



PLANTS

IN EVERYDAY LIFE

(An IQAC Publication)

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Dr. S. Jeyaparvathi

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Mental Health of Human Being with Plants

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Introduction

"We evolved in a tropical climate where the smell of plants and flower all around us. We spent a lot time in the trees with the lot of sunlight and no flowers"

- Helen Fisher

Plants have the unique ability of producing their own food through the process called photosynthesis. Plants bring peacefulness; create a pleasing and relaxing environment also. They help in reflecting the harmful race of the human. The best way to understand the full impact plants have on the environment is to study the effect of native plants on the surroundings. A native plant can be classified as the plant species that was able to adapt to a particular environment and native plant is the plant species that has been living in the same place for centuries. Green plants are not just important to the human beings, their form the basis for the sustainability and long term help of environmental system. Plants are considered as critical resources because of the many ways their support the living creatures on earth.

Evolutionary origins are suggested for the affinity of society with plants. Plants enter the human psyche through observation and/or participation. Given a choice, people prefer settings with vegetation over those lacking vegetation. Research indicates such settings reduce stress, promote peace, tranquility, enhanced self-esteem, and sense of mastery of the environment. Horticultural therapy is cited for its history of using plants as a treatment

modality. Settings of vegetation decrease blood pressure and heart rate, speed recovery from surgery and other forms of stress, and enhance sense of well-being. They ameliorate the institutional effects of geriatric centers. Community gardening and tree planting leads urban residents to social and physical actions for improving neighborhoods (Lewis, C.A. 1995).

This chapter discusses how the active human involvement with plants increases well-being mental health, and quality of life. This paper demonstrates that various mental health benefits received by human being from working with plants.

Plant's in Everyday Life

Plants are the more important source in everyone's life. Without plants there won't have oxygen for living. The plants make the earth as clean and pretty enough. The human being needs the plants for basic purpose. These plants are the God's gift. Many plant derivatives are used in their natural states. Our planet is full of a green and healthy environment because of plants.

Plants observe carbon dioxide and release oxygen from their leaves. Plants use energy with the help of sun to prepare food, which is the star of every food chain. Without plants there won't be animals, humans and all the living creatures. The living creature's live in the growth of plants. Plants are not only playing an important role for human beings common purpose but also it has values of herbs, medicine, Rubber and soon.

Human may directly or indirectly depends on the plants for several of their needs. Plants are also the source of insecticides and pesticides. Artificial pesticides are harmful to the environment plants create habitats to the environment. The Greek scholar Theophrastus was one of the early botanists of the world. He is also known as "Father of Botany", due to his major works on plants.

Plants are useful in many ways in everyday life of living organisms. Some of its importances are,

1. Food

For humans, plant's food is ideal for those who wishing for a healthy life, athletic training and recovering from diseases plants are largest source of essential nutrients to the body. The body can't manufacture nutrients on its own for metabolism. This food synthesis up in them is available to us in fruits, trees, tubers roots and so on. They produce co-hydrate by converting the light energy into chemical energy and stores in them. These indicate the importance plant diet to human.

2. Clothing

Plants like cotton are the largest providers of textile and fabric material. The specialty of these plants fabric fibers can be washed easily. These materials are environment friendly, durable and express less expensive. Hence plants fibers are mainly used for making clothes and bedding materials which is required by humans in daily life.

3. Medicine

Plants are an excellent source of medicine even for the life threatening disease. Plants medicine is savor due to their lower change of side effects and also better compatibility with humans. It decides the bacteria and microbe are classified as in taxonomy and it also support for human beings. For instance, they produce the antibiotics like insulin Hormone enzyme by the recombinant DNA technology.

4. Natural Pesticide

Plants are the source of insecticide and pesticide. Neem oil and extract have pest repellent and antimicrobial properties. It is used to control aphids, beetles, spider mites etc., in farming. It also

used against nematodes, fungi and bacteria. By using such a natural derived a pesticide are safe. These degrade fast and do not harm animals like earth worms, squall and frog.

5. Environmental Support

Plant support environment to reduce the temperature on the earth and also it maintains the humidity. It provides a green environment suitable for the life of living creatures. Plants are one of the two major groups of living organism. These are essential to the function of the biosphere. Plants can be found in all known parts of the earth in all shape and size. Although some plants are parasitic which produce their own food through the process of photosynthesis. The importance of the plants in the food chain is back to ancient time. They are an essential part of our daily life providing food, clean air an important ecosystem functions. The study of plants and their function could be considered the most complex of interaction.

6. Gardening

They are thousands of plants species are cultivated for aesthetic purpose and also provides modify temperatures provide privacy, Abide noise and prevents soil erosion. The millions of tourist have arrived to India for visiting the gardening places. Gardeners may cultivate their plants in a naturalistic state are with the sculpture of growth. Gardening is the most popular leisure and making to feel free. The plants also grow and the house plants are in indoors, or in specialized buildings like green house.

7. Chemicals from Plants

Plants such as Tobacco, Cannabis, Opium, poppy and coca yield psychotropic chemicals. Some of the poisons like Atropine, Ricin, Hemlock and Curare from the plants.

8. Air pollution

A range of chemical pollutants can cause problems to health in industrial and urban environments. It has been increasingly shown that the presence of green spaces in these areas can be vital in acting as a sink for these pollutants, therefore improving air quality.

Any green space has the capability of reducing air pollution. Woodland planted in the right areas near urban and industrial environments would be particularly effective due to the increase in surface area able to absorb the pollutants (Eleanor Clark 2018).

9. Soil quality

Plants and trees are incredibly important for maintaining good soil condition. Their roots and the microorganisms that live around their roots hold the soil together, reducing the likelihood of soil erosion. When leaves fall from the trees and when plants die, they decompose, fertilizing the soil and enabling other plants to grow and thrive (Eleanor Clark 2018).

10. Climate

Carbon dioxide (CO₂) is one of the main greenhouse gases that contribute to climate change. Plants take in CO₂ and release oxygen through the process of photosynthesis. This CO₂ is used as building blocks for new tissue such as their trunk, branches, leaves, and roots acting as carbon stores. When forests are cut or burnt, the huge amounts of carbon that has been stored in plant tissue and the soil is released into the atmosphere. This is why it is so important to protect these habitats, especially ancient primary forests containing native species that have had little human disturbance in that past (Eleanor Clark 2018).

Mental Health of Human with Plants

Generally, plants are known as the relaxing therapy for a stressful person. By spending time with nature gives pupil an increase feeling of vitality, energetic and making them feel more animator. They performing level are intoning raised by this improving state of mind. The plants give a fresh mind and make the humans as feeling comfort zone. Keeping plants in a child's learning environment and it enhance the learning capability by them to focus and concentrate of their constant work. Such scenery can improve their ability to learn new things and make it easier to obtain and regain the information. People who spent more time with the nature have significantly more possible thoughts and outlook on life and their will have a clear decision mind. Communing with the natural world increase people feelings of vitality, energy and consequently has a large positive effect over all mental effect.

Just a walk in the woods or a stroll by the beach on a sunny morning can awaken the innermost feelings of happiness and peace, and Environmental Psychology has gone a long way proving this fact (Bell, Greene, Fisher, & Baum, 1996). Frank Lloyd Wright had said, "*Study Nature, love Nature, stay close to Nature. It will never fail you.*" According to Louv, nature-deficit disorder is not the presence of an anomaly in the brain; it is the loss of connection of humans to their natural environment. Staying close to nature improves physical, mental, and spiritual well-being. It makes us feel alive from the inside, and we should not compromise it for recent developments like urbanization, technology, or social media.

What do trees, shrubs, grasses, green plants, parks, beaches, open fields, and flowering gardens have to do with your mental health? Just about everything, according to an extensive review of

the scientific literature supporting the benefits of exposure to natural settings.

The review data, collected and analyzed by researchers Charles Hall and Melinda Knuth(2019) at Texas A&M University and published in the Journal of Environmental Horticulture, supports the notion that living in or near green spaces, and spending as much time as possible in both natural settings and cultivated gardens, can improve mood, reduce the negative effects of stress, encourage physical activity and other positive behaviors, improve cognition, reduce aggression, and enhance overall well-being in people of all ages under many different circumstances.

Specifically, the researchers found that people who surround themselves with plant life and other forms of natural beauty, indoors and out, experience emotional and mental health benefits that have a positive impact on their social, psychological, physical, cognitive, environmental, and spiritual well-being, these benefits include:

1. Stress reduction

Spending time in natural settings helps speed up recovery from mental fatigue, slow down heart rate, reduce high blood pressure, and lower anxiety.

2. Reduced symptoms of depression

Researchers repeatedly report increases in subjects' mood, fewer incidents of depressive symptoms, as well as increased memory span and decreased symptoms of anxiety after a walk in nature, as compared to a walk through an urban environment. One Korean study of patients diagnosed with moderate to severe depression compared the effects of cognitive-behavioral therapy (CBT) performed in a hospital to CBT performed in an arboretum with a forest-like setting. Symptoms of

depression were most significantly reduced in the arboretum group, who also experienced 20% to 30% higher rates of complete remission when compared to a typically medicated group.

3. Stronger Memory Retention

Compared to those who walked through a well-trafficked urban area, participants in several studies who walked through a green space or a natural environment, such as an arboretum, were better able to focus and concentrate on a test of their working memory.

4. Fewer Symptoms of Post-traumatic Stress

Studies of both veterans and victims of natural disasters who participated in horticultural therapies or nature-based rehabilitation programs found that both groups were better able to control symptoms of PTSD and developed more positive states of mind.

5. Improved Symptoms of Attention-Deficient Disorders (ADD/ADHD)

In one study, school children diagnosed with ADHD were better able to concentrate after a walk in a park than their peers who went for a walk in a downtown neighborhood. Similar studies found that even short nature breaks are restorative and can improve attention span, working memory and cognitive functioning in children with ADD/ADHD.

6. Higher Productivity and Improved Concentration in Schools and Workplaces

Students and employees with a view of nature, either indoors or right outside their windows, were not only found to be more productive but also more alert, more attentive, more relaxed, in better moods, and less irritated by physical symptoms of allergies and asthma than their counterparts who had no views of plant life or other natural settings.

7. Higher Levels of Creativity

Nature walks, and even short visits to parks and woodlands within urban areas, have been found to boost creativity, mood, and sense of vitality.

8. Fewer Symptoms of Dementia

When dementia patients in an adult day care facility became actively involved in gardening and landscaping activities, their cognitive abilities improved and there were fewer incidents of aggressive behavior.

9. Higher Intellect

Other studies suggest that deep experiences that connect us to nature are due to the geometry and architecture of both natural environments and the environments we build to replicate nature that regularly enhance our quality of life. These not only have a healing effect, researchers say, but studies in animals have found that such complex environments also increase brain size and the ability to perform well on tests of intelligence; Dr. Nikos Salingaros of the University of Texas at San Antonio believes the same is true for growing human minds, which are best nourished by exposure to complexity and details.

10. Better Self-Esteem

The researchers found several studies indicating improvements in self-esteem and mood in both men and women after exercising in natural environments, and especially in the presence of a body of water.

11. Greater Quality of Life Overall

The improved psychological well-being of those who interact with nature has been shown in numerous studies to result in greater feelings of positivity and hopefulness, comfort and relaxation and general overall happiness and satisfaction with life.

Conclusion

In 2011, Hall and Dickson published a forum article in the Journal of Environmental Horticulture (JEH) that summarized the economic, environmental, and health and well-being benefits associated with people-plant interactions. **Mental Health Studies** have proven that people who spend more time outside in nature have better mental health and a more positive outlook on life. People who spend more time outside in nature have a significantly more positive outlook on life than people who spend a great deal of time indoors. Communing with the natural world increases people's feelings of vitality and energy, and consequently has a large positive effect on their overall mental health. Being outside around trees and ornamental horticulture is proven to improve people's mental health, and give them a more positive outlook on their lives. People who spend time outside every day are less likely to be depressed or stressed, and thus have fewer burdens on their mental health.

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