The Effect of Outdoor Recreation Activity on Sub-health

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ABSTRACT
Therapeutic Recreation as an important part of the leisure industry is increasingly being casual attention in leisure field, but the study of leisure activities on the sub-health impact is still relatively small. Based on therapeutic recreation research paradigm, Brinell microscope as a tool, the paper study on the effect of therapeutic recreation on Sub-health. Research results show that: outdoor recreation activities on sub health has obvious therapeutic effect on the experimental object, the health indicators are significantly improved; and gender differences, time length differences and Activities Differences have significantly different impact on the sub-health.

Key words: Therapeutic Recreation; Sub-health; Outdoor Recreation; Effect

1. Introduction
With the development of modern society and the accelerating pace of life, people's life style is undergoing rapid change, information and things that people have to deal with in their daily lives are more and more, stressful life is also growing. In this lifestyle, a class of mental states is between the disease and healthy people, the medical profession called sub healthy group. According to a global survey by WHO, respondents in the real health accounted for only 5%, have disease accounted for 20%, 75% of the people in the sub-health state. With the popularity of prevention of sub health concept, people gradually realize that sub health hazards, but there are no measures or drugs specifically to treat sub-health, only a recommended preventive measures for sub-health. Empirical studies have shown excessive stress and lack of exercise are the main causes of sub-health. These studies revealed the recreation and leisure activities may be a therapeutic effect of sub health[1]. On this basis, this study has reference to the leading scholars about the recreational therapy research paradigm, by the way of experiments to test the outdoor recreation activities on sub-health treatment effect.

Therapeutic Recreation
The definition of Therapeutic Recreation was first proposed by Davis. Therapeutic Recreation is in any free, voluntary activities, including physical, sensory or mental activity, which is focused on the game state of mind, cheerful attitude and emotional release beneficial; activity is opened by a medical professional prescription, to become assistant treatment of wholesome (Davis, 1936) [2]. Austin (1986) proposed the Therapeutic Recreation is the purpose of leisure and recreation of the intervention to improve the person's quality of life, and points out the target and supervision process of Therapeutic Recreation are different with the general treatment[3]. O'Morrow and Reynolds (1989) believes that the special function of Therapeutic Recreation is to assist the health or illness when the thing person in leisure, recreation experience to promote or recovered by[4]. Faulkner (1991) considered that Therapeutic Recreation is involved in the patient’ life and recreational activities as interventional tools, the activities must be selected to meet the needs of the parties, once the intervention to achieve the intended purpose, you can end the event and at the end of the treatment course for leisure hobby of tracking[5]. Wilhite & Keller (1992) considered Therapeutic Recreation must be able to help patients develop, express and maintain their own personal choice inherent desired leisure lifestyle, and eliminate or minimize the obstacles in the process[6]. Austin (1992) also indicated that when cases of poor physical and mental health, the intervention recreation activities contribute to individual health defense, while participating in activities designed by the therapist, to prevent the deterioration of the health of the individual[7]. Follow the main goal of Therapeutic Recreation, so the patient through pleasant recreational activities and has experience in order to understand the patient's physiological, psychological, emotional and social needs, and the ability to enhance the patient's ability to control[8]. Malkin Howe (1993)
considered that the main purpose of Therapeutic Recreation is to provide recreational resources and recreation opportunities to promote the health of patients and the good life[9]. Carter, Van Aandel and Robb (1995) considered that Therapeutic Recreation is applied recreation activities to the patients; improve the patient's poor physical condition, negative emotions and social deviance[10]. ATRA(American Therapeutic Recreation Association), believes Therapeutic Recreation is to provide a prescription and recreational services to the disease or incapacitated person, prescription services are often referred to as recreation therapy, the main purpose is to recover, restore and enhance correction or function, and reduce, eliminate illness or incapacity arising from various influences[11]. Austin and Crawford (2001) according to various scholars on the definition of Therapeutic Recreation, Summed up the two things in common: (1) Therapeutic Recreation is a purposeful intervention; (2) to promote the physical and mental health is Therapeutic Recreation interventions aimed at[12]. NTRS think patients after receiving surgery, according to the degree of rehabilitation patients to provide appropriate recreational activities, to help patients with psychological, physical rehabilitation, meaning help treatment through recreation activities (Therapy through Recreation), the main purpose of this stage Therapeutic Recreation in the medical and rehabilitation assistance.

Sub health
Due to the complexity of the sub-health causes, manifestations in various forms, has been abroad for the definition of sub-health has not yet formed a unified understanding. For the definition of sub-health theory is more of a vague definition, known as the "transition state" health and disease states[13]. For sub-health related research suggests that the incidence of sub-health reasons mainly by the physical and mental pressure, irrational diet, environmental pollution, time is not the law and interpersonal tensions caused. Currently, researchers assess the sub-health state and have a lot more mature approach: (1) Symptoms standard diagnostic method, the method focuses on the most common sub-health state to develop diagnostic criteria for chronic fatigue syndrome[14]; (2) Scale evaluation method, which is primarily determined by the health survey questionnaires, the kinds of evaluation methods are more famous Cornell Medical Index, Delphi method and the SCL-90[15]; (3) The instrument detects assessment method, which detects mainly to treat the blood were observed and evaluated by optical and multimedia devices, the method includes the more well-known method of diagnostic testing ultramicroscopic sub-health evaluation method (MDI ) and media fiber diagnostic assessment method (THMMDI)[16]. On three sub-health evaluation methods are widely used at present in terms of the standard diagnostic method is too subjective symptoms, the problem scale evaluation often involves many and complicated, is not conducive to the operation, and equipment testing assessment method (commonly known as "a blood test." ) is simple, relatively objective results, is currently the most widely used methods. Based on the above considerations, this study intends to use instruments to measure evaluation method.

II.Method
The object of study
In this study, college students as the research object, a total of 17 volunteers, 9 males, 8 females. 17 volunteers in this study recruited two common characteristics: (1) less daily outdoor recreation activities, most of the time on Internet; (2) to stay up late at night, sleeps during the day.

The experimental process
Recreation therapy has its gradual course of treatment, O'Moorow and Reynolds (1989) proposed for recreation therapy process is divided into four phases with a total treatment program, four stages, respectively Assessment, Planning, Implementation and Evaluation. This study will examine the process into four stages according to O'Moorow and Reynolds recreation therapy program.

Assessment: The main work of this phase is to number of volunteers, assess the health situation of the 17 volunteers as the control group.

Planning: The main work of this stage is to design specific prescription of recreation therapy, including the identification of the entire course of
treatment Recreation, guarantee a certain amount of activity under the premise of volunteers for outdoor recreation activities in accordance with the wishes and preferences of individual specific ways and time periods.

**Implementation:** The stage of the work is the guarantee of volunteer activities in accordance with the prescribed recreational therapy, specific methods include two ways to immediately spot and volunteers to fill out the activity log.

Evaluation: After the end of recreation therapy treatment, assess the health situation of the 17 volunteers as the experimental group, to carry out the evaluation of the therapeutic effect of this recreation by comparing the experimental group and the control group.

**Statistical results of the activity log**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Volunteer</th>
<th>Gender</th>
<th>Age</th>
<th>Length/hour</th>
<th>Activity</th>
<th>Frequency</th>
</tr>
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<tbody>
<tr>
<td>Group.1</td>
<td>V1</td>
<td>Male</td>
<td>20</td>
<td>35</td>
<td>Cycle</td>
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<tr>
<td></td>
<td>V2</td>
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<td>22</td>
<td>40</td>
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<tr>
<td></td>
<td>V3</td>
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<td>20</td>
<td>43</td>
<td></td>
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<tr>
<td></td>
<td>V4</td>
<td>Female</td>
<td>21</td>
<td>40</td>
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<td>12</td>
</tr>
<tr>
<td></td>
<td>V5</td>
<td>Female</td>
<td>21</td>
<td>42</td>
<td>Climb</td>
<td>12</td>
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<tr>
<td></td>
<td>V6</td>
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<td>20</td>
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<tr>
<td>Group.2</td>
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<tr>
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</table>

**III. Result**

**Gender Differences**

To study the effects of sex involved in the therapeutic effect of recreation, participants were divided by gender. By comparing people to participate in pre-treatment and post-treatment evaluation of the health outcomes, male's sub-health change was 44.44%, with 4 male participants back to health; female's sub-health change was 55.56%, with 5 female participants back to health. Female participants in each treatment health indicators are better than male.

**Time Length Differences**

To study the effects of active time difference on the experimental results, participants were divided by participate in 40 hours. The results contrast display participation in the total time greater than or equal to 40 hours of participation in the rehabilitation of people was 55.56%, 5 volunteers achieved a healthy state.
who’s participation longer than 40 hours, participation in the total time less than 40 hours of participation in the rehabilitation of people was 50%, 4 volunteers achieved a healthy state who’s participation less than 40 hours.

Activities Differences
To study the effects of activities difference on the experimental results, participants were divided by activities. The results contrast display there are 3 volunteers involved in cycling restored to a healthy level, there are 3 volunteers involved in climbing restored to a healthy level, there are 2 volunteers involved in hiking restored to a healthy level, there are 1 volunteers involved in fishing restored to a healthy level. The results showed that the differences involved in the project have different effects on the treatment effect.

Recreation therapy significantly improved the health situation of volunteers
Assessment of health status before and after treatment showed that nine participants from the sub-health state is restored to a healthy state, the treatment success rate was 52.94%. There are 1 people involved in the disease state is improved, and the remaining 7 participants while still in sub healthy state, but the whole body have been obviously improved. Before treatment all participants average health level is 75.65, the average level of health after treatment was 82.94, the per capita health increased by 7.29.

IV. Discussion
According to the findings, the study reached the following conclusions aspects: Outdoor recreation activities for the improvement of human sub-health state has a significant effect, participation in outdoor recreation after five months of treatment have been more health conditions improved significantly, although fully restored to a healthy level of participants to only 53% of the entire study, but I believe a more prolonged therapeutic recreation for all participants will be restored to a healthy state. Effects of recreation therapy more pronounced in female, although female’s recreation time and intensity are less than male, female are able to achieve better therapeutic effect than male. The total length of time volunteers to participate in outdoor recreation have significant influence on the therapeutic effect of recreation activities, the more involved in the therapeutic effect of time participants more obvious, the results indicate that increased outdoor recreation activities within a certain range of time is beneficial to health. Although each recreation activities can improve the sub-health state, but different recreational activities on specific effects still exist differences.

V. Limitations
Due to funding limitations and other aspects of personal experience, this study also exist some shortcomings, for example, a relatively small number of samples, the treatment process is difficult to completely rule out confounding factors. In future studies will increase the number of samples, more rigorous experimental design process.

References
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