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Psychological Benefits of Self-Guided Forest Healing Program Using Campus Forests

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Abstract: Forest healing, also known as forest therapy, has been documented as preventive therapy to enhance health. Primarily, many studies have indicated the benefits of a guided forest-healing program operated under the guidance of a forest therapist. However, little is known about the benefits of a self-guided forest healing program carried out alone, without a guide. Therefore, the purpose of the current study was to investigate the psychological benefits of a self-guided forest healing program. We designed a randomized 3 × 3 crossover study. Twenty-three university students were randomly exposed to three different conditions: a self-guided forest healing program, a guided forest-healing program, and routine activities. Measures included the Profile of Mood State (POMS) and the State-Trait Anxiety Inventory-X1 (STAI-X1). As a result, self-guided and guided forest-healing programs significantly improved subjects' mood states and anxiety symptoms compared to routine activities. Participating in a forest healing program with guides and participating in a self-guided forest healing program both provided psychological benefits for subjects, showing that self-guided programs can be effectively combined with forest healing. These findings suggest new ways to utilize forest healing to improve mental health. Therefore, the self-guided forest healing program proposes a complementary use of the guided forest-healing program in a modern urbanized society.

Keywords: self-guided forest healing program; guided forest healing program; campus forest

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1. Introduction

Rapid population growth in urban agglomeration is a critical global health issue of the 21st century [1]. As stated by the World Health Organization (WHO) [2], more than half of the world's population has been dwelling in urban environments since 2014, and it is estimated that two in three people will dwell in urbanized areas by 2050 [3]. Urbanization offers us many opportunities such as rapid economic growth, but mental health problems have arisen due to excessive exposure to stress [4,5]. In this situation, modern people who are stressed by urban life have been seeking ways to relieve stress, and spending time in forest environments is an effective strategy [6,7]. Specifically, interest in forest therapy is increasing as an intervention for health management.

Forest healing, also known as forest therapy, is an activity that increases the body's immunity and improves health by utilizing various natural factors such as scenery and scent [8]. Forest healing recognizes the forest environment, centering on the five senses and is generally applied as a systematic program for activities such as walking, meditation and stretching. The guided forest-healing program, a systematic form of forest therapy, has been reported in many studies on its physiological and psychological benefits. Previous studies have reported that forest healing programs reduce cortisol [9] and blood pressure [10] and increase NK cell activity [11], as well as improving anxiety and depression [12–14].

Although many studies have proposed that guided forest-healing programs offer positive benefits to humans, there have been several limitations. First, forest healing

programs require trained therapists to guide programs. Furthermore, previous studies have shown that the characteristics or skills of therapists, the words and behaviors they use, significantly impact on the program's outcome [15,16]. Second, most forest healing programs are mainly operated by groups. Therefore, to participate in the forest healing program, reservations and attendance at the program are required at a designated time and place. Third, facilities that provide forest healing programs are usually located in forests far away from the city where most potential participants reside. These limitations can be difficult for busy urban residents to use forest healing programs to improve their health.

The concept of self-guided programs can be introduced as an alternative to compensate for the limitations of guided forest–healing programs provided by forest healing instructors. Self-guided programs are self-executing methods without expert help and are used as effective and cost-effective interventions. Self-guided programs use panels and displays, audio, print media (e.g., workbooks), or interactive software (e.g., mobile phones, the Internet, and online mobile equipment) instead of the therapist providing programs [17]. Therefore, self-guided programs can be delivered to many participants and are available anytime.

Some studies have documented the benefits of self-guided programs on depression management [18,19], gambling addiction treatment [20,21], rehabilitation [22], diet [23], and stress management [24]. Some studies on the treatment of mental illnesses have proposed a self-guided Internet-based cognitive behavioral therapy program as a promising complementary alternative [25,26]. For example, Morhan et al. [19] reported that self-guided Internet-based cognitive behavioral therapy programs significantly reduced participants' depression, anxiety, and psychological stress, and improved well-being. Cuijpers et al. [27] also showed the positive benefits of self-guided treatment programs on depression management.

In the forest environment, self-guided programs were introduced and utilized through self-guided environmental education. Self-guided environmental education is a method of education that allows visitors to understand and learn about the nature they encounter while moving on their own without the help of a professional commentator. Self-guided environmental education can operate at a low cost because it can be used anytime without time constraints, can deliver information to many visitors at once, and does not require human resources [28]. Previous studies have reported the effect of self-guided environmental education using guideboards [29–31]. For instance, Cole et al. [29] pointed out that guideboards installed on the trail significantly affected visitors' understanding of the natural environment. Higgins et al. [31] confirmed that a well-made guideboard induces the understanding and interest of park visitors and promotes park visits. Korcz et al. [32] also investigated the psychological restoration of self-guided environmental education on working adults. The study showed that both subjects who walk with a forest educator and subjects who walk with self-guided environmental education had psychological recovery.

As a study on forest therapy using the self-guided concept, Ibes et al. [33] created a self-guided forest trail to relieve stress in the campus forest and investigated its psychological benefits. Students using self-guided forest trails were asked to freely write a comment card, and then the contents were qualitatively analyzed. As a result of the study, 558 voluntary subjects responded well to the creation of self-guided forest trails, 96% of subjects reported positive psychological benefits, and 86% of subjects described it as affecting stress relief. Kim and Shin [34] investigated the healing factors and health benefits of self-guided forest healing programs and guided forest-healing programs and qualitatively analyzed the differences in characteristics between interventions. As a result, the self-guided forest healing program provided an opportunity for self-reflection to focus and think on one's inner self. The guided forest-healing program also offered positive emotional changes and promoted social bonds through interaction with others.

However, research on the benefits of self-guided forest healing programs has been insufficient. In addition, few studies have compared the effectiveness of guided forest-

healing programs to self-guided forest healing programs. Therefore, this study attempted to examine the psychological benefits of the self-guided forest healing program.

2. Materials and Methods

2.1. Subjects

The sample size was determined using software G*Power 3.1 (University of Düsseldorf, Düsseldorf, Germany). The effect size was set to 0.3, with a significance level of 0.05, and the power value was 0.8. The estimated sample size was calculated to be 20. Based on these values, the total sample size was adjusted to 23.

According to the sample size calculation, 23 university students (average age, 20.26 ± 2.28 years) were recruited for this study. After the announcement of university recruitment, subjects who met the conditions for participation in the experiment were selected. The criteria for exclusion of subjects were as follows: (1) those with a history of outdoor allergens; (2) those diagnosed with severe stress or depression; (3) those who abuse drugs or alcohol. Prior to the start of the experiment, we described the purpose and procedure of the study through orientation and obtained their informed consent. All subjects offered informed consent and were given coffee coupons worth USD 39.

2.2. Research Site

The research was performed at the Chungbuk National University's campus forest in Seowon-Gu, Cheongju City, South Korea. The area of the research site is about 315,000 m^2. The campus forest was built in November 2021 as a deck road with a universal design of about 1.4 km, so that both vulnerable people and residents can use it comfortably. The vegetation is mixed stand forest, including *Pinus rigida*, *Pinus densiflora*, *Quercus dentata*, *Castanea crenata*, *Metasequoia glyptostroboides*, and *Robinia pseudoacacia*. The diameter at breast height (DBH) is about 30 cm, and the tree height is 15 m or more. During the experiment, the weather was 16–20 °C, which was pleasant without rain.

2.3. Research Design

We applied a randomized 3×3 crossover design to assess the effect of the self-guided forest healing program, guided forest-healing program, and routine activities (Figure 1). To eliminate the order effect, 23 subjects were randomly split up into three groups (7 or 8 subjects per group). Each subject received all interventions during three weeks by performing a specific intervention only once in a week, and had a week of washout period between interventions. Namely, one group performed a self-guided forest healing program, and another group performed a guided forest-healing program. Meanwhile, the other group carried out their daily lives. After one week and two weeks, the three groups changed the activities to be carried out. After the intervention, psychological tests were performed. All subjects were asked not to engage in any forest activities other than the experimental intervention during the experimental period.

2.4. Forest Healing Program

The experiment was conducted from 30 September 2022 to 15 October 2022. The experimental interventions were conducted in the same way once a week for 60 min. Five activities such as stretching, diaphragmatic respiration, walking, meditation, and exercise were performed with self-guided forest healing programs and guided forest-healing programs.

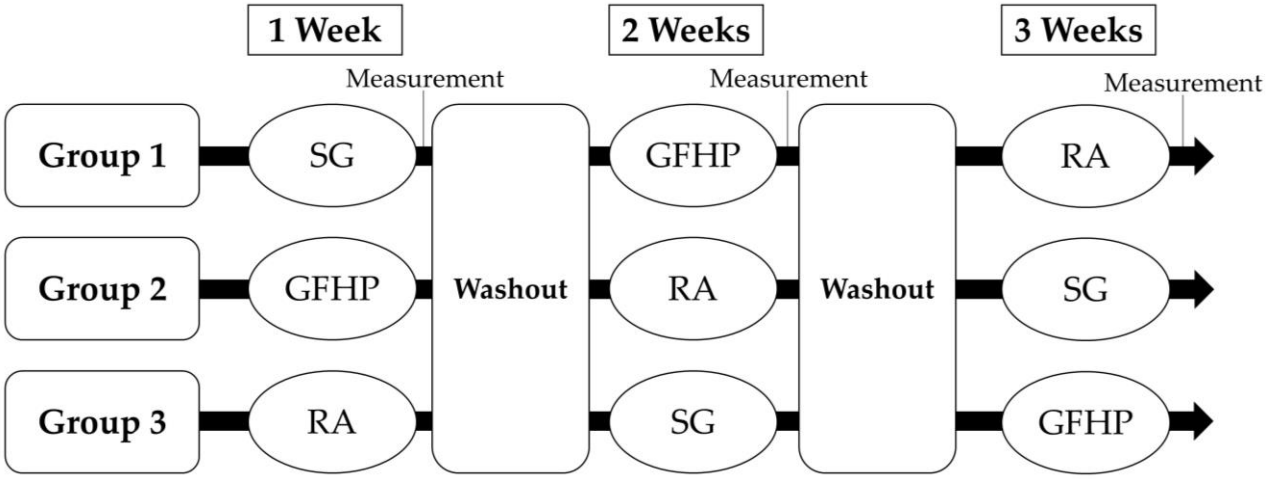

Figure 1. Design of the experiment. SG, self-guided forest healing program; GFHP, guided forest-healing program; RA, routine activities without any intervention.

For the subject to carry out a self-guided forest healing program, we installed a guideboard on forest therapy activities within the campus forest of Chungbuk National University for each section. The installed guideboard of forest therapy activities presented the implementation guidelines for stretching, diaphragmatic respiration, walking, and exercise (Figure 2). Details are shown in Appendix A. The self-guided forest healing program encouraged the subject to voluntarily engage in forest therapy activities by watching and following the signs of forest therapy activities installed while walking on the 1.4 km trail (Figure 3). The subjects spent 60 min freely moving through the designated route in the campus forest, looking at the installed guideboards, and following the activities. The supervisor at the field only guided the route of the self-guided forest healing program. The guided forest-healing program was conducted under the guidance of a forest healing instructor. To avoid the difference in ability between guides, all guided forest-healing programs were led by the same forest healing instructor (Figure 4). The self-guided and guided forest-healing programs were carried out with the same route and activities (Figure 5). The only difference between the two types of forest healing programs was the method of delivering forest therapy activities. Routine activities without any intervention did not receive any forest healing program, and only psychological evaluations of daily activities were conducted. The psychological evaluation of the subjects was conducted after each intervention by the supervisor in the field. All subjects conducted a total of three psychological evaluations.

(**a**) (**b**)

Figure 2. Example of a self-guided forest healing program guideboard. (**a**) stretching; (**b**) walking.

Figure 3. The self-guided forest healing program. (**a**) stretching; (**b**) diaphragmatic respiration; (**c**) walking; (**d**) meditation.

Figure 4. The guided forest-healing program. (**a**) stretching; (**b**) diaphragmatic respiration; (**c**) meditation; (**d**) exercise.

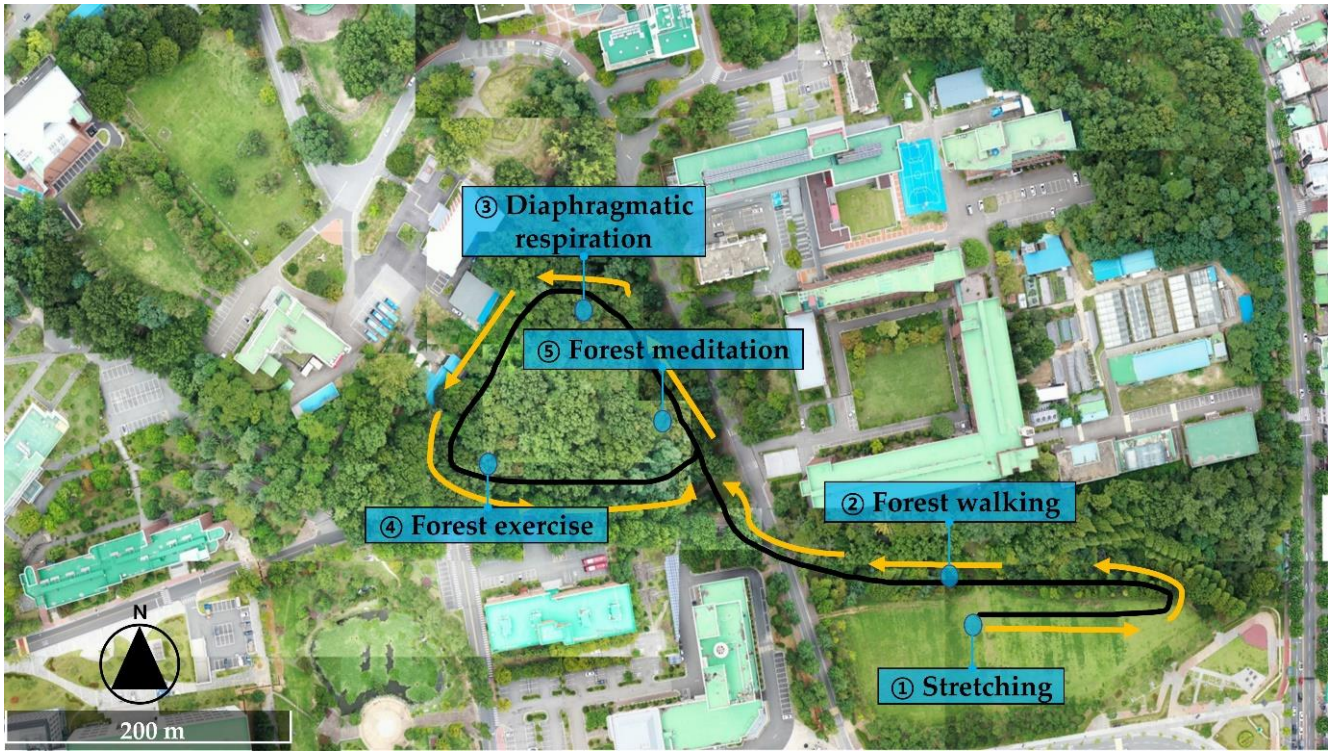

Figure 5. Activity routes of the self-guided and guided forest-healing programs.

2.5. Measurements

Profile of Mood State (POMS) and the State-Trait Anxiety Inventory-X1 (STAI-X1) were used for psychological evaluation. The POMS was developed by McNair [35] to evaluate subjects' emotional states. It simultaneously evaluates six mood states: "tension-anxiety (T-A)", "depression-dejection (D)", "anger-hostility (A-H)", "fatigue (F)", "confusion (C)", and "Vigor (V)." A high score means a high level of that emotion represented in the dimension. The total mood disturbance (TMD) score was calculated by combining (T-A) + (D) + (A-H) + (F) + (C) − (V). A high TMD score means a poor emotional state. In this study, we employed the short form of the Korean version of the POMS, which has high reliability [36]. This scale self-reported that the 30 items are scored on a five-point Likert scale (0 = strongly agree to 4 = strongly disagree). The K-POMS of this study was shown to have high reliability (Cronbach's α = 0.820)

The STAI-X1 was developed by Spielberger [37] to assess the subject's state anxiety level. The STAI-X1 is a self-reported measurement that evaluates the current state of anxiety that assesses how respondents feel "right now". This is unlike trait anxiety, which measures the presence and severity of current anxiety symptoms and a generalized propensity to be anxious [38]. This scale has 20 items, and each item has a four-point Likert scale (1 = strongly disagree, to 4 = strongly agree). Higher scores mean higher levels of anxiety. We employed the Korean version of the STAI-X1, which has high reliability [39]. The K-STAI-X1 of this study was shown to have relatively high reliability (Cronbach's α = 0.730).

2.6. Data Analysis

Statistical analysis was conducted using SPSS 18.0 Windows (SPSS, Chicago, IL, USA). Descriptive statistics comprised means, standard error, and percentage to present outcome variables.

One-way repeated measures analysis of variance (One-way RM ANOVA) was used to compare the psychological benefits of the self-guided forest healing program, guided forest-healing program, and routine activities. When significant differences appeared in

one-way RM ANOVA, the Bonferroni test was conducted as a post-hoc test to compare activities. Kolmogorov–Smirnov was used to confirm the normality distribution and the Greenhouse–Geisser was used for the sphericity assumption. A p-value less than 0.05 is considered statistically significant.

3. Results

3.1. Demographic Information

The demographic information of the 23 subjects is presented in Table 1. The average age was 20.26 ± 2.28 years; the gender was eight male (34.8%) and 15 female (65.2%). The level of university life satisfaction was 3.96 ± 0.64 points, and the subjective health status was 3.39 ± 0.72 points. In addition, the frequency of forest visits was the highest, with every six people (26.1%) once or twice a year and once a season, followed by five people (21.7%) once a month, four people (17.4%) weekly, and two people (8.7%) more than twice a month. All 23 subjects said they would not smoke, and 14 people (60.9%) said they would not drink alcohol.

Table 1. Demographics' information.

Demographics	N (%) or Mean
Age	20.26 ± 2.28
Gender	
Male	8 (34.8%)
Female	15 (65.2%)
University life satisfaction	3.96 ± 0.64
Smoking: No	23 (100%)
Alcohol: No	14 (60.9%)
Frequency of visit to forest	
Weekly	4 (17.4%)
Twice a month	2 (8.7%)
Once a month	5 (21.7%)
Once a season	6 (26.1%)
Once or twice a year	6 (26.1%)

3.2. Profile of Mood State (POMS)

A one-way RM ANOVA was used to compare the change in POMS scores between the three conditions. These results are shown in Table 2. which indicate that there was a significant difference in Total Disturbance ($F = 32.251$, $p < 0.001$) and all six subscales of the POMS: "tension-anxiety ($F = 16.057$, $p < 0.001$)", "anger-hostility ($F = 17.753$, $p < 0.001$)", "depression-dejection ($F = 18.580$, $p < 0.001$)", "fatigue-inertia ($F = 20.465$, $p < 0.001$)", "confusion-bewilderment ($F = 13.679$, $p < 0.001$)", and "vigor ($F = 13.642$, $p < 0.001$)".

Table 2. The results of the one-way repeated measures of ANOVA of Profile of Mood State (POMS) scores.

Variable	Routine [a]	GFHP [b]	SG [c]	F	p	Post–hoc
	M (SE)	M (SE)	M (SE)			
TMD	18.61 (3.28)	−0.22 (2.78)	0.61 (2.62)	32.251	<0.001	a > b, c
T–A	5.09 (0.83)	1.91 (0.56)	1.65 (0.57)	16.057	<0.001	a > b, c
A–H	3.57 (0.55)	1.09 (0.41)	1.30 (0.44)	17.753	<0.001	a > b, c
D	3.96 (0.69)	1.61 (0.57)	1.26 (0.55)	18.580	<0.001	a > b, c
F	8.35 (0.90)	3.22 (0.66)	3.70 (0.63)	20.465	<0.001	a > b, c
C	6.83 (0.54)	4.48 (0.49)	4.65 (0.52)	13.679	<0.001	a > b, c
V	9.17 (0.88)	12.52 (0.84)	11.96 (0.71)	13.642	<0.001	b, c > a

Notes: TMD, total mood disturbance; T–A, tension-anxiety; A–H, anger-hostility; D, depression; F, fatigue; C, confusion; V, vigor. Guided forest-healing program (GFHP) and self-guided forest healing program (SG). Data are presented as mean ± standard error (n = 23).

Furthermore, from the results of analysis using ANOVA to find out the difference in POMS scores changes between the three conditions (Table 2), the guided forest-healing program and the self-guided forest healing program had a significantly lower TMD and five subscales of the POMS: "tension-anxiety", "anger-hostility", "depression-dejection", "fatigue-inertia", and "confusion-bewilderment" than the routine activity. On the other hand, the guided and self-guided forest healing programs had a significantly higher vigor of the POMS than the routine activities.

3.3. State-Trait Anxiety Inventory-X1 (STAI-X1)

A one-way RM ANOVA was used to compare the change in STAI-X1 scores between the three conditions. These results are shown in Table 3 which indicate that there was a significant difference in the STAI-X1 score ($F = 20.353$, $p < 0.001$).

Table 3. The results of the one-way repeated measures of ANOVA of State-Trait Anxiety Inventory-X1 (STAI-X1) scores.

Variable	Routine [a]	GFHP [b]	SG [c]	F	*p*	Post–hoc
	M (SE)	M (SE)	M (SE)			
STAI-X-1	38.00 (2.13)	30.09 (1.87)	31.52 (2.03)	20.353	<0.001	a > b, c

Notes: Guided forest-healing program (GFHP) and self-guided forest healing program (SG). Data are presented as mean ± standard error (n = 23).

Furthermore, from the analysis using ANOVA to find out the difference in STAI-X1 score changes between the three conditions (Table 3), the guided forest-healing program and the self-guided forest healing program had a significantly lower STAI-X1 than the routine activities.

4. Discussion

4.1. Psychological Benefits of the Self-Guided Forest Healing Program

The aim of the current study was to examine the psychological benefits of the self-guided forest healing program. These results showed that the self-guided forest healing program offers a significantly positive change in mood states and anxiety in the same way as the guided forest-healing program. So far, many empirical studies have demonstrated that guided forest-healing programs offer subjects a wide range of psychological and health benefits [40–42]. However, few studies have been documented on the psychological benefits of self-guided forest healing programs. Therefore, this study suggests a new alternative to facilitate forest-healing delivery systems.

This study revealed that the self-guided and guided forest-healing program provided significant positive changes in a subject's total mood and other mood states such as "anger-hostility", "tension-anxiety", "depression-dejection", "fatigue-inertia", "confusion-bewilderment", and "vigor". This result is in agreement with previous findings that guided forest-healing programs significantly improved subjects' moods [43,44]. Many studies have shown that forest walking effectively improves subjects' mood state [45–47]. Forest walking is one of the main activities of self-guided and guided forest-healing programs.

Positive changes in subjects' emotions offer significant benefits. Emotion significantly impacts human cognitive processes, including cognition, attention, learning, memory, reasoning, and problem-solving [48]. According to Fredrickson's [49] The Broaden-and-Build Theory of Positive Emotion, positive emotions broaden people's interest and thinking, relieve persistent negative emotions, increase psychological resilience, build personal resources, and trigger happiness. In addition, positive moods positively affect learning, job performance, behavior, socialization, and health [50].

This study also indicated that the self-guided and guided forest-healing programs significantly reduced the subjects' state anxiety. The result is consistent with previous studies using diverse populations such as college students [47], middle-aged women [51], those with mental illnesses [42], and chronic stroke patients [52]. For example, Chen et al. [51] investigated the psychological and physiological benefits of forest healing programs on

middle-aged women. The forest healing program significantly improved anxiety symptoms and mood states in middle-aged women. Bielinis et al. [42] conducted the psychological benefits of the forest healing program on mental hospital patients with 27 affective and 25 psychotic conditions. As a result, both patients with affective and psychotic conditions had decreased anxiety symptoms after the forest healing program. Therefore, the use of self-guided forest healing programs and guided forest-healing programs can contribute to better individual mood conditions and the improvement of anxiety.

This study found that the self-guided forest healing program is effective in relation to the psychological health of subjects. However, it does not discuss replacing the guided forest-healing program with a self-guided forest healing program. Instead, the self-guided forest healing program is being discussed as a way to complement the guided forest-healing program in an environment or situation where there is a limit to implementing a guided forest-healing program. The self-guided forest healing program refers to the delivery of a method centered on forest therapy activities, not the guidance method of a forest healing instructor. Therefore, panels, displays, and other forms of publication, audio, and mobile phones become necessary tools to convey guidelines and methods for forest therapy activities to participants, instead of forest healing instructors.

The self-guided forest healing program is effective for use in an urbanized society. City residents face negative conditions such as social isolation, population density, noise pollution, and air pollution [53,54]. Urban environments have been found to have adverse effects on mental health and increased mood and anxiety conditions in urban residents [55–57]. As a result of a meta-analysis of the prevalence of mental illnesses in individuals living in urban environments, the prevalence of mental illnesses generally increased by 35%, 21% for anxiety conditions, and 39% for mood conditions [58]. Based on the results of this study, the self-guided forest healing program can be an efficient system to revitalize the mental health of urban residents.

In addition, the self-guided forest healing program is suitable for use in the era after the COVID-19 pandemic. The COVID-19 pandemic, a novel disease leading to a severe acute respiratory syndrome caused by the coronavirus (SARS-CoV-2), has tremendously impacted on health, the economy, and society worldwide [59]. Since the start of the COVID-19 pandemic, the government has implemented police to ensure social distancing to slow the spread of highly contagious diseases. The spread of "social distancing" caused by COVID-19 has accelerated the shift to the "new normal" paradigm across society, including the economy, education, and medical care [60–62]. For example, the demand for non-face-to-face services such as online shopping, online food delivery, online classes, virtual meetings, and online medical counseling has increased as users have rapidly moved to online media due to COVID-19 [63,64]. In the case of South Korea, as COVID-19 has been upgraded to a "serious" level, corporate telecommuting has spread, and online classes have been conducted for 5.4 million elementary, middle, and high school students nationwide, causing a significant change in our society's lifestyle [65]. These changes have led to delays or cancellations in providing guided forest-healing programs operated mainly by groups due to concerns over infection. Since this situation is expected to continue in the post-COVID-19 era, it is necessary to prepare a response suitable for the "new normal" in the field of forest therapy. In addition, the COVID-19 pandemic has caused emotional and health problems, with neuropsychological consequences for both infected and non-infected patients [66,67]. Previous studies have identified psychiatric symptoms such as anxiety, stress conditions, and depression due to the viral pandemic [68].

Furthermore, it has been reported that many people are experiencing fear, anxiety, stress, and the psychological pressure of infection due to the long-term COVID-19 epidemic [69,70]. In this context, the self-guided forest healing program is not only a way to prepare for post-COVID-19, it can also help improve many people's stress and psychological anxiety.

4.2. Limitations and Future Research

The limitations of the current study and future research directions are as follows. Subjects in this study were only healthy college students. In order to generalize the research results, future studies involving demographic groups of various ages are needed, based on a large number of samples. Second, the subjects of this study were first or second-graders, and there was a limit to controlling the influence of the external environment due to the academic schedule. However, we at least set the experimental period not to overlap with academic exams. In future research, it will be necessary to conduct research using a vacation to control the external environment as much as possible. Third, this study showed a difference in gender ratio in recruiting subjects. In future studies, it will be necessary to recruit an equal number of male and female subjects. Fourth, subjects' personal tendencies can affect the results. In future studies, it should be considered necessary to study the preference and effect analysis of self-guided forest healing programs according to personality types. Fifth, this study was limited to guideboards out of the various media that could support self-guided forest healing programs. In future studies, research should be continuously conducted on various media developments and efficiency of self-guided forest healing programs, and the types of activities of self-guided forest healing programs required by users. Sixth, we did not control the intensity of physical activity, such as walking speed and energy consumption. In future studies, it will be necessary to consider the intensity of physical activity. Seventh, there was a slight difference in the time exposed to each activity (e.g., stretching, walking, diaphragmatic respiration, exercise, and meditation) for each subject when conducting the self-guided forest healing program. Since the guided forest-healing program is a program operated by a guide, the start time, the end time, and the exposure time of each activity could be the same for each subject within the control of the guide. On the other hand, in the self-guided forest healing program, there may be differences in the start time, end time, and exposure time of each activity because the subjects participate in the program at their own pace while moving along the route. Therefore, future research will need to ensure the same amount of time exposed to each activity regardless of the type of forest healing program. Eighth, environmental conditions such as season, temperature, humidity, and light are likely to affect the psychological recovery benefit. The connection between these conditions and the benefits will be worth investigating for future research.

5. Conclusions

This study showed that self-guided forest healing programs provide significant psychological benefits to subjects. Specifically, it showed a significant positive change in the subjects' mood state and improvement in anxiety. The results of this study demonstrate the psychological benefits of the self-guided forest healing program presented as an alternative treatment-delivery system in an urbanized modern society.

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A. Self-Guided Forest Healing Program's Guideboard Text

1. Stretching
   (1) Neck: Stand upright with both hands on the waist and turn the neck in one direction for eight beats. Turn it in the opposite direction.
   (2) Shoulder: Stand upright with the fingertips on the shoulders and turn the shoulders around. Turn it in the opposite direction.
   (3) Waist: Stand upright with both hands on the waist and turn the waist in one direction. Turn it in the opposite direction.
   (4) Knees: Bend the upper body, place the hands on the knees, and turn the knees in one direction. Turn it in the opposite direction.
   (5) Wrist and ankle: Rotate both wrists lightly for eight beats while rotating one ankle together.
2. Walking
   (1) When walking, walk in the order of heel–sole–toe position with the back straight.
   (2) Inhale deeply through the nose while counting four seconds in mind.
   (3) Breathe out slowly through the mouth, counting eight seconds in mind.
3. Diaphragmatic respiration
   (1) Straighten the spine and raise the upper body in a suitable place in the forest.
   (2) Slowly count four seconds in mind and breathe deeply through the nose.
   (3) Exhale slowly through the mouth, counting eight seconds in mind.
   (4) Repeat 20 times.
4. Exercise
   (1) Push-ups: Stand facing the tree, and put your hands on the tree. Bend the elbows, lower the arm until the chest reaches the tree, and straighten the arms (Repeat 10 times).
   (2) Stretch the arms and pull: First, stretch the arms forward, place the palms in the direction of the sky. Second, clench the fists and pull the arms toward the body (Repeat 20 times).
   (3) Raise the legs: Raise the legs at least 90 degrees with the knees stretched (10 times on each side).
   (4) Heel raise exercise: Spread the feet shoulder-width apart, then lift and lower the heels (Repeat 30 times).
5. Meditation
   (1) Inhale deeply through the nose while counting four seconds in your mind.
   (2) Exhale slowly through the mouth, counting eight seconds in mind.
   (3) I feel my thoughts and emotions calm down while focusing on breathing.
   (4) Close your eyes for five minutes, and feel this moment completely.

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