
| RESEARCH ARTICLE

The Relationship between Garden Plant Landscape Building and Garden Health Care and its Application Mode

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| ABSTRACT

This paper discusses the close relationship between garden plant landscape and garden health, analyzes the important role of garden plants in building a healthy environment, and expounds its application mode in detail. Through the study of relevant theories and practices, it reveals the great potential of garden plant landscape in promoting people's physical and mental health and improving the quality of life, which provides a useful reference for the development of garden health care.

| KEYWORDS

Garden plants; forest health; plant landscape; garden health.

| ARTICLE INFORMATION

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1. Introduction

With the improvement of people's living standards and the increasing attention to health, garden health care, as a new way of health preservation, has gradually attracted widespread attention. As an important part of garden construction, garden plant landscape is closely related to the health of the garden. Understanding and making reasonable use of this relationship is of great significance to creating a high-quality health care environment.

2. From Forest Health Care to Garden Health Care

2.1 Concept of Forest Health and Garden Health

Landscape research on health benefits has emerged in Western countries. Gesler (1992), for the first time, proposed the concept of rehabilitation landscape (Therapeutic Landscape) and defined it as the places, facilities, buildings, places, and surrounding environments that are beneficial to restore people's physical and mental health and maintain healthy and happy health, including natural or artificial landscape [Cao, 2021].

Forest health care is a way to use the forest environment to promote physical and mental health. It emphasizes reducing stress, relieving mood, improving immunity, improving sleep quality, and enhancing cognitive ability by walking in the forest, breathing fresh air, feeling the natural landscape, and listening to natural sounds. The rich oxygen, plant bactericidal, and anions in the forest have many positive effects on human health. At the same time, the tranquility and beauty of the forest can also bring people a sense of psychological relaxation and pleasure, help people to free themselves from their busy lives and work, and achieve a state of physical and mental harmony and health. Forest health is often combined with nature education, forest yoga, forest meditation, and other forms.

Garden health care refers to the use of landscape resources, combined with the concept and methods of health care, to provide people with the promotion of physical and mental health, prevention and improve disease, improve the quality of life through a series of activities and services. [Li, 2020] In garden health care, carefully designed and built garden environments, including plant

configuration, landscape layout, leisure facilities, etc., can let people get close to nature and relax. People can exercise moderately in the garden, take a leisure walk, breathe fresh air, enjoy beautiful scenery, and carry out healthcare-related activities, such as horticultural therapy. Through this interaction with the garden environment, the human body's own repair and regulation mechanism can be stimulated to achieve the purpose of relieving pressure, regulating emotions, and enhancing physical fitness. Garden health care is an emerging field that integrates landscape design, health care, environmental science, and other disciplines.

2.2 The Relationship Between Forest Health Care and Garden Health Care

2.2.1 Contact

Based on nature: Both are based on the natural environment and use the power of nature to promote people's health and well-being.

Physical and mental regulation function: It can help people reduce stress, improve mood, and improve their physical and mental state.

Environment construction: all pay attention to the aesthetic feeling and comfort of the environment to provide a pleasant space for people.

2.2.2 Differences

Natural degree: Forest health emphasizes the natural primitive forest environment's ecological integrity; garden health is mostly in the artificial garden space, which is relatively more planned and delicate.

Scope: The scope of forest health care is usually large, covering vast forest areas; garden health care is relatively small and limited to specific garden sites.

Resource focus: Forest health focuses more on the forest's unique ecological resources, such as abundant vegetation, fresh air, etc.; garden health may highlight the resources in landscape design and plant collocation.

Activity content: Forest health may include more field exploration, forest baths, and other activities; garden health may include more content related to garden sketches and gardening activities.

To some extent, forest health care includes some elements of garden health care. For example, some areas of the forest may also have a garden-like exquisite landscape that can bring people visual and psychological pleasure. At the same time, forest health care lays more emphasis on the integrity and comprehensiveness of the forest ecosystem in promoting health, and its ecological benefits are more prominent. Garden health care can be regarded as an extension and refinement of forest health care in a city or specific areas. The design and construction of gardens can draw lessons from the concept of forest health care and pay attention to the application of natural elements and their physical and mental influence on people. In short, forest health care and garden health care are all designed to promote people's physical and mental health, and they complement and promote each other [Chen, 2021].

2.3 Advantages of Garden Health Care Compared with Forest Health Care

- (1) Stronger environmental controllability: the environmental conditions of the garden can be more accurately regulated and maintained, such as temperature, humidity, etc., which can better meet the specific health care needs.
- (2) Diversity of themes: a variety of themed garden health spaces can be created according to different needs, such as Chinese gardens, European gardens, etc., to provide a more distinctive experience.
- (3) Relatively less affected by the seasons: some gardens can reduce the impact of seasonal changes on the health care effect to a certain extent by means of plant collocation.
- (4) Centralized professional services: It is often easier to concentrate professional health care service personnel and resources in the area where the garden is located.
- (5) Convenience: Gardens are usually closer to cities and populated areas, are more accessible to people, and the participation cost is relatively low, unlike forests that may be more remote.

3. The Characteristics of Garden Health Care

3.1 Types of Common Garden Health Care

- (1) Forest-style garden health care: create a forest-like environment in the garden, emphasizing high green quantity and natural wild interest, making people feel like they are in the forest.
- (2) Pharmaceutical Botanical Garden Health care: By planting all kinds of plants with medicinal value, people can understand their characteristics and efficacy and enjoy the benefits of plants.

- (3) Artistic garden health care: artistic elements such as sculpture and painting are integrated into the landscape to enhance aesthetic experience and stimulate emotional resonance.
- (4) Sports and leisure garden health care: equipped with sports facilities and venues, such as fitness trails, small courses, etc., people can enjoy the garden environment while exercising.
- (5) Ecological wetland garden health care: Use the wetland ecosystem to provide a unique natural landscape and ecological experience.
- (6) Cultural theme garden health care: garden construction around specific cultural themes, such as tea culture garden, poetry garden, etc., to add cultural connotation.
- (7) Meditation garden health: to create a quiet and peaceful space that is convenient for people to conduct meditation, meditation, and other activities, as well as relax the mind.

3.2 Characteristics of Garden Health Care Therapy

3.2.1 The Close Integration of Garden Health Care Therapy and Nature

One of the biggest characteristics of garden health care therapy is its high integration with nature. The rich vegetation, fresh air, and clever water elements in the garden together constitute a vibrant natural environment. Where people can directly feel the power of nature and breathe pure air, this close contact with nature plays an irreplaceable role in relieving pressure and relaxing the body and mind.

3.2.2 Dual Regulation of the Body and Mind

Some volatiles released by plants can inhibit the growth of microorganisms, achieve the role of sterilization and bacteriostasis virus elimination, and also play an effect on medical care. Different kinds of plant volatiles have a certain role in regulating the human nervous system, strengthening the metabolism, promoting the improvement of the circulatory system function, and improving human immunity. Some substances with aromatic odors can improve mood, reduce blood pressure, and promote sleep through the human smell mechanism, which is also significant for human health [JamMei, 2016].

Garden health care can not only bring physiological benefits, such as improving respiratory function and enhancing immunity, but it can also have a positive impact on the psychological level. The quiet and beautiful landscape can relieve emotions, reduce anxiety and depression, and stimulate positive emotional and psychological states. This dual regulation of body and mind is one of the core characteristics of garden health therapy.

3.2.3 Rich and Diverse Experiences

Different types of gardens offer diverse experiences. From the elegance and tranquility of classical gardens to the fashionable vitality of modern landscape gardens, from the knowledge exploration of the botanical garden to the targeted recuperation of the rehabilitation garden, people can choose the suitable garden environment according to their own needs and preferences. This rich experience diversity meets the health needs of different groups of people.

3.2.4 Environmental Adaptability

Garden health care therapy can be adjusted and optimized according to different regions, climates, and population characteristics. Whether in the urban center or in the rural suburbs, whether for the elderly or young, we can create suitable garden health spaces and projects that reflect its strong environmental adaptability.

4. The Relationship Between Garden Health Care and Garden Plant Landscape Construction

4.1 Influence of Garden Plant Configuration on Garden Health Care

From the physiological point of view, the rich and diverse plant configuration can increase the oxygen content, absorb harmful gases and dust, purify the air so that people can promote metabolism in the process of breathing fresh air, and enhance body function. The combination of different plants can create a suitable temperature and humidity environment, provide shade in the heat, and play a certain role in blocking the cold wind so that the human body is in a more comfortable state.

In psychology, carefully matched plant color can bring visual pleasure and enjoyment. Green plants, for example, can give people a quiet, soothing feeling, while the bright colors of flowers can inspire positive emotions. The landscape level formed by the form and layout of plants can distract people's attention, reduce stress and anxiety, and make people relax and immerse themselves in the beauty of nature.

From the ecological point of view, the ecosystem constructed by good plant configuration can attract birds, insects, and other organisms, add the sound and vitality of nature, and let people feel the vigorous vitality of nature, which has a positive role in regulating the mental state of health care people.

In addition, some plants with medicinal value or special efficacy, such as aromatic plants, have a smell that can directly act on the human nervous system, play a sedative, refreshing role, and further enhance the effect of garden health.

In short, the reasonable garden plant configuration has created very favorable conditions for the garden's health through the physiological, psychological, and ecological positive effects, which is an important basis for the realization of the garden's health and function.

4.2 Garden Health Care Needs to Promote the Innovation of Garden Plant Configuration

The growing demand for garden health and care will effectively promote the innovation of garden plant configuration. With people's growing pursuit of health and nature, the traditional garden plant configuration has been unable to fully meet the needs of forest health care.

In order to improve the effect of garden health, the garden plant configuration needs to pay more attention to the ecological function. This will encourage people to deeply study the ecological habits and interactions of plants, choose the plant species that are more suitable for the local ecological environment, and carry out scientific and reasonable collocation. Through innovative configuration, we will create a more stable and harmonious ecosystem to provide people with a better health environment.

At the same time, the demand for garden health care will also promote the innovation of garden plant configuration in the landscape effect. People not only pursue the beauty of plants but also hope to create a unique atmosphere and emotional experience through plants. This requires paying more attention to the coordination and change of color, form, texture, and other aspects in plant selection and collocation so as to create a landscape with artistic appeal. For example, using the plants of different flowering periods to create the effect of the scenery in the four seasons or cleverly combining the plants to create a different theme atmosphere such as romance and mystery.

In addition, the garden's health care needs will also promote the garden plant configuration so that more attention is paid to functional expansion. In addition to providing ornamental and ecological functions, plants can also provide health care, recuperation, and other functions. By introducing plants with medicinal value or plants that can release beneficial substances, the effect of garden health care can be further improved. At the same time, combined scientific and technological means, such as intelligent irrigation, environmental monitoring, etc., to achieve accurate management and maintenance of plants to ensure the healthy growth and function of plants.

5. The Principle of Garden Plant Landscape Configuration

5.1 Selection of Plant Species

Different plants have different characteristics and functions, and the reasonable selection of plant species can better meet the needs of garden health care.

- (1) Trees and shrubs match: tall trees provide shade, shrubs rich layers, creating a quiet and comfortable environment.
- (2) Introduce aromatic plants such as lavender, rosemary, etc.; the aroma can relieve the mood and relax the body and mind.
- (3) Configuring aquatic plants: plant aquatic plants in streams or ponds to increase the sense of freshness and flexibility.
- (4) With brightly colored flowers, such as tulips, roses, etc., to add visual beauty and a happy mood.
- (5) Set up medicinal plants, such as mint, honeysuckle, etc., with both ornamental and medicinal value.
- (6) Create multi-level vegetation, form a scattered and dense landscape, and improve the three-dimensional sense of space.

5.2 Considerations for Rational Allocation of Garden Plant Landscape

- (1) Diversity: choose a variety of different types of plants, including trees, shrubs, herbs, etc., to increase the stability and ornamental ability of the ecosystem.
- (2) Adaptability: according to the local climate, soil, and other conditions, choose suitable for growth to ensure that they can adapt well to the environment.
- (3) Hierarchy: create a hierarchical structure so that the garden is more three-dimensional and aesthetic.
- (4) Functional consideration: Depending on different functional needs, such as shading, sound insulation, ornamental, etc., choose the corresponding plants.
- (5) Degree: avoid too dense or sparse planting, and maintain an appropriate sense of space.
- (6) Seasonal change: consider the performance of plants in different seasons so that the garden has different scenery in the four seasons.
- (7) Coordinate with the environment: make the plants coordinate with the surrounding buildings and water bodies to create a harmonious overall atmosphere.

5.3 Principles of Health

The health principle of plant landscape configuration is of great significance. It focuses on comprehensively considering the positive effects on people's physical and mental health when developing plant layout planning. First, it is necessary to select ecologically adaptable plants to ensure their good growth and effectively play ecological functions such as air purification and microclimate regulation so as to create a fresh and comfortable environment for people; second, to attach great importance to the diversity of plants to bring different visual and olfactory experiences, which can effectively relieve emotions and relieve pressure. In the rich and diverse plant kingdom, there are some plants that have health harm to humans or some groups, so the relevant plants must be used carefully in the construction of garden health landscapes. If for children, avoid using oleander, city bone, calla lily, and other plants that have a bad effect on children. It should be noted that it is not appropriate to plant some people who will be allergic to tree species, such as dry willow, sumac, etc. [Zhang, 2019]

5.4 Spatial Principle

The spatial principle of landscape plant landscape configuration is an important and indispensable key element in garden design. It emphasizes that when planning the layout of plants, the level, scale, and proportion of space must be fully considered. Through the reasonable and ingenious use of plants with different heights, forms, and growth habits, rich and diverse spatial levels are created, and the landscape has a significant sense of three-dimensional and depth. At the same time, according to the actual size of the site and the functional needs, the scale of the plant is accurately controlled to prevent overcrowding or too empty conditions so as to create a suitable space atmosphere. In terms of proportion, we also should pay attention to achieving coordination, prompting plants between each other and plants and other landscape elements to build a harmonious visual relationship so as to successfully build a rich beauty and meet people in the space, rest, ornamental a variety of needs of garden plant landscape environment, enables people can fully appreciate the space and plant perfect fusion derived from the unique charm.

5.5 Principle of Artistry

Unity and change: Unity means that the style, color, form, and other aspects of the configuration of garden plants should be coordinated and echoed with each other to form a complete whole. Change refers to increasing the vividness and attraction of the landscape through the contrast and changes of different plant species, posture, color, texture, and other aspects. Unity and change complement each other, and they together constitute a landscape with artistic appeal.

Color collocation: Color is one of the most expressive and dynamic elements in garden plant landscapes. By using the different colors of various plants, you can create a rich and colorful visual effect. When colour collocation should consider the collocation law of colour, like cold and warm contrast, light and shade contrast, and saturation contrast, in order to achieve the aesthetic feeling of natural harmony.

Seasonal change: Seasonal change refers to the different forms and color characteristics of plants in different seasons. The use of plant configuration with different seasonal changes can make the landscape show a unique beauty in different seasons. For example, enjoy flowers in spring, leaves in summer, fruit in autumn, and branches in winter.

Artistic creativity: Garden plant landscapes should not only conform to the growth law of nature but also pay attention to artistic creativity and personality expression. We can draw inspiration from nature, such as rocks, water flows, clouds, and fog.

6. The application mode of garden plant landscape building in garden health care

6.1 Aromatic Park Mode

First of all, comprehensive and detailed planning and layout work is needed. According to the terrain conditions, area size, functional requirements, and other elements of the park, the area is reasonably divided, such as setting the walking area, rest area, etc., and aromatic plants are selected for each area.

In terms of the specific selection of plants, high attention should be paid to diversity. Herbs such as lavender, rosemary, and mint are not only refreshing in aroma but also easy to maintain and manage; shrubs and flowers such as osmanthus, jasmine, and gardenia can provide strong and lasting fragrance; and trees such as magnolia and smiling can add layers to the overall landscape.

In terms of planting methods, the mixed planting mode can be adopted to plant plants with different flowering periods and different aromas reasonably so as to ensure that the park can have continuous fragrance in different seasons. At the same time, attention should be paid to the planting density of the plants to avoid being too sparse or too crowded so as to ensure that the aroma can be evenly distributed and have good ventilation conditions.

According to the characteristics of the terrain, some plants with strong volatile aromas can be planted on slopes to spread the aroma with the flow of air and plant aquatic, aromatic plants in nearby areas, such as water lilies, to add a fresh feeling.

On both sides of the road in the park, aromatic trees and shrubs can be planted at intervals so that people can fully feel the aroma surrounding them while walking. Set up some special aromatic gardens, focusing on planting all kinds of aromatic plants, thus forming the double wonderful enjoyment of vision and smell.

In addition, it can also use aromatic plants to create some unique landscape pieces, such as the flower landscape surrounded with lavender and the arch built with aromatic plants, to add interest and attraction. In addition, it is necessary to do a good job in conservation and management to ensure that aromatic plants can maintain a healthy growth trend and good state and continue to provide a charming aroma and beautiful landscape for the park.

6.2 Plant Health Care and Green Space Model

First, focus on the ecological fitness of plants. To ensure that the selected plants can adapt to the local climate, soil, and other natural conditions to ensure their good growth and function.

Next, choose a plant with obvious health care function. For example, pine and cypress plants can release bacteria and purify the air; the smell of lemon, camphor, and other plants can refresh and relieve mood.

Moreover, consider the ornamental value of the plants. Like lush flowering roses, crape myrtle can add color beauty; graceful bamboo, ginkgo, and others can enhance the charm of the landscape.

Pay attention to the safety of the plant even. Avoid choosing plants that are toxic or may cause human harm.

In addition, you can choose according to different functional requirements. For a quiet atmosphere, choose plants with soft leaves, reduced noise, and vibrant vitality.

At the same time, the needs of different seasons. Choose a plant of a few four seasons evergreen to ensure the whole year round green, match the plant of different seasons bloom or change color again, and make the health care green space a unique charm in each season.

Finally, the difficulty of plant conservation should be considered. Try to choose relatively simple plants in order to maintain a good landscape effect and health function.

6.3 Mode of Medicinal Plant Park

- (1) The park will be planned and designed into a botanical garden area integrating scientific research, science popularization, production, demonstration, viewing, tourism, and pharmaceutical treatment.
- (2) Focus on traditional Chinese medicine. To build a tourist attraction with medicinal plants as the basic characteristics, carry out variety selection, optimization, introduction, test, and promotion, and create a park with a large number of types of Chinese medicinal materials and high ornamental value.
- (3) Through the reasonable collocation of medicinal plants and the appropriate use of garden sketches, we create a considerable swimming and recreational green open space for local residents. [Meng, 2007]

6.4 Forest Health Care Mode

"Forest health" should not only exist in the forest recuperation base, forest hospital, and other specific ecological places; more should be in the city parks, country parks, botanical gardens, wetland parks, and urban green settings; let people living in the city can close contact forest, enjoy the forest health way to the human body "green recuperation." Small forest ecological islands can be built in some relatively independent areas of the city, planting a variety of plants and creating a quiet, small environment. Tall trees such as pine, cypress, ginkgo and medium trees such as magnolia paniculata, combined with shrubs such as lilac, crape myrtle, and ground cover plants such as clover, step grass to form a rich level, simulate the structure of the natural forest. [Li, 2023]

7. The Future Development Trend of Garden Health Care

As a new health care mode, garden health care has a broad development trend in the future. With people's attention to health, the demand for a quality health environment will continue to grow. Garden health care will pay more attention to personalized services, according to the needs and characteristics of different groups of people, to provide customized health care programs to meet the diversified demands of health care. The integration of technology will become an important trend. For example, intelligent monitoring equipment is used to monitor environmental quality and human health data in real time in order to better adjust health care strategies. At the same time, virtual reality, augmented reality, and other technologies may also be used to provide a richer experience and interaction. The integration with the healthcare system will be even closer. Through cooperation with medical

institutions, professional rehabilitation treatment, health consultation, and other services are carried out to improve the professionalism and effectiveness of health care. The concept of sustainable development will run throughout. In the development of garden health care, more attention should be paid to ecological protection and the rational utilization of resources to create a green, low-carbon, and environmentally friendly health care environment. International exchanges and cooperation will become increasingly frequent, learn from foreign advanced experience and technology, and promote the continuous innovation and development of China's garden health.

The mode of garden health care will continue to innovate and expand, not only limited to forests and parks but also extended to communities, enterprise parks, and other fields so that people can easily enjoy health care services in their daily lives.

8. Conclusion

"The scenery takes rocks as the skeleton; water takes blood as blood, vegetation as hair, and smoke and clouds as the spirit. So, there are mountains, water, life, vegetation, China, smoke, and beauty. "China landscape architects learn from nature, and this concept runs through the whole landscape art. Plants, as an important part of gardens, are undoubtedly the most vital factors. They not only add vitality and vigor to the garden but also endow the garden with different charms through the change of seasons. It can be said that it is these plants that are full of vitality that make Chinese gardens full of poetry and romance. They are not only the soul of gardens but also the witness to the mutual integration between man and nature.[Liu, 2022]

Garden plant landscape care and garden health care complement each other, and reasonable plant landscape care can greatly improve the effect of garden health care. In future development, we should further strengthen the research on the relationship between landscape and health and constantly explore innovative application modes so as to better meet people's pursuit of a healthy life. At the same time, we should pay attention to ecological protection and sustainable development to ensure the long-term prosperity of garden health care.

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