Identifying Social and Cultural Barriers to Nature

Report on findings

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This research was commissioned by Natural England and carried out by BVSC research, a directorate within Birmingham Voluntary Service Council.

BVSC research's aim is to lead and support high quality research and evaluation with, for and about the Voluntary, Community, Faith and Social Enterprise Sector. BVSC research is committed to delivering high quality, timely and relevant research and evaluation that is useful and helpful to the sector, working in partnership with the VCFSE, public sector, academic and non-academic research institutions and community researchers.

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People and Nature, Social barriers to nature, Cultural barriers to nature, Doorstep to Landscape, Connecting People with Nature, Inclusion, Tackling barriers to nature.

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Foreword

The Identifying Social and Cultural Barriers to Nature research project was commissioned to explore what, if any, social and cultural barriers to nature are experienced by individuals living in specific regions of Birmingham. It is part of a project called Doorstep to Landscape (D2L), which aims to engage our wider society in Birmingham with nature; for people and for nature. Birmingham was chosen for this project after demographic analysis evidenced the high levels of diversity and deprivation in specific regions around Birmingham City Centre, where there is also lower access to green space.

A deep dive has uncovered that a significant amount of work around people and nature focuses on tackling physical barriers to nature. The aim of this research project is to complement this by developing our understanding of the social and cultural barriers to accessing nature, within specific communities of Birmingham, and to analyse what can be done to tackle such barriers at a local level. The outputs of this research will inform our next steps in Doorstep to Landscape within Birmingham, including future strategies and approaches for ensuring community empowerment in place shaping.

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

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Executive summary

Research shows that green space is vital for physical and mental wellbeing in cities. With health inequalities rising (Marmot et al. 2020), it's important to investigate why some people have better access to green space than others. By understanding these barriers, we can work towards making green spaces more accessible for all.

A community research approach was used for this study. Six community researchers who had connections with the areas in focus conducted 32 semi-structured interviews. Effort was made to ensure that this sample was diverse, with interviews conducted with individuals of different ethnicity, age, gender and employment and disability status.

Findings

Diverse needs

Individuals have a variety of different needs and preferences when it comes to green space. This includes different views on how green space should look and what nature means. This also relates to the function of green space, with differing preferences on its use.

Recommendations

- Avoid assuming that everyone will have the same desires for the appearance and purpose of green spaces.
- Think about segmenting green spaces to cater to different activities, e.g. designated areas for dogs, families and those seeking a quiet retreat.

Purpose

Many participants felt they needed a specific reason to visit green spaces. Those with dogs or children visited more frequently due to clear purpose, while others felt less motivated without these responsibilities.

Recommendations

- Develop infrastructure such as cafes, exercise equipment and community gardens to serve a purpose and improve overall utilisation.
- Increase the frequency of events held in green spaces to encourage greater community engagement and interest.

Past experience

Past experiences with nature significantly influenced people's frequency of visiting and appreciating green spaces. Those who spent time in nature as children were more inclined to visit green spaces regularly. Individuals without previous experience in nature often expressed lower confidence in accessing it.

Recommendations

- Encourage positive childhood experiences with nature for all.
- Help individuals at any age make initial access to green space and help to build their confidence about nature.

Wider feelings of inclusion in local communities

Individuals' sense of inclusion in their communities should be considered with regards to green space access. Feeling safe and welcomed in the community is crucial for confidence in using public spaces, including green areas.

Recommendations

- Don't isolate issues about access to green space but instead situate them in the realm of access to public space in general.
- Give attention to community building in localities and issues of access to green space and nature.

Awareness of green spaces

Participants were familiar with local and distant green spaces in Birmingham, but some were more challenging to locate. It was also noted that the cost of public transport could be a barrier to accessing green spaces.

Recommendations

- Provide greater information about what green spaces exist and their facilities.
- Communicate information about transport options and provide incentives to make this more economically viable.

Good green spaces

It's important to make sure that green space is not only available, but also attractive and enjoyable to be in.

Maintenance

Participants highlighted the significance of maintenance and how littering could affect local accessibility. Mobility issues were also found to manifest because of poor maintenance.

Infrastructure

Many people said that having a toilet or seating was important if they were going to visit a green space. Infrastructure that improved security was also seen as key. Infrastructure was also seen as including providing individuals with the clothing and footwear needed to enjoy green spaces.

Recommendations

- Recognise the implications of lack of infrastructure and poor maintenance.
- Infrastructure that has found to be key includes lighting, seating and toilet facilities.
- Give attention to cleaning parks of litter and rubbish. Don't rely on community groups to do this entirely.
- Recognise all costs involved with accessing green space such as the provision of suitable clothing.

Contents

Contents	8
Introduction	9
What the existing literature tells us	10
Methodology	12
Community researcher approach	12
Semi-structured interview approach	13
Findings	17
What nature means	17
Barriers and drivers to accessing nature	20
Catering for different needs	20
Purpose	21
Past experience	23
Link with wider feelings of inclusion in local communities	25
Awareness of local green spaces	25
Positive green space	26
Concluding remarks	33
Recommendations from this study	34
Reflections, limitations and next steps	37
References	38
Appendix 1	41
Interview topic guide	41
Interview guestions	42

Introduction

This report presents the findings from a research project funded by Natural England to investigate the social and cultural barriers to accessing nature in Birmingham. This is part of the wider work of Natural England's West Midland's Doorstep to Landscape strategic project, which aims to enable more of society to connect with nature from where they live.

To help situate the research findings, this report will begin with a brief overview of existing literature related to barriers to accessing nature. It will then move on to describe the methodological approach taken. Here detailing of, and reasoning behind, utilising a community researcher-based approach will be presented, followed by a description of the qualitative techniques used, and a description of the demographic sample reached. The findings will then be presented, identifying the key barriers and drivers that were found to facilitate or hinder access to green space. Recommendations will then be presented, with findings utilised to present suggestions as to how access to nature can improve. Lastly, reflections on the research project will be discussed, looking at what further research is needed.

What the existing literature tells us

There is a wealth of research that identifies greenspace as a key determinant of physical and mental health within urban environments (Ward-Thompson and Silveirinha de Oliveria, 2016, Jimenez et al. 2021). In the context of rising health inequality (Marmot et al. 2020), increased attention has been directed towards the disparities which exist in the quality and quantity of greenspace and its accessibility across populations.

A growing body of literature draws attention to the demographic variation which exists in greenspace use, including age; gender; education level; employment status; ethnicity and disability (ONS Natural England, 2020; Lovell and Depledge, 2018; Boyd et al., 2018). Take for example Natural England's 2020 study, which found that while 62% of adults in the UK had been in nature in the last 14 days, only 47% of adults with long term illness or conditions had done the same (Natural England 2020). The same study also found that 51% of ethnic minority adults had spent time in nature recently, compared to 60% of White British adults (Natural England 2020). Disparities in access levels were also found between socio-economic groups, with 74% of people from the highest socio-economic group reporting visits to natural spaces at least once a week, compared to 53% of people from the lowest socio-economic groups (Natural England 2019). These disparities indicate that there is a need to explore the social and cultural influences which shape individual motivation and create or reinforce barriers to accessing nature (Public Health England 2020).

A scoping review of the literature on this issue has revealed that one of the key factors for barriers to accessing nature relates to geographical disparities, particularly regarding housing location and distance to green space. This is something which of course intersects with socio economic status – houses and flats in England and Wales have been found to be on average £2,500 more expensive if they are within 100 metres of public green space compared to 500 metres (Public Health England 2020). As a result, it comes as no surprise that those in the lowest socio-economic group are less likely to live within a five-minute walk of a green space than those in the highest group (The Ramblers 2020). This is a situation which unfairly impacts those from an ethnic minority background, with 14% of white people living in the most greenspace deprived areas compared to 40% of those from an ethnic minority (Friends of the Earth 2020).

For social and cultural experiences, research has shown that importance needs to be given to looking at past experiences when looking at factors for accessing nature. For instance, positive experiences with nature in childhood have been shown to have a positive impact on levels of access later in life (Milligan and Bingley, 2007; Moss, 2012). In contrast, negative experiences in nature have been found to lead to a lack of confidence in visiting nature and thus a decrease in access levels. This has been found to occur due to a range of reasons such as having gotten lost in green spaces in the past, having felt afraid in dark woods, and previous instances of harassment and abuse. Research indicates that females, those who identify as LGBTQ+, those who have a long-term illness or disability and those who are from an ethnic minority background are most likely to experience harassment and abuse in green spaces (Seaman et al. 2019, Girlguiding

2020). Such experiences have been found to have a longstanding impact, with Collier (2019) finding that the experience of racism in green space often acts as a barrier for access across several generations.

Issues relating to the lack of inclusive representation have similarly been found to act as a barrier to access. In one light this refers to advertising, with Waite et al. (2021) finding that those from a low income and/or minority ethnic background are often invisible in natural environment activity promotion. This is something that has been shown to have a direct impact on access levels, with Edwards et al. (2023) finding in their interviews with Muslim community leaders throughout the UK that such invisibility led to a perception of whiteness and subsequently a lack of confidence in accessing green space.

The purpose of this research project is to investigate social and cultural barriers to nature at a local level in Winson Green, Lozells, Newtown, Handsworth and Bartley Green. By developing a deeper understanding of how these barriers have developed, and how they may manifest in beliefs, perceptions and in how people access green space, recommendations have been developed on how to tackle these social and cultural barriers to nature at a local level, taking into account both socio-cultural and physical factors.

Methodology

Community researcher approach

BVSC utilised a community research (CR) approach to conduct the research. This is a rigorous and meaningful way to access and record the citizen voice. This approach is one that involves working alongside those with lived experience of a particular issue or locality to generate more relevant and impactful research findings. It is a method that is increasingly recognised within academic and policy circles as a means to enhance the acceptability, effectiveness and appropriateness of research results and subsequent policy recommendations (Salway et al. 2012).

BVSC has developed and fostered a relationship with a pool of skilled community researchers. These CRs have all undergone community researcher training, which included training in the research methods of data gathering and analysis. From this pool, BVSC was able to recruit CRs who had links with the areas of interest (detailed below), resulting in six CRs being employed to work on this project.

This local knowledge of communities possessed by the CRs is one of the main benefits of utilising a community research approach. This knowledge, gained through either living in the areas selected or having connections with community groups there, meant they were well placed to gain the trust of local communities as well as support community engagement and participation in the research process. This allowed for an increase in, and encouragement of, participation from those who may have been traditionally excluded from the research process (Elliot et al. 2002). It acted as a mechanism of reaching populations whose voices may be marginalised, illuminating understandings and experiences which may not be identified by researchers who are detached from the realities that they are studying (Devotta et al. 2016)

The benefits of utilising a community research approach are not confined to the act of data collection. Rather, there are a wealth of benefits when considering the involvement of CRs throughout the whole process of a research project. In this project, CRs were involved in the research design process; working together with BVSC in a workshop to design the methodological approach of the project. By designing the research in this way, the CRs' knowledge on the most appropriate research techniques and interview questions to reach the communities was harnessed. Co-designing the research project in this way allowed for issues to be considered when research questions were developed which may otherwise have been missed. The involvement of community researchers in this respect arguably increases the cultural relevance of the research project design, allowing for findings that are more relevant to community contexts (Christopher et al. 2008).

Throughout the research project a close relationship between the CRs and BVSC was maintained. This was facilitated through the creation of communication channels and regular sharing of updates. This allowed for dialogue to be sustained, ensuring any suggestions for improvement generated from individual experience was shared and thus helping to improve the research process as a whole.

Semi-structured interview approach

It was decided that a semi-structured interview approach would be most appropriate to answer the research question. This technique includes the creation of a list of key guiding questions. These are then put to participants and supplemented with probes and follow up questions which are asked in relation to participant responses. The rationale behind this was the fact that within the time constraints of the project, this technique would be the best placed to gain insightful answers and engage in discussion. The semi-structured nature allowed for flexibility, allowing for themes to emerge that can be followed up (Gratton and Jones 2010).

The themes of the interview and interview questions were generated in the initial two workshops with CRs. These workshops first explored what is meant by nature and greenspace, and how this may be interpreted by the CRs' local community. Focus was also given to thinking about what socio-cultural barriers meant and how they might manifest in local communities.

This resulted in a decision to include questions related to the following:

- What nature means to the participant?
- What role nature plays in the participant's life?
- What nature / green space exists in the participants local area?
- Can the participant access nature the way they want to?
- What barriers the participant felt prevented them or their local community from accessing nature?
- What would help the participant access nature?
- What would the participant's ideal green space look like?

In total 32 interviews were conducted throughout the month of March 2024 by the community researchers in participants' homes and local community centres. These interviews ranged in length from 20 minutes to an hour. A full topic guide and interview question sheet can be found in Appendix 1.

Data analysis

After the completion of the data collection, a second workshop was held to analyse the data and discuss the key findings. By including CRs in the interpretation of the research results, a research process consistent with the principles of community-led research was ensured, helping to ground the research recommendations in the local context (University of Liverpool 2021). CRs were asked to create summaries of key findings from each interview conducted, which were then explored using thematic analysis. As Braun and Clarke (2006) suggest, this type of analysis is foundational in qualitative analysis, allowing for the analysis, organising, describing, and reporting of key themes.

Sampling

As this project was primarily aimed at exploring social and cultural barriers to accessing nature for communities in the inner-city region of Birmingham, BVSC took a three-pronged approach to select the areas that would be of greatest interest to explore this issue.

Firstly, data from Birmingham City Council's City Observatory (2023) was used to investigate demographic make-ups of wards and levels of deprivation in Birmingham. This was then combined with data generated by the Birmingham Future Parks Accelerator Project (2022) which assigned wards in Birmingham an environmental justice score, to create a list of potential areas of interest.

As the project took a community research-based approach (explored below), these locations were then put to CRs to assess which areas they had most reach into. This approach was taken due to time constraints, as ordinarily areas of interest would be defined first and then community researchers from within those areas would be recruited.

This resulted in the following five areas of interest, all of which are of interest to the research question and have communities which could be easily connected with and explored:

- Winson Green
- Lozells
- Newtown
- Handsworth
- Bartley Green

When recruiting participants in each of these areas, the CRs attempted to speak with a diverse group of people. There was an aim of creating a sample which reflected the demographic makeup of each area and also a sample which would over-proportionately speak to those who have been identified as facing barriers to accessing nature in the literature review. However, due to time constraints this was not always possible, with CRs often having to recruit based on those who had availability to take part in an interview.

In total, 32 interviews were conducted. The characteristics of the people spoken to are outlined in the tables1-6.

Table 1: Location of research participants

Location	Number of participants
Bartley Green	7
Handsworth	6
Newtown / Lozells ¹	12
Winson Green	7

Table 2: Gender of research participants

Gender	Number of participants
Female	17
Male	15

Table 3: Age of research participants

Age	Number of participants
18-24	1
25-34	6
35-44	4
45-54	8
55-64	9

¹ Newtown and Lozells were grouped together due to their close proximity and overlap within community groups which catered to both areas.

Age	Number of participants
65-74	3
75-84	1

Table 4: Employment status of research participants

Employment status	Number of participants
Economically inactive	3
Employed full-time	12
Employed part-time	9
Retired	2
Self-employed	1
Unemployed	2
Other- Homemaker	1

Table 5: Ethnicity of research participants

Ethnicity	Number of participants
Black / African / Caribbean / Black British	15
White	11
Asian / Asian British	2
Mixed / Multiple ethnic groups	2
Other - Arab	1

Ethnicity	Number of participants
Prefer not to say	1

Table 6: Disability status of research participants

Disability status	Number of participants
Has a disability or long-term condition	5
Does not have a disability or long-term condition	27

Findings

What nature means

One of the areas of exploration related to investigating what individuals felt nature or green spaces meant to them. This related to both the literal sense and the more emotional level, looking at how such areas were viewed and the impact such spaces had on participants.

Literal definition

Natural England define nature as encompassing:

"Not only natural beauty, wildlife and the geology that underpins landscape character and the habitats on which our most precious species depend but also our historic and cultural connection with nature... and the opportunities we have to connect with the environment" (Natural England 2019).

These findings show that nature is a term with wide connotations. The diversity of responses to the question 'what does nature mean?', demonstrates that this is a term that does not have a standard definition. For many, nature was viewed as a term that related to natural elements.

"Nature is green spaces, outside space but could also be inside maybe... house plants, conservatory plants, anything that is not artificial I suppose."

However, in contrast, for others, the term had a spatial element. For these participants, nature related to a space, or area, where they could be.

"Anything around us, can be a garden, a forest, a park, oceans."

"Nature means greenery, outdoors, nice environment, anything outdoors. There is greenery in my house, but I wouldn't class that as nature."

Furthermore, even within responses which gave nature spatial connotations, disparities were apparent regarding which areas could be classed as 'real' nature. While many participants described nature in terms of parks or gardens, for many, there was an intrinsic link between nature and the untouched environment, dismissing spaces that were created by human involvement, and instead focusing on smaller aspects, such as plants and wildlife.

"...Gods creation, the trees and the flowers."

"Nature is organic in origin, animal also. It is also what is left to its own devices... Green spaces are areas within an urban area that are left to their own devices."

These diverse views of what nature is and means to people highlight the importance of acknowledging the plurality of understandings of the term. Recognition should be given to the fact that nature is a not a standardised term, and instead, cultural and personal differences need to be considered when discussing the concept of nature.

Emotional level

The overwhelming majority of participants discussed nature or green space in positive terms. Nature was described by many with terms in the lexical field of calmness and tranquillity, with many directly mentioning the positive impact it had on their mental wellbeing:

"Nature is beauty, uplifting and its incredibly important to our wellbeing."

"In its most simplest way it's wellbeing, it's calmness..."

"I find that spending time in nature is a calming and rejuvenating experience. It can be a source of peace and solace, helping me with my life stress and anxiety."

"Nature is medicine. It beats pharmaceutical, GP prescribing! Nature is the cure and the wellbeing."

These positive connotations of nature suggest that value is given to being able to access and experience it. This is in line with the wider literature, supporting studies such as that of The Ramblers (2020) which found that people from all walks of life place a high value on access to nature and green space, with only 5% of adults saying that it has never been important to them.

However, these enthusiastic responses did not always correlate with a high level of activity or engagement with nature. For example, one participant described nature as "a place to leave your worries behind", while also noting that they visited nature rarely, approximately

only four to six times a year. This suggests that a deficit exists between viewing the act of accessing nature as positive, and physically engaging in the act. These findings support the need to engage in research that identifies barriers to access that exist outside of perceptions or opinions about the benefits of nature. This research delves more deeply into these types of barriers, exploring access issues that do not solely relate to opinions about the concept of nature in general.

Barriers and drivers to accessing nature

Catering for different needs

One of the key findings relates to the fact that green space is something that needs to cater to different needs. On the one hand, this feeds into the pluralistic definitions people assigned to nature discussed earlier, touching upon how a green space should look, and what constitutes nature.

"Constant battle about grass cutting. Most of the complaints are about needing the grass cutting, but just want it to be left, just cut twice a year."

This came across most strongly when looking at the diverse desires for what the function of green space should be. Findings show that function, with regards to the activities that take place in green spaces, are not universally agreed upon or desired. Rather, there is a need to cater for a plurality of wants, needs, and uses.

When a space was viewed as failing to do this, catering to only one group of people, the space was often seen as exclusionary. If a person felt they did not fit into this group, there was a feeling that the space did not function for them.

"The park is the only place in my vicinity to go for fresh air. This place should be designed for everyone to use. Due to lack of space, younger people think they own the park and sometimes it's very intimidating when the youth are concentrated in the park."

Responses varied when discussing what function a green space should provide. This became particularly apparent when asking individuals to discuss their ideal green space.

One of the key issues that arose here was the presence of dogs. For many, green space was only accessed due to walking dogs, with that being the perceived key function of the space. However, in contrast, dogs in an area also acted as a key deterrent, generating fear and feelings of danger.

"My wife hates dogs- really scared of them, so certain times of the day she won't come for a walk."

"It was really only once we got the pet that we started to go out more frequently."

Another key issue related to the use of bikes. Similarly, this was a key motivating factor for several participants who utilised green space to cycle, while for others it was a deterrent. Rather than view this as an activity that should be excluded entirely, one participant noted how space should cater for both desires.

"Many years ago, they built a bike track. If that was regenerated, bikers could go there and would be no trouble... children have not been educated about the rights and wrongs, that driving a bike down a park is not right. Need separate spaces to meet needs of both."

The sentiment of having different spaces within an area that catered to different needs also came across particularly strongly when speaking with those who suffered from social anxiety. In this instance, several respondents noted that there was a need to have quieter areas in a park.

"When you try to cater for everyone, you are not catering for everyone because sometimes people have niche needs, like I was prescribed by social prescribing to go there (to the park) but they have opened it up to babies, children and mothers. Screaming children, but I need quiet space. Not catering for my needs."

"(Ideal space would be) Somewhere that people who are anxious have a safe space, not too busy."

These findings suggest that to promote inclusivity in access, there is a need to define and cater for different needs potentially in separate areas of a location.

Purpose

Another key observation generated from the interviews conducted was the need for people to have a purpose if they are visiting a green space. For example, if participants had pets, the act of visiting green space was much more frequent as it was seen as fulfilling a requirement. This was also the case for people with children, particularly regarding areas that had play equipment for children to use. These play areas were viewed as being highly valuable, giving an area purpose and thus increasing the desire for individuals to visit.



Photo: Childs playground in Woodgate Valley Park Bartley Green.

However, for those who did not have pets or children, there was often a reluctance to access green spaces.

"I haven't got a dog or kids so I wouldn't automatically think of going there."

"I don't have any pets to take out..."

In some instances, this lack of purpose brought with it the feeling that green spaces were not meant for them, turning them into exclusionary spaces. This was particularly prevalent in responses from men, where a fear existed that they would stand out and as a result, feel uncomfortable.

"For me I have no reason to go, my kids have grown up, I don't have pets so why would I go unless there is something age appropriate to go to. Another consideration is feeling uncomfortable sometimes as the parks are usually for small families or people with dogs."

A driver of access that countered this was discussed as being the inclusion of things to do in a green space that could be perceived as catering to different ages and circumstances.

In one sense this again related to the infrastructure that existed within a space. For example, when talking about their ideal green space, many participants noted the need for infrastructure that provided something to do when visiting a space. This included infrastructure such as cafes, exercise equipment and areas, and informative signage.



Photo: Woodgate Valley Country Park Visitor Centre which is closed.

"Exercise machines, things to stimulate people."

"History of the area that you can read, there's a lot of history associated with the reservoir, Blondin, but no info about this, the geography of the reservoir."

Community group activities and events were also regularly mentioned as a driver for access. This was seen not just as something which alleviated boredom, but also

something that made participants feel the space was inclusive and welcoming for them. Several participants described how they primarily only visited green spaces when events were taking place that they could be part of. This included events such as Simmer Down, a music and arts festival held in Handsworth Park, and all African in England championships, held in Summerfield Park.

"They sometimes have all African in England championships. Park is full. People cook food. Teams come from all over the country."

"If there are events like Simmer Down – Handsworth Park or Sandwell Valley or Jamaican Independence Day celebration I will access it as it's usually in a park. The reason for this is I feel like it relates to something I want to do."

A clear desire was also found for regular activities that cater for different age groups within green spaces. These ranged from exercise groups to art groups, to groups where individuals could simply come together with their local community to chat.

"I would like to access classes like yoga/Pilates or other things at the park instead of just somewhere to go with the children. I think it will be more accessible to more people."

"I do think more activities / events would be lovely to make people feel they belong and there is something for them to be a part of such as walking, running groups..."

"Numerous groups go on there, a knit and natter, and they're looking over this wonderful panorama. It adds so much to their experience and their wellbeing. Did some research on behalf of their friend's group to talk about what they do. They weren't aware of this. They certainly appreciated that once they finished their Zumba, they could look out at such a marvellous thing, when they've finished their Thai Chi in the park it's another experience for them."

However, caution needs to be taken when viewing the existence of a group or activity as enough to inspire access. Rather, issues of inclusivity and feelings of confidence in participation are something that need to be considered. This brings in wider issues of inclusivity and representation, demonstrating a need to respect and encourage diversity within community groups.

"But we have (redacted), which is run by a Friends of (redacted) Park group, and the committee and the local elected member is not inclusive at all. They don't make the park welcoming to everyone... If you have a park group which the council have set up but if the park group don't make everyone in the community feel welcome, then what's the point?"

Past experience

In line with the wider literature, past experience was found to be indicative of whether individuals both accessed and valued green space and nature. For those who had grown up engaging with, or being in nature this was particularly strong, with these individuals tending to access green space most frequently.

"Really important. Grew up in the countryside... feel a connection with nature emotionally."

"From my childhood my best memories were being in nature. Dad took us up to the Lake District and it felt magical, and nature reminds me of those good experiences."

"If you look at the history of our families and where we came from, India, Kashmir, Caribbean, there is a lot of greenery and nature there. My family used to farm back home. Our project in Lozells was planting wildflowers..."

An example of good practice of fostering positive experiences with nature in childhood was discussed by one individual as being the use of green spaces for educational means. They noted how they had been involved in organising events for pupil referral units to come and spend a day in a green space where they could do standard school subjects such as Maths and English. This experience was found to not only improve behaviour and engagement within education, but also encourage subsequent higher levels of access to nature.

In contrast, those who had not had prior experience with nature tended to discuss accessing it with less confidence. The unfamiliarity with it was found to lead to feelings of uncertainty in one participant regarding what activities could take place in a space, what rules existed, and how one should act when in the space.

"Scary because not familiar with it. Always found nature scary... Don't understand the rules. Spaces that are far beyond my reach; I couldn't manage. Others in my area also don't think nature is for them... First time went for a walk whilst training in Norfolk, someone pointed out a deer, was really scared, but it was very small..."

However, the same participant noted how after being exposed to nature, these fears were alleviated and replaced with a desire to access it.

"Look forward to going to places with nature now. Don't feel as intimidated by it... lots of little green spaces in Newtown. A green lawn 100 yards from me, with recently planted trees. Feel like I'm the custodian. Love opening the curtains and seeing a tree and have the illusion of being somewhere green."

This suggests that childhood experiences, or lack of them, do not necessarily shape future relationships with nature. Perceptions and feelings can be subject to change if individuals access nature at a later stage and form positive experiences. There is a need to facilitate individuals in gaining confidence to make the initial step to be in and engage with nature and green space.

For one individual interviewed, this was viewed as being facilitated by encouraging involvement in activities that related to nature, such as fishing and cycling. They also noted how they had been involved in a sailing charity, which actively ran community outreach programmes in collaboration with other charitable organisations. The overarching aim of this charity was to provide individuals with the opportunity to experience water-based activities to encourage subsequent access to the local reservoir. One example of

how this had been done was the recruitment of 3,000 Muslim girls to attend a 'swim safe' programme, designed to increased confidence levels around water.

For another, this initial access was facilitated by individuals directly attempting to instil nature in an area in a way that was accessible. An example of this can be found in the image below, which shows a 'sharing library', where an individual provides free seeds, plants, and herbs.

Link with wider feelings of inclusion in local communities

The findings from this research also indicate that there is a danger in treating green space access as separate to feelings of inclusion in communities at large. It was evident that when participants did not feel comfortable within their local communities, they did not feel comfortable accessing green space. Feelings of belonging in a community, and the safety this entailed, were key to giving people the confidence to be in public spaces, which of course include green space.

In many instances, participants discussed barriers to accessing green space as resulting from a feeling of danger, or exclusion, not solely in their local green space but in their local neighbourhood at large. In one way this manifested due to past negative experiences which had occurred in public spaces, such as acts of racism and crime.

"To be honest with you, I'm still not feeling very safe in the area. I'm a bit worried... first day moving into the area, car was stopped by a group of males, and they looked like they had a gun. I now feel worried to go out with the kids."

"I've experienced casual racism because it's a white working-class area. I'm from an ethnic minority and often comments are made."

For others, this occurred as a result of hearing about other people's experiences in a certain locality or space. This led to individuals perceiving their local neighbourhood, community, and public space as unsafe and exclusionary.

"As a woman that wears a Niqab I feel scared to be honest. I think maybe each day maybe I should remove it... I heard one of the sisters say that her hijab was pulled off as she was walking. It's making me feel a certain way about living there."

This highlights the need to situate issues of access to green space within wider issues of confidence in accessing public space at large. It shows that in some instances, if levels of access to green space are to increase, there is first a need to focus on improving levels of social cohesion and feelings of belonging in communities.

Awareness of local green spaces

All participants were aware of green spaces in their area as well as spaces further afield within the Birmingham locality. However, not all spaces were equally as discoverable.

Rather, for certain areas, the provision of information was key to individuals discovering new spaces and subsequently accessing them.

In one light this related to awareness of spaces existing.

"I found out about Hilltop Valley which is at the top of Handsworth through a leaflet that Birmingham City Council had produced but it gave these cycle routes. I wouldn't have known it was there without this map".

In another, it related to awareness of what facilities an area had. This feeds back into the acknowledgement that for many, there is a need to know whether an area has infrastructure that will facilitate them visiting it, such as benches or toilets.

"It would be quite good to have leaflets put through about the amenities and availabilities within local parks."

Linked to the above was the need to have knowledge about how to access an area. This was something that came through predominantly within discussions of public transport availability.

"The reservoir... So important that people know they can travel here by bus, a ballpark moment when they realise this. They wouldn't think about sitting on the no.18 or no.23 and just waiting a little bit longer to get to a green space. Hope now that because they have experienced coming into nature, they might think of staying on. The introduction is really important."

Firstly, this demonstrates that there is a need to provide greater levels of information about what nature exists within Birmingham. Secondly, it demonstrates that when doing this, there is a need to consider all information which needs to be included. Simply detailing spaces that exist is not enough. Rather there is a need to also communicate access issues, such as the facilities an area provides, and how it can be reached.

Positive green space

All participants noted that within their areas green space and nature did indeed exist. However, simply having such space was not enough. Rather, a clear contrast was present in spaces that participants felt they wanted to spend time in, and spaces that simply existed.

The green spaces that existed in a participant's locality were, in some cases, not seen as preferential to visit. In many instances, participants described their local spaces in terms which contrasted greatly with the serene, peaceful, attributes they had previously used when asked to describe what nature represented to them.

"On paper looks like we have lots of green spaces, but you've got regular fly-tippers and the safety aspects... In Bartley Green there is nothing, so these green spaces are vital to us. But we can't use them because of all the barriers and vandalism."

"I have discovered that there are lots of green spaces, but people will leave a fridge, bed, mattress, and it spoils it. It's not nature. It is just a green space that's spoilt."

"The nature around me – there's rubbish everywhere. Rats in Summerfield Park. The area needs to be cleaned up. Very run-down. It's there but not easy to access because the area is not looked after. Got grand-kids and don't want them coming to a dirty area."

To overcome this, participants often felt the need to travel if they were to access green space.

"It's really sad that I chose to live in an area that's meant to give me all these privileges. I've compromised on amenities like shops and cafes and mosques because I thought I had all these natural elements that would compensate for that... But I've actually been on a loss... I drive to Ladywood to access the Mother Garden there, a community garden... I have to go 25 minutes from where I live because Bartley Green offers nothing."

"Theres nothing to speak of in Aston, Lozells... So, I go out to places..."

Of course, this difference in preference to green space and local availability is cause for concern when thinking about equal opportunities of access. Not only does it infer that there is a deficit in providing equally 'good' green space for certain localities, but it also links to wider elements of inequality. If people feel the need to travel to access green space, those without access to their own transport or those who cannot afford, or feel able to take public transport, are unfairly disadvantaged. This is an issue that several participants noted as being problematic and an issue that deserves attention.

"If (name removed) had access to her own transport she would visit natural spots more frequently."

"It all comes down to money. If there was a stamp you could get to go on the bus to go to the park... A lot of the barriers lie in money."

"I think it's really hard in Birmingham and if you live in the inner city and you haven't got a car."

When investigating why certain spaces were seen as less preferable, it is perhaps beneficial to address areas that were viewed more favourably. Across many of the interviews, two locations recurred in relation to this: Cannon Hill Park and Edgbaston Reservoir.

"Cannon Hill Park is fantastic."

"Edgbaston Reservoir, it's far safer than Bartley Green Reservoir."

When unpacking why these spaces were seen so differently, it became clear that often this related to the infrastructure and upkeep of the area. Here, there existed a clear contrast in terms of what a space provided and subsequently the barriers to access certain spaces presented. Below the key themes that arose in this respect are detailed.

Lack of maintenance

For many participants, there was a feeling that if spaces were not well maintained, they would not want to access them. This related both to the reality of physically entering an area that is poorly maintained and the impression it gave off. For many, if an area was poorly maintained, it made the space appear as if it was not valued, and this would subsequently instigate a vicious circle where the quality of space would get worse, and no effort would be made to improve it.

"If well-tended, it suggests people care about the place, otherwise it's just a lawn that is neglected and in between the concrete houses."

"The entry points could use some sprucing up. Imagine transforming them into inviting green gateways... could create a warm first impression."

One of the key factors that contributed to spaces appearing poorly maintained was a high level of littering and dumping of rubbish. This is something that was frequently described as affecting green spaces in participants' local areas and is a key issue in preventing people from accessing nature.



Photo: Green space in Winson Green being used as a location for dumping.

"Litter on a green space makes me feel very irritated and very sad."

"The fly-tipping, people destroying nature. Everywhere you go, there's a load of rubbish... It's sad and sickening, we can access it but because of the litter and the fly-tipping it's not very nice in some areas to go and walk."

"A local woman came to a forum meeting and gave the story of why she stops her son going out to the park. That one son fell, and he was next to needles and condoms, the other son fell also and was close to dog faeces. It's not maintained as it should."



Photo: Litter including bottles and cans in Winson Green.

Several participants were either aware of, or involved in, local litter picking initiatives to try and improve this. These groups, alongside community groups that focused on improving green spaces, were viewed as vital in improving access to nature. However, it was clear that there was a feeling that too much of an emphasis was placed on relying on groups such as these to improve spaces, acknowledging that it was an incredibly difficult task to maintain. There was a general feeling that if this situation is to improve, it is the local council who need to intervene. Participants suggested this could be done by either increasing the number of bins in an area or introducing stricter fines for dumping rubbish.

A number of participants highlighted that issues of rubbish and littering were sometimes correlated with space being used by traveller communities. This was described as seen when the space was being used, and after the traveller communities had left.

"They leave behind them a substantial amount of waste which is very upsetting."

One participant suggested that this issue could be resolved if more sites designed specifically for traveller community use were created across Birmingham.

It was also argued that consideration needs to be given regarding what practices are used to prevent traveller communities from accessing space, and at what cost. One participant noted for example how in their local green space, a gate had been put in with the aim of preventing traveller communities from accessing the area. However, because of this, it was now difficult for those in a wheelchair, mobility scooter or those who had a pushchair to physically enter the area. This demonstrates the need to carefully consider implications

for access when incorporating infrastructure that attempts to facilitate maintenance of a space.

Mobility issues were also found to manifest as a result of general poor maintenance of an area. If an area was not kept in good condition, it became inaccessible for certain groups and thus prevented access in a physical sense.

"The concrete paths are not maintained. Can trip because of the tree roots."

"Downside is some of the surfaces are quite poor because of tree roots that have dug up the pathway. If you are not steady on your feet or use a wheelchair or on a bike, it's quite dangerous in parts."

As existing literature has identified, those who have a physical disability or long-term condition are a demographic that experience lower levels of access to green space. Thus, if access levels are to improve for this group, effort needs to be made to not just create accessible paths, but also to maintain them.

Infrastructure

Further instances of discrimination in access were found regarding the level of infrastructure an area had. Most participants cited, for example, the importance of green spaces having a toilet if they were to visit. This is something that was predominantly apparent for older people and those with young children.

"I don't like no toilet access... means it limits the amount of time you can spend there, I have two children, one in nappies..."

"Limited by lack of toilets. If I would go out for decent lengths walk and I want to use the loo, that would make me think twice. I would go to Sandwell Valley or Warley woods where they have facilities."

Benches and seating were another type of infrastructure seen as required if participants were to spend a length of time in an area. With many participants stating that this is something which needs to be considered in spatial design and planning. Rather than seating solely being seen as a pleasant addition to a space, it was often seen as necessary, particularly for older people and those with a disability or long-term condition.



Photo: Poorly maintained benches in Winson Green.

"Only two benches in Burbury park. Have to rely on no-one sitting on it if you get tired. Hard for older people."

"If (I was) older or got a disability... Would be helpful in a scenic area if people could just sit."

Infrastructure which existed within a space was also often seen as being indicative of how safe an area was. On one level this was viewed as being linked to the level of lighting an area had:

"I don't know if they feel safe... the lighting is never the best in parks / green spaces."

On another level this was viewed as relating to staffing, wardens, and security:

"If they had security... would make me go more often."

This becomes particularly important when looking at the fact that safety was a key concern of many participants. The feeling that an area was unsafe, or entering a space would put a participant in a dangerous situation due to unwanted behaviour, was a sentiment that came across in many of the interviews that took place. Key fears in this respect related to adverse behaviour such as drug use, alcohol consumption and sexual activities.

"The places we want to go to, we can't go to because it's not safe."

"Lots of drug-dealers go there when it gets warm. That's what stops me going there to be honest. It doesn't feel safe and sometimes you see needles."

"Have had incidences of people flashing. Quite prevalent at the moment."

"Safety is the first one. Before you step in a place, if the safety is not there, no matter how beautiful you make it, or what facilities you put in, if it doesn't feel like a safe space then it's not accessible space. So, safety has to be uppermost."

When looking at who the idea of safety impacts, the findings support existing literature that suggest perceptions of areas being unsafe are a barrier that over proportionately impacts women. Throughout the interviews, female respondents were much more likely to discuss the idea of safety as a concern about green spaces than their male counterparts.

"As a woman I don't feel safe. I wouldn't go on my own with my child to the park. You try to gather other parents to come with you or if my husband is with me then I'll go... I wouldn't go to say Woodgate on my own. I still haven't been to Bartley reservoir to do the lap because it doesn't feel safe."

If access levels are to improve for all, and especially women, it is thus important to acknowledge what can be done to ease fears and prevent unwanted incidents from taking place. As noted, lighting and security are elements of green space that can help improve this, and thus something that should be considered as a feature of green spaces that is maintained.

Concluding remarks

These findings indicate that nature is generally viewed positively amongst those interviewed in this study. The mental health benefits of accessing nature were also widely understood by research participants. Therefore, instead of a need to educate individuals about the benefits of nature in order to tackle socio-cultural barriers, in this instance the provision of practical information such as where local green spaces are, their infrastructure and accessibility, and what transport is available to reach them, would be more valuable.

The research has identified that barriers are not equally experienced by individuals within a locality, and instead, there are a multitude of factors that can lead to low levels of access. It is important to highlight that the barriers found in this study were uncorrelated to the level of green space available. For example, although Bartley Green enjoys a high level of available green and blue space, barriers were still found relating to access, and participants living within this area were not more likely to engage with nature more frequently than those in areas with less green space. These barriers included feeling unsafe in the wider community as well as in local green spaces, and the quality of green space available, which relates to the maintenance and infrastructure available. This suggests that other barriers such as these must be recognised and addressed, barriers that exist outside of the proximity and level of local green space.

One of the drivers that has been found to counter such barriers is the importance of recognising the plurality and diverse number of needs of individuals. This diversity is apparent in the differing understandings of what nature is, and how it should function. If a space is to be inclusive there is a need to recognise this diversity, and challenge perceptions of spaces belonging to subgroups, for example within this study, dog walkers. This is something that has previously been achieved through the creation of events and activities in green space, that are inclusive and cater for different wants and needs.

The findings also indicate that past experiences can affect the frequency of visits to green spaces. This can be driven through previous positive engagement with nature, and decreased through negative experiences, or the lack of any experience at all. It is important to highlight however that these relationships are not static, and this study has demonstrated that perceptions can change, and not just during childhood. Through the creation of more positive experiences, and the subsequent levels of confidence, relationships with nature can be altered and improved.

Lastly, these findings have demonstrated the need to acknowledge that barriers to nature relate to wider social barriers. This study has shown that feeling unsafe within a local community can cause individuals to feel unsafe in the green spaces in their local areas. Therefore, access to nature should not be seen as an isolated subject, as it can relate to wider feelings of inclusion. The findings of this study suggest that if an individual feels safer and more welcome in a public space at large, they are also more likely to feel safer and more welcome within that localities' green space.

Recommendations from this study

The findings in this report demonstrate that several steps can be taken to improve access to green space. This evidence, in conjunction with recommendations participants made, will now be presented as a list of suggested recommendations:

Improve infrastructure and the maintenance of green spaces

Some green spaces in Birmingham are less maintained than others. In many instances this echoes wealth divides between areas, subjugating those living with higher levels of deprivation to less preferable green space.

It is important to recognise the implications that lack of infrastructure and poor maintenance have. This is not something that is needed solely to improve enjoyment levels, but in many instances is something that is needed to physically allow access for certain groups such as those with disabilities and long-term conditions.

Infrastructure that has been found to be key includes lighting, seating and toilet facilities. Maintenance should not just relate to ensuring these facilities are working, but should also relate to ensuring pathways are clear, free from rubbish and obstacles created by natural elements such as tree roots.

It is evident that a lot of this work is currently conducted by community organisations, such as litter picking groups. However, it should be recognised that there is a danger of putting too much onus on these groups, with the task being arduous and time consuming. It is thus preferable to have council level involvement.

Recognise and reduce the costs related to accessing green space

It is evident that many people feel the need to travel to access preferential green spaces. However, this is not an option that is viable for all, especially those on a low income. Travel expenses incurred by using public transport or unavailability of personal transport should thus be recognised as key barriers to access levels. One participant suggested that this is something that could be improved if a scheme were to exist where people could travel to green spaces by public transport for free.

It was also noted that access for those on a low income was impacted by the lack of suitable clothing required. It was noted for example that many people did not own multiple pairs of shoes or wellies, and it would be problematic to enter ground where they could get muddy. Two participants noted that this could be improved if schemes existed where wellies could be hired, similar to the act of hiring shoes in a bowling alley.

Different people have different needs and desires for the function of green space

Amongst the research participants and in the literature, there can be diversity in defining what nature or green spaces are, and what their function should be. To improve access levels, it is thus important to acknowledge these differences and cater to different wants and needs. A suggestion would thus be to take a bottom-up approach to designing green space, where community needs are recognised, rather than assuming there is homogeneity in wants.

On one level this could be considered through creating spaces that include a mixture of wild and maintained spaces. For some the natural element is important, whereas for others there is a need for greater accessibility, with wild areas being controlled.

On another level this relates to activities that are permitted in a space. Desires for what individuals can do in green spaces are diverse, ranging from wanting somewhere to ride a bike, walk a dog, play with children or simply have access to a space that is quiet and peaceful. It is clear from this research that these activities are not always cohesive. Instead, a suggestion is for areas to be spatially divided for dedicated function. One participant suggested that this could be achieved by creating areas where dogs can go and areas where they can't, and another suggested this could be done by separating cycling and non-cycling areas.

Provide purpose

The research suggests that there is a need for green spaces to have purpose outside of being a space to simply visit.

Whereas those who had children or pets felt they had a reason to access green space and nature, for many others there was a feeling that visiting required a justification. This was not just due to feelings of boredom, or the desire to have something to do. Rather, it also related to how inclusive spaces felt, and how much individuals felt they belonged in a space.

Infrastructure is again something which could be considered here, with several participants noting that the inclusion of a café or gym equipment could help to counter this barrier. Another popular response was the inclusion of areas to grow food.

Activities and events in green space were also clearly a driver in this respect, with events such as Simmer Down Handsworth and fitness groups being viewed favourably. A clear recommendation would thus be an increase in the level of activities and events that take place in green spaces. However, there is danger in thinking the mere existence of this is enough. Instead, consideration should be given to how inclusive these groups are and how they are able to reach the community at large.

Encourage positive experiences at all ages

Positive childhood experiences in the green spaces can encourage and foster engagement with nature at a later stage. Thus, it is important to actively create experiences for children and young people. Participants discussed how this is something that was beneficial when done through the school curriculum or via community groups.

However, it is also important to acknowledge that creating positive experiences is something that is beneficial at any age. Lack of confidence in access was shown to be a key barrier, but this is something that can be changed. Thus, it is important to refrain from focusing solely on activities and programmes for children and instead incorporate individuals at any age. As noted previously, this has been found to be facilitated through encouraging involvement in activities which are built around increasing confidence levels in nature. An example of such activities found in this study was a swim safe programme designed for Muslim females.

Provide information about what's available

Awareness of the benefits of accessing nature are widespread, as is awareness of green space within a local area.

Improvement is instead needed in providing practical information about greenspaces. On the one hand this is needed to inform people about what facilities an area has, such as toilet facilities, seating and general accessibility.

On another level this is needed to actively informing individuals about how to get to green spaces that are further afield. It is important to relay information about public transport routes that can be used to reach a space.

From the findings, it is suggested that leafletting is a good approach to do this. It is important to acknowledge that not all people have access to the internet in the same way, and instead many rely on physical information being sent to them. By distributing leaflets, the barrier of relying on people to organically search for information is also removed.

Reflections, limitations and next steps

While this research has found key socio-cultural barriers that exist to accessing nature in the areas studied in Birmingham, it has also demonstrated that there is a need for a better understanding of the socio-cultural barriers that exist, understanding what works, for who, why, and where.

Reflecting on this research project has inspired understanding that to do this, a far greater study is needed - both in terms of time and scale. There is a myriad of reasons as to why individuals access, or do not access, green space, and to unpack this, greater levels of indepth researching and analysis is needed.

It has highlighted that life stories and histories of individuals are vast, and to explore them, a greater amount of time is required. This is apparent both in terms of the time taken to interview and discuss issues with individuals, and the time taken to improve levels of trust and build relationships with them. Such levels of trust are especially important because access to nature can be a sensitive topic to investigate, with community researchers noting that some individuals felt levels of embarrassment about their low levels of access. A suggestion for broader research could thus be the inclusion of a variety of research methods that encourage greater levels of sharing and do not rely on verbal communication.

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Appendix 1

Interview topic guide

Introduction

- Introduce yourself and thank the participant for taking part.
- Explain that the project is being funded by Natural England and aims to look at urban wellbeing, specifically access to green spaces and nature.
- Share the participant information sheet and ask if the participant has any questions.
- Explain that participation is optional, and the participant can stop at any time.
- Explain how upon completion of the interview, the participant will receive a £10 voucher.
- Inform the participant that the findings will be written up into a report and will be shared with them but there is no date set for this yet.

Confidentiality and consent

- Explain that the interviews will be recorded and the recording will be deleted after the interview has been written up.
- Explain that all names will by anonymised.
- Share the participant consent form and obtain consent before starting the interview.

Demographic data to be collected

- Give the participant the form to fill in, titled "demographic data".
- If conducting the interview virtually, read the above form to the participant and fill it in for them.

Interview questions

Section 1: Nature in general

- 1. What does nature mean to you?
- 2. What role does nature and green spaces have in your life?

Prompts could include:

- How important is it for you to access nature?
- Why/why isn't it important for you to access nature?
- How do you access nature?
- 3. Can you tell me about the green spaces/nature in your local area?

Section 2: Barriers to nature

- 4. Do you feel able to access nature and green spaces in the way that you want?
- 5. Are there any barriers that you, your friends, family or neighbours in the local area experience in terms of accessing nature or green spaces?

Prompts could include:

- What prevents you from accessing more green spaces?
- Do you want to access more nature? What prevents this?
- 6. What would help you access green space?
- 7. What would be your ideal green space?

Prompts could include:

- What would your ideal green space look like?
- What features would your ideal green space have?

