

Exploring the benefits of outdoor activity participation in national parks: a case study of the Peak District National Park, England

POMFRET, Gill <<http://orcid.org/0000-0003-1161-7703>>, FROST, Jennifer and FROST, Warwick

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**Exploring the benefits of outdoor activity participation in national parks: A case study
of the Peak District National Park, England**

Author Details

Corresponding author:

Dr Gill Pomfret, Associate Professor of Tourism

Sheffield Business School, Stoddart Building, City Campus, Sheffield Hallam University,
Howard Street, Sheffield, S1 1WB, UK.

Email: g.c.pomfret@shu.ac.uk

ORCID: <https://orcid.org/0000-0003-1161-7703>

Twitter: @PomfretGill

Dr Jennifer Frost, Associate Professor

Department of Management and Marketing, La Trobe University, Bundoora Victoria 3086,
Australia.

Email: Jennifer.Laing@latrobe.edu.au

ORCID: <https://orcid.org/0000-0002-3656-7338>

Dr Warwick Frost, Professor of Tourism, Heritage and the Media

Department of Management and Marketing, La Trobe University, Bundoora Victoria 3086,
Australia.

Email: W.Frost@latrobe.edu.au

ORCID: <https://orcid.org/0000-0002-7180-3498>

Abstract

This study aims to explore the role that regular outdoor activity participation in national parks plays in subjective wellbeing (SWB). It also considers the influences on SWB, including the national park environment, resilience-building, coping skills, mental health and stress alleviation. There is a wealth of research on the benefits of outdoor recreation in natural settings, yet studies which specifically examine the impacts of regular activity engagement in national parks are scarcer. Using the Peak District National Park (England) as a case study, fifteen online stakeholder interviews were conducted, probing participants about their outdoor recreation experiences both during and before the onset of the pandemic. Findings suggest that frequent outdoor activity participation in the Park positively influences coping, resilience and subjective wellbeing, and, relatedly, helps to improve mental health, and alleviate stress. These outcomes are valuable for dealing with the vicissitudes of everyday life and in facilitating long term SWB.

Introduction

The UK government recognises the benefits of green spaces in promoting health (Public Health England, 2020). Its 25 Year Environment Plan ‘aims to improve population health and wellbeing by forging a closer connection between people and the natural environment’ (18). Reflecting this ethos, the UK National Parks movement was set up in the 1950s to help preserve the natural environment, to make natural spaces more accessible, and to improve people’s quality of life and wellbeing. National parks became highly valued throughout the Covid-19 pandemic as more people engaged in outdoor activities as a coping mechanism, built their resilience and enhanced their wellbeing (Korpilo et al., 2021), and the advantages for stress alleviation continue to be relevant in a post-pandemic world (Buckley and Cooper, 2022). The pandemic forms the backdrop for our study, which investigates the benefits of outdoor activity engagement in national parks, specifically the Peak District National Park (PDNP). The Park was designated as the first UK national park in 1951 for its ‘natural beauty, wildlife and culture heritage’ (Peak District National Park Management Plan [PDNPMP], 2018-2023, 7). There are calls for further academic enquiry (Buckley and Westaway, 2020; Wheeler et al., 2015; Wyles et al., 2019) to understand the potential of outdoor activity participation in protected areas, such as national parks, to facilitate benefits which people can use in their everyday lives to enhance their subjective wellbeing (SWB). Our study responds to these calls by investigating outdoor activity participants who regularly visit the PDNP.

Some scholars consider natural environments in a generic way, neglecting the distinctive features of different settings, and the diverse types and qualities of natural landscapes (Wyles et al., 2019). This results in an ‘homogenisation of ‘greenspace’ (Wheeler et al., 2015, 2), yet different natural settings influence individuals’ experiences in distinctive ways. For instance, being in ‘urban green,’ ‘agriculture’ and ‘forest and nature’ areas facilitate different health outcomes (de Vries et al., 2003); diverse types of urban greenspace encourage various levels of physical activity in children (Lachowycz et al., 2012); and individuals enjoy varied psychological wellbeing outcomes from different natural environments (White et al., 2013). Our study aims to add to this extant literature through exploring the role that regular outdoor activity participation in national parks plays in subjective wellbeing (SWB). We also consider the plethora of influences on SWB, including the national park environment, resilience-building, coping skills, mental health and stress alleviation, during and before the onset of the pandemic. Accordingly, the focus of this research is on a specific type of protected area, i.e.,

a national park, and the beneficial outcomes of outdoor recreation participation in such a setting.

Resilience means to positively respond to, recover from, and build a capacity for dealing with adversity. It is ‘the maintenance, recovery, or improvement in mental or physical health following challenge’ (Ryff et al., 2012, 794), and the reduction of social, biological, or psychological threats to health (Ungar, Dumond and McDonald, 2005). Resilience is a personality trait, which enables control over life events, and a lifelong skill, which is critical to healthy development (Hayhurst et al., 2015). Managing the challenges and risks inherent in outdoor adventure activities facilitates coping and resilience (Kerr and Houge Mackenzie, 2020). Coping, which is inextricably linked to resilience, concerns individuals developing effective strategies to deal with problematic situations. Manning and Valliere (2001) have investigated the coping strategies that individuals use in nature-based settings, for instance how people adapt their behaviour in tricky situations. Mental health is characterised by the absence of mental disorders and the presence of resilience and SWB (World Health Organisation, 2002). Extant research advocates outdoor recreation for mental health (Mutz and Müller, 2016) and as a therapeutic intervention (Buckley and Westaway, 2020). Coping, resilience development, mental health and stress alleviation are important for maintaining and enhancing SWB (Pomfret, Sand and May, 2023). SWB is a broad term which comprises diverse types of individual wellbeing. SWB reflects how satisfied people are with various aspects of their lives including their health, goal fulfilment and family, and the interplay between their personal circumstances, physical, psychological and social resources, personality, the environment, and their coping styles (Ryff et al., 2012). Studies on how individuals enjoy these benefits in an outdoor recreation context have attracted a lot of scholarly attention, pre-, during and post-pandemic (e.g., Espiner et al., 2022; Geng et al., 2021; Korpilo et al., 2021). However, less is known about how national parks specifically encourage these outcomes for outdoor recreationists. Yet, such environments offer high quality, aesthetically pleasing, and iconic settings for outdoor activity engagement (Wyles et al., 2019).

This study makes a ‘neglect spotting’ contribution as, quite simply, there is a ‘missing “something”’ (Nicholson et al., 2018, 213) in the outdoor recreation literature. Although we recognise that considerable research exists on the benefits of outdoor recreation in natural settings, studies (e.g., Buckley and Westaway, 2020) that specifically examine the impacts of

regular outdoor pursuits in national parks are scarcer. While we acknowledge that using the word ‘natural’ in relation to national parks is relative as, in the UK, there are very few of these areas that have not been developed by people in some way, national parks have distinctive features compared with other natural landscapes. They are protected areas for their special characteristics, including their natural beauty, wildlife, cultural heritage and high ecological quality. National parks have local, national and, sometimes, international significance (Natural England, 2011), and they are carefully managed and developed to offer outdoor recreation activity opportunities for visitors. Consequently, these settings facilitate diverse types of physical activity, compared with more remote, less managed, and often lower quality wilderness areas (Pietilä, 2017).

We chose the PDNP as the context of the study as it is one of the most visited and iconic national parks in Britain, attracting over twelve million visitors annually (Shaker and Hermans, 2019). It is easily accessible due to its proximity to major urban conurbations (e.g., Manchester and Sheffield), and approximately sixteen million people live within an hour’s travel to the Park. Despite its peri-urban location, the Park incorporates the natural environment to a high degree, and we focus in this study on those areas with natural elements, such as hills, rivers, and trees. This study’s findings can help to shape the development of Park initiatives which focus on building coping strategies and resilience and influence the design of outdoor activity experiences to ensure individuals are reaching their full SWB potential.

Literature Review

Outdoor activity participation in natural environments

The beneficial outcomes of outdoor activity participation in natural environments are diverse and plentiful. These include optimal experiences, e.g., flow (Farkić, Filep and Taylor, 2020), awe (Reid and Kampmann, 2020), improved physical health (Brymer and Feleti, 2020), self-efficacy (Houge Mackenzie and Brymer, 2020), personal development (Ashworth, 2017), identity development (Mykletun and Mazza, 2016), learning and mastery (Magnussen, 2012), flourishing (Buckley and Westaway, 2020), freedom (Doran, 2016), mindfulness (Mutz and Müller, 2016) and beneficence, i.e., prosocial behaviour which benefits others (Houge

Mackenzie and Hodge, 2020). Research on the special characteristics of different natural environments has, for example, examined visitor experiences across various nature-based settings (Pietilä, 2017), the benefits that visitors enjoy from guided activity tours in national parks (Wolf et al., 2014), and the psychological benefits of coastal environments (Wyles et al., 2016). Limited research considers the national park environment and SWB. For example, Buckley (2020) examined the wellbeing effects associated with forest and beach national park visitation and found that over 80% of interviewees felt happy because they visited these parks. Happiness is an important aspect of SWB, and contributes towards a flourishing society of healthy, engaged and contented individuals (Seligman, 2011).

Holt et al. (2019) suggested that active participants in nature - i.e., those who frequently engaged in running, walking, cycling and hiking - enjoy more potent benefits than passive participants - i.e., those who regularly relaxed with friends, meditated, studied and just sat in greenspaces. These benefits included a better quality of life, lower feelings of stress, and improved mood. Nisbet and Zelenski (2011) compared the benefits of activity engagement in natural surroundings with indoor settings. People felt happier, in a better mood, and enjoyed a sense of connection with nature when walking outdoors in nearby nature compared with those walking indoors. Nature-based activities encourage higher levels of SWB and satisfaction, stronger feelings of engagement and revitalisation, and reduced feelings of anger and depression, than indoor activities (Barton et al., 2016). Relatedly, extant research has compared individuals who engage in outdoor activities in urban settings with those participating in such pursuits in natural environments. Although there is a blurring of boundaries between what constitutes each type of setting - e.g., many urban environments have natural spaces such as parks and rivers within them - researchers often set their own confines for these different settings. For instance, Brown et al. (2014) investigated self-reported mental health amongst office workers who went on lunchtime walks in urban areas on either nature routes (with trees, grass and public footpaths) or built routes (pavements on housing estates and industrial areas) over eight weeks. Notably, those who walked along nature routes enjoyed enhanced mental health. Although this research provides useful insights into the benefits people enjoy from outdoor recreation in natural environments, further work could go beyond this and explore how outdoor activity engagement in a national park setting facilitates positive outcomes.

Coping, resilience, mental health, stress alleviation and subjective wellbeing and the outdoors

There is also a well-established body of literature which has investigated how structured adventure education programmes influence psychological functioning in those who participate (Hayhurst et al., 2015). Building resilience is ‘one of the most visible and sought after outcome variables’ from these programmes (Ewert and Davidson, 2021, 106). A brief review of the research in this area is therefore useful to inform understanding of the benefits of other types of outdoor recreation, such as those which we focus on in our study, e.g., hiking trips with friends. These programmes often centre around youth development, particularly for US college students (Ewert and Yoshino, 2011; Hayhurst et al., 2015), involve a short land or water-based expedition, and are sometimes therapeutic, in the sense that they help individuals to overcome adversity in their lives (Beightol et al., 2012). The natural environment these activities take place in potentially provides a different space to the norm to escape from stress, and an opportunity to deeply connect with nature (Ewert and Davidson, 2021; Pirchio et al., 2021). This is not an argument that stress is absent in nature, idealising the latter as a ‘rural idyll’, but simply a recognition that nature may act as a liminal space or circuit breaker in times of stress (Conti and Heldt Cassel, 2020). Additionally, the programmes embed ‘resilience-enhancing variables’ (Ewert and Yoshino, 2011, 37) such as perseverance, self-awareness, social support, confidence, achievement, and coping strategies to deal with adversity. Recent work by Pirchio et al. (2021) suggests school based outdoor environmental education programmes can also boost the SWB of participants. Although these organised programmes encourage resilience-building goals within their activities, in our study, we are particularly interested in the benefits for individuals who regularly engage in more informal outdoor recreation.

Other work (e.g., Boudreau, Houge Mackenzie and Hodge, 2022; Clough et al., 2016; Kerr and Houge Mackenzie, 2020) has explored how individuals develop coping strategies and build resilience through partaking in extreme adventure pursuits, such as BASE jumping, skydiving and extended expeditions. Such participants generally have a psychologically resilient personality (low harm avoidance and high persistence and/or self-directedness). Although these adventurers are not the focus of this study, which examines outdoor activity participation at the softer end of the adventure spectrum, nonetheless, there are similarities between both types of adventurer in how they build their coping skills and resilience. Aside from sustained engagement in their activity, BASE jumpers and skydivers deal well with

stressful situations, continually undertake new challenges, adopt a positive perception of risk, and focus on skills development (Boudreau et al., 2022; Clough et al., 2016; Kerr and Houge Mackenzie, 2020). The same is true for other types of outdoor activity participants, albeit the risk taking, and challenge aspects of extreme adventure are likely to be more significant than for those engaging in softer adventure.

Evidence suggests that those who regularly participate in nature-based outdoor activities experience numerous benefits. Lincoln (2021) noted that women trail runners benefitted from dealing with the challenges of this activity. They enjoyed the social support of the trail running community, which encouraged them to fulfil their running goals alongside positive self-talk. They developed self-awareness and self-worth, improved their mood and confidence, and felt tougher from doing trail running. Notably, they transferred these benefits to their everyday lives and felt in better cognitive and mental health, embraced change and reframed it as an opportunity, and experienced increased preparedness for life. Buckley and Westaway's (2020) study found that women built their resilience through frequently hiking together, an activity which 'had rescued them psychologically from dark and difficult times' (6). Such benefits point towards improved coping skills, resilience, mental health and SWB. Our study adds to this literature by exploring these benefits for people who regularly engage in different outdoor activities, as well as examining how a protected natural environment such as a national park influences these benefits.

Methodology

Qualitative case study approach

This study adopts an interpretive paradigm, which allowed us to capture rich insights into the perspectives of outdoor activity participants, representatives from the PDNP, and outdoor activity providers. Employing an inductive approach based on qualitative values meant that we explored 'the social phenomenon as if through the eyes of the people being researched' (Matthews and Ross, 2010, 28). We had a flexible and data driven research design which involved collecting data to examine the phenomenon - i.e.: the benefits of outdoor activity participation in national parks – exploring the data and building knowledge, creating categories during data analysis, and developing subjective interpretations of the phenomenon (Hammersley, 2013). We employed an instrumental case study methodological approach,

using the PDNP to investigate an issue, in this case, the benefits of outdoor activity engagement in the Park, so that ‘by studying it we learn about other cases or about some general problem’ (Stake, 1995, 3). This approach usually draws on different sources of data, and while our data collection focused primarily on stakeholder interviews, this was supplemented by analysis of policy documents related to the PDNP such as annual reports, as well as regular site visits to the PDNP by the lead author to observe visitors engaging in outdoor activities and gain tacit knowledge (Tracy, 2010) about the Park’s usage.

Participants

We interviewed fifteen participants - eight female and seven male - who had engaged in outdoor activities in the PDNP. Nine were outdoor activity participants who regularly visited the Park, two worked for the PDNPA, three were outdoor activity providers, and one organised climbing events in the Park. University ethics approval (ER18035744) was secured before we approached proposed participants. We adopted convenience sampling and used personal contacts to recruit participants, as well as messages posted online via X (formerly Twitter) and Facebook special interest groups, inviting individuals to participate in interviews. These groups were Peak District Hiking and Scrambling, Peak District Climbing and Bouldering, Peak District MTB, Mountains of Britain, Mountains for the Mind, and Rock Climbing UK. Eligibility criteria were outlined in the recruitment post to ensure that only suitable participants responded to the invitation to take part in the study. Participants had to have engaged in outdoor activities, e.g., MTB, cycling, caving, fell or trail running, hiking, water sports or wild swimming, in the PDNP in the past 18 months. They were eligible if they had been day visitors to the Park, or they had taken a short break or holiday there in the specified time. We were keen to interview a broad range of participants to ensure we could develop a nuanced picture of the role that regular outdoor activity participation in national parks plays in subjective wellbeing (SWB) from both a demand and supply perspective. We used pseudonyms to replace real names when referring to the study’s participants, in line with ethics requirements.

Data collection

We conducted online semi-structured interviews with participants from March 2020 to December 2020; the first few months of the pandemic. These were recorded online via Zoom and transcribed by a professional transcriber. We conducted two interviews by telephone, at

the participants' request, which were also recorded on Zoom. After the 15th interview, we recognised that the key themes emerging from the data were starting to repeat themselves. There were no new insights within the data at this point, and we agreed that we had reached data saturation. Interview themes focused broadly on participants' outdoor activity experiences in the PDNP. There were a set of introductory questions to ascertain information about participants' leisure activities, inclusive of their outdoor pursuits (e.g., What do you enjoy doing in your free time?). Participants were also probed about their personal connection with the PDNP, and their motives to partake in outdoor activities specifically in this Park (e.g., When did you start doing outdoor activities in the PDNP? What prompted you to start using the PDNP for your activities?). Further questions explored the benefits of outdoor activity participation in the PDNP (e.g., What do you feel the benefits are for you in doing outdoor activities in the PDNP? Do you benefit in different or similar ways for different activities?). Finally, we asked participants about perceived barriers to outdoor activity participation in the Park (e.g., Are there any barriers to you enjoying outdoor activities in the PDNP? If so, what are these?), including their perceptions of risk while engaged in these pursuits. Those participants who worked in the Park were specifically encouraged to talk about Park initiatives, skills-based courses, and the experiences of visitors and the clients of outdoor activity providers.

Data analysis

The interview data generated rich and detailed insights into participants' outdoor activity experiences in the Park, and these were examined reflectively to unpack their subjective meanings (Jennings, 2001). A framework approach (Ritchie and Spencer, 1994) was used to comprehend interviewees' accounts of their outdoor activity experiences in the PDNP. It is 'a systematic process of sifting, charting and sorting material according to key issues and themes ... although systematic and disciplined, it relies on the creative and conceptual ability of the analyst to determine meaning, salience and connections' (Ritchie and Spencer, 1994, 177). The lead author analysed the interview transcripts manually using the five stages of the framework – familiarisation, identifying a thematic framework, indexing, charting and finally mapping and interpretation (Ritchie and Spencer, 1994).

The first stage involved familiarisation with the data by reading the transcripts through carefully and listening to the interview recordings. The second stage involved developing a thematic framework to refine the data; 'to identify the key issues, concepts and themes

according to which the data can be examined and referenced' (Ritchie and Spencer, 1994, 179-180). These themes were (1) value of the PDNP for outdoor recreation; (2) benefits of outdoor activity engagement in the PDNP; (3) outdoor activity participation in the PDNP and mental health; and (4) outdoor activity participation in the PDNP and alleviation of stress. Reference to resilience-building and coping skills featured strongly throughout these four themes. This is a subjective process and question of judgement (Ritchie and Spencer, 1994). At the third stage, indexing, the researcher applied the framework to the data through annotation of the interview transcripts. It aids the identification of connections between quotes of individual participants (Ritchie and Spencer, 1994) and teases out the nuances of individual themes. Following this, the fourth stage or charting involved designing what is essentially a table or chart for each of the key themes identified and adding relevant data and quotes. At the final stage, mapping and interpretation, the researcher returned to the research objectives, reviewed the previous stages of the framework, examined different transcripts for any similarities and differences, scrutinised links between the data, and evaluated the importance of different themes. The researcher met with the rest of the team at each stage of the data analysis to review the findings and discuss emerging themes.

Trustworthiness

The trustworthiness of the study can be shown in several ways, based on Tracy's (2010) criteria for rigorous qualitative research. First, the lead author has visited the Park on a weekly basis, allowing immersion and the collection of tacit (non-textual) knowledge about the study region and the leisure activities undertaken therein. This is important as 'good qualitative research delves beneath the surface to explore issues that are assumed, implicit, and have become part of participants' common sense' (843). Second, the use of long quotes in reporting results of the study provides thick description and reassurance to a reader that the findings are credible. Third, members of the research team engaged in data analysis, in a form of triangulation.

Results and Discussion

This section presents the key interview findings related to the study's aim: exploring the role that regular outdoor activity participation in national parks plays in resilience-building,

coping skills, mental health, stress alleviation, and SWB during and before the onset of the pandemic. Although this section is divided into separate sub-sections, each theme is linked.

The value of the PDNP for outdoor recreation

High quality natural settings, including national parks, can facilitate stronger beneficial outcomes compared with lower quality, unmanaged sites (Wyles et al., 2016). This could be because although some individuals prefer natural settings where humans have not intervened, they do not always have the confidence to venture into such environments. It is likely, therefore, that people enjoy recreating in protected environments because of their accessibility for everyone. The English National Park Authorities' Landscapes for Everyone (2022) vision highlights that 'everyone should be able to discover and engage with protected landscapes to benefit the health and wellbeing of the whole nation' (1). Accordingly, the benefits associated with outdoor activity participation in national parks can be individual but also extend to wider societal wellbeing. As a protected and carefully managed greenspace, the Park encourages activity participation by individuals at all levels. A third of the Park is open access land, and there are over 1,300 miles of rights of way, and a network of accessible routes (PDNPMP, 2018-2023). Participants spoke about many positive features that the Park offers to visitors, with the key draw being its extensive, varied and distinctive natural landscape, as reflected in Sophie's comments: *'there is something really unique about the PDNP' as 'you can go out one day, running in the Dark Peak, and it's quite rugged and gritty, and it can look quite harsh. Then, you can literally go a little bit the other way, and it [White Peak] is far softer and greener.'* One of the rangers (Henry), noted that the Park had a *'fantastic landscape' where 'you are more likely to come again and spend longer if you're in an attractive place.'*

White et al. (2013, 42) note that 'different natural environments also afford different activities.' The Park comprises a wide range of special qualities (PDNPMP, 2018-2023), including contrasting landscapes, distinctive geology, wildlife and habitats, 'accessible backdoor wilderness' (20), tranquil and undeveloped areas, 'a lived in landscape that has been shaped by people for thousands of years' (22), communities and settlements, and 'an inspiring space for escape, adventure, discovery and quiet reflection' (24). Participants placed a high value on the Park for its accessible natural environment, which offers abundant activity opportunities across a spectrum of experience levels. They felt safe because *'paths and tracks are well maintained, unlike in Scotland'* (Tom), and there are *'no dangers or*

anything’ and it is possible to work out *‘rescue routes’* (Fiona) if you get into trouble. The Park’s setting, its elevation, terrain and accessibility encourage visitors to engage in a wide range of outdoor recreation activities such as hiking and fell running, as well as more adventurous pursuits, including scrambling, mountain biking, caving and climbing within distinctive moorland landscapes and hills. Participants, such as Luke, enthused about the Park’s diverse offerings:

I think it’s a perfect package, isn’t it? It’s accessible and there’s also the fact that the outdoor activities here can just suit every experience level. There’s stuff [e.g., suitable climbing crags] for absolute beginners through to world class climbers because it’s [climbing] such a unique style.

Several participants commented that the Park provides a useful *‘training ground’* (Jack) to develop their skills in preparation for more advanced levels of outdoor activity elsewhere. They noted that the Park is *‘less rugged than the Lake District’* with many possibilities for *‘leisurely climbing to push grades and build on climbing technique’* (Jack). Others noted that certain areas of the Park are perfect for practising their micro-navigation skills, yet *‘it’s actually quite a lot harder than in the mountains because the features are a bit less distinct in those environments’* (Eleanor). Therefore, although the Park is accessible to all, it also offers opportunities to challenge oneself and develop activity-related skills. This personal development, which involves practising skills, learning and mastery, is integral to SWB (Pomfret et al., 2023).

There is evidence (e.g., Geng et al., 2021) that spending time in green spaces positively influenced people’s mental health and enhanced their SWB during the pandemic. Individuals who discovered new green areas were healthier, demonstrated higher levels of resilience, and had higher *‘coping flexibility’* (Korpilo et al., 2021, 10). Our findings support these insights into outdoor recreation habits during Covid-19 but focus on the role of outdoor activities in facilitating this. Some scholars (e.g., Espiner et al., 2022) have, however, examined this, ascertaining that those who were creative and readily adapted their outdoor pursuits in response to the ever changing pandemic environment displayed an elevated level of resilience. Our findings also confirm this with several participants commenting that they changed their activities during the early stages of the pandemic (e.g., taking shorter walks within their local area instead of hiking for longer durations), and gradually started up their usual pursuits during the later stages (e.g., rock climbing in the Park, which was originally

banned because of the potential risks involved and the pressure on health services to prioritise pandemic-related illnesses).

Our interview data also suggests that regular outdoor activity engagement became more meaningful for participants during the pandemic, helping to build their coping and resilience. Once permitted, participants who lived close to the Park resumed their outdoor activities again. Prior to the onset of the pandemic, Sam had always been active, although growing his own business and raising a young family over the past few years meant that he found it more difficult to maintain the same level of outdoor activity engagement. Yet, pandemic restrictions resulted in more time at home and, consequently, more opportunities to be active. In one of the later lockdown periods, Sam noted: *'I've been running every morning. You know, I've been up and out at 7.30am and feel fantastic for the rest of the day. And you feel better in general. Your body, after a few days, feels fit for purpose and doesn't ache or creak as much, as you feel better.'* This finding aligns with extant research (Geng et al., 2021) confirming that people increased their contact with nature during the pandemic to deal with increased stress and reduced social contact.

The benefits of outdoor activity engagement in the PDNP

A critical role of national parks is to enhance people's SWB through connecting them with nature. Nature connectedness occurs when people experience a cognitive and emotional bond from being in nature and it can facilitate psychological restoration from the demands of daily life and depleted personal resources (Wyles et al., 2019). The strength of these benefits varies according to the type of outdoor activity that people are engaged in. Appreciative activities that can be 'enjoyed while having little impact on the natural environment' (Ewert, Place and Sibthorp, 2005, 229), such as caving or fell running, facilitate higher levels of nature connectedness, compared to motorised activities, such as off road driving (Wolsko and Lindberg, 2013).

One of the Park's strategic priorities is to promote nature connectedness. The Peak District National Park Authority (PDNPA) works with different organisations, including the National Health Service (NHS) and Public Health England (PHE), to *push that connection of our values to help the nation's health and wellbeing'* (Fiona) through offering outdoor activity programmes based on health and SWB. These comprise preventative initiatives focused on appreciative activities, such as health walks and mindfulness sessions, and restorative

treatment courses, e.g., social prescribing and connecting to nature for those with psychotic behaviour. Through these programmes, the Authority encourages individuals to regularly engage with nature: *'We know that if they connect, they're going to maximise health and wellbeing benefits.'* It operates a *'ladder of engagement'* (Fiona) which initially starts with encouraging people to spend time in the Park being active, then this connection is gradually deepened *'to do something to actively support the National Park, whether it's being an ambassador or doing a conservation activity'* (Fiona). One of the rangers (Henry) also spoke about the value of outdoor recreation in the Park, particularly for young people who, through undertaking their Duke of Edinburgh expeditions there, *'build their confidence and self-reliance.'* Encouraging this longer term involvement and regular engagement in activities in the Park leads to improved SWB for individuals. This aligns with the findings of Wolf et al. (2014) which found that a series of guided tours in Australian national parks resulted in a greater accrual of health and wellbeing benefits for participants over time than a single tour.

Outdoor activity providers offer supervised training in the Park. For instance, an innovative mountain biking (MTB) initiative was set up to assist young adult care leavers with their transition from social care to independent living. It aims to improve the care leavers' mental health and to develop their coping skills, resilience and SWB in everyday life through engaging in MTB in the Park via progressively more challenging levels. An outdoor activity provider (James), the City Council and university student volunteers, who *'buddied up'* with care leavers, run the programme. Spending time together during MTB, the leavers felt they could *'talk freely to the student [buddy],'* who helped them to *'process things'* (James). He explained that *'the sessions saw bonds and friendships develop that now mean some of the participants are riding with other mountain bikers, further developing their skills, confidence and love for The Outdoor City [Sheffield].'* These findings reflect previous research (Beightol et al., 2012) which demonstrates the value of structured adventure programmes in building the resilience and SWB of youths and feeling part of a community. Protective factors, such as the right balance of adversity and exposure to risk, and opportunities to enhance leavers' self-efficacy are embedded in the design of the programme, helping to ensure that their coping skills are not overwhelmed.

Other outdoor activity initiatives often build coping, resilience, mental health and SWB by default. This is exemplified by a women's annual climbing festival. The organiser (Sophie) commented that *'being outside does help people's mental wellbeing and this is something that we quietly champion throughout everything we do and make sure there are opportunities*

for [social] connection throughout the festival (Sophie). Therefore, the weekend focuses on creating space for people to come together to develop and progress in their climbing skills, challenge themselves, and build their confidence in climbing. Enhanced confidence positively influences resilience-building (Ewert and Yoshino, 2011) and impacts most strongly on individuals' resilience, particularly for female outdoor activity participants (Overholt and Ewert, 2015). Socialising with likeminded others and developing friendships - *'it's about getting groups to connect and people to talk and creating that space for people to have a chat'* (Sophie) - finding climbing partners and working in teams are integral elements of the festival. Climbers are paired with others of similar ability who, ideally, live in the same area so that they can continue climbing together post-event. Being part of a group generates a sense of meaning and belonging in individuals, helps with identity formation, and consequently, positively impacts on people's health and wellbeing (Pomfret et al., 2023).

Aligned with extant studies (Buckley and Westway, 2020; Lincoln, 2021), which highlight how challenge positively influences resilience development during outdoor activity engagement, participants talked about challenging themselves. They noted the environmental and activity challenges they faced, how they overcame these, and how these experiences affected their resilience. Poor weather inevitably forms part of the outdoor activity experience in the Park. For instance, Eleanor spoke about leading a rock climb in winter conditions, which she perceived as beyond her capabilities. Casual non-climbing observers watched her struggle with the climb and may have wondered why she was continuing with it when she was suffering. Her vivid description frequently refers to the demands she faced. She ran into difficulties close to the top of the climb, when her rope got stuck, *'and this old guy, who's about 80, just soloed up [climbing without a rope] next to me'* to check if she was OK. *'I'm like, "yeah, I'm doing this, working it out." He goes "yeah, that's the thing about climbing; you have to work it out." You get yourself into a situation and you've got to work out yourself how to get out of it.'* After managing to set up a hanging belay, she recounted *'we were walking off Stanage [PDNP] in the dark with our heads forward. It was about minus four. It was snowing.'* Despite the challenges and stresses of this rock climb (*'I was swearing a bit'*), she noted that *'I can look back on that and think that was good.'* Through such experiences, Eleanor felt she had become stronger and developed confidence and resilience to deal with stresses in her daily life: *'Sometimes you get a problem in life, and you think you've probably done worse than that on Stanage; you know, a bigger problem. So, it does help you rationalise your life.'*

Outdoor activity participation in the PDNP and mental health

Outdoor pursuits offer opportunities for improved mental health and resilience development, which are often absent in everyday life (Reid and Kampman, 2020). For most participants, activity engagement in the Park is integral to their lifestyles, and they feel a deep-seated need to frequently immerse themselves in their pursuits. For instance, one interviewee (James) goes MTB regularly to improve his mood and noted that *'my wife's been like "yeah, just go out," otherwise I'm unbearable.'* At the time of his interview, he had been riding weekly with his Thursday group for 25 years. He particularly enjoyed socialising, exploring and sharing experiences with the group, but also recognised that the individual mental health benefits gained from MTB were important. Further proof of his long standing need for this activity is shown by his comments: *'... if you cut me in half, half of it's my family and the other half is MTB.'* These findings align with extant research, which argues that the most beneficial forms of outdoor activity participation are those which individuals do regularly, within proximity to home and as part of their lifestyle (Cottrell and Cottrell, 2020).

Participants talked about the value of outdoor activities for enhancing their mental health. As someone who lives close to, and has regularly visited the Park all her life, Rose has a strong attachment to this protected environment, commenting that *'I live and breathe the National Park.'* She appreciates its value in helping her to cope with the trauma of caring for her two severely disabled children, to build her resilience, and to sustain her mental health. The Park kept her *'sane over the years,'* Later, Rose continued:

The thing that would make me feel better was to put my hiking boots on and walk. It didn't matter what the weather was like, but just putting one foot in front of the other, at the end of the day, any troubles that you'd got left you. Breathing that fresh air and getting that blood pumping round your body is really good for anybody, and it's easy exercise.

Her hiking experiences are psychologically restorative and help her to reset her state of mind to better cope with the challenges at home. This aligns with prior research (Cottrell and Cottrell, 2020), which found that individuals who frequently visit natural environments tend to have higher levels of resilience and better mental health.

For a few participants, regular activity engagement in the Park is critical in dealing with mental health issues. They relish the opportunity to change their mindset, moving from a state

of negativity at the start of their activity to more positive thinking, increased energy and feeling mentally refreshed during and immediately after their participation. Two participants' comments illustrate this. One (Charlotte) found that partaking in outdoor activities was the most effective way to manage her stress and compulsive behaviours. She had tried out different techniques such as yoga, mindfulness, and cognitive behaviour therapy, but *'there's that element of nature which feels just right, I guess,'* which facilitates positive thinking: *'It's definitely a place where I can ground myself and balance emotionally and cognitively with rumination and worries.'* Another interviewee (Olivia), recovering from pandemic-induced burnout due to work pressures, found solace in spending time rock climbing, cycling and hiking in the Park. She 'prescribed' herself regular and active visits to the Park because:

You know how in the morning you don't feel like doing anything and there is a risk that you're just going to be laying on the sofa and then feeling really depressed at the end of the day. Just forcing myself out has given me an objective and something to do. Mission of the day would be, "right, I'm going to do a long walk and just forget about everything" and then when I come back, my mind is all clear. I just feel relaxed and ready for another day.

Achieving this objective helped her to cope better with her symptoms of nervous exhaustion. It also brought other benefits including reduced overthinking and increased socialising. Participation helped these interviewees to balance their lives better and to restore elevated levels of SWB. In this state, they felt more resilient and better able to cope with everyday life challenges.

Some participants alluded to the importance of outdoor activities to avert burnout, to build resilience, and to ensure a sense of balance in their lives. For instance, one interviewee (Sophie) had neither the time nor the energy to do purposeful long runs and bike rides, where she pushed herself harder, as *'I had a lot going on in my life.'* Instead, she would go cold water swimming early in the morning before work. This activity promotes nature connectedness and offers her immeasurable benefits such as a sense of achievement, calmness, a meditative state, and a renewed energy for the day ahead. Immersing herself in nature, she reported that *'you would get amazing sunrises'* and that *'water is beautiful and very quietening.'* She continued: *'I've had mornings where it's been bright blue skies and other days where it's almost misty. And, because you've got the sun coming in, it's almost like you're swimming through this gold mist. I find it really magical and it's not about*

pushing yourself hard. Her comments suggest that individuals experience higher levels of psychological restoration when they are in superior quality, pristine natural settings with rich biodiversity and aesthetic value (Wyles et al., 2016), such as national parks.

Another participant (Claire) also hinted at feelings of nature connectedness when she talked about her running experiences: *'Sometimes I run out to Burbage [PDNP] and it's got some stunning rock faces and climbing areas. I like to go out there to just kind of absorb the scenery and get into the landscape.'* Integral to changing mindsets is detachment from your everyday environment, and journeying into the natural world to fully embrace its benefits. Charlotte expressed this as *'that feeling of just disconnecting from one reality and placing yourself in another reality, which is a wider reality'* initiating a changed mental state. Sophie noted that *'where you are when you leave home, to then where you are when you come back, is like a gradual progression to being in a better place.'* Sometimes, *'you start higher than others'* in your quest to detach yourself from your usual environment and experience *'mental release.'* An absence of nature connectedness for these participants can affect their mental health and trigger feelings of ill-being. This involves negative affect such as feeling nervous, lonely or helpless, depressive symptoms, feelings of anger and anxiety, and somatic complaints (Diener, 2006). When lockdown restrictions meant that Jack could not do his usual outdoor activities, this affected his mental health: *'I had to work in a warehouse for the last seven months. That has messed with my head more. I didn't realise how much I actually needed to be outside, just in the fresh air and just having natural light, even mentally to just feel better.'* These descriptions highlight the importance of natural environments in facilitating nature connectedness and psychological restoration.

Participants expressed different motives to take part in outdoor activities, depending on the activity type and whether they were doing this alone or in a group. Partaking in activities alone grants some participants the headspace they need and provides an opportunity for them to reconnect with themselves, be in their own thoughts, and to recharge. Contrastingly, pursuits in groups, with friends or family, offer different benefits, most notably socialising, belonging, and *'that nice social huddle if you like being out with other people and being able to talk and run at the same time'* (Charlotte). When Charlotte goes group hiking, she enjoys *'socialising with people who have a similar passion, and they are similarly minded. There is a sense of belongingness there.'* Social support and social connectedness strongly influence a person's ability to build resilience and reflect the basic psychological need for relatedness (Houge Mackenzie and Hodge, 2020).

Outdoor activity participation in the PDNP and alleviation of stress

Related to mental health, most participants commented on the importance of frequent outdoor activity participation for stress alleviation. Some mentioned self-care reasons, e.g., releasing tension from the body. As reported by one participant (Tom): *'Most of them [activities] are just maintenance. You run out of the door and switch off'*. The natural environment, which mediates disengagement from the stresses of everyday life (Fong, Hart and James, 2018), enhances this. Notably, participants enjoyed feelings of low distress during their activity, immediately following participation, and over a longer duration. Many regarded regular activity engagement as a panacea for coping with the stresses of daily life. For instance, one participant recounted that this *'keeps me sane'* and it is *'how I relax. It's how I switch off. It's how I manage stress. It's how I build resilience to cope with other stuff.'* Her description suggests that outdoor pursuits facilitate escapism from everyday life and immersion into the activity. Another commented that the outdoors *'have always been a massive part of my life and the way that I deal with stress'* (Emma). She regularly runs and hikes in the PDNP to alleviate tensions and to maintain physical fitness. This helps her to counter the stresses of her highly pressurised job. She reported that *'it makes me a better person in work if I'm fitter because it helps with that physical aspect of hospitality as well. I think it's just that kind of being able to relax.'* Accordingly, these findings reflect that individuals build protective and adaptive systems so they can respond positively to stress and strengthen their resilience, to provide resistance against future adversity (Overholt and Ewert, 2015).

Participants often talked about how doing outdoor activities in the Park helped them improve their work productivity. Tom's enjoyment of trail running exemplifies this: *'It's a balance re-setter, isn't it? I love my office. It's a colourful, positive, joyous place, but it's still work. I still need to re-set. I still need fresh air.'* Resetting in this way made him feel clearer-headed as *'the immediate benefit is clarity,'* which he harnessed to *'get some quite succinct answers very quickly'* for a couple of hours working post-run. Many participants worked from home throughout the pandemic, which provided more opportunities and increased flexibility to partake in outdoor activities. Claire explained that she regularly goes running in the Park to break up the day because it *'helps me to come back and have a fresh perspective on work or, you know, I think more clearly, definitely.'* When running, she noted that:

Sometimes I don't think about those [work] things and my mind just wanders across other areas which are non-work related, and then I come back and can deal with

[work] stuff better. Or I'm kind of relaxed a bit more about it and stop stressing and think "well, I'll just do it tomorrow."

Conclusion

This article aimed to extend extant literature through exploring the role that outdoor activity experiences in national parks play in coping, resilience, mental health, stress alleviation and SWB, and how participants built on these experiences to deal with everyday challenges, through a case study of the Peak District National Park. Our findings suggest that the Park presents an expansive protected natural environment with considerable scope for individuals to frequently engage in outdoor activities, challenge themselves and improve their skills in a sometimes familiar and perceived safe setting. Combined, these elements can facilitate strong feelings of SWB within participants.

Our findings offer several theoretical and practical implications. Regarding theoretical contributions, this study shows the importance of outdoor activity participation in national parks for coping with the challenges of life, building resilience to deal with these vicissitudes, maintaining mental health and enhancing SWB. The context of national parks was important, as the research highlighted their value in facilitating the different benefits of outdoor activity engagement within them. In terms of coping, participants reported being able to clear their mind and avoid overthinking, enhance their mood and improve work productivity. This was the case even when activities were at the softer end of the adventure continuum, such as trail running and hiking, as these still offered challenges, even if simply due to the weather. The natural environment was calming and restorative, reducing participants' stress and helping them to switch off from problems, as well as devising solutions in the absence of other distractions. This study therefore extends the literature on the positive outcomes of outdoor activity participation, by suggesting that these benefits are not confined to those engaged in extreme or risky pursuits. Participants who undertook structured programmes with others as well as those who designed their own experiences at the Park enjoyed mental health benefits. Again, this extends the current literature by suggesting that benefits of outdoor activities in national parks may be present in the absence of activities that are highly structured or organised. The accessibility of the protected area studied was also important, as this allowed participants to regularly spend time in the natural environment and build their confidence and skills. This study therefore extends the work of Geng et al. (2021) in an urban park context,

by considering the impact of time spent in a rural national park, which can be readily accessed by an urban population.

Practical implications of the research are threefold. First, the findings could help to justify the creation of more protected areas close to urban populations, given the benefits linked to regular access and engagement with outdoor activities in these settings, and the potential for recurrence of events such as the Covid-19 pandemic in the future. Second, the findings suggest that facilitating a wide variety of activities in natural settings, particularly at the softer end of adventure, may ensure that beneficial outcomes for enhancing coping, resilience, mental health and SWB are available to a broader swathe of the public than is currently the case, including those who lack the financial means or physical ability to take part in organised or high-risk activities. Third, promotional campaigns created by protected area agencies to encourage greater participation in outdoor activities could build upon these findings, highlighting the diverse benefits for individuals related to SWB.

There are some limitations of the study which suggest areas for future research. Interviews were conducted with experienced outdoor activity participants and people who worked in the outdoor industry, or for the PDNP. Although this was intentional, as the research team adopted a case study approach and sought regular users of the Park to interview, further studies could explore the experiences of outdoor enthusiasts across the adventure spectrum. Relatedly, the sample was not ethnically diverse, and most participants were aged between 30 and 50 years old. Accordingly, scholars should consider collecting data from a broader range of participants relative to ethnic origin and age group. Future research could also quantitatively examine the benefits of softer outdoor activity participation in nature, to see how generalisable the findings of this study are beyond the current context.

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