

Therapeutic Potentials of Plants for Mental Wellbeing

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ABSTRACT

Mental health is the core foundation of well-being, efficacy and cognition in any individual. According to a recent report by World Health Organization (WHO), more than 1.1 billion people, globally, are victims of various mental health disorders like stress, depression and anxiety. In India, nearly 150 million people are in need of active mental health care and support. To combat this pressing problem, 'Ecotherapy' or 'Green Therapy' has become an emerging trend nowadays which encompasses various nature-based activities to improve mental and overall health. Among these, 'Horticulture Therapy' or 'Therapeutic Gardening' is one such approach which harnesses the healing power of plants to address a wide array of mental, emotional and psychological health issues. This involves active engagement of an individual in activities like gardening & nurturing plants and maintaining green spaces. Another green healing practice rejuvenating human-plant interconnection is 'Forest Bathing', which refers to the immersion of a person in a forest environ to foster well-being and greater life satisfactions. It has been evidenced that calming effects of plants on the body and mind of a person reduce stress level by lowering the production of stress hormone, Cortisol. Interacting with plants also triggers production of Endorphin, the 'feel-good' hormone, increasing the feeling of happiness, positivity and mindfulness, thereby significantly reducing the symptoms of anxiety, stress and depression. Another therapeutic attribute of plants relates to use of plant essential oils in treating various mental health conditions. The therapy, popularly known as 'Aromatherapy' offers a natural and safer way to enhance mental wellbeing by lowering depression, elevating mood and improving sleep quality. Furthermore, the therapeutic potential of phytomedicines and other plant derived compounds have been found beneficial in promoting neurological health and alleviating symptoms associated to various psychological and neurogenerative disorders.

Keywords: *Plants, Therapeutic Property, Mental Health, Horticulture, Aromatherapy, Phytomedicine*

Mental health refers to the social, emotional and psychological wellbeing of individuals which enable them to cope with stress, to realize their potential & efficacy and to connect socially. It is an essential and integral part of our overall health and wellbeing. But, in recent years, various mental health issues have become highly prevalent worldwide. According to a recent report by World Health Organization (WHO), more than 1.1 billion people globally, and nearly 150 million people in India are victims of various mental health disorders like stress, depression and anxiety. The key factors behind

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this rising concern are rapid societal shifts, sedentary urban lifestyle, family dynamics, social discrimination and inequality, etc. (www.who.int; Bhugra & al, 2013; Vanev & al, 2023). To combat this pressing issue, a wide array of therapeutic potentials of plants are currently in use. Among these, 'Ecotherapy' or 'Green Therapy' has become the most emerging trend nowadays which harnesses the healing power of nature to improve mental and overall health (Isham & al., 2025). Since ancient times, the calming and comforting effects of plants were known to be used for treatment of mental, emotional and psychological health issues (Joschko & al, 2023). Egyptian physicians used to prescribe walks through green places or gardens to their patients who suffered from emotional and mental stresses. Hippocrates, the 'Father of Medicine', believed in the concept of nature as the best physician (Chukwuka, 2024). Early Roman hospitals developed green gardens to facilitate recovery of patients, recognizing the healing effects of nature. Ancient Indian mental healing concepts were also based on harmonious regulation of mental health with rhythm of nature. It is needless to say that these concepts hold the same relevance and acceptance even in the contemporary times. Alongside conventional medicinal therapies, a gradual drift towards plant-based nature-therapies for mental healing has been observed in recent times. Another plant-based therapy, popularly known as 'Aromatherapy', which uses plant essential oils in treating various mental health conditions offers a natural and safer way to enhance mental wellbeing by lowering depression, elevating mood and improving sleep quality (Bhatt & al, 2025). Furthermore, the therapeutic potential of phytomedicines and other plant derived compounds have been found beneficial in promoting neurological health and alleviating symptoms associated to various psychological and neurodegenerative disorders (Masa & al., 2022; Jensen & al., 2024).

The present communication focusses on the plant-based nature therapy practices associated with and used for promoting mental as well as physical health, reducing stress level, strengthening cognition & efficacy and elevating mood to foster our overall wellbeing.

METHODOLOGY

The present communication is based on thorough survey and meta-analysis of relevant literature related to the study. Systematic review of articles published in popular scientific media is also done to analyze available information.

RESULTS & DISCUSSION

Use of nature or natural elements in treatment of mental health disorders is an emerging practice these days which is receiving significant attention globally. This concept of nature-based healing is termed as 'Nature Therapy', 'Ecotherapy' or 'Green therapy'. It is the umbrella term which encompasses various nature-based therapies to improve mental and overall health. Among these, plant-based nature therapy practices viz. Horticulture therapy or Therapeutic gardening, Therapeutic farming, Forest bathing, Forest conservation activity and Indoor green space development are proven to have positive impact on mental and psychological health and stress response in individuals. Various plant-based nature therapy practices are discussed below in detail.

A. Horticulture therapy or therapeutic gardening:

Horticulture therapy or therapeutic gardening is the therapeutic approach of using horticulture, gardening or plant-based activities for promoting physical, mental and emotional well-being. Horticulture therapy engages people in horticulture or any kind of gardening

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activity based on their specific therapeutic requirements. The garden activities range from watering plants to planting seedlings or garden maintenance. It has been observed that gardening activities have positive effects in reducing stress, depression and anxiety. Connection with plants has been proved useful in enhancing cognitive functions, problem solving skills, attention span, etc. Nurturing plants also develops a sense of accomplishment in individuals participating in the activity (Nicolaescu, 2021). Activities like watering, planting, digging soil, etc. have been found beneficial in improving fine and gross motor skills, hand-eye coordination, etc. in ADHD patients (Vashishta & al. 2025). Therapeutic gardening is also found beneficial in trauma recovery and hence, is often used in various hospitals and rehabilitation centres to treat patients suffering from any kind of mental trauma. Therapeutic horticultural programmes are designed and conducted by professional therapists based on specific therapeutic needs of the participants. Presently, horticulture therapy is practiced by countries like India, China, Hong kong, Japan, Korea, Singapore, Spain, etc.

B. Therapeutic farming:

Therapeutic farming, care farming or green farming refers to the commercial agricultural activities like crop cultivation for improving mental health and overall wellbeing. In this therapy, participants are engaged in various agricultural activities in a farm under guidance of skilled and farmers and therapists for restoration of positive mental health (Elsey & al., 2016). The practice has been found useful in improving concentration, attention span and social connection skill. It is also found beneficial for lowering symptoms of ADHD. Care farming has also been reported useful for boosting self-esteem in adolescents and young people and treating mental issues like social phobia, panic disorder, separation anxiety, etc. in them (Moran & al., 2025). It also increases a sense of self-worth while harvesting the produce grew in own hand.

C. Forest Bathing:

The term 'Forest Bathing' (Shinrin-yoku) was first used by the Ministry of Agriculture, Forestry and Fisheries, Japan in 1982. It is the natural healing practice which involves deep immersion of individuals in forest landscapes, either through a forest walk, or through meditating in the forest to establish a harmonious relationship between human beings and nature. Forest bathing aims to restore human physical and psychological health through "five senses experience", i.e. vision, hearing, smell, taste and touch when exposed to a jungle environment. Forest bathing has been found beneficial for treating various mood disorders and stress (Kotera & al., 2022). Studies recorded that forest bathing can reduce cortisol level thereby reducing stress and depression in human beings, can calm symptoms of anxiety, help restoring and improving attention and cognitive performance. It is also beneficial for improvement of sleep quality. Improvement of self-esteem and health promoting behaviour are also recorded from research-based studies on forest bathing (Wen & al., 2019).

D. Forest Conservation activity:

Activities related to forest conservation have been proved useful in treating mental health issues by reducing stress, depression and anxiety, by stimulation happy hormones like serotonin, by lowering stress hormone levels like Cortisol and Adrenaline, and by increasing NK (Natural killer) cell activities therefore boosting immunity.

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E. Indoor green space development:

Developing an indoor green space and interaction with indoor plants have been identified as one of the most effective therapeutic practices for psychological as well as physiological well-being of people, specifically residing in an urban setup. It is found in researches that interaction with indoor plants can reduce psychological stress by suppressing activity of autonomic nervous system, can improve concentration and attention span, elevate mood and enhance productivity, work satisfaction and sense of accomplishment, when in workplaces (Lee & al., 2015; Akers, 2019; Conway, 2024). Setting an indoor green space is also found beneficial for improvement of cognitive behaviour. Indoor plants also improve indoor air quality thereby creating a fresher and healthy indoor environment which in turn boosts mood, calms anxiety and enhances productivity. A list of some important indoor plants which are frequently used for mental healing are provided below with the benefits offered by them (Table 1).

Sl. No.	Common name	Scientific name	Family	Benefits
1	Chinese evergreen	<i>Aglaonema</i> sp.	Araceae	Promotes calmer and positive thinking, improves focus
2	Elephant ear plant	<i>Colocasia esculenta</i> (L.) Schott	Araceae	Purifies air and acts as natural humidifier, reduces stress and anxiety
3	Money plant	<i>Epipremnum aureum</i> (Linden & André) G. S. Bunting	Araceae	Reduces stress, anxiety, and depression through their calming and aesthetic presence, boosts mood, helps in lowering blood pressure
4	Broken heart plant	<i>Monstera adansonii</i> Schott	Araceae	Acts as natural stress reliever, creates a calming and peaceful indoor atmosphere
5	Heartleaf plant or sweetheart plant	<i>Philodendron</i> sp.	Araceae	Purifies air by removing indoor air pollutants and boosts mood
6.	Peace Lily	<i>Spathiphyllum wallisii</i> Regel	Araceae	Calms mood, purifies air toxicity, enhances sense of inner peace
7	Areca palm	<i>Chrysalidocarpus lutescens</i> H. Wendl.	Arecaceae	Purifies air, boosts focus and productivity, brings positivity
8	Spider plant	<i>Chlorophytum comosum</i> (Thunb.) Jacques	Asparagaceae	Reducing anxiety and calms mood
9	Chinese water bamboo or Lucky bamboo	<i>Dracaena sanderiana</i> Mast.	Asparagaceae	Improves mental health by reducing stress, promotes positive energy and mindfulness

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Sl. No.	Common name	Scientific name	Family	Benefits
10	Snake Plant	<i>Dracaena trifasciata</i> (Prain) Mabb. (Earlier <i>Sansevieria trifasciata</i> Prain)	Asparagaceae	Improves indoor air quality and promotes better sleep
11	Aloe vera	<i>Aloe vera</i> (L.) Burm.f	Asphodelaceae	Improves cognitive health and sleep quality
12	Moon cactus	<i>Gymnocalycium mihanovichii</i> (Fric ex Gürke) Britton & Rose	Cactaceae	Minimalist shapes of the cactus help reducing clutter-related stress
13	Jade plant	<i>Crassula ovata</i> (Mill.) Druce	Crassulaceae	Purifies air and fosters mindfulness
14	Lavender	<i>Lavandula angustifolia</i> Mill.	Lamiaceae	Relaxes mood and improves sleep quality
15	Rubber bush plant	<i>Ficus elastica</i> Roxb. ex Hornem.	Moraceae	Boosts mood and enhances overall emotional wellbeing
16	Jasmine	<i>Jasminum officinale</i> L.	Oleaceae	Stimulates feel good hormones like Dopamine, improves sleep quality, reduces stress

Table 1: Important indoor plants used for mental healing

CONCLUSION

The beneficial impact of green plants on our mental health, psychological healing and overall wellbeing is profound and undeniable. Interconnection between plants and human beings improve cognitive thinking, productivity, mood, efficacy and emotional well-being of individuals. Such green healing practices are gaining popularity day by day due to their simple yet effective therapeutic benefits with less side effects as compared to chemical drugs. Besides, in this fast-paced urban lifestyle, creating bond with nature and plants and spending time in nature-based activities have been proven efficacious for unplugging, mental health restoration and mental rehabilitation. In upcoming days, with rising cases of depression and anxiety disorders worldwide, the demand for nature therapy and interaction with green plants will rise significantly as a non-pharmaceutical yet effective alternative for mental health restoration.

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Conflict of Interest

The author(s) declared no conflict of interest.

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