

A Review on Psychotherapy Effect of Ornamental Plants

✉¹M. O. Oluwafemi, ²O. M. Olosunde, ³E. E. Esiet and ⁴S. D. Fagbayide

¹Department of Horticulture and Landscape Technology; Federal College of Agriculture, Akure

²Department of Horticulture, Federal University of Agriculture, Abeokuta, Nigeria;

³Department of Agricultural Extension and Farm Management, Federal College of Agriculture, Akure, Nigeria;

⁵Department of Agricultural and Bio-Environmental Engineering, Federal College of Agriculture, Akure, Nigeria

✉Corresponding author: pstfeminatthew@yahoo.com

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Abstract

Horticultural therapy is a complimentary interaction that uses active treatment to stimulate and develop an individual whole-self cognitively, socially, morally and psychologically. Ornamental plants are primarily grown in human landscape for the purpose of aesthetics but could greatly enhance economic, environmental and lifestyle conditions of peoples. It can enhance self esteem, foster stress relief, alleviate depression, provide opportunities to solve problem, encourage work adjustment, social interaction and communication. It is the remedial treatment of disabilities, injuries, disorder or disease through interactive activities involving the science and art of growing ornamental plants. This paper reviews the psychotherapy effect of ornamental plants. The objectives of the study is to examine that access to outdoor ornamental plants has statutory effect on a person's mental and physical health with the onset of modern medicine and its emphasis on treatment via surgery and drug, this knowledge was lost or deemed 'unscientific', high rise construction techniques created medical settings where patients were divorced from the outdoor.

Keywords: Psychotherapy, ornamental plants, stress relief, social interaction.

Introduction

Early civilization emphasized that plants are for food, medicine, clothing and shelter. However, scientists have, for decades popularize the importance of ornamental plants to beautify and maintain biodiversity of planet Earth, create economic activities, improve health and lifestyle of peoples among other uses (Brethour, 2007). Today many studies have established health and well being benefits of ornamental plants, particularly mental and physical health, stress reduction in workplace and schools (Chan and Chen 2005; Lohr *et al.*, 2007). The inter-relationship between emotions and environmental qualities are intrinsic to human existence. Ornamental plants are plants valued primarily for their aesthetic characteristics such as beautiful flowers, leaf colours, shapes and arrangement, growth habit, tree bark colour and so on. They are employed to create a beautiful and functional landscape that is welcoming for the well being of man. Secondly it could be used for the purposes of food, medicine and healing physical and psychosocial illness to improve mental and physical health in man and animals. The way we feel about our surrounding affects deeply how we feel about ourselves and others. Our bodies embody our feelings, perceptions, thoughts and memories. However, the relationships between the invisible and the visible, and between emotions and environment are worthy of exploration (McNeur, 2008). The outcomes of these studies through time made people to recognize the healing power inherent in plants. One of our society's most natural healing methods is

gardening. During world war, when soldier with both physical and mental injuries return home from fighting, American hospital began using gardening to adjust the rehabilitation of mental skills for soldiers with brain and spinal cord injuries following both world war I and II Veterans hospitals made increased use of gardening for disabled soldiers, Nurses and Volunteers from garden clubs brought the benefits of their club to thousands men recovering from battle. The activities was recognized as not just benefits for physical disabilities but also for calming effects and stress reduction noted in patients suffering from mental injuries also related to warfare. This discovery has led to applications of gardening for the benefits of the society. Today, hundreds of hospitals, youth programmes, schools and community centers use plants to provide a powerful form of therapy and integrating by utilizing plants and horticultural activities to improve the social, educational, psychological and physical adjustment of persons thus improving their body, mind and spirits (Amanda, 2010).

Urban Ecotherapy: The healing power of the nature.

In just over 200 years, the percentage of people living in urban setting worldwide has gone from 30% to more than 50% (Amanda, 2010). As our population continue to increase exponentially, so too with the number of those of us living in the cities. Large cities and megalopolises seem to be the wave of the future. For most of us living in the cities, we have forgotten where our food comes from (the soil of the earth, not in the supermarket); we have lost track of the cycles of the sun and the moon; we have forgotten that many medicine grow wild in our own backyards; and we are less likely to look to the earth for insight solace, and inspiration (Amanda, 2010). Thus, in urban environment, establishment of flower gardens, indoor plants and window boxes should be encouraged to improve the environment.

Recently, there is a growing realization that enhancing our deeply inter-twined relationship with the earth may actually be vital to our well being. Studies have begun to support the importance of growing natural plants on man's psychological, physiological, and social imperative (Amanda, 2010; Chan and Chen, 2005).

Studies has revealed that humans living in environments absent of trees, Shrub, and vegetation generally and ecological elements show pattern of social, psychological and physical breakdown similar to those observed in animals that have been deprived of their natural habitat. Some of these patterns include an increase in aggression, disrupted parenting patterns, and the disruption of social hierarchies. It was also found that humans that do not have regular contact with a natural environment are more likely to have impulse control and less attention disorders (Westland, 2002). For instance, as reported in the Mind report (2007) outdoor walk within trees, palms, hedges and other ornamental plants was reported to have a significant impact on improvement of self esteem and reduction of depression and tension (Table 1). This and other findings further justified the importance of inclusion of greening programmes for creating a better environment for human habitation.

Table 1: Percentage of people who experienced improvements, no change or worsening in feelings of self esteem, depression and tension following the outdoor and indoor walks

	Improvement	No change	Got worse
Self esteem	90% outdoor walk	5%	5%
	17% indoor walk	39%	44%
Depression	71% outdoor walk	23%	6%
	45% indoor walk	33%	22%
Tension	71% outdoor walk	29%	0%
	28% indoor walk	22%	50%

Source: Mind report, May 2007

People – plant interaction:

Living in a green landscape is most pleasurable to man. Human beings are still automatically and physiologically mammals, even if our ability to think and behave has gone beyond other mammals. A fact which is symptomatic of nearly all mammals is that they live among vegetation as well as relying upon it for much of their food, either at first or second hand.

Plants play a great role in the way people perceived their community and how they relate within that space (America in Bloom, 2007; Perez-Vazquez *et al.*, 2005). The role of ornamental plants in inner cities and sub-urban neighborhoods is unique and worthy of exploration. It is believed that if city people lived more closely to soft landscape elements for a large part of the day, that there would be some social benefit (Malakoff, 2012; Ulrich, 1990).

Contact with plants is universal to human experience and symbolizes a synchronization of human life with that of the earth. There is basic feeling of satisfaction derived from contact with ornamental plants by man and this increase and enhances their self image.

People use plants to change the atmosphere of the school and working environment to improve the quality of the air in the office space for better performance, attitude and perceptions (Larsen, 1998). Reports from Oluwafemi, (2005) plants could impact positively on the level of satisfaction gained from recreation sites, and the choices we make in everyday life.

Plants in the overall landscape of man create an aesthetically pleasing effect in the environment. Home Garden with observation of variety of plants with colour has key characteristics of beauty well accepted by every man. Some residents are unable to spend much time outside due to their poor health condition. For those people, presence of a beautiful natural view such as a hilltop, rocks or water bodies to mention a few becomes very important. Landscape planners or designers create for home owners a superior viewing position and panoramic view with long vista framed by plants, in an informal setting with water, grass, and trees. Also neatly trimmed plants that provide spatial order and legibility seem to be preferred (Westland, 2002).

Proper arrangement of plants indoor help to create a better interior scapes for peoples such as retirees, aged people, and children on holidays who spent much of their time at home. Visitation to places like campus, recreation centers, and botanical gardens with different varieties of plants that have seasonal variation do stimulate interest in their environment. This aspect of change is not only aesthetically pleasing, but also triggers the needs to replicate such in their home environments, to maintain their mental activity and awareness of time and decreases boredom (Smardon, 1988).

Visual contact with plants by man enhances their self image. An environment with proper landscaping setting gives its possessor and important sense of emotional security. Indeed a distinctive and legible environment not only offer security but also heightens the potential depth and intensity of human experience in the habitat (Westland, 2002).

Therapeutic benefit of gardens

Horticultural therapy is the use of plants and garden activities to improve body, mind and spirit. It utilizes the human desire to be around plants and provides physical and social benefits to people working with and growing plants (Oluwafemi, 2005) Garden therapy is used as complementary therapy and popular for diseases for which there may be no cure but there is chance for he but there is chance for healing. For example, it can be helpful in treating children suffering from reaction to abuse, neglect or witnessing violence. Gardening requires commitment to time, patience, faith and hope which is often missing in a neglected child. Victims of abuse often go untreated and may develop abusive behaviours and become incarcerated from the majority of their live. More than a decade ago, an increased social and domestic violence, integrated abuse, neglect and the victimization of children, women and isolated individual in rural and urban communities was reported (Urich, 1999). However, research findings revealed a negative relationship between the density of trees and grass around buildings and number of crime recorded (Lohr *et al.*, 2007). It is pertinent for government and security agencies to encourage greening building's surroundings as a part of proactive means for prevention of crime therapy for criminal offenders.

When gardening is applied as a therapeutic intervention, it becomes a useful tool in helping people cope with mental illness, trauma, or behavioural delinquencies. In the garden, activity parallels life; the therapist can easily draw from a garden situation and use as an allegory for life situation with child who has poor personal boundaries; for example, one can compare how a particular plant need enough space in order to grow well in the garden; living and dying, as another example are gracefully enacted in the garden, providing the therapist with opportunities to normalize and discuss difficult emotional issues regarding loss, attachment or fears.

Nature as a real Therapist

The word nature originated from the *latin* meaning "the course of things, natural character". It is translated to the way plants and animals grow on their own accord. Nature is referred to a general realm of different types of plants and animal as well as the processes or weather, sunlight, mountain, rivers and the stars. A natural environment may therefore include biotic and abiotic component (Shepard, 1967).

Plants, most especially ornamental plants established in the environment of man have a beneficial impact on human wellbeing. Ornamental plant has soothing effect on mankind and possesses the capacity of nurturing human body, mind and spirit. Nature boosts immunity and cardiovascular function. Research has shown that outdoor exercise has a more beneficial effect than indoor exercise (Ulrich, 1999; Oluwafemi, 2005).

Staying in proximity with nature helps to reduce stress, alleviate symptoms of anxiety, depression, and attention deficit hyperactivity disorder (ADHD) and psychosomatic illness including irritability, restlessness, insomnia, tension, headaches, and indigestion(S mardon,1988)

A shift from the pastoral to the urban landscape, work and academic pressure and the attractions of the digital age have alienated us from nature. In this generation, children prefer to watch TV and surf the Net instead of climbing trees, bird watching, star gazing, or splashing in a pond. There is a looming harmful consequence of alienating ourselves from nature. Balance and restorative power flow through all forms of life. This includes human life of our body, mind, and spirit as well as our thoughts, feelings and perception. Our body too has the capacity to renew itself through contact with vegetation amenities. When we cut ourselves off from nature, we are lost in concrete jungle thereby losing the organic energies resulting in deterioration sooner or later. Cutting off from nature cripples us in body, mind and soul. The cumulative effect of withdrawing from nature can cause us the symptoms of increased feeling of stress, trouble in paying attention (attention disorder) feelings of not being rooted in the world. For instance, outdoor walk within trees, palms, hedges and other ornamental plants was reported to have a significant impact on improvement of self esteem, reduction of depression and tension, respectively (figures 1, 2 & 3). This happens in an individual life, so also in communities and cities. This leads to disorder of society (Ulrich, 1999).

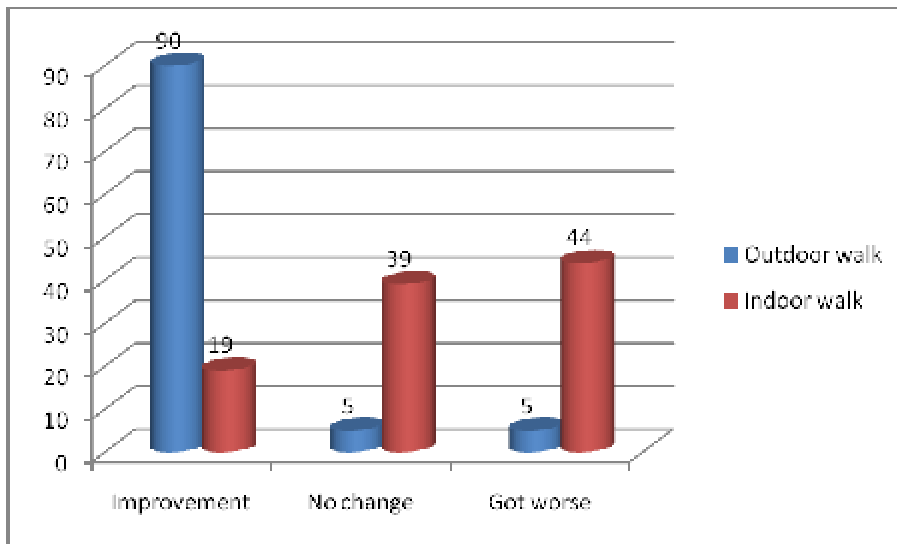


Figure 1: Effect of nature on self-esteem

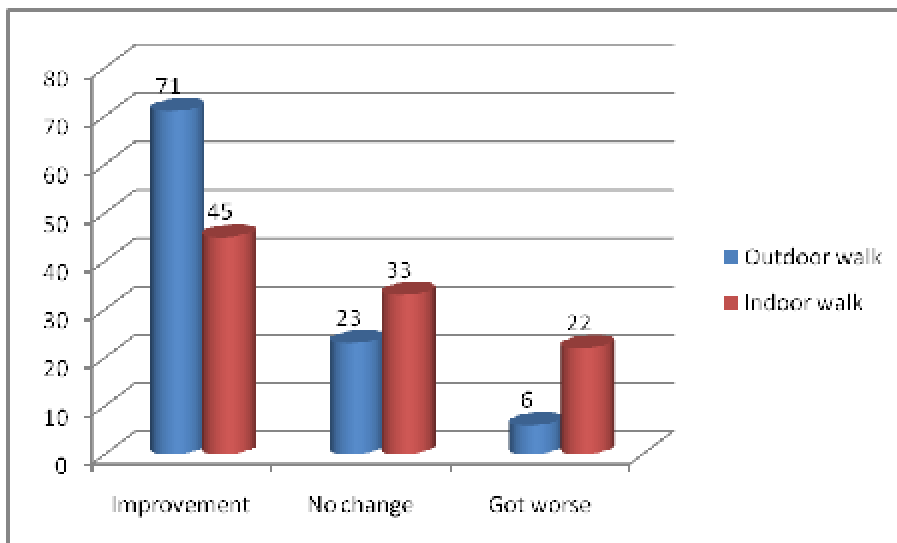


Figure 2: Effect of nature on Depression

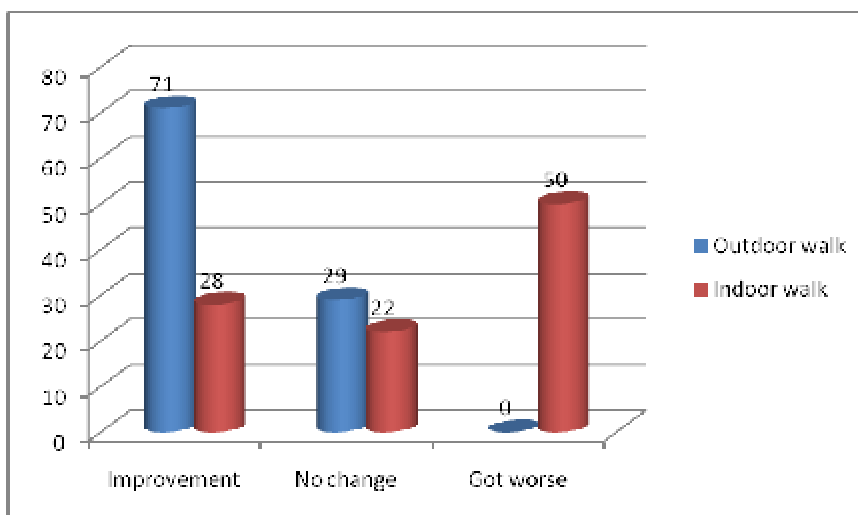


Figure 3: Effect of nature on Tension

Conclusion and Recommendation

The World Health Organisation (WHO) predicts that depression will be the second greatest cause of ill health globally by year 2020. Sainsbury centre for mental Health estimates the cost of mental distress in a single year in England alone at 77Billion pounds. The British Government state that one out of four will directly experience mental health problems. WHO (2008). Is it conceivable that therapeutic intervention that can substantially reduce the human or the cost of mental distress is available in door steps? Should people with experience of mental distress be routinely referred for green exercise, social and therapeutic horticulture instead of or in addition to drugs, psychological therapy? The answer is yes. The evidence is growing stronger, our concern about the environment is increasing and ‘green care’ movement is gathering momentum across the world.

Nature is the best moral teacher of mankind any attempt to move away from it will lead to disorder in the individual lives, communities, cities, and entire society. Ornamental plants are known for long for their aesthetic benefits, other inherent potentials of ornamental plants such as social, physiological and psychological benefits should be taken into critical consideration and therefore is worthy of exploration. Further research should be concluded to popularize the psychological benefit of ornamental plants. With emerging fact that green environment restores soundness to man, an active awareness of one's environment becomes a field for pro-action, from the family system, the local neighbourhood, or a wider worldview.

In other word, growing ornamental plants should be given more focus to in our built-environment. This will take care of problem associated with urban living such as stress relief, alleviate symptom like anxiety, depression, attention disorder, and other psychosomatic illness.

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