Aromatherapy: Jasmine OilFor Insomnia

¹Veneshwar D. Nagare, ²Priyanka S. Gosavi, ³Jayesh D. Bagul, ⁴Bhushan G. Sanap

1,2,3,4 Student

Guided By- Asst. Professor Prachi S. Pagare Department
Of Pharmaceutics
Krantiveer Vasantarao Narayanrao Naik Shikshan Prasarak Sansthas Institute of Pharmaceutical
Education and Research Nashik, Maharashtra, India

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. Aromatherapy can do more than soothe your mind. Aromatherapy is the therapeutic use of plant oils, named by the French chemist Rene-Maurice Gattefosse in 1910. In today's busy and competitive life, individuals in high risk to mental health problems, which mainly include anxiety, depression, stress and insomnia. Good quality of sleep helps to regulate our hormones and improve immunity level. It helps to protect us from infection and disease. 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. 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 oil, Good sleep, Insomnia

I. INTRODUCTION TO AROMATHERAPY-

Sleep is one of the vital necessary part for maintaining physiological & psychological welfare of any living individual. Many patients generally those who are hospitalized in **INTENSIVE CARE UNIT** especially in coronary care units experiences sleep disorders due to various reasons such as pain, physical & mental conditions, Environmental noise, Medication, etc. Near about 30-40% of sleep time patients stay awake and they could not sleep properly. Sleep disorder can be associated with increase heart rate, blood pressure, insomnia, etc. Thus it is necessary to avoid sleep disorders in patients.(1) Aromatherapy is a method involving various essential oils such as jasmine obtained from various flowers, herbs & other plant parts to treat insomnia(2).

AROMATHERAPY derived its name from word **AROMA** means FRAGERANCE/SMELL & **THERAPY** means TREATMENT. This is a natural therapy for relaxing person's mind, soul & body. This therapy gains a lot of attention from people in mid-20th century & it becomes very popular in 21st century too. And due to it's immense popularity, wide use, importance thus, it is recognized as **AROMA SCIENCE THERAPY**. (3)

II. CLASSIFICATION OF AROMATHERAPY- (3)

Table 1: CLASSIFICATION OF AROMATHERAPY

1.	Cosmetic Aromatherapy	It utilizes essential oils for skin, body, face & hair cosmetics products. Few drops of essential/appropriate oil gives rejuvenating &revitalizing experience.
2.	Massage Aromatherapy	It involves use of various oils such as almond oil, jojoba oil, jasmine oil, pure vegetable oil during massage & it has shown wonderful effects.

3.	Medical Aromatherapy	It utilizes massage of patients during surgery for promoting & treating patients along with medicalfacilities.
4.	Olfactory Aromatherapy	It involves inhalational therapy that provides wellness, calmness & relaxation to an individuals. It releases stress and anxiety.
5.	Psycho-Aromatherapy	It obtains certain states of mood swings, emotions and other mental phases that provides feeling pleasures, relaxation and release stress.

III. HOW AROMATHERAPY WORKS- (4)

1) Inhalation-

Human beings have the capability of distinguishing 10,000 different types of aroma (smell) during inhalation brain senses are connected with smell by using olfactory systems. This systems sends direct signals to the limbic system present in the brain and ultimately hypothalamus & pituitary glands get stimulated. Interestingly data have shown that people who lost their sense of hearing have to deal with psychiatric problems comparatively to others. Thus,inhalation is a very powerful route of administration for various aromatherapy that helps peopleto deal with various types of stress and anxiety.



Fig. 01: Inhalation Method

2) Topical –

It involves direct application of essential oils on skin and these oils absorbed directly via skin. For such application massage is the best and most popular way for aromatherapy. It involves complete stimulation of body organs also it increases blood circulation and lymph flow that results in decreased toxicity of body.



Fig. 02: Topical Method

IV. MECHANISM OF ACTION-

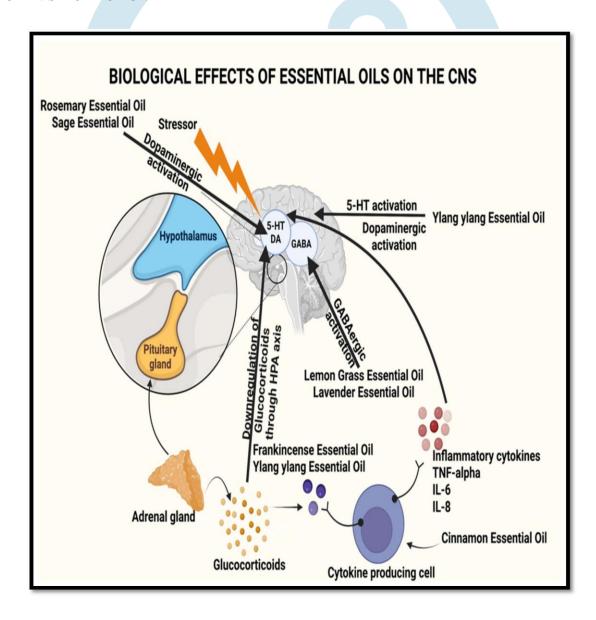


Fig. 03: Mechanism Of Action

The mechanism of action involves when we inhale the smell of essential oil molecules the receptors which located in our nose

transmit signal to our brain through olfactory bulb (the hippocampus) that serve as store house of emotions, mood and memories. Through this it influence our physical, emotional, and mental health. The essential oils and aromatherapy is can interfere with the capable of releasing neurotransmitters stimulus and helpful to generate analgesic effect and sense of wellness and relaxation.

V. ADVANTAGES OF AROMATHERAPY (5)

- Regulates Sleep
- Increase Energy Levels
- Speeds Up Healing
- Relieves Pain
- Relieves Stress
- Boosts Memory
- Reduces Headache
- Improves Digestion
- Strengthen Immune System
- Alleviate Side Effects Of Chemotherapy
- Reduces Migraine

VI. DISADVANTAGES OF AROMATHERAPY (6)

Skin Irritation –

Most common side effect in aromatherapy that can cause skin irritation. Essential oils may cause rashes, itching & burning sensation depending upon types of skin of an individual. Some oils such as lemon and peppermint can be used safely if diluted sufficiently.

■ Toxicity –

Many essential oils do not used in aromatherapy treatment as they are potentially toxic in nature, they cause damage to Nervous system, Renal system and Hepatic system. Many toxic effects are exacerbated if we take them internally. According to University Of Maryland Medical Centre taking any toxic oil via mouth is fatal.

Photosensitizing –

From direct exposure to sun many essential oil used in aromatherapy produces a negative an harmful side effects. Oils such as Cumin, Lemon & Orange should not be used on any part of our body as indirect contact with sun it causes Sunburn.

INSOMNIA

VII. INTRODUCTON- (7)

As we all know that normal sleep is required for proper functioning of body along with its physiological balance. Normal sleep relieves all the stress and other mental & physical pressure. Such problems not only affects physically, mentally & emotionally but also it affects sleeping pattern and general well-being. Lack of sleep generally affects Work performance, Decreased immunity level, impaired decision making, decreased resilience, Loss of memory, etc.

Approximately 30-50% individuals get affected by insomnia including all age groups but mainly women and older adults, also people with medical and mental health problem get affected too. Short sleepers are at a greater risk of cardiovascular diseases and stroke comparing to normal person. Person who sleep minimum 7-8 hours a day is considered to be healthy both physically & mentally. Lack of sleep leads to changes in metabolic pathways including endocrine and immune pathways.

VIII. INSOMNIA AND IT'S EFFECTS-

The **World Health Organization** defines **Insomnia** "as a problem initiating and/or maintaining sleep or the complaint of nonrestrictive sleep that occurs on at least three nights a week and is associated with daytime impairment". **Insomnia** is defined as difficulty of fallinga sleep even when a person has the chance to do so. (8)

Proper sleep leads to regulation of hormonal balance and immunity boosting that helps in fighting with infection and disease. Insomnia is associated with hypertension, diabetes, weak immune system, inflammation, sensitivity to pain, obesity, cardiovascular diseases, respiratory disease, stroke and osteoporosis, etc. (9-10)



Fig. 04: Effects Of Insomnia

IX. Risk factors: (11-12)

Insomnia affects people of all age groups but people in the following groups have a higherchance of acquiring insomnia:

- Individuals older than 60
- History of mental health disorder including depression, etc.
- Emotional stress
- Working late night shifts
- Traveling through different time zones
- Having chronic diseases such as diabetes, kidney disease, lung disease, or heartdisease, Gastrointestinal reflux disease
- Alcohol or drug use disorders
- Heavy smoking
- Work stress

X. TYPES OF INSOMNIA -

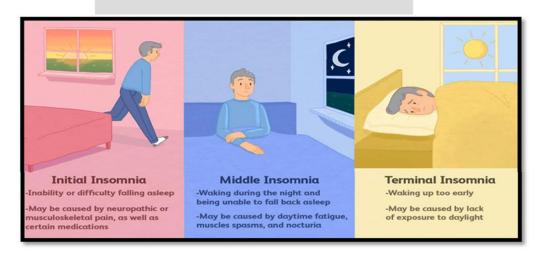


Fig. 05: Types Of Insomnia

XI. INSOMNIA PREVENTION-



Fig. 06: Prevention Of Insomnia

XII. Symptoms of insomnia: (11)

- Difficulty falling asleep, including difficulty finding a comfortable sleeping position.
- Not able to focus on daily tasks, difficulty in remembering
- · Day Time sleepiness, irritability, depression or anxiety
- Feeling tired or having low energy during the day

XIII. USES OF JASMINE IN AROMATHERAPY FOR INSOMNIA (13)



Fig 07: Jasminum sambac (Arabian jasmine) English name:

Jasminum sambac.

Hindi name: Chameli, Mogra

Botanical name: Jasminum officinale.

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

Family: Oleaceae.

Taxonomic Tree: Domain: Eukaryota Kingdom: Plantae Phylum: Spermatophyta Subphylum: AngiospermaeClass: Dicotyledonae

Order: Oleales Family: Oleaceae Genus: Jasminum

Species: Jasminum sambac

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.

Although it grows to the height of 12 and sometimes 20 feet, its stem is feeble and requires support. The fragrant flowers bloom from June to October; and as they are found chiefly on the young shoots, the plant should only be pruned in the autumn.

Distribution:

- In India-
- Madurai
- Maharashtra
- Tamil Nadu
- Bangalore
- Coimbatore

Therapeutic indications:

- Antidepressant
- Antiseptic
- Antispasmodic
- Expectorant
- Sedative

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.

Use In Aromatherapy:

- 1. Relieves Depression
- 2. Stimulates Sexual Desires
- 3. Treats Insomnia
- 4. Facilitates Lactation.

XIV. CONCLUSION-

Aromatherapy is one of the traditional Indian practices more than 3000 years, but only few institutions providing this therapy. Jasmine improves sleep quality and cuts down on restless sleeping, as well as increasing daytime alertness. We can conclude that

Jasmine is natural and non-invasive gift of nature for humans. This therapy is not only preventive but also can be used in the acute and chronic stages of disease. 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 shorts term effect on most people, it is not an actual science or medicine that should be used to treat illness. There are precaution people must take before practicing aromatherapy.

REFERENCE-

- [1] Ezgi Karadag, Sevgin Samancioglu, Dilek Ozden and Ercan Bakir, "Effects of aromatherapy on sleep quality and anxiety of patients," British Association of Critical Care Nurses, pp. 1-2, February 2018
- [2] Brian Cooke, Edzard Ernst "Aromatherapy: a systematic review," British Journal of General Practice, pp. 493, June 2018
- [3] Babar Ali, Naser Ali Al-Wabel, Saiba Shams, Aftab Ahamad, Shah Alam Khan, Firoz Anwar "Essential oils used in aromatherapy: A systemic review," Asian Pacific Journal of Tropical Biomedicine, pp. 601-602, May 2015
- [4] Sameer A. Hedaoo and Payal A. Chandurkar "A review on aromatherapy," World Journal of Pharmaceutical Research, pp. 635-641, May 2019
- [5] John Staughton "10 Amazing benefits of aromatherapy," March 2019 https://www.organicfacts.net/health-benefits/other/benefits-of-aromatherapy.html.
- [6] Aaron Matthew "Negative Effects of Aromatherapy," https://www.livestrong.com.
- [7] Suganya Panneerselvam "EFFECTIVENESS OF AROMATHERAPY IN INSOMNIA," International Journal of Innovative Pharmaceutical Sciences and Research, pp. 97-98, 2017
- [8] What is Insomnia? [Internet]. Sleepfoundation.org. 2017.

Available from: https://sleepfoundation.org/insomnia/content/what-is-insomnia

- [9] Altevogt BM, Colten HR, editors, "Sleep disorders and sleep deprivation: an unmet public health problem," National Academies Press, Oct 2016
- [10] Effects of Insomnia on the Body [Internet]. Healthline. 2017.

Available from: https://www.healthline.com/health/insomnia-concerns#effects-andimpact2

- [11] Insomnia [Internet] https://en.wikipedia.org/wiki/Insomnia
- [12] Risk factor for insomnia [Internet]
- [13] Cathy Wong "Health Benefits of Rose essential oil," 2019Available from: https://www.verywellhealth.com