

## Deepening Experiences in Outdoor Recreation: The Intrinsic Transformation of Campers through Forest Bathing

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### Abstract

Forest bathing is an experience that promotes physical and mental well-being through deep and conscious engagement with nature. It involves a profound integration with nature through the use of all sensory systems, which can occur during various recreational activities. This study aims to explore the intrinsic transformation processes experienced by campers through their forest bathing experiences within the context of outdoor recreation. The study was designed using a phenomenological qualitative research approach. The sample consisted of 8 participants with camping experience in forested areas. Data were collected using a personal information form and a semi-structured interview form. Data analysis was conducted using the content analysis method. The findings revealed three overarching themes: “spiritual and emotional connection with nature,” “sensory awareness and altered perception of time,” and “Integration with nature and awareness.” These themes encompass a total of 9 codes. The results indicate that forest bathing experiences foster inner peace, positive energy, sensory awareness, altered time perception, and spiritual healing and personal transformation through interaction with nature. In conclusion, forest bathing experiences among campers enhance sensory awareness, alter time perception, improve mental clarity and attention levels, and cultivate a sense of awareness, gratitude, and responsibility toward nature.

**Keywords:** Outdoor recreation, Camping, Forest bathing

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## INTRODUCTION

Nature is often used across various cultures to describe a world devoid of human presence, typically referring to elements of nature that remain untouched or uncreated by humans (Thompson, 2013). In this context, the concept of returning to nature has been repeatedly explored in the history of philosophy, with its diverse origins highlighting its multifaceted meanings (Sallis, 2017). The interaction and collaboration between humans and nature includes places, species, organisms and practices where human actions and natural processes are intertwined; therefore, it is dynamic and in constant development and change (Deplazes-Zemp et al., 2024). To fully understand the extent to which individuals relate to nature, it is essential to consider not only their scientific beliefs and understanding but also their emotional, imaginative, and inspirational experiences in nature (DiEnno & Thompson, 2013). Within this framework, numerous reasons exist for protecting or caring for nature, categorized as anthropocentric approaches that prioritize human health and well-being and ecocentric approaches that advocate for the intrinsic value and rights of nature (Gustafson et al., 2022).

Nature provides a structure that supports individuals by offering outdoor for safe movement, relaxation, and reflection, away from crowded environments (Ugolini et al., 2020; Yildiz, 2022). Throughout history, humans have felt a need to connect with nature, experiencing a sense of belonging or unity with it (Andrews, 2018). The ways in which people connect with the natural world, and the benefits this connection provides to both humans and nature, are becoming increasingly significant (Maller, 2023). Spending time in nature or green spaces has well-documented positive effects on physical and mental health (Slater et al., 2020). Additionally, connecting with nature is known to promote mental health, a sense of safety, calmness, and independence, thereby facilitating personal transformation (Benessaiah & Chan, 2023). The positive health effects of nature underscore the importance of spending time in natural environments (Andreucci et al., 2021). While access to nature is known to be important for human health and well-being, spending time in nature enriches the senses and provides the opportunity to be physically active (Barrette et al., 2024).

Many people around the world pursue outdoor recreational activities that involve elements of personal risk and danger, and such activities are now of global importance to many individuals and organizations (Zwart & Ewert, 2022). It has been shown that spending time in nature or natural environments, especially through outdoor recreation activities, contributes to positive psychological outcomes (Lackey et al., 2021). These activities are notable for their preventive and therapeutic effects. Outdoor positively improve people's attention, mood, and physical and mental health. Furthermore, outdoor have the potential to increase well-being and improve public health and safety (Han & Liang, 2023). Outdoor recreation is viewed as an interconnected framework encompassing various therapeutic approaches, including adventure, nature, and horticultural therapies, which are nature-based practices (Yousiph et al., 2025). Among these approaches, shinrin-yoku (forest bathing) has recently gained significant attention as a nature-based method.

Introduced in 1982 by Tomohide Akiyama, forest bathing is an experience that promotes physical and mental well-being through deep and conscious engagement with nature (Timko Olson et al., 2020). Although formalized at that time, its roots lie in the long-standing Japanese cultural belief in the positive physical and mental health effects of being immersed in nature, particularly among trees (Moore & Atherton, 2020). This approach posits that contact with forests, particularly their scents and atmosphere, has beneficial effects on human health (Guziak, 2023). Forest bathing is a process aimed at improving mental and physical relaxation and is one of the most common activities associated with forests and human health (Park et al., 2010). It involves relaxation, deep breathing, and engaging with the natural environment through seeing, hearing, smelling, and touching (Kotera & Fido, 2022). As such, it is considered one of the most accessible ways to connect with the natural world and reduce stress to expected levels (Tsunetsugu et al., 2010). This approach emerged as a balancing solution for Japanese office workers facing corporate fatigue and related health issues in the technological era (Ripley, 2024). Forest therapy, a practice similar to forest bathing, includes various activities aimed at integrating and harmonizing people with the forest environment, often treating psychological disorders such as improving negative emotions, relieving mental stress, and relieving attention fatigue (Wan et al., 2024). In this context, forest therapy, which involves immersing oneself in a forest environment through activities such as forest bathing, meditation, and unguided walks, provides therapeutic experiences under the guidance of trained practitioners with diverse backgrounds, such as psychologists, outdoor educators, meditation instructors, and environmental educators (Mazzoleni et al., 2024).

The aesthetic and serene qualities of natural environments naturally encourage people to step outside, breathe fresh air, listen to birdsong, walk, or observe the wind dancing through tree branches (Shosha, 2021). Even brief activities such as gazing out a window or taking a short walk in a natural setting can help individuals detach from daily stress and achieve mental relaxation (Wöran & Arnberger, 2012). In this context, forest bathing offers an experience that emerges during various recreational activities, involving deep integration with nature through the engagement of all sensory systems (Kil et al., 2021). This health-promoting approach, which requires no special skills, is naturally practiced by individuals spending time in forests (Morita et al., 2024). Such recreational activities in forested areas enable individuals to awaken their senses, enhance their intuition, and perceive the forest in ways they have not experienced before (Mathias et al., 2020). As approaches that foster deeper and more meaningful connections with nature become more prevalent in forest-based recreational activities, a future where humanity increasingly embraces a return to nature is envisioned (Zhang & Ueda, 2025).

Forest bathing is defined as therapeutic and health-promoting outdoor recreational activities performed in natural forest ecosystems, and forests play an important role as a primary resource for outdoor recreation activities (Rodtook et al., 2024). Forests and mountainous areas provide suitable environments for nature-based recreational activities such as camping, hiking, mountaineering, mountain biking, and skiing (Pickering & Barros, 2012). In this context, outdoor recreation aims to facilitate direct engagement with natural phenomena for enjoyment, with

camping holding a prominent place among these nature-based activities (Craig et al., 2023). Camping is a form of outdoor recreation involving temporary stays in nature, serving as an expression of individuals' desires to escape urban life, spend time in nature, and sometimes reflect their lifestyles (Brooker & Joppe, 2013). Additionally, camping provides the opportunity to get away from daily routines, relax, explore nature, get to know other cultures, make new friends and reduce stress (Evangelista & Apritado, 2024).

Camping in natural areas is a significant social activity, providing a means to reconnect with nature and offering personal, social, and health benefits (Hassel et al., 2015). Camping experiences support psychological and personal development, foster creativity, strengthen relationships, and enhance a sense of community, thereby contributing positively to mental health (Jirásek et al., 2017). Camping allows people to relax and socialize by relieving stress physically, mentally, and emotionally, thus achieving personal, social, and health benefits (Huang et al., 2024). Furthermore, camps provides an autonomous environment to investigate physical activity levels across a diverse population during various activities. As such, camps are known to have numerous benefits on people's social self-efficacy and performance (Nocera et al., 2022). While forest bathing promotes spiritual healing through sensory engagement with the natural atmosphere, camping enriches this process through social interaction and active participation. This study was conducted to explore the intrinsic transformation processes experienced by campers through their forest bathing experiences within the context of outdoor recreation.

## **METHOD**

### **Research Design**

This study was conducted employing a phenomenological design, a qualitative research method. The primary focus of the study was the intrinsic transformation process experienced by individuals engaged in camping through their forest bathing experiences. The phenomenological approach aimed to deeply and multidimensionally understand these experiences based on individuals' direct lived experiences (Creswell et al., 2007). It also facilitated the analysis of how individuals made sense of the environmental contexts that shape their experiences (Yıldırım & Şimşek, 2018). In this context, the study analyzed the extent to which campers were affected by the forest bathing process through their own expressions and perspectives.

### **Study Group**

In order to determine the study group, the criterion sampling method, a purposive sampling strategy, was employed. This approach allows for the detailed examination of individuals or situations meeting specific criteria. These criteria can be specifically developed by the researcher or derived from existing criterion lists (Patton, 2014). In this study, participants were required to have at least five years of camping experience, to have camped in forested areas, and be aged between 18 and 65 years. A total of eight campers, three women and five men, who met these

criteria and to voluntarily agreed to participate, formed the study group. In qualitative research, collecting in-depth data with small samples is considered sufficient, and data saturation has been reached in this study as well. In the literature, it is stated that the number of participants is sufficient when data saturation is achieved (Guest et al., 2006; Yıldırım ve Şimşek, 2018). Participants were directly approached in the natural settings where they were camping, the purpose of the study was explained, and their willingness to participate was confirmed. The data collection process was conducted with campers who provided voluntary consent. In accordance with ethical rules, the participants' names have been kept confidential, and each has been coded with the letter “K” assigned as K1, K2, K3, and so on. The participants’ personal information is presented in Table 1.

**Table 1.** Personal information of participants

Participants	Age	Gender	Marital Status	Occupation	Camping Frequency (Annual)	Average Camping Duration (Days)	Solo Camping Experience
K1	40	Female	Single	Private Sector	4	7	Yes
K2	40	Male	Married	Teacher	5	3	No
K3	33	Male	Married	Civil Servant	5	3	No
K4	35	Female	Married	Academician	5	5	No
K5	55	Male	Married	Private Sector	5	4	No
K6	31	Male	Married	Civil Servant	4	2	No
K7	32	Male	Married	Teacher	7	7	Yes
K8	44	Female	Married	Physiotherapist	4	4	No

### **Ethical Approval**

The study was conducted upon receiving ethical approval from the Artvin Coruh University Rectorate Scientific Research and Publication Ethics Committee, dated 12.06.2025, under reference number E-18457941-050.99-181877. Written informed consent was obtained from all participants. Following the ethical approval, preliminary meetings were held with participants at camping sites in Artvin and Rize provinces, where the study’s objectives were explained, and their willingness to participate was confirmed. Subsequently, face-to-face interviews were conducted.

### **Data Collection Tools**

A personal information form, developed by the researchers, was used to collect participants’ socio-demographic characteristics. This form included information on age, gender, marital status, occupation, frequency of camping (annually), average camping duration, and experiences of solo camping among individuals with camping experience in forested areas. In line with the phenomenological design, a semi-structured interview form was developed. A semi-structured interview form was prepared in accordance with the phenomenological design. During the question preparation process, a question pool of 15 open-ended questions was created through a literature review. The prepared questions were examined for relevance to the research purpose, content validity, and repetitive content. Subsequently, the opinions of two academics specialized in qualitative research methods were consulted, who noted that some questions covered similar themes and could lead to repetition for the participants. Therefore, six of the 15 questions in the

question pool were removed, focusing on 9. These nine questions were then reviewed for clarity and understandability, and 6 final questions were retained to narrow the scope and design the interview duration to avoid fatigue for the participants. The questions included in the form are as follows:

- What is the most meaningful aspect of the relationship you establish with the forest while camping?
- How do sensory elements in the forest (e.g., sounds, smells, sights) affect you?
- Have you experienced a change in your perception of time while camping in the forest? If so, how did you experience this change?
- What kind of awareness has camping in the forest created in your life?
- How would you describe the impact of being in nature during camping on your attention or mental peace?
- How do you feel you interact with the environment while camping in the forest?

The semi-structured interviews were conducted face-to-face with participants at times and locations of their choosing at any time of day chosen by the participants. Each interview lasted approximately 20 minutes. All interviews were recorded using an audio recording device and later transcribed into a digital format.

### **Data Analysis**

Data analysis was conducted using the content analysis method, which involved systematically coding the data, identifying themes, and reporting the findings (Merriam, 2015). Prior to the analysis, interviews with campers were recorded as audio files and saved as Word documents. The transcribed files were read line by line by the researcher performing open coding. In the first stage, 32 codes were obtained. To ensure reliability in the coding process, a second academic was consulted at a certain stage of the process similar, overlapping, or repetitive codes were combined, and codes with a very narrow scope were grouped under broader and more inclusive codes, resulting in consensus on 9 codes. Subsequently, codes with common content were grouped together to form categories, and these categories were grouped under higher-level themes based on their conceptual similarities. The subsequent stages of content analysis were applied in the following order:

- Data was encoded.
- Categories were identified, and themes were established.
- Data were organized according to codes and themes.
- Findings were interpreted and reported.

### **Validity and Reliability**

In this study, validity was defined as ensuring the accuracy of the measurement process of data and results by comprehensively representing the phenomena and events under investigation (Yıldırım & Şimşek, 2018). Reliability refers to the consistent and authentic presentation of findings, independent of random influences (Silverman, 2018). To adhere to validity and reliability

principles, strategies such as transferability, consistency, credibility, and confirmability were employed (Creswell, 2018). Transferability was achieved through coder triangulation. Credibility was enhanced by incorporating direct quotes from participants engaged in outdoor sports to reflect the diversity of perspectives. Interviews were audio-recorded, transcribed, and analyzed, with coding performed by multiple researchers to support reliability. The data were repeatedly reviewed during the analysis process to ensure accuracy. To fully capture the experiences and perspectives of outdoor sports participants, all stages of the study were described in detail to ensure confirmability. To demonstrate consistency, the formula proposed by Miles & Huberman (1994), “Agreement / (Agreement + Disagreement),” was used, achieving an interrater agreement rate of 87%.

## FINDINGS

This study examined the intrinsic transformation experienced by individuals participating in camping activities in forested areas through their forest bathing experiences. Based on participant interviews, the effects of forest bathing were analyzed under three themes: “Spiritual and Emotional Connection with Nature,” “Sensory Awareness and Altered Perception of Time,” and “Integration with Nature and Awareness.” Within these main themes, a total of nine codes were identified.

**Table 2.** Themes, codes and participant distribution

Theme	Code	Participants
Spiritual and emotional connection with nature	Inner peace and tranquility	K1, K2, K3, K4, K5, K7
	Connection with nature	K1, K3, K6, K8
	Therapeutic effect	K1, K5, K7, K8
Sensory awareness and altered perception of time	Sensory effects	K1, K2, K3, K4, K5, K6, K8
	Slowing and loss of time perception	K1, K2, K3, K4, K5, K6, K7, K8
	Calming effect of nature	K2, K3, K4, K6, K8
Integration with nature and awareness	Sense of unity and integration with nature	K1, K4, K6, K7
	Mental clarity and increased attention	K2, K3, K4, K5, K8
	Ecological awareness and environmental responsibility	K3, K5, K6, K8

### *Spiritual and Emotional Connection with Nature*

The theme of “Spiritual and Emotional Connection with Nature,” derived from interviews with campers, encompasses the codes of “Inner peace and tranquility,” “Connection with nature,” and “Therapeutic effect.” This theme reflects participants’ experiences of inner peace, positive energy, and the spiritually healing effects of the forest environment. Selected participant statements related to these codes are provided below.

When examining the participant opinions related to the code of inner peace and tranquility; participants express that camping and being in the forest provide spiritual peace, tranquility, and inner strength. The sounds, scents, and sights in the forest soothe the soul; silence, being away

from people, and the opportunity for self-reflection are also seen to create a psychologically motivating effect.

*“When I camp, I feel a stronger sense of belonging. The most meaningful aspect for me is the calming effect of the forest’s sounds, smells, and sights on my soul. They make me feel a different kind of strength, as if my spirit can stand taller against challenges” (K2).*

*“I feel peace and health; the silence is soothing. The sounds and smells calm the soul” (K4).*

*“Being away from people allows me to listen to myself, clear my mind, and hear nature’s sounds, which brings happiness. Being in nature is highly motivating in this sense” (K5).*

When examining the participant opinions related to the code of connection with nature; campers express that the bond they establish with the forest is not only physical but also has a spiritual dimension. Touching the trees, hearing the sounds of nature, and sensing the scents provide them with feelings of peace, energy, and belonging. Nature enables them to establish an emotional connection with the past and is perceived as a spiritual source of healing that makes them feel part of the universe.

*“When walking among trees in the forest, I feel they have a spirit. Touching them gives me an indescribable energy. This connection with nature not only brings peace but also reminds me that I am part of the universe” (K1).*

*“Camping has become a journey of discovery for me. I pay attention to trees and animals wherever I go. The sounds of birds at night, distant wolves or dogs, and the wind—all make me feel nature has a spirit. Each natural environment has a unique energy” (K6).*

*“When camping in the forest, I always place pine resin near my tent because its scent brings incredible peace. It takes me back to my childhood and makes me happy. Nature’s energy is not only physical but also a source of spiritual healing” (K8).*

When examining the participant opinions related to the code of therapeutic effect; campers state that being in the forest provides mental relaxation, inner peace, and personal transformation. Forested areas offer therapeutic effects such as clearing the mind, regaining focus, and relieving stress; they also contribute to the development of values such as patience, understanding, and simplicity. It can be said that these experiences make it possible to return to urban life more balanced and energetic.

*“Being in nature feels like a reset. It helps me clear my mind and gather my thoughts. I return to city life with more energy and calm. Nature’s healing power feels like therapy” (K5).*

*“After camping, I see myself as more patient and understanding. I used to be very particular, but nature has softened those traits. I have learned that cleanliness can exist without soap and that nature is educational in this sense” (K7).*

*“Being in nature relaxes me. My mind clears, and I reach inner peace. I can focus better because there are no distractions. Nature’s energy brings happiness, which translates into mental clarity” (K8).*

### ***Sensory Awareness and Altered Perception of Time***

The theme of “Sensory Awareness and Altered Perception of Time,” derived from interviews with campers, includes the codes of “Sensory effects,” “Slowing and loss of time perception,” and “Calming effect of nature.” This theme reflects changes in participants’ time perception during their time in the forest, heightened sensory experiences (e.g., sounds, smells, sights), and the effects of these experiences. Selected participant statements related to these codes are provided below.

When examining the participant opinions related to the code of sensory effects; participants express that the sounds and scents in the forest create deep spiritual impacts. Nature-specific sounds such as birds, insects, and wind evoke a feeling of meditation, increase inner peace, and provide spiritual strength. These experiences have been determined to reveal both the calming and spiritually strengthening aspects of the connection established with nature.

*“The sound of water, insects, birds, and frogs makes me feel as if I am alone with a creator. The smells leave me in awe of nature’s beauty. I listen to birdsong during meditation, feeling as if they are speaking” (K1).*

*“The sounds, smells, and sights unique to nature, which we do not encounter in city life, calm our souls. These experiences enhance inner peace and spiritual strength, making us more resilient to challenges” (K2).*

*“Listening to nature’s sounds like birds, wolves, or dogs at night feels different. The sound of trees with the wind can be both eerie and peaceful. Each environment’s unique sounds and smells affect me” (K6).*

When examining the participant opinions related to the code of slowing down and losing track of time; it is stated that time perception changes in forested areas and time flows more slowly and meaningfully. In contrast to the fast pace of urban life, the feeling of peace and harmony with rhythm during time spent in nature comes to the forefront; thus, they experience the flow of time as different and intense.

*“Time flows more slowly in the forest. Away from the rush of daily life, a few hours feel like days, likely due to the peace” (K4).*

*“There is no sense of time in nature. I have been traveling for a while and lose track of days. It feels like I have been wandering for a month. Time races in the city, but here it slows down” (K5).*

*“In the forest, you wake up early, aligning with nature’s rhythm. With fewer activities, time feels slower. There’s no concept of time in the forest; it passes beautifully and meaningfully, unnoticed” (K7).*

When examining the participant opinions related to the code of nature’s calming effect; it is emphasized that the forest has a renewing and strengthening effect both spiritually and physically. Being in the forest enables distancing from stress and city noise, thereby providing peace, health, and resilience; the energy of nature increases happiness and supports mental clarity and focus.

*“I feel relaxed and renewed. I believe my spirit can stand stronger against challenges. Nature renews us, making us feel spiritually stronger and more peaceful, increasing our resilience to work-related difficulties” (K2).*

*“The further I get from city noise, the more peaceful I feel. I feel healthier. Being in nature refreshes me both physically and mentally” (K4).*

*“Nature is an energy source. Trees provide energy, which turns into happiness. Happiness improves thinking and focus. Nature’s calmness reduces distractions” (K8).*

### ***Integration with Nature and Awareness***

The theme of “Integration with Nature and Awareness,” derived from interviews with campers, includes the codes of “Sense of unity and integration with nature,” “Mental clarity and increased attention,” and “Ecological awareness and environmental responsibility.” This theme reflects the transformations participants observed in themselves through their interactions with nature, as well as changes in their levels of attention and consciousness. Selected participant statements related to these codes are provided below.

When examining the participant opinions related to the code of integration and oneness with nature; campers express that being in forested areas offers an escape from intense interactions with people and an opportunity to integrate with nature. It has been identified that the forest enables being alone with oneself, becoming a part of nature, and reestablishing contact with nature that is lost in urban life.

*“In the forest, I prefer spending time with myself and nature. It is an escape, as I am constantly around people at work or in the city, so I try to limit interactions” (K1).*

*“You feel like part of nature. It is as if you are moving in harmony with it because nature’s beings do not perceive you as a threat; instead, I feel I am moving in sync with them” (K4).*

*“When I am there, I realize how disconnected my life is from nature. In the city, we have no contact with nature. Wind or weather does not matter, but in camp, they affect you” (K6).*

Regarding the participant opinions related to the code of mental clarity and increased attention; it is stated that being in forested areas increases mental peace, thereby strengthening motivation and attention. The reduction of distracting factors leads to concentration of observations and mental clarity; the energizing effect of the forest is seen to positively affect focus and cognitive performance.

*“It boosts our motivation and focus. As mental peace increases, so does our attention to nature, which translates into broader attention and motivation in life” (K2).*

*“Attention sharpens. With fewer external distractions affecting the senses, observation intensifies, and the brain works more comfortably” (K5).*

*“Nature is an energy source, providing energy and happiness. Happiness improves thinking and focus. You can concentrate better because there are no distractions in the forest” (K8).*

When examining the participant opinions related to the code of ecological awareness and environmental responsibility; campers express that their bond with the forest increases their sense of responsibility and sensitivity towards the environment. It has been determined that they take care not to harm the forest, adopt their ancestors' understanding of living in harmony with nature, and fulfill their responsibilities towards nature by not only disposing of their own waste but also cleaning up litter in the surroundings.

*“I feel a responsibility to protect the environment and its beauty. Like our ancestors' approach to taking only dry wood, I have adopted a similar mindset” (K3).*

*“I feel more harmful than a pest. I do my best not to damage nature because humans have often been destructive to the ecological balance” (K5).*

*“I do not just collect my own trash; I clean the area around my tent before leaving. Initially, I only picked up my litter, but now I feel it is my duty to clean the entire site” (K6).*

## DISCUSSION AND CONCLUSION

This study was conducted to explore the intrinsic transformation processes experienced by campers through their forest bathing experiences within the context of outdoor recreation. Based on participant interviews, three themes and nine associated codes were identified. These themes are “Spiritual and Emotional Connection with Nature,” “Sensory Awareness and Altered Perception of Time,” and “Integration with Nature and Awareness.” Participants reported that forest bathing experiences enhanced their sense of inner peace and positive energy through interactions with nature, had a spiritually healing effect, deepened sensory experiences, and led to significant transformations in perception, attention, and consciousness.

### *Spiritual and Emotional Connection with Nature*

Under the theme of “Spiritual and Emotional Connection with Nature,” campers reported experiencing inner peace and tranquility during their forest bathing experiences. Farkic et al. (2021) noted that participants frequently used terms such as peace, silence, and a sense of belonging during forest bathing, highlighting the psychological dimensions of nature interaction and its transformative effects on the inner self. Campers indicated strengthened connections with nature during these experiences. McEwan et al. (2022) reported that forest bathing enhanced individuals’ bonds with nature, with participants enjoying the social aspects of group activities and mindful engagement with the environment. Similarly, Keller et al. (2024) found that activities in forested areas increased individuals’ connection to nature, fostering gratitude, interest, and care for the environment. Deniz (2024) stated that during nature-based activities, participants can connect with nature by using all their sense organs. Ergüven & Erdem (2019) stated that forest bathing is based on the understanding of establishing a connection between humans and nature. In this context, forest bathing involves consciously engaging all senses to form a holistic and sensory connection with the forest environment (Giusti et al., 2025). A key characteristic of forest bathing is its therapeutic effect. Its benefits for human physiology, psychology, and well-being are well-documented. Mao et al. (2012) reported positive effects of forest bathing on blood pressure regulation. Siah et al. (2023) highlighted its positive impacts on physiological outcomes such as blood pressure and heart rate, as well as psychological factors including anxiety, depression, mood, and quality of life. Similarly, Yıldız et al. (2017) have emphasized the psychological and social benefits of outdoor activities. Markwell & Gladwin (2020) noted that forest bathing positively influenced positive affect and well-being. Durusoy & Mutuş (2021) stated that physical activities performed in nature provide greater health and well-being results. Kütük & Canel (2024) stated that nature-based therapies have a structure that encourages participants to take action through outdoor activities, and that the active participation of participants in the therapeutic relationship and their participation in the process through physical activities can mediate a faster healing effect.

### *Sensory Awareness and Altered Perception of Time*

Under the theme of “Sensory Awareness and Altered Perception of Time,” campers reported being influenced by sensory elements such as sounds, smells, and visuals during forest bathing. Subirana-Malaret et al. (2023) found that natural sounds (e.g., birds, water, breezes) elicited feelings of happiness in participants. All forest visitors reportedly derive pleasure from similar

sensory experiences, including the colors and shapes of plants, birdsong, the sound of flowing water and rustling leaves, the scent of trees, flowers, and soil, the taste of clean water and forest fruits, and the tactile sensation of tree bark and rocks (Buckley et al., 2024). Campers noted that time seemed to pass more slowly in the forest. Pfeifer et al. (2023) observed that time in the forest felt less intense, passed more quickly, and seemed shorter. Similarly, Farkic et al. (2021) reported that participants perceived time as slowing down in the forest. This phenomenon occurs as individuals mentally relax and shift their attention from time to natural elements like sounds and smells, leading to a sense of time passing unnoticed or “flying by.” Forest bathing also has a calming effect. Hansen et al. (2017) emphasized that forest experiences increased parasympathetic activity, promoting mental and physical relaxation. Wen et al. (2019) noted that the forest climate and phytoncides emitted by trees had a strong effect on psychological relaxation, fostering feelings of relaxation, relief, and renewal on both physiological and psychological levels. Diniz (2021) stated that forest bathing, as a nature activity, provides visitors with a spiritual therapy that appeals to the five senses, where they can benefit from the healing power of tree phytoncides in the forest, strengthen their immune system, and reduce stress in the city.

### ***Integration with Nature and Awareness***

Under the theme of “Integration with Nature and Awareness,” campers reported a sense of unity and integration with nature. Consistent with our findings, Craig et al. (2017) stated that sensory elements in the forest environment played a mentally harmonizing role, facilitating integration with nature. Forest bathing was also found to enhance mental clarity and attention among campers. In line with our findings, Berman et al. (2008) observed up to a 20% improvement in working memory performance after exposure to natural scenery. Oh et al. (2017) found that forest bathing reduced mental fatigue, improves mood, and enhances attention capacity, indicating benefits for cognitive functions such as attention, memory, and mental clarity. Campers also reported that forest bathing influenced their ecological awareness and environmental responsibility. Giusti et al. (2025) noted that forest bathing transformed human-nature relationships, fostering environmental appreciation, conservation awareness, and sustainable behavior. Subirana-Malaret et al. (2023) emphasized that forest bathing was strongly linked to natural wealth, environmental appreciation, and conservation tendencies. Thus, forest bathing can be considered a holistic nature experience that cultivates ecological awareness and environmental responsibility. Ardahanlıoğlu (2023) stated that forest bathing helps people manage their negative emotions and feel healthier.

Consequently, this study comprehensively examined the individual, emotional, and environmental impacts of campers’ forest bathing experiences within the context of outdoor recreation. The themes derived from participant statements highlight the transformative effects of deep connections with nature. Forest bathing not only provides physiological relaxation and psychological well-being but also enhances sensory awareness, alters time perception, and improves mental clarity and attention levels. Additionally, it fosters not only personal well-being but also a heightened sense of awareness, gratitude, and responsibility toward nature. The research theoretically expands the literature on open-air recreation and nature-based awareness by

examining the individual, cognitive, and environmental effects of forest bathing within a multidimensional framework. The findings contribute significantly to recreation ecology and nature-based mental health studies by revealing the role of forest bathing not only in personal well-being but also in fostering ecological awareness. Furthermore, the results offer practical contributions by providing actionable insights for recreation planners, campground managers, and nature-based education programs. The design of quiet and sensory experience areas, the integration of forest bathing practices with other open-air recreational activities, and the promotion of nature-based awareness activities are considered important in this context. The detailed reporting of the study's methodology increases the reproducibility of the research and allows for the comparison of forest bathing experiences in different cultural or geographical contexts.

### **Suggestions**

Based on the findings regarding campers' forest bathing experiences in the context of outdoor recreation, the following recommendations are proposed for campers, other outdoor recreational activities, and future research:

- Nature-based mindfulness practices could be promoted.
- Quiet and sensory experience areas could be designed in recreational spaces.
- The forest bathing approach could be integrated with other outdoor recreational activities.
- Future research could explore different demographic groups and long-term effects.
- Forest bathing practices could be incorporated into outdoor recreation planning.

### **Limitations**

The study's sample consisted of eight volunteers with camping experience in forested areas, limiting the findings to their perspectives. As the study was conducted with participants camping in Artvin and Rize provinces, the results may not be representative of the entire country.

**Conflict of Interest:** The author declares no personal or financial conflicts of interest related to this study.

**Declaration of Investigator Contribution:** Research Design - EE, Data Collection - EE, Statistical Analysis - EE, Preparation of Manuscript - EE.

### **Ethical Approval**

**Ethics Committee:** Artvin Coruh University Rectorate Scientific Research and Publication Ethics Committee

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