

# 01

# Introduction

Our relationship with nature – how much we notice, think about and appreciate our natural surroundings – can be a critical factor in supporting good mental health alongside other factors such as how much money we have or what kind of job we do.



Nature has played an important role in supporting many people's mental health during the coronavirus pandemic, and this is one of the reasons why it has been chosen as the Mental Health Awareness Week theme for 2021.

In this report, we present the latest evidence of how nature impacts positively on our mental health and why it is important to develop a good connection with nature and develop our connectedness.

We also include findings from the YouGov poll we have conducted on this theme specifically for Mental Health Awareness Week.<sup>1</sup>



## What do we mean by nature?

We commonly think of "Nature" as referring to wild plants, animals, ecosystems, landscapes and waterscapes, in contrast to built environments and places shaped by human activity.

Nature exists on a spectrum, from wildernesses with little evidence of human impact to small parks in highly urbanised areas, from a dandelion or an urban stream, to extensive woodlands (*Bratman et al, 2012*).

It is now widely accepted that green features which are partly the products of human activity, such as urban parks and back gardens, also represent nature (*McAllister et al, 2017*).

<sup>1</sup>All figures described as coming from 'our poll' are from YouGov Plc. Total sample size was 4274 UK adults. Fieldwork was undertaken between 6th - 8th April 2021. The survey was carried out online. The figures have been weighted and are representative of all UK adults (aged 18+).

Key to how we define nature is our own personal experience - our perceptions of and/or interactions with any stimuli from the natural world, for example listening to birds singing from our window, growing herbs in our kitchen, looking at nature photos, sitting in the back garden, going to the local park, feeling the weather, and noticing the movements of the sun (*Bratman et al, 2019; Miles Richardson et al, 2015*).

As we will explore later, 'nature connectedness' describes the way we relate to, and experience, nature. It refers to the kind of relationship we develop with the natural world. When we have high levels of nature-connectedness we are often happier in life, feel our lives are more worthwhile and have lower levels of depression and anxiety (*Capaldi A. et al, 2014; Richardson et al, 2021*).

# A new love of nature during lockdown?

**73%**

of UK adults surveyed in our YouGov poll said that, connecting with nature has been important in terms of managing their mental health during the pandemic.

**34%**

of UK adults had connected more with nature during the pandemic

**18%**

of UK adults had connected less with nature during the pandemic

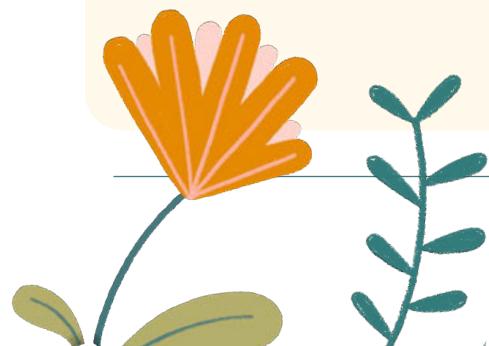
At the Mental Health Foundation, we have been conducting our own research on the mental health impacts of the pandemic. We have learnt the important role that nature played in supporting many people's mental health at this time. In that study, people of all ages (except teenagers – more on this later) told us that visiting green spaces, such as parks was one of the top coping strategies and 45% of the UK adult population used this to cope with the stress of the pandemic and its restrictions.

Other studies have likewise found that different levels of lockdown restrictions have had negative consequences on people's mental health, but that contact with nature has helped people to cope (Soga *et al*, 2020). During the pandemic, many people turned to nature, visiting nature spaces more often and being more likely to notice the nature that is all around us.

In fact, the increase in noticing nature was much greater than the increase in time spent in nature. Between April and June 2020, fewer than half of adults reported they were spending more time outside, but three quarters reported they were noticing and engaging with everyday nature more (*Natural England, 2020*). And studies showed that these changes in the relationship with nature contributed to improvements in people's wellbeing; particularly in feelings of life being worthwhile (*M Richardson & Hamlin, 2021*).

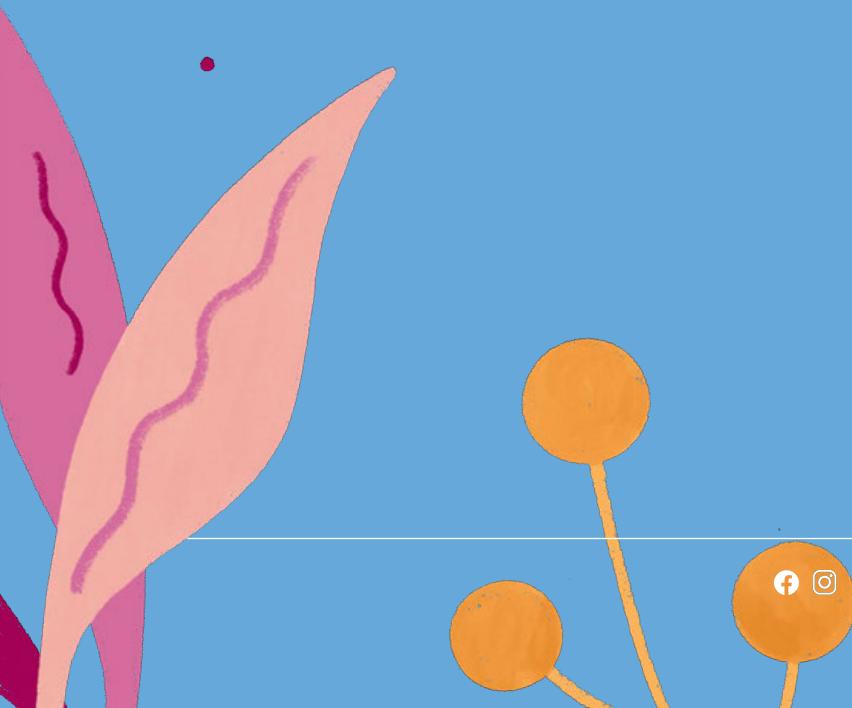
At the Mental Health Foundation, we therefore believe that connecting with and developing a close relationship with nature can help to promote good mental health, and that nature can act as a protective factor for good mental health.

By green spaces we mean any nature area that is predominantly green in colour such as parks, woodland or forests. By blue spaces we mean any nature area that is predominantly blue in colour such as rivers, wetlands, beaches or canals.



02

# Nature as a protective factor for good mental health





# 70%

of UK adults agreed that being close to nature improves their mood.

# 49%

said being close to nature helps them to cope with stress.

This is fully backed-up by research evidence, which consistently shows that nature has a beneficial impact on our mental health. The relationship we develop with nature is emerging as an important protective factor for our mental health.

Intuitively, most of us feel that spending time in nature is good for our wellbeing. Whilst inequalities and barriers mean that by no means everyone is currently able to connect with nature in the optimal way (see section 3 below).

Studies have found that wellbeing can be linked, in part, with how close we live to nature spaces and street trees or private gardens, in both urban and rural settings (*Jiricka-Pürer et al., 2019; Kruize et al., 2020*).

Spending time in blue spaces and green spaces is linked to improved life satisfaction, reduced anxiety and increased happiness (McMahan & Estes, 2015). Contact with nature generates an increase in positive emotions and feelings of vitality, and a decrease in negative emotions; it also provides relief from mental tiredness, and an improvement in our attention span (*Lackey et al., 2019*).

Furthermore, research in different contexts demonstrates the positive effects of being exposed to nature. In the workplace, for example, people with 'high exposure' to nature (taking more frequent breaks to spend time outdoors in green spaces) reported significantly higher work engagement compared to the participants in the same study who described themselves as having a low 'exposure to nature' profile (those who spent more time in the office or who took indoor breaks).

'Connectedness' is our individual way to feel emotionally connected to the natural world with nature. Connectedness goes beyond simply having contact with nature; the concept of connectedness encompasses how we feel, think and experience our relationship with the natural environment.

In general, when we are more connected with nature we tend to be happier and are more likely to be flourishing and functioning well psychologically.

Individuals who are more connected with nature may also seek out more opportunities to spend time with nature, and therefore experience its psychological benefits, and have a positive disposition towards the environment (Martin *et al.*, 2020). Importantly, with the crises of climate warming and biodiversity loss, which will bring further challenges for mental health, people who are more connected with nature are also more likely to take part in pro-environmental behaviours (Mackay & Schmitt, 2019) and pro-nature conservation actions (Miles Richardson *et al.*, 2020).

# Nature connectedness: a key contributor to good mental health

# Nature connectedness: For a new relationship with nature

By Miles Richardson

Our mental wellbeing has been challenged during the coronavirus pandemic and many people have found a friend in nature. The natural world is also struggling.

The warming climate and loss of wildlife show our relationship with nature is failing. The good news is that actively developing a new relationship with nature is good for both human and nature's wellbeing.

Understanding the human-nature relationship is complex. However, "nature-connectedness" has provided some clarity and new evidence of the benefits a close relationship with nature brings. Nature-connectedness provides an internationally accepted way of measuring how close a person's relationship with nature is. It can form the basis of scientific studies. It can be improved.



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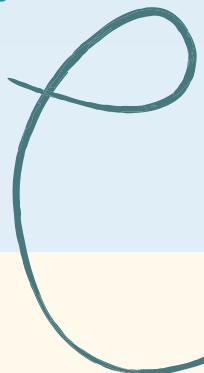
Those scientific studies have increased rapidly in recent years and have established that:

- People's nature connectedness, rather than visits to nature, is key for feeling that life is worthwhile – nearly four times larger than the increase associated with socio-economic status.
- Nature connectedness and simple engagement with nature explains pro-environmental household behaviours and pro-nature conservation behaviours.



Life feels better when people have a strong connection with nature, so how do we improve it?

Improving people's relationship with nature comes through simple, yet meaningful engagement with nature. For example, we found that simply tuning in and noticing the good things in urban nature led to significant and sustained improvements in people's mental health. More widely, our research has identified five distinct types of activity that activate people's connection with nature. The "pathways to nature connectedness" provide a new approach to improving human-nature relations.



## The 5 pathways to a new relationship with nature are:

### 01 Senses

Noticing and actively engaging with nature through the senses, e.g. listening to birdsong, smelling wild flowers, or watching the breeze in the trees.

### 02 Emotion

Experiencing the joy and calm nature can bring, e.g. talking about, and reflecting on your feelings about nature.

### 03 Beauty

Simply taking time to appreciate nature's beauty, e.g. exploring the beauty of nature through art, music or in words.

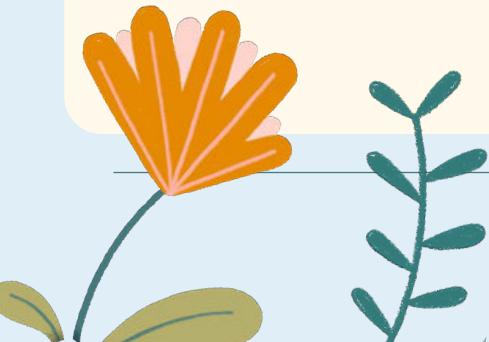
### 04 Meaning

Exploring and celebrating how nature brings meaning to life, e.g. exploring how nature appears in songs and stories, poems and art, or by celebrating the signs and cycles of nature.

### 05 Compassion

Taking actions that are good for nature, e.g. creating homes for nature, and making ethical product choices.

The pathways provide a flexible design framework to help bring about a closer relationship with nature. These can be simple changes in the focus of outdoor activities through to the design of places to improve the human-nature relationship on a larger scale. All because a new relationship with nature is needed for a worthwhile and sustainable life – a good life.



# Green, serene and biodiverse: we benefit from ‘high quality’ nature spaces

Some evidence suggests that variety within nature (or biodiversity) is an important factor in maximising its mental health benefits. Biodiversity through bird-species richness, followed by plant-species richness, habitat diversity and butterfly richness are all related to improved wellbeing (Aerts *et al.*, 2018), increased positive affect (mood) and lower levels of anxiety (Wolf *et al.*, 2017).

Other data tell us that a ‘serene’ landscape (defined as a place of calm or silence; often a forest with different varieties of trees, or near a water course) has a positive impact on our mental health (M. A. van den Bosch *et al.*, 2015). Large areas covered by vegetation and bird varieties are linked to lower levels of depression, anxiety, and stress (Cox *et al.*, 2017). Urban nature can also improve mental wellbeing, for example flowering plants, water, urban wildlife and trees (McEwan *et al.*, 2020). However, as we will see below, it is important that both urban and rural green and bluespaces are safe and accessible for everyone to enjoy.

## More active engagement brings greater benefits

In our poll, we asked people how they benefitted from different activities in nature:

**62%**

felt the benefits of spending time in the countryside

**65%**

of people said that spending time by water has a positive impact on their mental health

**57%**

felt benefits from seeing nature as they go about their daily life,

Benefits may be gained from intentionally interacting with nature (e.g. through visiting neighbourhood green spaces or spending time in a garden), or occasionally from incidental contact with nature while we carry out daily activities (e.g. walking to the shops, driving to work), or indirectly while not actually present in nature (e.g., viewing it through a window; watching a documentary) (Keniger et al., 2013).

However, more active engagement tends to bring greater benefits (Miles Richardson et al., 2021).



# Many activities have been designed to improve our connectedness with nature.

These can have a positive impact on our wellbeing and range from immersive residential wilderness camps, to increasing the amount of nature in front gardens (Chalmin-Pui et al., 2021). Some of these activities are intensive but less regular (e.g. a school trip), and others might be more long-term (for example, doing gardening every weekend).

To maintain wellbeing day to day it is important to develop activities in which we can participate close to home. For example, The Wildlife Trust's 30 Days Wild campaign focuses on simple activities that help us form a close relationship with everyday nature; it has brought about improvements in mental wellbeing that have been sustained for periods of two months (Miles Richardson, Cormack, et al., 2016).

**57%**

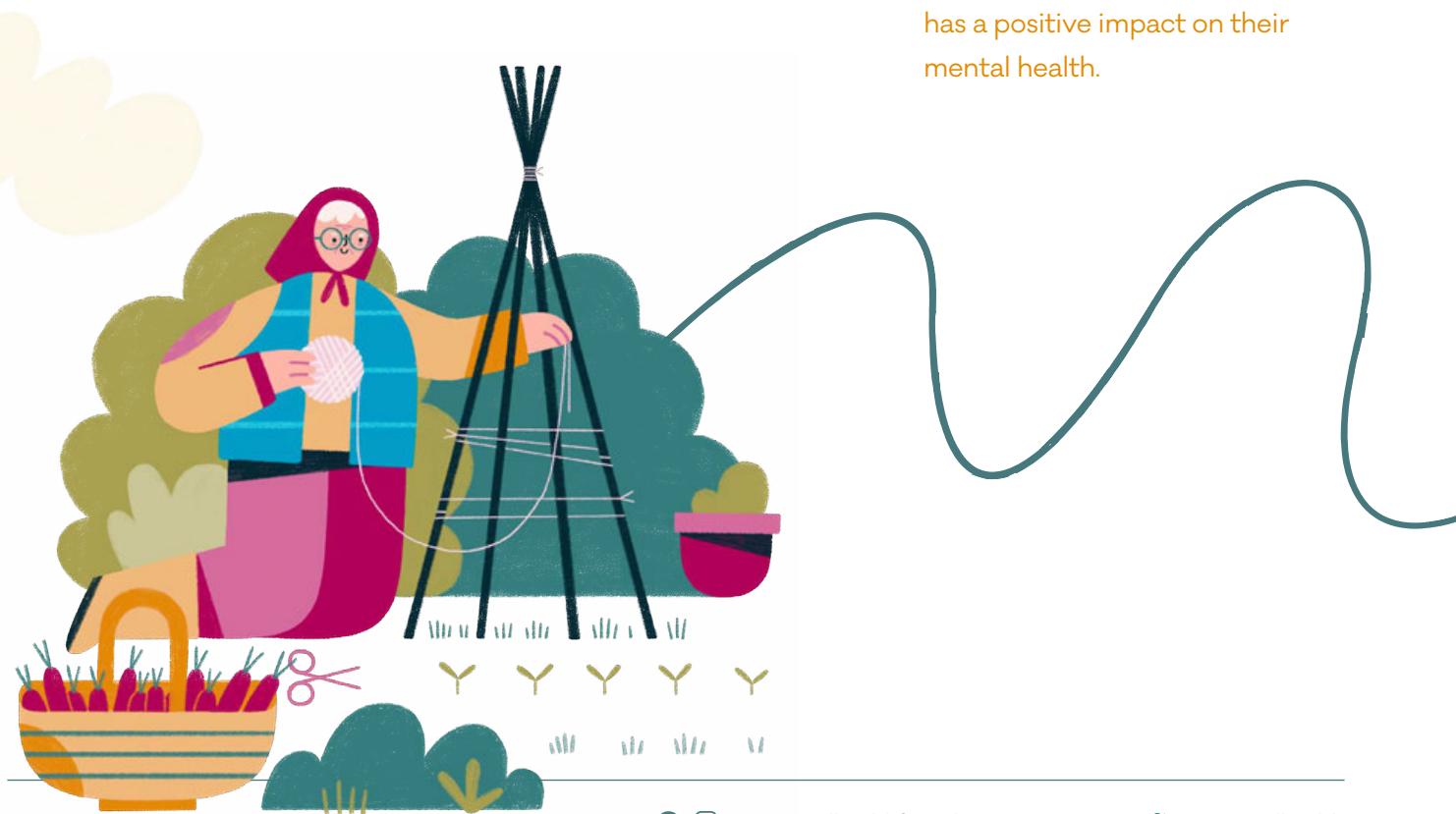
of people benefited from spending time in their garden

**43%**

agreed that spending time in the park is good for their mental health

**30%**

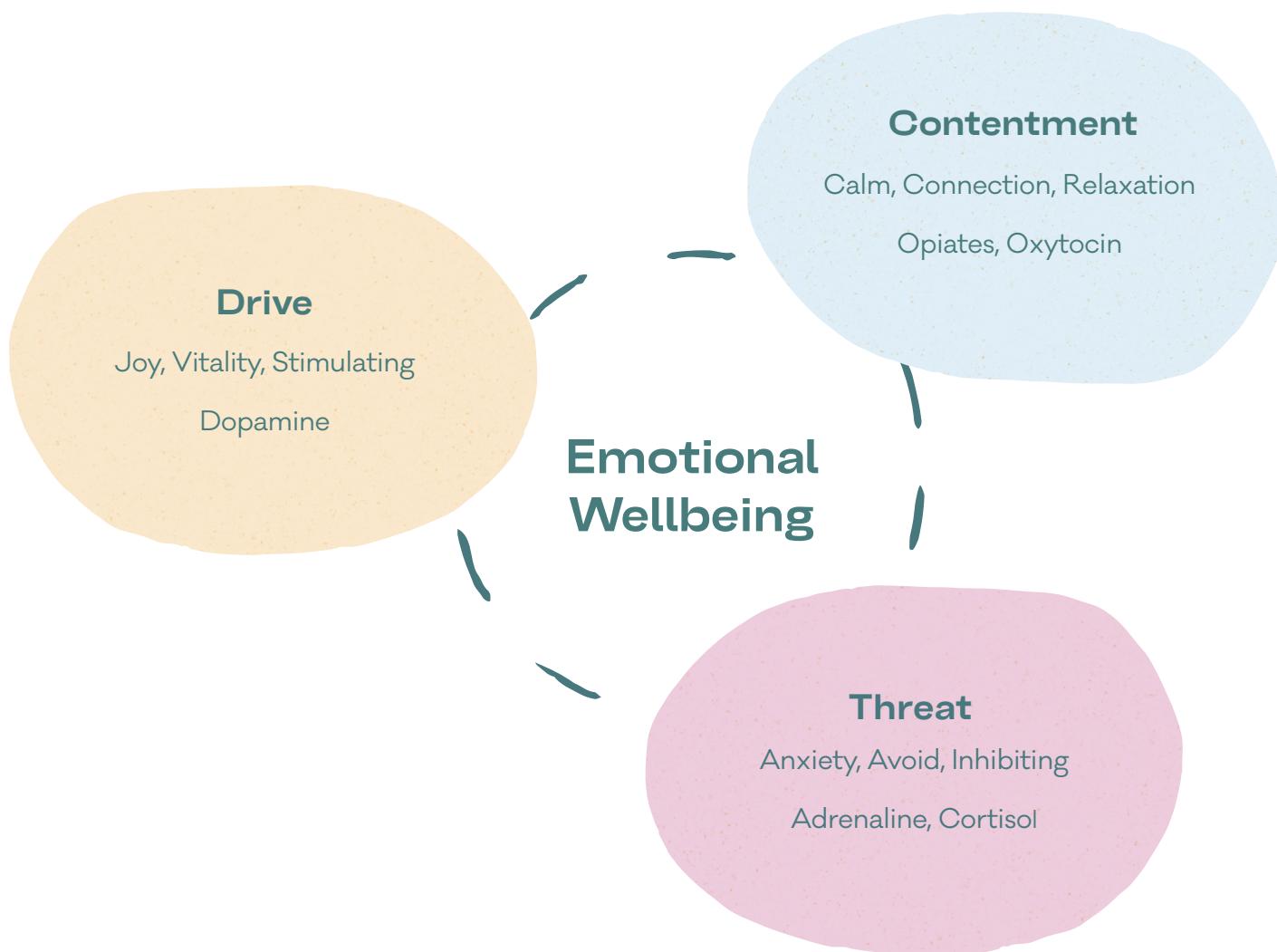
of people even agreed that watching or listening to nature documentaries on TV or radio has a positive impact on their mental health.



# How nature helps our mental health

Some of the leading experts in nature research have presented a model of how nature balances and regulates our emotions (*Miles Richardson, McEwan, et al., 2016*).

According to this model, there are three areas of emotion which can be affected by our experiences with nature. These three dimensions are: threat, drive and contentment. Each dimension is linked to different feelings and motivations. 'Threat' is motivated by avoidance and leads to the emotion of anxiety. 'Drive' is motivated by pursuit and leads to joy. 'Contentment' is motivated by rest and brings calm. These emotions each release specific hormones in the body. This is represented in the diagram below.



In order to experience good mental health, we need a balance between these three dimensions of threat, drive and contentment. For example, when our threat response is overactive (perhaps because we feel constantly driven at work) our positive emotions are reduced, and we can become anxious or depressed.

Exposure to nature can generate positive emotions and balance our moods, resulting in better resilience (M. Richardson, K. McEwan, Maratos, 2016).



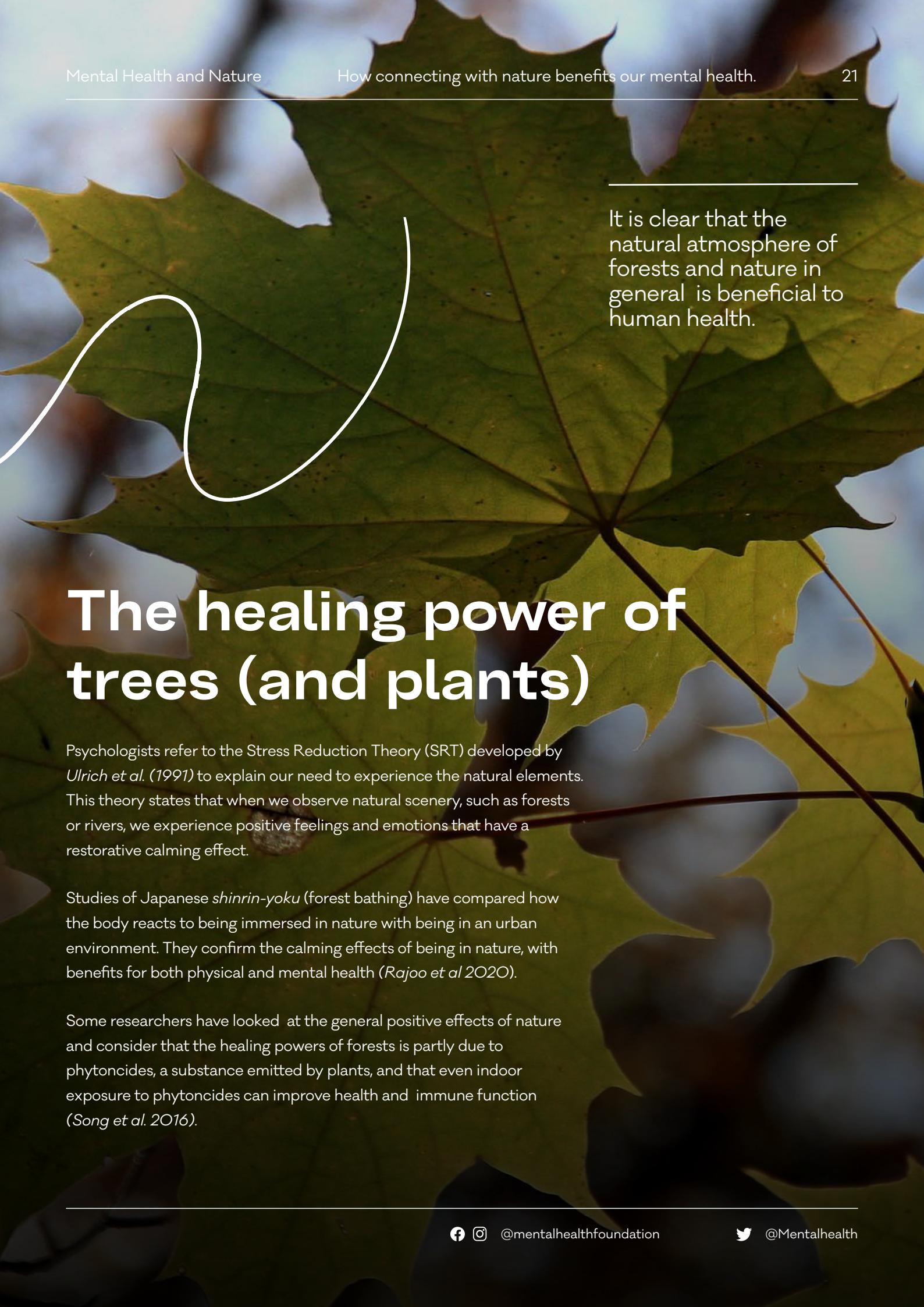
In our poll, we asked people how they benefitted from different activities in nature:

**65%**

of people agreed that they experience positive emotions from being in nature (e.g. calm, joy, excitement or wonder).

**44%**

of people said that being close to nature makes them less worried or anxious.



It is clear that the natural atmosphere of forests and nature in general is beneficial to human health.

# The healing power of trees (and plants)

Psychologists refer to the Stress Reduction Theory (SRT) developed by Ulrich *et al.* (1991) to explain our need to experience the natural elements. This theory states that when we observe natural scenery, such as forests or rivers, we experience positive feelings and emotions that have a restorative calming effect.

Studies of Japanese *shinrin-yoku* (forest bathing) have compared how the body reacts to being immersed in nature with being in an urban environment. They confirm the calming effects of being in nature, with benefits for both physical and mental health (Rajoo *et al* 2020).

Some researchers have looked at the general positive effects of nature and consider that the healing powers of forests is partly due to phytoncides, a substance emitted by plants, and that even indoor exposure to phytoncides can improve health and immune function (Song *et al.* 2016).

## Quantity versus quality: our connectedness with nature is critical

It makes sense that if spending time in nature is good for us, then the more time we spend outside in nature the bigger the benefit. On this theme, recent research has looked at what the idea of a weekly 'dose' of time in nature should be. Two hours a week has been found to be a dosage that significantly boosts health and wellbeing (*White et al., 2019*).

*Concerningly, our poll found that 'in normal times' before the pandemic, 16% of people spent an average of an hour or less around nature each week – or no time at all. These proportions were particularly high for the youngest adults (21% and 22% of 18-24 and 25-34 year-olds respectively), and for people without access to gardens (27%).*

Interestingly, however, when time and connectedness are measured together, time can emerge as less important (*Martin et al., 2020; Miles Richardson et al., 2020*). This fits with the understanding that it is the quality of our relationship with nature that contributes to its positive impact on our wellbeing (*Dobson et al., 2020*). This suggests we should focus on finding effective ways to engage with nature, as we know that nature-connectedness leads to a virtuous circle of spending more time in nature.

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# 16%

of people spent an average of an hour or less around nature each week – or no time at all.

