

Forest Therapy and Mental Health Promotion

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Abstract

Forest Therapy is becoming increasingly popular across the world as more research are being conducted to understand the impact that spending more time in nature has on our health and wellbeing. While this practice is widely perceived to have its roots in the East, it has gained renewed attention and momentum as a result of interest in the West, notably the development of “nature prescription” and the rise in awareness of the importance of mental health. This article also explores how Forest Therapy is being applied to urban cities such as Hong Kong, and what opportunities and challenges are present.

Keywords: Forest therapy, nature, mental health, health promotion

Introduction

Across the world, we are becoming increasingly aware of the benefit of connecting with nature to our overall health and wellbeing. Research has shown a wide array of impact on our wellbeing as a result of spending more time in nature, encompassing the physical, mental, emotional and social dimensions (Vujcic et al., 2017).

This article seeks to promote a better understanding of this process now widely called Forest Therapy, why and how it’s becoming more popular across the world, how Forest Therapy is being applied in Hong Kong and what opportunities and challenges are present.

What is Forest Therapy?

Forest Therapy is a research-informed framework for supporting and enhancing wellness through immersion in forests and other natural environments. Inspired by the Japanese practice of Shinrin-Yoku, which translates to “forest bathing”, Forest Therapy is essentially a guided outdoor healing practice that allows people to “bathe” in the forest atmosphere. The process is

designed to be highly accessible to a diversified population, and is a stark contrast to more physically demanding ways of enjoying nature such as hiking, long walks or running (Hansen et al., 2017).

What happens in a Forest Therapy session?

Whilst there are different styles of Forest Therapy, typically when guided by a certified Forest Therapy guide, participants are gently and intentionally invited to experience the pleasures of immersing in nature through all of our senses, including but not limited to the five basic senses, i.e. sight, smell, taste, touch and hearing (Oh et al., 2020).

The session typically will include opportunities to slow down the frantic pace we have become very accustomed to as city dwellers, and return to a sense of being present in our body. Forest Therapy is not a naturalistic outing for learning about the flora and fauna or how the ecosystem works, instead our brain gets to take a break.

Simple and open suggestions are offered by guides for participants to consciously interact with

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living beings and natural elements present in the forest by intentionally engaging our senses, a process that reinvigorates our innate connection to nature. Participants are supported and encouraged to temporarily leave their day-to-day routine behind and experience being in nature in an embodied way.

How it started

Shinrin-Yoku started in Japan in the 1980s as the government responded to a widespread decline in health and a corresponding increase in stress-related illnesses, during a time when more and more people are tied to their desks at work. In addition to designating trails in the forest areas of the country, US\$4 million has been invested into conducting research between 2004 and 2013 to better understand how spending time in nature improves health (Rajoo et al., 2020).

Why Forest Therapy is becoming mainstream

Although connecting with nature for wellbeing is not something that is unique to Japan - in fact, many other cultures, including the Chinese culture, see living in harmony with nature as a preferred way of life - the way this practice is being promoted as a public health measure is a modern and timely response to the stress-related health crisis that has resulted from the increased dominance of technology in our lives and the consequential disconnection with nature. As of 2018, 55% of the world's population lives in urban areas, and by 2050, it will be 68 percent. The stress related to living in the city is set to increase over time across the world's population (Mao et al., 2012).

How Forest Therapy improves our physical and mental wellbeing

The combination of fresh air, soothing green colours, nature sounds, sunlight and negative ions in places with running water creates an environment where many of us have had first-hand experience with relaxation and reinvigoration. Studies conducted over the past few decades have reinforced our felt experience: studies indicate that time in nature significantly lowers blood pressure (-1.4 percent), heart rate (-5.8 percent), cortisol levels (-12.4 percent) and sympathetic nerve activity

(-7 percent) compared with city walks, while also alleviating stress and depression.

Among these studies, a groundbreaking research conducted in Japan in 2006 found that an antimicrobial allelochemical volatile organic compound called 'phytoncides' produced by trees may influence immune function by increasing the number and activity of immune cells called "natural killer" cells, the function of which was to fight viruses and cancer (Li et al., 2006).

According to a study by the European Society of Cardiology, a brisk walk daily for at least 25 minutes could increase longevity by 3 years, repairing DNA and reducing the risk of heart disease, diabetes, osteoporosis and breast or colon cancer (*Brisk Daily Walks Can Increase Lifespan, Research Says | Health | The Guardian*, n.d.).

In 2009, a research done by Dutch researchers found a lower incidence of 15 diseases, including depression, anxiety, heart disease, diabetes, asthma and migraines, in people who lived within the vicinity of green space (Maas et al., 2006).

One question that is often asked by busy city-dwellers is how much time do we need to spend in nature in order for the benefits to kick in? A recent study conducted in the UK investigating approximately 20,000 people found that spending at least 2 hours a week (in one stretch or over several shorter trips) in nature improved overall health and wellbeing. Although the results were self-reported, the results were encouraging to city dwellers lacking easy access to nature (White et al., 2019).

This appears to be in line with a study conducted in 2019 which showed that being in nature for more than 20 minutes already brings about a reduction in the stress hormone cortisol (Hunter et al., 2019). Another study has yielded even more surprising results: a mere 40-seconds of viewing green roofs was shown to be effective for attention restoration, highlighting the importance of "micro" nature breaks (Lee et al., 2015).

During the COVID-19 pandemic, a study done by the Mental Health Foundation in the UK shows that spending time in nature has been the

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most popular coping mechanism for people during the crisis. This is not surprising as research has shown how nature can calm us psychologically by supporting the activity of the parasympathetic nervous system, which helps the body rest and recover, and reduce the fight/flight/freeze/fawn response of the sympathetic nervous system (Yu et al., 2018).

Recent Adoption of Forest Therapy as a Healthcare Measure

As most of the research studies conducted so far are of relatively small scale and have adopted very different methodologies, more work needs to be done to gain a better understanding of how nature impacts our health and wellbeing (White et al., 2019).

This is perhaps particularly relevant to those who advocate for “nature prescription”, an emerging practice whereby healthcare professionals in appropriate circumstances prescribe “time in nature” as medicine to their patients. This practice is steadily gaining traction in Europe and North America in recent years, promoted by organisations such as ParkRX in the US, PaRx in Canada and Dose of Nature in the UK.

In October 2018, the National Health Service Shetland (Scotland) rolled out nature prescriptions to help treat conditions such as high blood pressure, anxiety and depression. Healthcare professionals have been urged to disseminate publications explaining the health benefits of being outdoors and offering recommendations of outdoor ideas for all seasons. In Wales, a Forestry Commission program, Actif Woods, has doctors prescribing woodland walks to combat conditions like heart problems and depression (*A “Green Prescription” May Make Nature a Chore Instead of a Joy*, n.d.).

Recent Development of Forest Therapy in Asia

In Asia, some leading countries have integrated forest therapy as part of their holistic health culture. In Japan, there are currently 62 designated Forest Therapy Bases across the country with plans to designate more sites. It is believed that more than 25% of the Japanese population participates in Forest Bathing as a regular wellness practice, where biomarkers such as blood

pressure and salivary amylase are measured pre- and post- Forest Therapy sessions.

In Korea, the Healing Forest Initiative was rolled out to promote immune function and public health across all segments of the population, including children and youth, adults and seniors. The importance of ‘forest services’ is entrenched in law: the Forest Culture and Recreation Act enable local governments to facilitate relevant policies and research and provides for the training of forest healing instructors who develop healing programs and services.

In Mainland China, the modality of ‘forest recuperation’ has received increased attention and introduced by those professionally involved in forestry in 2011. Incorporating elements and characteristics suitable for China while developed with reference to concepts and model of Forest Therapy adopted internationally, this was seen as a major step forward, this is expected to be relevant for people’s current living condition.

Taiwan introduced the concept of shinrin-yoku from Japan and began to promote the concept of forest health care from as early as 1983. Numerous research has been conducted to look into the physiological and psychological benefits of spending time in the forest and also to look into the human response towards virtual reality of urban and forest environments. Results show that even virtual reality can lead to a reduction in negative emotions and increased energy. There’s now 18 National Forest Recreation Areas across Taiwan and training courses for Forest Therapy guides have recently begun.

Application of Forest Therapy in Hong Kong

Country parks have always played a significant role in recreation for people living in the dense urban areas of Hong Kong. While hiking is a much-loved past-time, awareness of the health benefits of being in nature is relatively low and the concept of Forest Therapy is still very new to most people. Being such a dense city with relatively easy access to nature, Hong Kong is uniquely positioned to promote Forest Therapy as a public health modality that serves both as a complementary healthcare support and a preventative wellbeing practice for the general public.

In recent years, there is a surge in interest in promoting nature and wellbeing. A number of studies are being conducted locally to examine whether the benefits reported by studies done in other countries stand true for the local population and the local environment.

As far as Forest Therapy is concerned in Hong Kong, since 2017 certified guides have started offering guided Forest Therapy experience locally and by now guided sessions have been offered to many different communities including the elderly, people with chronic illness and their carers, stressed out working adults and students, children with special education needs, and people with addiction. Up to now, there are over 30 guides in Hong Kong trained by the Association of Nature and Forest Therapy Guides and Programs.

A challenge for more widespread adoption of Forest Therapy is that while Hong Kong people take to the hills for their own mental and physical wellbeing, the need to raise awareness of the importance of environmental conservation has heightened as well. During the COVID-19 pandemic, people flocked to the countryside for respite leading to noise and waste pollution especially during weekends, posing a major impact on the quality of the space available for Forest Therapy.

This highlights the importance of rebuilding our relationship and connection with nature, which in Hong Kong, has interestingly become an important aspect of Forest Therapy. Even though it sometimes takes only a 15-minute bus ride for us to step into a country park, most Hong Kong people spend much of the day indoors and feel disconnected from nature. This disconnection continues to fuel behaviours that are detrimental to the environment, ranging from interfering with the lives of wild animals to complete destruction of natural landscapes. Forest Therapy plays a part in providing a first-hand immersive experience of being in harmony with nature, which invites curiosity and nurtures care for the many life forms that exist beyond the walls of our home and offices.

Some useful measures for providing safe and quiet space for those who want to experience nature in a healing way may be the designation of ‘quiet

zones’ in country parks, or consider imposing moratoriums on some heavily used areas in order to offer time for the land to regenerate. In the long run, it is important that natural space is maintained and protected from destruction and urban development, so that people living in this busy city continues to have quality access to wild spaces.

Conclusion

For Forest Therapy to be accepted by healthcare professionals and the general public alike as a credible and effective modality for the promotion of our physical and mental health and wellbeing, more investigation and experience exchange needs to happen across region and also across different discipline of studies. We can all benefit from a better understanding of how nature is essential to our individual and collective wellbeing, and a different approach to health, resilience and sustainability in an increasingly volatile world.

摘要

森林療癒如何促進心理健康

隨著越來越多的研究讓我們了解處身大自然中對我們的身心健康的影響，森林療癒在世界各地變得越來越流行。雖然透過大自然改善身心健康這種做法被廣泛認為起源於東方，但由於近年西方對大自然療癒的興趣，特別是「大自然處方」的發展，及對心理健康的認知提高了，森林療癒得到關注和被推動。本文繼而探討森林療癒如何應用於香港等城市環境，以及存在哪些機遇和挑戰。

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