

1st

Challenges and Tasks in the Era of Super-aging

Forest Therapy and Well-Aging

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1

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Subject Session

Forest Healing Session

2nd Session

- Chairperson : Park, Bum Jin (Chungnam University)
- Discussant : Oh, Choong Hyeon (Dongguk University)

1. Uehara, Iwao (Tokyo University of Agriculture, Japan) 197
**Utilizing local forests for local elderly people: Case studies
and their future possibilities**
2. Guo, Rongrong (Peking University, China) 205
**How to tap the economic growth potential and enhance
financial resilience of aging societies?**

Utilizing local forests for local elderly people: Case studies and their future possibilities

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Currently, aging in local communities is a major social issue in Japan. At the same time, the increase in abandoned forests in various regions is also a major issue. However, if the health and recreation functions of forests can be effectively utilized, local forests have great potential for promoting the health of local elderly people, preventing diseases, and improving their health. This paper introduces a case study of health and recreation in local forests in local communities in Japan. Regular walks using local forests in depopulated areas was effective in preventing social withdrawal and bedridden among elderly people living alone, and in alleviating high blood pressure and dementia. This case is entirely feasible in Korea, where there are similarities in forest vegetation and local communities, and do not require a particularly large budget. In the future, in Korea, Japan, and other countries, the use of local forests has great potential for improving the health and rest of local elderly people.

I. Introduction

Currently, aging in local communities is a major social issue in Japan. At the same time, the increase in abandoned forests in various regions is also a major issue. However, if the health and recreation functions of forests can be effectively utilized, local forests have great potential for promoting the health of local elderly people, preventing diseases, and improving their health. This paper introduces a case study of health and recreation in local forests in local communities in Japan.

II. Site and method

Hidaka City, the case study site, is located in the southwest of Saitama Prefecture, about 50 km from the Tokyo metropolitan area. The eastern part of the city is the gently sloping Iruma Plateau, and traces of the former Musashino still remain in various places. The west side of the city is the Chichibu Mountains and the Koma Hills, a hilly and

mountainous area with an altitude of about 200 to 300 meters. As of 2012, the city has a population of about 58,000 (Figure 1).

Figure 1. View of the residential area of Hidaka City from Musashidai Community Center



The name "Koma" remains in the area's history, such as the Koma River, Koma Station, and Koma Shrine, indicating that there was cultural exchange with Goguryeo, Korea on the continent in the 8th century. In 2008, a public lecture on health promotion through regular forest walks was started at Musashidai Community Center in Hidaka City as a health maintenance promotion project in the city, and regular walks using the city's forests were held.

As its name suggests, Musashidai is a hilly area of Musashino, and the area is home to mountains such as Hiwadayama and hiking trails. In addition, Musashidai is also an area where residential areas have been developed by cutting into hills, and the environmental condition of "forests within walking distance of residential areas" was used to promote the health of people living in residential areas. Musashidai Community Center made an open call for local residents, and the first year's maximum of 20 participants was soon filled. 90% of the participants were women, and the ages of the participants ranged from 57 to 84, with most in their late 60s. Regular walks were held once or twice a month for two hours from 1:00 to 3:00 pm.

The forest walks began in the residential areas of Hidaka City and entered the local cedar and cypress forests, from which a course was taken to walk up the ridge. The first purpose of the forest walks was to prevent high blood pressure and obesity by walking through the forest, and the second purpose was to prevent elderly people living alone in residential areas from becoming withdrawn or bedridden. Before and after the walks, participants' body fat percentages and blood pressures were measured, and the results were recorded in a health record prepared by the city (Figure 2, 3,4). During the walk, we viewed the

residential areas where people live every day, and learned about medicinal plants, the history of the local forests, and the potential vegetation of the land (Figure 5, 6).

Figure 2. Checking blood pressure before and after a walk



Figure 3. Hidaka City's original health notebook



Figure 4. A public health nurse checks the blood pressure every time we go for a walk in the forest



Figure 5. Looking out from the hills at the town I live in and the surrounding mountains of the Hanno area



Figure 6. Walking and resting in the local cypress forest



III. Results and discussion

Participants in the forest walks commented, "I learned that forests close to home can also promote health," "I realized that forest walks are more pleasant than I thought before," and "I thought I would never be able to walk in the forest again, but I can participate every time and I feel like my physical condition has improved." Specific effects included a reduction in systolic blood pressure from 160-180 to 120-130 after starting forest walks, and weight loss from obesity.

In addition, opinions that can be used in the future included, "It's good for people who are conscious about health to participate in forest walks, but there are also people who need more forest therapy, such as those who stay at home and spend their time in poor health. How can we get such people to participate?" "Shouldn't we work on this not only at Musashidai Community Center, but also at community centers in a wide area?" "Why not promote it as an effort to improve the health of the entire community?"

Opinions and hopes such as these were also received.

Aging is a phenomenon that is spreading and progressing not only in local and mountain villages, but also throughout the country, including urban areas. Furthermore, this aging phenomenon is a social phenomenon that is seen not only in Japan but also overseas, mainly in developed countries.

In the near future, when one-quarter to one-third of the population will be "elderly" aged 65 or older, there will basically be concerns about daily life, including economic issues, health, and insurance issues. Among these concerns about daily life, health is the strongest, and interest in it tends to increase with age. One option and place for health

promotion is to utilize forest environments in various regions.

The example of Hidaka City in this section is an example of how a forest environment, centered around ordinary artificial cedar and cypress forests near a residential area, was utilized as a place for regular walks, rest, and other health promotion activities. It can be said to be a model for forest use in the aging society of the future.

Based on the results of this study, the following can be considered for programs for the elderly (including dementia symptoms).

The primary objective is to cooperate with medical institutions and welfare facilities and improve ADL in facility/hospital life and daily life.

For rehabilitation, a walking course will be set based on the calorie consumption calculated for each weight according to distance, and vegetation and space will be taken into consideration.

Another objective is to cultivate sociality by having elderly people who tend to stay indoors and stay outside and go to forests.

The course of the program will be set mainly in the local forest environment that the elderly are familiar with, and the program content will be centered on the "reminiscence therapy" method, in which the elderly recall the past while walking and continue the conversation, the expression of the elderly's own experiences by picking wild vegetables and identifying mushrooms, cognitive rehabilitation, walking rehabilitation by setting walking distance goals as mentioned above, and prevention of lifestyle-related diseases.

Expected effects include rehabilitation training to prevent falls, awakening of the senses through the scenic beauty of the forest throughout the seasons, and rehabilitation of cognitive and judgment abilities.

IV. A new community that utilizes local forests as a place for local residents to engage in activities and relax

Finally, I would like to consider whether special forests are necessary for the practice of welfare use that utilizes local forests.

The importance of the relationship between humans and nature goes without saying, but for many disabled people, experiences in the outdoors and in nature during their growth process are often lacking due to the specific nature of their disabilities (Prime Minister's Office, 1998). For the development of the mind and body during the human growth stage, outdoor activities in a natural environment are considered to be of great

significance, especially for intellectually disabled people with cognitive disabilities, and at the same time, forest experiences are also important as one of the therapeutic methods for expressing the interests and individuality of disabled people.

In addition, as an environment for the therapeutic education of disabled people, natural environments provide random stimulation to the five senses of the body in terms of temperature, light, wind, sound, etc., have a larger free space than a specific indoor environment, and have diversity such as changes depending on the time and season, which are expected to stimulate curiosity and interest (Hollis, 1982). It has also been reported that outdoor activities improve communication skills (Uehara, 1999), stabilize emotions, and reduce behavioral disorders such as panic (Hammock et al., 1995; McGimsey et al., 1998).

The activities in this study did not use special forests, but instead utilized forests and satoyama that were close to the area, including abandoned forests. This shows that any forest can become an environment for medical care, rehabilitation, and relaxation with creativity and ingenuity. In other words, abandoned forests, satoyama, and fallow fields are currently scattered throughout Japan's rural areas, but it is hoped that these neglected natural environments have the potential to be regenerated as part of health promotion and welfare activities for local residents.

In particular, from the perspective of the welfare field, it is expected that measures such as "normalization" and "barrier-free" will continue to be expanded in the future, and that they will evolve from "containment to welfare for coexistence." In this respect, the re-establishment of local communities, centered around activities in local forests, has the potential to become a new form or paradigm for local welfare in the future.

However, simply speaking, even when we say "forests," the environmental conditions are extremely diverse, with huge differences depending on the region, climate, culture, topography, and the state of care and management. Furthermore, the people who visit and utilize forests are also not uniform, with diverse backgrounds, including their upbringing, living environment, preferences, personality, and sensibilities. Furthermore, the forest environment itself is not only an element of health and relaxation, health promotion, and "healing," but also one that constantly contains great danger, fear, and anxiety, and is a place that relieves stress as well as brings about stress. Therefore, the welfare use of local forests is entangled with various uncertainties and contradictions, and implementation is constantly accompanied by difficulties.

I would like to emphasize that the current challenge is to solidify the foundation for welfare use by taking into account the environmental conditions of such local forests,

while accumulating long-term practice and clinical research data on specific cases and disorders. In other words, it is necessary to examine and accumulate information on what types of activities were carried out for what types of subjects under the forest conditions, taking into account the altitude, tree species, age, topography, slope, and vegetation of the forests in a given region, and what actions and benefits were obtained, or what drawbacks were encountered, and what characteristics were present, in order to clarify the characteristics of welfare use of forests and the effects of health and recreation. At the same time, when working on and improving forests, including abandoned forests, it is also necessary to examine and consider what changes occur in the minds and bodies of the subjects as the forest changes, in other words, the parallel nature of changes between forests and people.

It has been a long time since the "era of the local community" was mentioned, and it is hoped that a variety of examples of health promotion that utilizes the forests of each region will sprout up, led by the people of that region.

References

- Carter, M.J., 1995, Therapeutic recreation, Waveland Press
- hang, C., 1998, Effects of Landscape on Psychological and Physical Responses, *Journal of Therapeutic Horticulture*, Vol.9, 73-76.
- Grosse, Setsuko, 1993, Horticultural Therapy, Japan Community Research Institute
- Hammock, R.G., Schroeder, S.R. and Levine, W.R., 1995, The Effect of Clozapine on Self-Injurious Behavior, *Journal of Autism and Developmental Disorders*, Vol.25 No.6, 611-639.
- Hollis, F.F., 1982, Physical Education and Sports for Children with Mental and Physical Disabilities (Japanese translation), Gyosei. (6) Igarashi, Akira et al., 1984, Iwanami Educational Dictionary, Iwanami Shoten.
- Kaplan, H., Sadock, B., 1996, Pocket Handbook of Clinical Psychiatry, Williams & Wilkins.
- Kaplan, R., 1993, The role of nature in the context of the workplace, *Landscape and Urban Planning*, 26(1993), 193-201.
- McGimsey, J.F. and Favell, J.E., 1998, The Effects of Increased Physical Exercise on Disruptive Behavior in Retarded Persons, *Journal of Autism and Developmental Disorders*, Vol.18 No.2, 167-179.
- Mogi, Toshihiko, 1990, Disabled Children and Education, Iwanami Shoten.
- Nakagawa, Shigeto, 1998, Comprehensive forest use initiatives in welfare facilities 2, Abstracts of research presentations at the 9th Annual Meeting of the Japanese Society of Environmental Education, 81.
- Japan Autistic Association, 1993, Autism Handbook.
- Masami Sasaki, 1992, Total Care for Autism, Budosha.
- Akio Shimomura, 1998, Special feature on agriculture and recreation, *Leisure and Recreation Research*, 38, 25.
- Prime Minister's Office, 1996, 1998 White Paper on the Disabled, Printing Bureau of the Ministry of Finance.
- Kunio Taki, 1997, Survey results on current status of gardening work in facilities for the mentally retarded. Part 2,

- Green Age, 288, 27-33.
- Uehara, Iwao, 1996, An Attempt at Forest Work as a Therapeutic Activity, *Leisure and Recreation Research*, 38, 47-54.
- Uehara, Iwao, 1998, Outdoor Experience Therapy for Autistic People Using the TEACCH Program, Abstracts of Research Presentations at the 9th Conference of the Japanese Society of Environmental Education, 39.
- Uehara, Iwao, 1998, An Attempt at Outdoor Therapeutic Activities at a Newly Established Rehabilitation Facility for the Mentally Retarded, Abstracts of Research and Reports Presentations at the 1998 Kanto Branch Conference of the Japanese Institute of Landscape Architecture, 1-2.
- Uehara, I., Sasaki, Y., Yamada, C., 1999, Effects of forest recreations in the treatment of mental disabilities, *Chubu Forest Research*, 47, 167-170.
- Uehara, I., 1999, Therapeutic activities for the mentally disabled utilizing the local natural environment, Abstracts of the 10th Annual Meeting of the Japanese Society of Environmental Education, 182.
- Van Bourgondien, M.E. and Reichle, N.C., 1993, An example of the TEACCH approach to residential and vocational training for adults with autism, Division TEACCH of Univ. of North Carolina at Chapel Hill.
- Yamazaki, K. et al., 1988, A detailed explanation of autism, Yasuda Life Social Work Foundation.
- Otsuka, K., 1999, Hippocratic medicine and stress. (Trajectory and Prospects of Stress Research and Clinical Practice. Edited by Tomonobu Kono and Chiharu Kubo. Shibundo) 214-224.
- Hiroshi Yamane, 2010, *Mental Disorders and Occupational Therapy* (3rd ed.). Miwa Shoten.
- Iwao Uehara, 2001, Consideration of the Effectiveness of Outdoor Activities in the Rehabilitation of Intellectually Disabled People. Report of the Shinshu University Faculty of Agriculture Forestry 37: 31-162.
- Iwao Uehara, 2006, Attempts at Regenerating Satoyama in Residential Areas and Using It for Welfare. Proceedings of the 117th Annual Meeting of the Japanese Forest Society (CD-R).
- Iwao Uehara, 2003, Introduction to Forest Therapy, National Forestry Improvement and Extension Association.
- Iwao Uehara et al., 2005, Attempts at Treating Trauma-Related Disorders Using the Familiar Forest Environment: Forest Therapy Project at Hamakita City Tenryu Hospital. 116th Annual Meeting of the Japanese Forest Society.
- Maeda, Tetsu, 2010, Expected Effects of Forest Therapy on Geriatric and Dementia Care. 121st Annual Meeting of the Japanese Forest Society (CD-R).
- Uehara, Iwao, 2009, The Frontline of Forest Therapy. National Forestry Improvement and Extension Association.