptus belonging to the family of Myrtaceae, it has a height of around 250 feet. The various constituents are cineole (75-80%), aromadendrone limonene, terpinene, cynene and pinene [6]. Various diseases which are treated by the oil of eucalyptus are neuralgia, headache and deability.
- 3) **Geranium:** Geranium belongs to the family of geraniaceae. Geranium oil is considered as the one of the best natural perfumes. It is used in dermatitis, eczema, ageing skin and few fungal infections [7].
- 4) **Lemon:** It belongs to the family of Rutaceae . Oil constituents are abundant in the terpenes and limonene. It

is mainly involved in brightening and rejuvenating dull skin. Lemon oil is mainly used to boost the immune system [8].

- 5) **Rosemary:** Rosemary belongs to the family of lamiaceae. This plant is rich in resin, tannic acid and volatile oil. The active constituents are bornyl acetate, borneol along with esters mainly useful in indigestion, constipation and colitis [9].

Safety and quality issues of fragrances in health and healing:

Most of the essential oils are safe, only few essential oils are responsible for allergic symptoms in humans. Health professionals or doctors are advised to buy essential oils from reputable sources, where they are properly labelled and stored. Labels should contain following information botanical name, dispersants, preservatives, extraction method, expiry date and the country where the plants were grown [10]. The most common adverse effects of fragrances are eye and skin irritation. Cancer, neurotoxicity and hepatotoxicity in large doses are most likely to occur with internal use [11].

Regulation of fragrances in health and healing in different countries:

US Regulation: various agencies which are involved in controlling use of fragrances are food and drug administration and the consumer products safety commission. Environmental protection agency responsible for water contamination detection. Most of the fragrances are applied on skin, other ways are olfactory pathways to the brain and the lungs. Most available health and safety data on fragrance chemicals focus on skin effects. Respiratory and neurological effects and their systemic data are not generally available [12].

European Commission: In European countries, use of fragrances is regulated by European commission. European commission mainly regulate the use of fragrances which are known to create allergies. It helps in decreasing dermal allergies to fragrance materials [13].

Canadian regulation: Canadian law states that warning regarding any allergic reaction or other harmful effects must be mentioned on the label of that particular fragrance. Section

24 of cosmetic regulation (food and drugs act) includes following points: a) Danger to the health of the user of a cosmetic that can be predicted from the composition of the cosmetic. b) Problems due to toxicology of the ingredients [14].

Japanese regulation of fragrances: Japan has more restrictive regulation of fragrances. Few common sensitizers are banned from being used due to environmental concerns.

Self regulation: The fragrance industry is primarily self regulated. The agency which associates for regulation of personal care products is the cosmetic, toiletry, and fragrance association [15]. It helps dermatologists in determining specific allergens, including fragrance in a product. In 1999, cosmetic toiletry and fragrance association identified and conducted studies regarding asthma causing fragrances [16].

CONCLUSION:

From all studies and reports that have been done in past, it has concluded that fragrances or essential oils are safe to use and non invasive gift of nature in health and healing for humans. Aromatherapy is not only involved in eradication of symptoms of a disease but also rejuvenates our body. Fragrances regulate the physiological, spiritual and psychological upliftment for the new phase of life. Aromatherapy is not only preventive but also can be used in the acute and chronic stages of disease. Pharmaceutical industries are trying for those kind of fragrances which are environment friendly and non allergic to humans. Aromatherapy is useful for patients as well as for common man.

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