

Chinese Consumers' Perception on Forest Therapy

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Abstract: Forest therapy enables people to appreciate the beautiful forest scenery and cultivate the mind and body. The current literature is mostly from the perspective of developers, but it is also important to consider forest therapy from the perspective of consumers. In this paper, 153 young and middle-aged respondents were randomly investigated by questionnaires. Results found that young and middle-aged groups have insufficient understanding of forest therapy. The primary factors to promote their forest therapy activities are rich forest experiential activities and good forest environment, followed by complete infrastructures and geographical location. Thus, development of forest therapy industry can improve their perception of forest therapy and establish high-quality forest therapy basements. This paper provides constructive suggestions for the development of forest therapy industry.

1. Introduction

With the rapid development of modern society, people suffer compact rhythm and high pressure. Sub-health has become a common social phenomenon. According to the Talent Development Report, 70% of Chinese adults are in danger of death from overwork. The sub-health rate of white-collar workers is as high as 76%, and this situation needs to be solved urgently. So people have begun to strengthen health management to improve their physical condition, mainly the elderly. The healthcare industry is rapidly rising, and the forest therapy is also receiving increasing attention. Compared to the elderly, although young and middle-aged groups have frequently suffered from health problems in recent years, they may not attach much importance to individual health management.

Forest therapy is an activity and process that rely on forest to maintain, rehabilitate and recover human health [1]. It can improve human blood circulation, promote metabolism, enhance immunity, improve memory, and has a good regulating and keep-fit effect on people's nervousness and unhealthy psychological state. Therefore, this paper deeply studies the perception of forest therapy of young and middle-aged people, analyzes the factors promoting forest therapy activities, further puts forward measures to improve their behavior intention of carrying out forest therapy activities.

2. Literature review

The concept of forest therapy is around the following points: (1) forest therapy mainly relies on rich forest resources; (2) development of forest therapy requires relevant medical service facilities; (3) forest therapy can maintain and recover human health. Wu et al. consider that forest therapy is a leisure therapy activity [1-3], while Lee and Liu emphasize the medical efficacy of forest therapy [4, 5]. According to the health benefits of forest therapy activities, Wang et al. obtain that forest bath was beneficial to the physical and mental health of healthy people and hypertension patients [6]; experiments conducted by Wang et al. show that the exploration, cognition and memory of white mice are significantly enhanced after being treated in forest environment [7-8]; Gong's team finds that the adjusting ability of the individual autonomic nervous system has improved in the forest environment [9]; Bowler et al. believe that contacting with nature can improve blood pressure and reduce heart rate [10]. Based on the urgent need of developing forest therapy, many scholars have

carried out a large number of studies on its evaluation system [11-14] and the basement construction [15-19]. Liu has explored the development of forest therapy through forest therapy resources and basement utilization conditions [5]; taking Beijing, Tianjin and Hebei as an example, Li has proposed eight conditions for evaluating the forest therapy basements [12]; and Li comprehensively evaluated the tourism potential of forest therapy through 32 indicators such as viewing experience, health preserving and recreation, artistic aesthetic value, etc. [13].

In summary, the current literature about forest therapy mainly includes the following aspects: (1) distinguishing the connotation of forest therapy [1-5]; (2) empirical study on forest therapy benefits [6-10]; (3) study on evaluation index of forest therapy [11-14]; (4) strategies for the development of forest therapy [15-18]. Scholars mostly discuss forest therapy from the perspective of developers. Therefore, this paper, starting from young and middle-aged consumers, investigates their perception of forest therapy, analyzes the factors that promote them to carry out forest therapy activities, further puts forward suggestions to make Chinese forest therapy industry more market-adaptive.

3. Methods

3.1. Sample and Data collection

This paper collected data through the questionnaire method. Questionnaires were distributed online and offline. Firstly, random questionnaires were distributed in Fuzhou, China, and 79 valid questionnaires were collected. Then we shared the electronic questionnaire with various chat groups. The questionnaires came from a wide range of sources, including Sichuan, Shanxi, Anhui and other Chinese provinces, and collected 74 valid questionnaires.

Of the 153 valid samples, 51(33.3%) respondents were males and 102(66.7%) respondents were females. The largest age group was 16-30 and 16(10.5%) respondents aged 31-45. The respondents generally had a good education level and 137(89.5%) respondents were undergraduates or above. There are 91(59.5%) respondents who were less than 1 hour away from the forest scenic spot while 62(40.5%) respondents were more than 1 hour away. Among the marital status of the respondents, 88.2% respondents were unmarried, and others were married (Table 1).

Table.1. Demographic characteristics of samples

| | | Frequency | Percentage |
|-----------------|--|-----------|------------|
| Gender | Male | 51 | 33.3 |
| | Female | 102 | 66.7 |
| Age | 16-30 | 137 | 89.5 |
| | 31-45 | 16 | 10.5 |
| Education level | Junior high school student or below | 2 | 1.3 |
| | High school/Technical secondary school student | 8 | 5.2 |
| | Junior college student | 6 | 3.9 |
| | Undergraduate | 116 | 75.8 |
| Distance | Master or above | 21 | 13.7 |
| | Within 10 minutes by car | 16 | 10.5 |
| | 10-30 minutes | 29 | 19 |
| | 30-60 minutes | 46 | 30.1 |
| Marital status | 60 minutes or above | 62 | 40.5 |
| | Unmarried | 135 | 88.2 |
| | Married and childless | 2 | 1.3 |
| | Married with dependent children | 15 | 9.8 |
| | Married with independent children | 1 | 0.7 |

3.2. Variable reliability analysis

This paper has used spss22.0 to test the variable reliability. Through the reliability analysis of 153 valid questionnaires, the alpha coefficient of perception is 0.909, indicating that it has good internal consistency and meets the reliability test standard.

4. Results

4.1. Perception of forest therapy

Table 2 shows that 69.3% respondents know that forests can regulate air temperature and purify air, 64% respondents know it can reduce noise. It shows that young and middle-aged groups agree that they can breathe fresh air and stay away from noise in the forest environment. But the number of them who knows "forest physiotherapists" and "phytoncide" is tied for the lowest, accounting for 22.2%, "forest medicine" following. The above three words are related to the therapeutic effects of forests on the human body. Therefore, it can be seen that young and middle-aged groups have insufficient understanding that forest therapy can cure some diseases. In addition, less than 30% of them know the words "aromatic oil", "forest bath" and "green vision rate". Generally speaking, the average cognitive level is 3.01. There is still an insufficient cognition of them on the efficacy of forest therapy.

4.2. Promoting factors of forest therapy activities

Through statistical analysis (Table 3), it can be seen that when preparing for forest therapy activities, the top priority for young and middle-aged groups is "rich and varied forest experiential activities" and "good forest environment". Two thirds of them pay more attention to the forest environment itself and hope to have more rich experiential activities. Secondly, nearly half of them have also chosen the geographical location, traffic conditions, accommodation and catering facilities in the forest area, which indicates that they have certain requirements for basic conditions. Finally, only about a quarter of them will consider inviting professionals to design physiotherapy according to physical conditions themselves, 12.4% of them will consider forest convalescent facilities. Overall, they pay more attention to the local natural environment, public conditions and their own wonderful experience, while forest therapy, which is more medical, is relatively minor. The main reason is that they think it will cost a large amount of money to use forest convalescent facilities which are not guaranteed curative effect. However, viewing beautiful scenery and carrying out rich experiential activities can make them meet their physical and mental needs in time. Accordingly the young and middle-aged groups have a lower expectation for the therapeutic effect of forest therapy, and the motivation to pay money is insufficient.

Table.2. Perception about relevant words of forest therapy

| | Mean | Understanding and above% |
|--|------|--------------------------|
| Adjusting air temperature and humidity | 3.53 | 55.6 |
| Purifying air | 3.80 | 69.3 |
| Reducing noise | 3.73 | 64 |
| Aromatic oil | 2.73 | 25.4 |
| Forest physiotherapist | 2.54 | 22.2 |
| Phytoncide | 2.54 | 22.2 |
| Air anion | 3.08 | 38.6 |
| Forest oxygen bar | 3.18 | 45.8 |
| Green vision rate | 2.75 | 28.8 |
| Forest medicine | 2.59 | 23.9 |
| Forest bath | 2.73 | 27.5 |

| | | |
|---------------------------------------|------|------|
| Carbon fixation and oxygen generation | 2.86 | 37.2 |
|---------------------------------------|------|------|

Table.3. Promoting factors of forest therapy

| | | N | Percentage |
|-------------------|--|-----|------------|
| Promoting Factors | Professional guidance | 40 | 26.1% |
| | Diverse Forest Experiential Activities | 100 | 65.4% |
| | Location and traffic | 76 | 49.7% |
| | Accommodation and other facilities | 70 | 45.8% |
| | Good forest environment | 103 | 67.3% |
| | Forest convalescent facilities | 19 | 12.4% |
| | Forest food | 5 | 3.3% |
| | Others | 2 | 1.3% |
| Total | | 415 | 271.2% |

5. Conclusion

According to the survey, most young and middle-aged people know that forest environment is able to promote physical and mental health, but forests can be replaced for them, such as urban parks, rural fields, etc. Their perception of forest environment only stays at the level that forests can provide fresh air and are beneficial to human body. However, they don't know much about what substances make forests beneficial to their own health. Forest therapy is unfamiliar to some young and middle-aged people, and most of them go to forest tourism areas only for leisure and entertainment.

6. Management implies

6.1. Improving forest therapy perception of young and middle-aged people

Generally speaking, people put a thing into practice through a series of links from perception to action. Developing forest therapy industry should focus on strengthening the perception of young and middle-aged groups. At the government level, the government should pay more attention to developing forest therapy. In addition to issuing encouraging documents, government can also increase its support to this industry, including investment in funds, establishment of authoritative assessment agencies and training of professional talents. At the enterprise level, enterprises can use various marketing methods, such as advertisements, magazines, films and documentaries, to promote forest therapy. They can also establish high-quality forest therapy basements and use core resources to expand its influence. At the level of young and middle-aged groups, they can actively learn relevant knowledge through various media, mainly the Internet. However, although the Internet has strong dissemination, it is easy to be filled with false information. Therefore, teachers should also take on the responsibility to improve their health awareness.

6.2. Building high-quality forest therapy basements

Apart from lack of knowledge, there are also many objective factors leading to their low behavior intention of forest therapy, such as unsound development of forest therapy basements. So high-quality forest therapy basements should be built to improve their behavior intention. The quality of basements is mainly reflected in the following: first, basements can provide consumers with beautiful forest environment and various experiential activities. Second, accessibility is one of the important evaluation criteria of forest therapy basements, which is manifested in the convenient transportation. Nowadays, young and middle-aged people have a rapid pace of life and high demands on the efficiency of time utilization. Therefore, forest therapy basements should focus on its geographical location and accessibility. Third, to ensure the safety of the forest environment, the forest therapy basements should be equipped with corresponding medical and security personnel.

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