

# Research on the Construction of Forest Health Care Trails based on the Perspective of Promoting Sports Health

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## **Abstract:**

The flourishing forest health care industry in China needs to be sustained by the various forest health care space. As an important part of a forest health care space system, the forest health care trail is based on forest health care resources and aimed at promoting human health. It is a site built in the forest health care base for doing health care activities such as regulation of body functions, self-cultivation, fitness, nature educate, etc. Currently, the planning and design of trails becomes the primary problem to be solved urgently in order to meet the growing health care demand of the public. In this research, the necessity and importance of the construction of forest health care trails were discussed from the perspective of promoting Sports health.

**Keywords:** *Forest health care, Forest health care trail, Promoting Sports health, Fitness, Health preservation*

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## I. INTRODUCTION

Sub-health, as a usual health condition of modern people, has become a major social problem. The public's demand for health services keeps on rising. Account for 13% to 15% of developed countries' GDP, the high medical expenditure has become a huge financial burden of them. The number of sub-healthy and aging people in China is increasing year by year. Currently, there are more than 260 million people suffering from chronic diseases, and the upward trend keeps going. According to the data provided by WHO, China's elderly population will reach 400 million by 2033, and people over 60 years old will account for 35% of China's population by the middle of the 21st century. At that time, China will become a country with large sub-healthy and aging population, which will in turn generate a huge market. After experiencing the COVID-19 pandemic in early 2020, people further enhanced the awareness of respecting nature, approaching nature, pursuing health, and attaching importance to medicine and health preservation.

The public in developed countries highly uphold life concepts such as ecological and environmental protection, which directly promotes the popularization of green lifestyles. Since the 21st century, the adverse effect caused by developing countries and regions such as China and Southeast Asia promoting

economy at the cost of sacrificing natural resources has been increasingly prominent, and the public's awareness of the green life concept is improved gradually. Accordingly, in the medical and health field, the eco-friendly, green and low-carbon development model more complies with the public's concept of green life. An increasing number of people start to choose forest health care products instead of traditional health care products. Forest health care continues to innovate and develop under the impetus of the public's green concept.

## **II. DEVELOPMENT OF FOREST HEALTH CARE IS THE INEVITABLE RESULT OF THE SUPPLY-SIDE STRUCTURAL REFORM OF CITIZENS' HEALTH DEMAND**

On March 13, 2019, the State Forestry and Grassland Administration, the Ministry of Civil Affairs, the National Health Commission, and the State Administration of Traditional Chinese Medicine jointly issued the "Opinions on Promoting the Development of Forest Health Care Industry", proposing to build 300 national forest health care bases by 2022 and 1,200 by 2035, aiming at providing multi-level, multi-category and high-quality forest health care services to the society and fulfilling the people's growing demands for a better life[1]. The development of the forest health care industry must adhere to the five basic principles of ecological optimization, adapting measures to local conditions, scientific development, innovation orientation and market orientation. It is expected to build a regional forest health care service system with basically complete infrastructure and a reasonable industrial layout by 2022, to build a nationwide forest health care service system by 2035, and to optimize the system, root the concept into the hearts of the public and help people enjoy more complete forest health care services.

By the end of 2020, China had 901 national forest parks. The main tasks for developing forest health care include optimizing the forest health care environment, improving the infrastructure, enriching the products, building the bases, popularizing the culture, and improving the service levels; establishing and improving the standards for the construction of forest health care bases, and building service facilities such as forest rehabilitation centers, forest health care sites, forest bath pools and forest oxygen bars; proactively developing services such as forest bathing, forest diet therapy and medicine therapy, and vigorously developing products that combine traditional Chinese medicine and forest health care services; creating a number of national and provincial forest health care bases to form a forest health care environment with high-quality ecology and obvious effects; scientifically formulating a forest health care industry program, clarifying development priorities and regional layout and standardizing the market behavior of forest health care; increasing policy support, innovating mechanisms and models and attempting to establish government guidance funds; cultivating leading companies in forest health care by means of financing guarantees, subsidized loans, and project awards and subsidies; encourage impoverished areas to develop forest health care industries for increasing employment and income and alleviating poverty; strengthening the protection of land use and meeting the land use demand for the forest health care industry in accordance with laws and regulations; expanding investment and financing channels, and encouraging all kinds of forestry, health, pension, traditional Chinese medicine industrial funds and social capital to flow into the forest health care industry in various forms in accordance with laws and regulations; improving the co-construction and

sharing mechanism, and encouraging local governments to promote the integrated development of forest health care, medical care, elderly care services and traditional Chinese medicine industries, so as to achieve mutual promotion and win-win results[2].

### **III. CONSTRUCTION OF FOREST HEALTH CARE TRAILS IS A CITIZEN'S INEVITABLE DEMAND FOR PROMOTING SPORTS HEALTH**

The forest health care trail is an "urban landmark" composed of tourists' footprints. As an important part of the national ecological infrastructure construction, they are found in the beautiful landscapes and natural cultural heritages all over the country in a form of a trail system, constituting linear ecological arteries[3]. A good ecological environment is the most generally benefiting welfare related to people's life, and forest trails are the ways to the welfare. Therefore, It is necessary to speed up the creation of high-quality ecological products such as forest trails to promote public health and improve people's happiness index.

With the continuous improvement of living standards, people pursue a healthier way of life closer to nature. The development of forest trails is in line with people's yearning for a better life in the new era. In the context, functional trails such as forest therapy trails and nature observation trails come into being and enhances the public's happiness of gaining green and eco-friendly life, their understanding of nature and desire to approach nature. In addition, they meet the public's demand for approaching nature, return to nature and enjoying nature[4]. Winding forest trails can soothe the anxiety brought by the fast-paced life. Compared with the sightseeing at scenic spots in the past, the immersive tourism attracted more attentions, and it is transforming to all-element tourism and all-for-one tourism. The construction of forest trails complies with the original intention of serving the public, and eco-tourism represented by forest trails more profoundly interprets the core value of tourism, providing the public with wider space, and many opportunities of experiencing forest rehabilitation and forest research, so that people can get closer to nature, enjoy beautiful scenery, and relax and recuperate themselves in the forest.

With the diversification of the public's travel motives and preferences for forest tourism products, a large number of novel formats and products boom together in the ecotourism industry of China, including forest rehabilitation, forest health care, forest experience, nature educate, and forest marathon. However, trails are one of the most important infrastructures for them all. Forest trails have become an important carrier for the public to close approach nature and experience nature. At the same time, they have also been given more functions.

This phenomenon was verified by a social survey in 2016. The online social survey on forest tourism demands organized by the former State Forestry Administration Forest Tourism Management Office showed that more than 98% of the respondents had the will to "step into the forest for approaching nature", and "relaxation" was one of the motivations for more people to travel.

Statistics from relevant departments reveal that until now, the number of hiking enthusiasts in China has reached 60 million. In 2019, data from 4,000 questionnaires organized by the State Forestry and Grassland Administration showed that 89.4% of hikers aim at getting closer to nature, and 85.1% of them prefer to hike in the forest. Long-distance hiking in the wild is favored by more and more people. Lying through important mountain ranges and forest areas and adjoining nationally representative natural landscapes, and historical and cultural areas, the National Forest Trail gathers all kinds of natural essence of China. Original field trails, ancient roads and forest paths are firstly considered to be integrated into forest trails, so as to keep the integrity and authenticity of the ecosystem. Trails are mainly composed of dirt roads and gravel roads, which is conducive to preserving the surrounding natural features and enhancing the experience of hiking in the wild. The National Forest Trail meets the demand of the public for long-distance hiking in the wild.

The launch of the National Forest Trail not only meets the diverse demand of people's for eco-tourism, but also triggers a new growth point for China's eco-tourism. The new "Forest Law" coming into effect in July 2020 stipulates that as engineering facilities that directly serve forestry production and operation, forest trails and science popularization facilities are do not require approval procedures for construction land. Legal guarantees and policy dividends is of great significance for accelerating the construction of forest trails and boosting the rapid development of forest trails.

#### **IV VALUE ANALYSIS OF PROMOTING SPORTS HEALTH WITH FOREST HEALTH CARE TRAILS**

2020 is a special year. Under the influence of the COVID-19 pandemic, a increasing number of people pay more attention to physical health and realized the importance of improving immunity. The rational combination of forest health care trails and medicine is one of the scientific and effective methods for the prevention of various diseases in the future. Forest rehabilitation can reduce the cost of treatment for patients, and also helps hospitals save more manpower and material resources[5]. When the pandemic is under control, forest health care services will gradually become a hot tourism item, thereby bringing more opportunities for the industry. The trails have a good medical and health care effect on the human body, and their construction also conforms to the development trend of the times. In the future, forest health care trails will not only play a key role in the quality and efficiency improvement, transformation and upgrade of forestry, but also become welfare for citizens.

In recent years, the prevalence of "urban diseases" urges people pay more and more attention to health, and stimulate people's demands for outdoor activities, which boost the development of forest health care trails. The eco-friendly places such as forest health care trails came into being under the promotion of people's demands for healthy body, psychology and life. From a medical point of view, the reason why forest health care trails can strengthen the human body lies in their direct benefits on human vision, cardiopulmonary function, limb coordination, consumption of excess body fat, anti-aging, and regulating physical and mental health. Activities sites constructed in hiking trails are equipped with various physical Sports equipment[6]. In addition, more opportunities and conditions for fitness and Sports can be provided to citizens. Thus, how to help tourists do more reasonable and comprehensive Sports physically and

mentally is the main problem for this type of trails, and it is also their characteristic. The main design points of the hiking trails for fitness and Sports can be summarized into the following four aspects:

#### 4.1 Giving trails a function of improving physical health by controlling slope and climbing difficulty

Forest health care trails are generally designed with certain slope and climbing difficulty, so that tourists can do adequate Sports during walking. When people walk upward with overcoming gravity, all parts of the body Sports in a variety of movements. In addition to stamina, the coordination and flexibility of the muscles, joints and bones also get improvement. Walking on forest health care trails, people move the waist, back and limbs rhythmically and regularly, which is beneficial to increasing the power of corresponding muscles. The vigorous Sports of muscles increases the body's demand for oxygen, heightens the heart rate, and increases the cardiac output, thereby raising the content of high-density lipoprotein in the blood, which is conducive to preventing arteriosclerosis and enhancing the function of the respiratory and circulatory systems. Previous studies reveal energy consumption will increase by 3 times when people walk on a slope with 5-25 degrees. Therefore, a trail with a certain slope can help people do Sports more effectively[7].

The "National Hiking Trail Standards" promulgated by the China Mountaineering Association stipulates that forest trails shall have a certain slope. The optimal average slope in a unit distance (500 meters) should be not over 25 degrees, and 15 degrees is the best. Steps should be set up on the road sections with a slope exceeding 25 degrees, and the steps are made from stone, wood and the mixture of soil and wood. The government should explore to construct hiking trails more suitable for the regional conditions of Nanchang and the living habits of Nanchang citizens. Handrails or railings require to be installed in positions with steep slope ensure the safety of tourists.

#### 4.2 Setting sites and facilities for rest

This type of trails should be constructed by following the basic construction principle of "people-orientation". Designers should consider not only the function of the trails in body building, but also the demands of tourists for rest. In addition to children and teenagers, a large number of middle-aged and elderly people are the main users of the Meiling Hiking Trail. People at different age have different physical quality, and different people at the same age group have different health conditions[8]. On hiking trails with a certain slope, ordinary middle-aged and elderly people can walk at a speed of 35m/min in average, and they will feel tired after waling continuously for about 7-8 minutes. It means that every 250m or so of a trail should be equipped with rest facilities for people to take a break. The slope and difficulty of a trail and the topography where it is located should be considered in the deployment of rest facilities, and they can be adjusted appropriately according to the actual conditions of the trail.

In addition, the "National Hiking Trail Standards" stipulates: "hiking trails shall be equipped with stations for sightseeing and rest every a 40-min walking distance (a normal walking speed of adults) ". The stations not only meet the demand of tourists for health, but also help the trail system give full play to its

value while fully reflecting the scientific design and humanistic care of the trail system.” According to the average walking speed of people mentioned above, the walking distance in 40 minutes is about 1400 meters, which means that rest sites and facilities, tables and chairs, toilets and stands for selling water and food should be set every 1400 meters in the trail system[9].

#### 4.3 Set up health signs and spread fitness knowledge

“Health” is the theme of this type of trails, so signs written with health knowledge should be set along the trails to tell tourists about the scientific hiking and fitness knowledge such as when and how to hike, how to take a break, and how to conduct pulse measurement after hiking. Signs showing Sports standards should be set up at intervals. Citizens do Sports according to the standards on the signs with considering their gender, age and weight. This approach not only deeply popularize the idea of "walking for health", but also allow citizens to do Sports on the forest health care trail and understand health knowledge, so that the trails can be used more scientifically and effectively.

#### 4.4 Set or use various types of sites and spaces to carry out various fitness activities based on forest health care trails

With the acceleration of urbanization, people's activities are more and more concentrated in urban areas. Ecological problems such as air pollution and environmental damage severely affect people's survival and health and result in the dramatically increasing number of sub-healthy people. As a result, people pay more attention to the important role of forests in human health, and the concept of "forest health care" has been gradually known and accepted by the public, so that people approach nature, do Sports, set or use various types of sites and spaces to carry out various fitness activities, hiking competitions and outward development based on forest health care trails. All of the large-scale activities require sufficient space. The main entrance and exit of the forest health care trails should be designed into open space that is able to accommodate a large number of people and equipped with facilities for rest. They can be the starting point for mountaineering competitions and sites for leaders to give speech and award. Some relatively wide sites can be set on the trails, with some fitness equipment, so that citizens can dance, play swords, practice Tai Chi and do Sports with equipment, which enriches fitness categories on the trails and integrates hiking into the daily Sports of the citizens. In addition, this kind of sites can also be places for outward development. Therefore, they are composite sites that can carry a variety of activities.

## V. CONCLUSION

With the development of economy and the improvement of public living standards, people pay more attention to leisure life. Accordingly, forest parks have become important places for outdoor recreational activities, and the forest health care trail plays an important role. It provides people with a healthy way of hiking, and help people integrate into nature and feel nature as much as possible, thus satisfying people's yearning for a better life.

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