

The project

On 23rd March 2020, the UK went into lockdown in response to the Covid-19 threat. As a result, many people's engagement with natural environments will have changed substantively, something which is likely to have had significant impact on their wellbeing. We aim to understand these changes in nature engagement and wellbeing in the UK before, during and after lockdown and help understand what Government and Statutory Bodies can do to ameliorate the impact of Covid-19 on wellbeing now and as part of the Green Recovery from Covid-19. The project consists of four studies:

Study 1: Longitudinal surveys - Questionnaires completed at multiple time points examining wellbeing and the use and perceptions of different natural spaces during and after lockdown.

Study 2: Social media analysis - Secondary text analysis on public comments posted on social media in response to videos by Chris Packham and BBC Springwatch during the pandemic.

Study 3: In-depth Interviews - An interview study exploring the use of natural environments during lockdown, exploring changes in implicit and explicit (intentional) engagement with natural environments for leisure and wellbeing.

Study 4: National secondary data analysis - Using the Natural England People and Nature survey, cross-sectional changes in use of and benefits from nature will be derived.

The 18-month project started in June 2020. The first 12 months of the project have focused on data collection and analyses for Studies 1, 2 and 3, as well as the organisation of a network and contributing to a range of stakeholder activities, including running a stakeholder event held in December 2020. This second progress report summarises key outcomes for the second 6-month period (Jan- June 2021) and centres around four key outputs.

#Springwatch #WildMorningswithChris: Nature engagement on social media & wellbeing during Covid-19

Introduction

It is widely understood that nature engagement benefits human wellbeing. Such benefits have been found for real nature as well as virtual representations of nature. However, little is known about the role of

nature-based videos in social media on wellbeing and nature-engagement. This qualitative study uses a thematic analysis of comments publicly available on Facebook to investigate the association between nature engagement via social media and wellbeing during the first UK Covid-19 lockdown.

Method

This qualitative study uses a thematic analysis of comments publicly available on Facebook to investigate the association between nature engagement on social media and wellbeing during the Covid-19 lockdown. Data consisted of comments on videos from the BBC's Springwatch 2020 TV series (68 videos with 13,701 comments in total) and from a UK TV presenter and naturalist's (Chris Packham) livestream videos (55 videos with a total of 129,564 comments) posted on Facebook from March to July 2020.

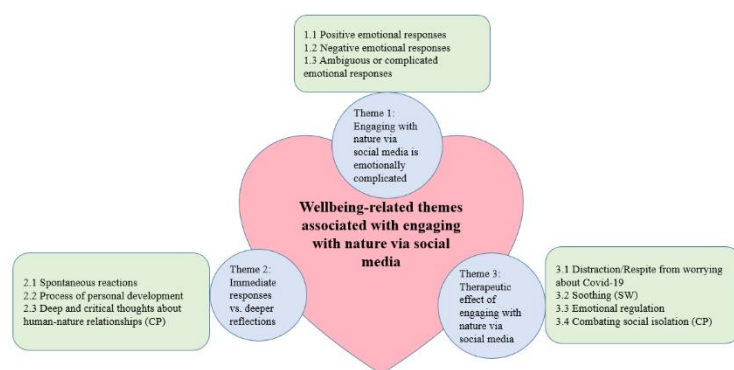


Figure 1. Thematic map

Findings

Analysis of the 143,265 comments resulted in 3 major themes being generated: (1) engaging with nature via social media is emotionally complicated, (2) cognitive and reflective reactions are generated from social media nature engagement and (3) engagement with nature-based social media as a mechanism for coping with stress during Covid-19. These findings inform understanding of how nature-related social media content and associated commentary have supported wellbeing throughout the ongoing pandemic and their importance as a means of continued support for wellbeing (Xu et al., 2020).

Related output: Xu, T., Murrell, G., Golding, S.

Brockett, B. Gatersleben, B. Scarles, C., White, E., Willis, C., Wyles, K. (submitted for publication).

#Springwatch #WildMorningswithChris: Nature

Everyday places to get away during the Covid-19 pandemic

Introduction

Gaining a sense of being away from everyday demands and stressors is important for human wellbeing, and is central to leisure research (Hammit, 2000). For instance, the attention restoration theory (ART, Kaplan & Kaplan, 1989) suggests it is one of the four factors that help explain why some environments may help people recover more quickly and fully from mental fatigue (and stress) than others. We know relatively little about the types of places people visit to get away in their everyday life, what they do in those places, and how different places and different activities may support the benefits for wellbeing that people derive from such visits. There is increasing evidence that visiting natural places has particular benefits for wellbeing during lockdown (Poortinga et al., 2021). But not everybody may have the motivation, opportunity or ability to get away to a natural place and different people may visit the same place for different reasons and different activities.

This study was conducted in 2020 when strict rules were in place that limited people's movements as a result of the Covid-19 pandemic. All non-essential travel was banned. People were allowed to leave their home once a day for leisure, for no more than one hour and to stay in their local area. Visiting people from other families was not allowed. Schools were closed and many people ended up working at home. We examined what this meant for people's perceived need and ability to get away, the places they visited to get away, the things they did in those places and the wellbeing benefits they derived from these visits.

In order to support health promotion interventions, it is key that we gain a systematic insight into the factors that contribute to the beneficial effects of place visits. Understanding the types of visits, the reasons for visiting and the types of visits is important for developing tailored interventions to help enable people to manage their wellbeing.

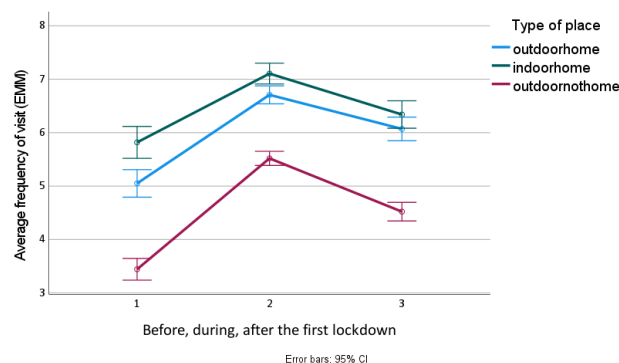
Method

This survey was completed by 850 participants, via "Prolific" which enabled us to recruit a representative sample of UK respondents. The survey includes a range of questions on wellbeing, being away. It was completed in September 2020, reflecting experiences

in the first national lockdown period. Although the latter half of the survey asked more specific questions about nature visits the first half of the survey did not make reference to natural environments to explore where people chose to get away during the lockdown period and these visits may have benefited wellbeing.

Findings

The need to get away from monotony and tediousness appeared the greatest; this also had the greatest effect on people's wellbeing. It was particularly important for their eudaimonic wellbeing (their sense of meaning and purpose in life). When



asked where people tended to go to gain a sense of being away, the majority mentioned an outdoor (mostly natural) place – either at home (the garden) or nearby (a park) but about a third also mentioned an indoor place (room, bed). These places were closely linked to the activities in those places: active engagement with the physical and social environment (mostly outdoors away from home), relaxing (mostly in the garden) or solitary consumptive leisure such as watching television or gaming (mostly indoors). Although the wellbeing benefits derived from these place visits were all positive, active engagement with outdoor places away from home appeared the most beneficial, whereas remaining indoors appeared the least beneficial (Gatersleben, B., et al., 2020).

References

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outbreak. *Landscape and Urban Planning*, 211, 104092.

Related output: Gatersleben, B., White, E. G., Wyles, K. J., Golding, S. Brockett, B. Scarles, C., Willis, C., Xu, T. (paper in preparation). Everyday places to “get away” during the Covid-19 lockdown.

Gardens & Wellbeing During the First UK Covid-19 Lockdown

Introduction

The combination of the Covid-19 pandemic and the subsequent UK lockdowns had a serious impact on wellbeing in the UK in 2020. Levels of depression, stress, anxiety (Jia et al., 2020), and psychological distress (Niedzwiedz et al., 2021) were all elevated in the early weeks of the first lockdown, in Spring 2020. Data also suggested increases in sleep deprivation (Falkingham et al., 2020) and suicidal ideation (O’Connor et al., 2021). In April 2020, a multidisciplinary team of scientists called for UK researchers and funding bodies to examine mental health in the wake of Covid-19 and look at ways to mitigate the negative consequences (Holmes et al., 2020). And soon after, a team of researchers from The University of Surrey and Natural England, funded by the ESRC, began a project looking at the associations between nature-engagement and wellbeing before, during and after the pandemic (visit the [project website](#) for more information).

As part of this research project, the team are launching a report looking at how home gardens helped bolster the wellbeing of people living in the UK during the first lockdown, between March and May 2020. Pre-pandemic research clearly demonstrates the links between gardens and wellbeing, with gardening associated with reduced depression and anxiety, as well as increased life satisfaction and quality of life (Soga et al., 2017). The researchers extend this work by looking at how gardens were used during the first lockdown, who had access to a home garden and who did not, and how respondents felt when they were in their gardens.

Method

The report is based on data from an online survey which was completed by 850 respondents, who were representative of the UK population. It asked them about their use of a home garden, either private or shared, during the first lockdown, and collected a range of quantitative and qualitative responses.

Results

The report sought to answer 5 main questions. Here is what it found:

1) *How often did people use their gardens during the first lockdown?*

Most respondents visited their gardens frequently during the lockdown, with 59% visiting at least once a day and an additional 23% visiting once a week or more. Gardens were visited more frequently than any other type of environment examined in the survey, including waterways, local parks, and the countryside.

2) *Did some find it more difficult to access a garden than others?*

The large majority of respondents had access to a garden, but 14% had either no access or found it difficult to access a garden during lockdown. Almost twice as many low-income respondents reported difficulties in accessing a garden compared with high income respondents. Similarly, almost twice as many ethnic minority respondents reported difficulties in access compared with white respondents. And younger respondents found access more difficult than older respondents.

3) *Was garden use associated with wellbeing improvements?*

Correlational analyses revealed that the more respondents visited their gardens during the lockdown, the more happy and cheerful they reported themselves to be during this time. Similarly, respondents felt less anxious and depressed the more they visited their gardens.

4) *Was nature in the garden associated with wellbeing?*

The more nature people reported in their gardens, such as trees, plants, animals, insects and natural smells, the happier respondents rated themselves to be.

5) *What did people do in their gardens?*

As expected, a large number of respondents said that they spent time gardening in their home garden. But the garden was used for many more activities, including experiencing nature, resting and relaxing, reading books, and listening to music.

Implications

The findings of this report not only add to the growing body of evidence pointing to the benefits of spending time in gardens, but to our understanding of their use and desirability during this turbulent period of time for the UK. It highlights the need for wider access and points to some practical ways in which gardens may be enhanced for wellbeing, such as by adding in more natural elements.

References

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- Niedzwiedz, C. L., Green, M.J., et al (2021). Mental health and health behaviours before and during the initial phase of the COVID-19 lockdown: longitudinal analyses of the UK Household Longitudinal Study. *Journal of Epidemiology & Community Health*, 75, 224-231.
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Related output: White, E. V., Gatersleben, B., Wyles, K. J., Murrell, G., Scarles, C., & Xu, S. (2021). *Gardens and wellbeing during the first UK Covid-19 lockdown (Research Report No. 1)*. Retrieved from <https://www.surrey.ac.uk/research-projects/people-and-nature-pandemic-studying-nature-engagement-and-wellbeing-pre-during-and-post-covid-19>.

A qualitative investigation of changes in nature engagement using an ethnographic photo elicitation methodology

Introduction

Engaging with nature can be good for people's physical and mental health and wellbeing. Different people engage with nature in different ways, for example in terms of types of places, frequency of visits, activities undertaken (Natural England, 2019). Some of this is due to psychological factors, such as differing beliefs and preferences, but some of this is

due to societal factors, such as economic inequality and the availability of nearby nature. There is, therefore, existing evidence of inequalities in terms of accessing and spending time in nature, with associated health inequalities linked to these differences in access (Allen & Balfour, 2014). Furthermore, engaging with nature appears to have some protective effect against the negative impacts of economic inequalities (Allen & Balfour, 2014).

Very little is known about how the COVID-19 lockdowns and travel restrictions have impacted on how people engage with nature. The COVID-19 pandemic has the potential to exacerbate the existing inequalities across various areas of life (Blundell, Costa Dias, Joyce, & Xu, 2020), and if existing inequalities in nature engagement are exacerbated during the pandemic, this could contribute to widening inequalities in physical and mental health.

Methods

This qualitative study is exploring the impact of the COVID-19 lockdown and travel restrictions on people's engagement with nature, by asking participants about their nature-related experiences pre, during, and post-lockdown. We are also exploring any links participants draw between their nature engagement and their subjective perceptions of their health and wellbeing.

We have interviewed 34 adults from across England using an ethnographic photo elicitation methodology. We asked participants to provide a selection of photos that represented what nature engagement meant to them across three timepoints – before COVID-19 and the initial lockdown, during the first 6-12 weeks of 'strict' national lockdown, and as lockdown has been eased. Where relevant, we also asked for photos that are related to later lockdowns. A pre-interview briefing took place to introduce participants more fully to the project and what would be asked of them, before full interviews were conducted by telephone or video call (e.g. zoom). During the interviews, only the audio was recorded. Interviews have been transcribed and data analysis is ongoing using thematic analysis (Braun & Clarke, 2006).

Participants were eligible to take part provided they were aged 18 or older, had full mental capacity, and were living independently in the community in England. We spoke to 24 women and 10 men (aged 18 to 73); 31 people identified as White and three identified as Asian. Four people reported a health condition that they felt interfered with their ability to connect with nature during lockdown. There were a

range of education levels and employment statuses represented, and four people had been furloughed during the first lockdown. Most participants had access to a private vehicle and most had access to either a private or shared garden at home. To address potential issues of inequality in accessing nature during lockdown, we purposively sampled across areas with differing levels of deprivation, and our final sample included people living in areas that represented all 10 deciles of the Index of Multiple Deprivation. In terms of living environments, most either lived alone or with immediate family, and there was a roughly equal split between those who lived in urban, suburban, and rural locations.

Early Findings and Anticipated Outcomes

Early analysis indicates that the natural world has played an important supportive role for people during the pandemic, in a myriad of ways. Accessing natural spaces and engaging with natural stimuli (e.g. sunsets, wildlife, the stars) supported different aspects of people's physical and mental wellbeing, and provided them with opportunities for exploration, discovery and learning. Natural spaces have been places of refuge from pandemic-related stressors and places for social interaction with loved ones. However, not all nature-based experiences were positive; a range of negative emotions were experienced in natural spaces during lockdown (e.g. fear, boredom, frustration) and people were also distressed at the perceived transgressions of others, such as increased littering or breaking social distancing and travel restrictions.

This qualitative study will provide insights into how the COVID-19 lockdown and travel restrictions have impacted on how people engage with nature. The interviews have provided rich data about what has changed in terms of location, activities, frequency of visits etc., for whom things may have changed the most, and to what extent these changes have impacted upon people's subjective perceptions of their health and wellbeing during the pandemic.

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- Natural England. (2019). Monitor of Engagement with the Natural Environment:

The national survey on people and the natural environment. Headline report 2019.

Related outputs:

- Golding, S., et al. (2021). Nature engagement and wellbeing during COVID-19: A qualitative photo elicitation study. Poster presentation at *British Psychological Society Division of Health Psychology Virtual Annual Conference*.
- Scarles, C., et al. (2021). Nature engagement and wellbeing during the COVID-19 pandemic: Insights from a qualitative photo elicitation study. Oral presentation at *Leisure Studies Association Virtual Conference*.

Project Outputs to date

Reports and papers

- Gatersleben, B., White, E., Wyles, K. J., J., Golding, S., Brockett, B., Scarles, C., Willis, C., Xu, T. (paper in preparation). Everyday places to “get away” during Covid-19 lockdown.
- White, E. V., Gatersleben, B., Wyles, K. J., Murrell, G., Scarles, C., & Xu, S. (2021). *Gardens and wellbeing during the first UK Covid-19 lockdown (Research Report No. 1)*. Retrieved from <https://www.surrey.ac.uk/research-projects/people-and-nature-pandemic-studying-nature-engagement-and-wellbeing-pre-during-and-post-covid-19>
- Xu, T., Murrell, G., Golding, S., Brockett, B., Gatersleben, B., Scarles, C., White, E., Willis, C., Wyles, K. J. (submitted for publication). #Springwatch #WildMorningswithChris: Nature Engagement on Social Media and Wellbeing During Covid-19.

Talks, workshops, presentations

- Gatersleben, B., et al. (2020). People and nature in a pandemic; studying nature engagement pre-during and post Covid-19. Invited Keynote presentation at the fourth Conference on Environmental Psychology in Norway - November 2020. <https://eng.inn.no/conferences/conference-on-environmental-psychology-2020>
- Golding, S. & Scarles, C. (2020). Inequalities in Accessing Nature During COVID-19 Lockdown. Presented at People and Nature in a Pandemic; two day interactive on-line workshop, December 2020.
- Golding, S., et al. (2021). Nature engagement and

wellbeing during COVID-19: A qualitative photo elicitation study. Poster presentation at *British Psychological Society Division of Health Psychology Virtual Annual Conference*, June 2021.

Gatersleben, B. & Scarles, C. (2021). Women, nature and wellbeing. Presentation to Department for Health & Social Care for International Women's Day – "Women, nature and wellbeing", March 2021

Gatersleben, B. & Scarles, C. (2021). People and Nature in a Pandemic. Presentation to Outdoor Recreation Network annual conference, March 2021. <https://www.outdoorrecreation.org.uk/>

Scarles, C., et al. (2021). Nature engagement and wellbeing during the COVID-19 pandemic: Insights from a qualitative photo elicitation study. Oral presentation at *Leisure Studies Association Virtual Conference*, July 2021

White, E. (2020). *Bringing Nature Indoors*. ESRC Festival of Science - Thriving in lockdown: 5 ways to celebrate staying at home; online public workshop, November 2020.

White, E., Gatersleben, B. & White, E. (2020). Longitudinal examination of nature engagement during & post Covid. Presented at People and Nature in a Pandemic; two-day interactive on-line workshop, December 2020.

Xu, T. & Murrell, G. (2020). #Springwatch #WildMorningswithChris: Nature engagement on social media & wellbeing during Covid-19. Presented at People and Nature in a Pandemic; two-day interactive on-line workshop, December 2020.

Xu, T. (2020). Springwatch #WildMorningswithChris: Nature engagement on social media & wellbeing during Covid-19. Presented at. 4th DUFEE (Dongbei University of Finance and Economics) - Surrey workshop, December 2020.



Blogs and other outputs

Gatersleben, B. (Nov 2020). Recovering from the Pandemic: Bolstering Wellbeing with Nature. CUSP blog

<https://www.cusp.ac.uk/themes/s1/news-covid-env-psychology/>

Gatersleben, B (2021). Human-land: *The environmental psychology podcast*. Finding freedom in a

pandemic? <https://www.slu.se/en/departments/department-of-people-and-society/ohw-alumn/ohw-podcast/episode-1/>

University of Surrey, Pint of Science. Ctrl, alt, delete. How do we reboot our way of living and society after COVID-19?

<https://www.youtube.com/watch?v=IYJUYP5cSG4&list=LL&index=1>

Wyles, K. J. (Nov 2020). Hawk Conservancy Trust Podcast [Nature's a Hoot Episode 4: Wildlife and Well-being - Hawk Conservancy Trust - Hawk Conservancy Trust \(hawk-conservancy.org\)](https://www.hawk-conservancy.org/)

Xu, T. (2021). Will digital nature engagement positively impact our wellbeing? Blog for Natural England based on Study 2. <https://people-and-nature-survey-defra.hub.arcgis.com/pages/blog#tracy-blog>

The team

University of Surrey

Project lead: Birgitta Gatersleben

Co-investigators: Caroline Scarles, Tracy Xu

Postdoctoral researchers: Sarah Golding, Emma White; placement student: George Murrell

University of Plymouth

Co-investigator: Kayleigh Wyles,

Natural England Partners

Beth Brockett, Cheryl Willis

Contact: b.gatersleben@surrey.ac.uk

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