

Natural Connections

An Evaluation Report for Birmingham and the Black Country Wildlife Trust 2022

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Executive Summary

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Executive Summary

Birmingham and the Black Country Wildlife Trust (BBCWT) received funding from the Cadent Foundation who seek to make lasting, positive differences in local communities (Cadent Foundation, 2020) via running intervention programmes to improve wellbeing through nature connectedness. This funding was used to develop the Natural Connections programme of initiatives which aimed to engage local people from socioeconomically deprived areas in Birmingham and the Black Country. The objectives were to engage local people in health and wellbeing programmes, establish training programmes for young people, and support people into volunteering with the BBCWT.

To find out if the Natural Connections programme had an impact on levels of nature connectedness, wellbeing and loneliness, data was compared between the start of the sessions and again at the end of the sessions to see if there had been any change. The Natural Connections participants also answered a number of open questions which explored additional aspects of wellbeing, life satisfaction and their thoughts about the impact of the programme. A themed analysis was conducted using the responses to these open questions.

In summary, the data indicates that the Natural Connections programme had a positive impact for the people who engaged with the project and took part in this evaluation.

The quantitative data sample was very small and so the results should be treated with caution. A significant increase was seen in relation to nature connection as measured by the inclusion of nature in self scale, but no other significant differences were observed for nature connectedness, mental wellbeing and loneliness.

The qualitative data demonstrated that participants reported feeling more confident in using tools and working with others. They also felt an increased awareness of nature with some participants being more involved in nature and feeling more connected. Several participants highlighted the benefits of the programme for their mental wellbeing.

Overall, the Natural Connections programme appears to have had a positive impact for the participants and in light of this, it is recommended that the BBCWT continue to deliver programmes such as this to community groups. The evaluation indicates that providing these kinds of activities in urban and socio-economically deprived areas can bring great benefits to people living in these settings.

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1. Introduction to the evaluation context

Mental Health and Wellbeing

Increased rates of mental ill-health during recent years (Baker, 2020) are of great concern. Good mental health concerns not just the absence of mental ill-health, but the presence of wellbeing (Richardson, et al., 2021), with wellbeing being defined as the state of optimal human functioning (Pritchard et al., 2019). Recent UK data reveals previous trends for increased wellbeing have been negatively impacted due to the coronavirus pandemic (ONS, 2021) with higher levels of anxiety and reduced levels of happiness in adults. These concerns about the effects of the pandemic on mental health (e.g., Cullen, Glati & Kelly, 2020) and wellbeing (e.g. De Pue et al., 2021) have been well established. Various factors have been shown to influence wellbeing, with higher levels of loneliness in older adults being linked to reduced wellbeing (Golden et al., 2019). Similarly, for younger people who are not in education, employment or training, lower levels of wellbeing are also observed (Goldman-Mellor et al., 2016). During the pandemic, people were placed under a range of restrictions which limited social interactions and resulted in high levels of loneliness (Groarke et al., 2020), which may also have negatively influenced wellbeing. Therefore, initiatives which might enhance wellbeing and reduce loneliness are of interest.

The Wildlife Trusts are establishing a growing body of evidence which demonstrates the impact for some of their initiatives on health and wellbeing. Research conducted with Wildlife Trust volunteers showed a significant improvement in mental wellbeing at the end of a 12-week programme, with improvements being greatest in people who were new to volunteering with the Wildlife Trust. In addition, these volunteers also reported improvements in positivity, health, nature relatedness, pro-environmental behaviours physical activity levels and contact with greenspace (Rogerson et al., 2018). A review of Wildlife Trust activities (Wood, et al. 2018) concluded these activities promote public health and can support the treatment of diagnosed illness through nature-based interventions. The Wildlife Trusts also commissioned a review of links between biodiverse environments and wellbeing. This established that contact with a variety of natural environments could have wellbeing benefits and environments which are rich in wildlife support improved wellbeing (Bragg et al., 2018).

The impact of Nature Connectedness

One approach that may help to support wellbeing is improving our relationship with nature. Increased levels of Nature Connectedness (NC) have been linked to wellbeing gains (Capaldi, Dopko & Zelenski, 2014; Pritchard et al., 2019), therefore interventions which increase nature connectedness have the potential to improve wellbeing.

The Intervention

Birmingham and the Black County Wildlife Trust (BBCWT) received funding from the Cadent Foundation who seek to make lasting, positive differences in local communities (Cadent Foundation, 2020) to run intervention programmes to improve wellbeing through nature connectedness. This funding was used to develop the Natural Connections programme of initiatives which aimed to engage local people from socioeconomically deprived areas in Birmingham and the Black Country. The objectives were to engage local people in health and wellbeing programmes, establish training programmes for young people, and support people into volunteering with the BBCWT.

Impact of the Pandemic

The Natural Connections project began during the Covid-19 lockdown and due to restrictions on social distancing, some of the initiatives were postponed. Once restrictions were lifted staff were able to commence delivery of the health and wellbeing sessions, deliver training programmes to young people and recruit new volunteers.

Natural Connections aimed to enable urban residents to better access and enjoy their local natural spaces with others, instigating a positive cycle of physical activity, social connections and enhanced wellbeing. BBCWT identified two groups at particular risk of social isolation, young people aged 16-25 and people aged over 50. The Trust developed two programmes to help address this risk through shared contact with nature.

Nature Academy Courses

The Nature Academy Courses were aimed at young people aged 16-25 and as an Open College Network Training Centre, the BBCWT developed courses in Tools Use and Surveying. Participants who successfully completed this programme attained their level 1 qualifications. They experienced a fun and engaging programme that helped them connect with the natural world in their neighbourhood.

Health and Wellbeing in Nature Courses

The Health and Wellbeing in Nature Courses were aimed at people aged 50 and over and were designed to make use of the local natural environment to encourage participants to connect with nature and each other. At the core of these courses was a consistent framework based on the five ways to wellbeing:

- 1. Learn in different environments including woodland, meadow, canals and ponds
- 2. Give protecting local wild space by volunteering and practical conservation activity
- 3. Take notice how to be mindful in nature
- 4. Be active fitness through walks and volunteering activity
- 5. Connect how to stay connected with each other and ways to join other local groups

Both courses were complemented by a weekly programme of supported volunteering that ran throughout the year. Participants were encouraged to build shared experiences of natural spaces into their everyday life.

2. The Evaluation Methodology

The Wildlife Trusts commissioned the University of Derby to evaluate the Natural Connections programme of initiatives to evidence any benefit they might have on nature connectedness, wellbeing and loneliness.

Study Design

In order to find out if Natural Connections had an impact on levels of nature connectedness, wellbeing and loneliness, data was collected at the start of the sessions and again at the end of the sessions. This allowed the comparison of scores across the two time points to establish if there had been any changes in the measures taken.

In addition, the people who took part in the Natural Connections programme answered four open-ended questions, one at the start of the evaluation which asked about their expectations, and three at the end of the evaluation which asked about any changes they had experienced as a result of taking part in the project.

Questionnaires

So that we could assess the impact of the Natural Connections project on the key measures of Nature Connectedness, Wellbeing and Loneliness, the people taking part were asked to complete four questionnaires.

Nature Connectedness

The Nature Connectedness Index (Richardson et al., 2019) includes six questions that are suitable for use with both adults and children. Questions include things like "Being in nature makes me very happy" and responses are scored from 1 (Completely disagree) to 7 (Completely agree)

The Inclusion of Nature in Self scale (Schultz, 2001) measures how much an individual feels they are a part of nature through a series of seven sets of overlapping circles reflecting increasing degrees of inclusion of self in nature.

Mental Wellbeing

Mental Wellbeing was measured by the Edinburgh-Warwick Mental Wellbeing Scale (Tennant et al., 2007) and this short measure contains seven questions which are scored on a five-point scale ranging from 1 (None of the time) through to 5 (All of the time). An example of the questions from the scale is "I've been dealing with problems well".

Loneliness

The three item UCLA Loneliness Measure was used to assess loneliness. Questions are scored on a three-point scale, ranging from "Hardly ever or never", "Some of the time", "Often". An example question is "How often do you feel left out?"

Open Questions

At the start of the evaluation participants were asked the following open question:

What are you hoping to achieve from the programme?

If you would like to, please tell us about any goals you would like to achieve from taking part in the project. It could include anything from a skill you would like to develop, developing relationships with others, through to how you might feel at the end.

When the questionnaire was complete for the second time, three open-ended questions were asked:

About your experience:

- 1. Tell me about your life since you joined the group. Has anything changed?
- 2. How did you feel about yourself before you came to the group?
- 3. How do you feel now?

Qualitative Questions

The people taking part in Wild Wellbeing were asked to share a little more information about their experience of the project. These were captured digitally and included the following questions:

- 1. Tell us why you joined this Wildlife Trust programme
- 2. What did you enjoy doing in this Wildlife Trust programme?
- 3. What's changed for you because of coming to this Wildlife Trust programme?

Data collection

Information about the evaluation was given to the people taking part in the Natural Connections initiative and if they were happy to take part, they completed a consent form to show they understood what they were being asked to do, how their data would be used and how they could stop taking part if they decided they would prefer not to continue with the evaluation. Once people were happy to take part, they completed a paper-based questionnaire at the start of the first session and completed another questionnaire at the end of the final session.

Participant details

In total 41 people completed the questionnaires at the start of the Natural Connections project and 18 people completed the questionnaires at the second time point giving an overall sample of 41 people. 14 people completed the questionnaires at both time points. Looking at all the people who completed the questionnaires, they were aged between 17 – 74 years with an average age of 28.3 (sd=16.0) years. Some young people attended the programme as part of the school enrichment activities and Duke of Edinburgh award scheme. It is noted that some people attending the Wildlife Trust programme had learning difficulties, and so it is possible that some participants struggled to complete the questionnaires which may have contributed to the small sample size. Table 1 shows information about the gender and ethnicity breakdown of the people who took part and provided this data.

Table1. Details about the people who took part

Gender	Number	%
Female	19	46.34%
Male	19	46.34%
Prefer to self-define	1	02.44%
Prefer not to say	2	04.88%
Ethnicity		
White	20	48.78%
Mixed/multiple	1	02.44%
Black	0	00.00%
Asian	13	31.71%
Other	3	07.32%
Prefer not to say	4	09.76%

3. Results

The number of participants providing complete data at the two time points was small and as such the results of the quantitative analysis should be treated with caution.

3.1 Quantitative analysis

Nature connectedness

There was no significant difference in nature connectedness between time 1 and time 2, although there was a slight increase in scores.

Inclusion of nature in self **increased significantly** between time 1 and time 2 suggesting a positive impact on how the participants saw themselves in relation to nature from participating in the programme.

Mental wellbeing

There was no significant difference in mental wellbeing from time 1 to time 2, however there was a slight increase in scores recorded.

Loneliness

There was a no significant decrease in loneliness from time 1 to time 2

Table 2 shows a summary of the means (sd) and associated statistical information across the two time points, for nature connectedness, mental wellbeing and life satisfaction.

Table 2: Means (sd), T values and significance for variables across the time points

Variable	Mean (sd) Time 1	Mean (sd) Time 2	T value	Significant
Nature connectedness	2.69 (1.38)	2.90 (1.78)	-0.50	No
Inclusion of nature in self	3.75 (1.36)	5.00 (1.54)	-2.06	Yes
Mental wellbeing	24.73 (5.37)	25.46 (7.17)	-0.25	No
Loneliness	5.00 (1.88)	4.42 (1.56)	1.77	No

3.2 Qualitative Analysis

Open questions

36 participants answered the open questions at the first timepoint and 13 participants completed the open questions at the second timepoint.

What are you hoping to achieve from the programme?

Participants expressed several hopes for what they wanted to achieve as a result of taking part in the programme. There were four main themes to these responses:

Connecting with nature and others:

Several older participants mentioned enjoying being in nature whilst others hoped to feel more connected with both nature and other people as a result of the programme e.g., "Being able to feel more connected to others and the natural world more". Some participants hoped to make new friends and create new relationships by "meeting likeminded people" and "developing new relationships with others".

Improving mental and physical health:

Some participants hoped that the programme might help with their mental health e.g. one stated, "I would like to feel relaxed and less anxious and stressed about things" whilst another hoped the programme would help them to "improve my mental health". Some participants also hoped the programme might help with their physical health and support them to become "fitter".

Knowledge and skill building:

In the younger group, a number of participants hoped the programme would enable them to learn more about nature, plants and conservation highlighting that they aimed to "gain general knowledge about plants" and "general conservation skills". Another participant hoped to "learn... to be more eco-friendly and live a life which is beneficial to the natural world". Some participants also felt this programme would be helpful for their future careers for example, one stated they might "learn new skills to possibly work in a future conservation related role", while another commented that they were "hoping to go into nature conservation programme/training" in the future. Learning new skills and how to use

and look after tools were also highlighted with one participant wishing to "learn how to use the tools so I can use them properly" and another commenting that they would like to "improve on working with the right tools and equipment".

Once they had completed the programme, the questions revealed the benefits of the experience for the participants.

What have you achieved from taking part in the programme?

The younger participants noted confidence in using tools as one of their primary achievements from the programme. Learning to use different tools enabled the participants to feel that they could get more involved with nature through understanding how to use equipment safely. One participant stated that they were able to give back to nature through making it "cleaner and better".

The older participants also felt more aware of nature and took time to observe different animals and plants. One participant likened this experience to "mindfulness" as it opened them up to nature by "involving our different senses".

The group aspect of the programme also improved some participants' confidence with working with others, allowing them to meet "like-minded people" and build friendships that they described as "very intimate and precious". For one participant, there was a deeper sense of meaning that they gained from the programme, with the activities allowing them to connect to the nature in the UK having been accustomed to a warmer climate in their native country.

Tell me about your life since you joined in with the activity / group. Has anything changed?

For some participants the programme inspired them to be more involved in nature in their "own time", e.g. spending more time in their own gardens, and helping others with gardening. One participant suggested "I also feel like I will be able to help my parents [in the garden]". For others, the programme had positive impact on their mental health and wellbeing. By allowing them to take "time to notice nature" the participants reported feeling "calmer" through understanding the "importance of being in nature", more confident both "in general" and with "using tools", with one participant claiming they have become "more independent and resilient" from the experience.

How did you feel about yourself before you got involved with the activity / group? Some participants reported feeling apprehension towards taking part in the group activities stemming for some from "not knowing what to do". For one participant, the "new culture" they found themselves in as a foreign national contributed to this lack of confidence. However, through connecting with others in the group, the participants felt less isolated, with one individual stating, "I thought my need to be close to nature was only me". From connecting with nature in a group, this particular individual gained a new perspective, as they were no longer alone in this appreciation of nature, and recognized that they could even appreciate nature within cities, stating that the urban environment was one of "endless opportunities"

How do you feel now since taking part in the activity/group?

For some participants there was a sense of feeling closer to nature from participating in the programme. One person stated that, "nature is always there" which allowed them to feel "okay with being lost sometimes". The programme provided a new relationship with nature for some participants, with one person reporting feeling closer to the wildlife of the UK- their adopted new country-and another participant stating they were looking forward to having more "explorations" in the future, signaling that this had created a prompt to create further nature-based activities.

Summary of the open questions

Taking part in the programme had a positive impact on the participants who reported experiencing improvements in mental health and wellbeing. Their relationship with nature developed or was enhanced further. Interacting with group members and meeting likeminded people improved the participants' social wellbeing, helped them to forge meaningful friendships and, for some, increased their sense of confidence in working with others. Taking time to notice nature evoked a state of mindfulness and supported them feeling more emotionally calm and connected to the natural world.

Qualitative questions

Participants also responded to 3 additional questions which were captured digitally. The responses are summarised below.

Open Question 1: Tell us why you joined this Wildlife Trust Programme

Some participants attended the programme as part of their school enrichment activities, whilst others identified more personal reasons that combined knowledge and practical skill building, e.g.,

"to know how to use tools and to know about everything in nature"

"to make the environment a better place and I enjoy learning about different nature and the different tools."

Open Question 2: What did you enjoy doing in this Wildlife Trust Programme?

Participants listed a variety of highlights from their experiences such as:

"Picking rubbish from the canal on the boat"

"Doing gardening and using the tools to do gardening".

"I enjoyed how to clean the different tools and how to do it step-by-step"

"Learning new things about nature"

One participant also described the celebration event at the end of the programme as a highlight, as they particularly enjoyed "the fire" where they toasted marshmallows.

Open question 3: What's changed for you because of coming to this Wildlife Trust Programme?

Of the changes reported, participants noted that they had gained skills, knowledge and/or self-confidence. Examples of this include:

"I've changed by being more confident"

"I've been helping around in the garden"

"It's made me know what to do with the tools and what they're used for"

"Learned more about nature"

One participant reported a change in nature connectedness:

"My view on nature has changed, my love for it has grown increasingly bigger. Being around nature now makes me feel more relaxed"

4. Conclusions and next steps

In summary the data indicates that the Natural Connections programme has had a positive impact for the people who engaged with the project and took part in this evaluation.

The quantitative data sample was very small and so the results should be treated with caution. A significant increase was seen in relation to nature connection as measured by the inclusion of nature in self scale, but no other significant differences were observed for nature connectedness, mental wellbeing and loneliness.

The qualitative data provides support for the benefits of the Natural Connections programme. At the start of the programme participants had a number of expectations, hoping that they might develop new friendships, learn new skills and enhance their knowledge. Participants also reported hoping they might become more connected with both nature and other people on the programme, and that they might experience both mental and physical health benefits.

At the end of the programme, participants reported feeling more confident in working with others, and with using tools. They also described an increased awareness of nature, reported being more involved in nature and felt more connected to it. Several participants highlight the benefits of the programme for their mental wellbeing

Overall, the evaluation indicates that providing the kinds of activities included in the Natural Connections programme in urban and socio-economically deprived areas can bring great benefits to people living in these settings.

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Appendices

Copy of the questionnaire (excluding information given to participants at the start of the project and consent questions)







This evaluation seeks to understand any effect taking part in the Wildlife Trust project has on your wellbeing and relationship with nature (as covered in the information sheet you just read). Thank you for agreeing to take part.

First, we would like to ask a little more about you.

Age: How old are you	(in years)
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Your gender (Please circle)

Male Female Prefer to self-define Prefer not to say

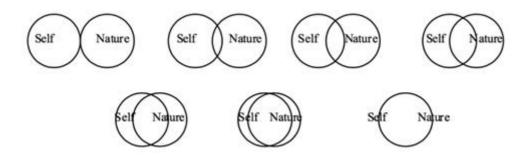
Ethnicity (please circle)

White Mixed or Multiple Ethnic Group Black, African, Caribbean or Black British Asian or Asian British Other ethnic group The following questions are about you and nature. By nature we mean all types of natural environment and all the plants and animals living in them. Nature can be close to where you live in towns, the countryside or wilderness areas further away.

Please tell us how much you agree or disagree with each of the following statements, by putting a tick in the relevant box.

	Completely disagree						Completely agree
1. I always find beauty in nature	1	2	3	4	5	6	7
2. I always treat nature with respect	1	2	3	4	5	6	7
3. Being in nature makes me very happy	1	2	3	4	5	6	7
4. Spending time in nature is very important to me	1	2	3	4	5	6	7
5. I find being in nature really amazing	1	2	3	4	5	6	7
6. I feel part of nature	1	2	3	4	5	6	7

Please select the picture below which best describes your relationship with the natural environment. How interconnected are you with nature right now?



Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks.

	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future					
l've been feeling useful					
l've been feeling relaxed					
I've been dealing with problems well					
I've been thinking clearly					
I've been feeling close to other people					
I've been able to make up my own mind about things					

Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks.

	Hardly	Some of	Often
	ever or	the time	
	never		
How often do you feel that you lack companionship?			
How often do you feel left out?			
How often do you feel isolated from others?			

What are your goals? If you would like to, please tell about any goals you would like to achieve from tain the project. It could include anything from a skill you would like to develop, derelationships with others through to how you feel at the end. (This question was asked at time 1 only).	

The following questions were asked at time 2 only

About your experience: Tell me about your life since you joined the group. Has anything changed? How did you feel about yourself before you came to the group? How do you feel now?

This is the end of the survey. Thank you very much for taking part. There is more information about the study on the next page. Please read this or take this page away with you.