



Best Foot Forward

Access to Nature Early Findings

The benefits of the natural environment for mental and physical well-being

About Early Findings

This paper is one of a series being produced early across the lifetime of Access to Nature. We want to learn about what is working well for the diverse range of Access to Nature projects, and where they face challenges. Even in the early phase of delivery, projects are able to highlight their key learning. This may only be a partial picture of their progress and impact overall but nonetheless provides helpful insights to inform their future work and helps guide that of others. **Here we present the experiences of one project – Discovery Quest - which has engaged adults with enduring mental health issues in outdoor activities and tried to understand the impact on their mental and physical wellbeing.** More Findings Papers will emerge as Access to Nature progresses and we can further build on what we have here to create a full picture of the learning from projects.

About Access to Nature

Access to Nature is a £28.75 million grant scheme to encourage more people to enjoy the outdoors, particularly those who have little or no contact with the natural environment. Funded by the Big Lottery Fund's Changing Spaces programme and by Natural England, Access to Nature is run by Natural England on behalf of a consortium of major environmental organisations. This is a different kind of programme that aims to benefit 1.7 million people through partnership projects across the country. Funded projects include very local schemes run by small community based groups, through to national initiatives from large organisations. Diversity in scale is mirrored by a diversity and richness of projects including for example equipment to allow people with disabilities to access the natural environment across the South West; supporting black and minority ethnic communities to visit the countryside; as well as many projects which are providing a range of volunteering and educational opportunities for local communities and young people.

The Current Context

At the core of the Government's vision of the Big Society is the belief that people should be empowered to improve their communities and shape the services they receive. Access to Nature has a key role to play within this, through encouraging and facilitating community involvement and action at the neighbourhood level in response to local needs, particularly amongst those who have little or no previous contact with the natural environment. The programme also complements other Natural England priorities such as increasing the number of under-represented groups that access the natural environment through the Outdoors for All initiative¹ and promoting the health benefits of being outdoors through Walking for Health² and the Green Exercise programme.³

¹ Outdoors for All - <http://www.naturalengland.org.uk/ourwork/enjoying/outdoorsforall/diversityreview>

² Walking for Health supports health walk schemes across England - <http://www.wfh.naturalengland.org.uk/>

³ Green Exercise was a 3-year pilot programme from 2007-10 which funded 8 demonstration projects across England - <http://www.wfh.naturalengland.co.uk/ourwork/green-exercise>

Introducing Discovery Quest

Discovery Quest is a project for people whose mental health difficulties have had a significant impact on the way that they have managed their lives. It was the aim of Julian Housing Support to offer a new type of therapy that actively promotes physical challenge within the natural environment to this client group. The project is designed around a six month walking programme, where people spend quality time in green and wild places.

The walking activities begin with weekly, facilitated walks in three parts of Norfolk. These give people the opportunity to walk together in a group, explore some of Norfolk's greatest countryside and observe and learn about a variety of wildlife. This is followed by three camping opportunities: one in Norfolk, one in the Brecon Beacons and finally a week long field trip to Knoydart, in a beautiful and remote part of the Scottish Highlands. Julian Housing staff delivers and administers the project with additional delivery input from Norfolk Wildlife Trust and MountainWise.

More than a walking programme

Discovery Quest is delivered in partnership with a wide range of organisations including British Landscape Footpath Trust, Ramblers Association, Cinque Terre Pilgrimage Trail, National Trust, RSPB, Norfolk Wildlife Trust, MountainWise, Mountain Leader Training England, Trewern Outdoor Centre, Burbeck Estate and Oakland Labyrinth.

By working collaboratively and drawing on their extensive experience within the mental health field, Julian Housing has designed a walking programme with a difference. The programme has some important features that, combined together, ensure that it is positive and affirming for those involved.

Good quality information

- There is early face to face communication with referral agencies about the programme.
- A detailed information booklet accompanies the referral form.
- Anyone referred to the programme is invited to an initial information sessions, which includes a short walk. Support workers are also invited to those sessions.
- A healthy diet workbook is offered to participants.
- A detailed timetable is provided.
- Participants receive regular phone calls, e-mails, texts and letters from the Discovery Quest team.

A varied and participative educational programme

- Activities and workshops, delivered in partnership with other organisations, provide information about human impact on the natural environment, wildlife and ecology.
- Participants are encouraged to create a wildlife workbook.
- Participants visit different habitats including coastland, heathland and woodland.
- Participants receive mountain skills training.

Support and challenge

- A staged approach, which increases the distance and difficulty of walks incrementally and enables participants to experience camping away from home before the final expedition.
- Withholding some information about the length of the early walks in order to reduce anxiety.
- During walks: ensuring small group sizes; having regular breaks; encouraging participants to walk at their own pace and allowing the group to naturally spread out; providing volunteers and staff at both ends of the walking group.
- Consistent staffing and leadership.
- Regularly monitoring group dynamics and mental and physical states.
- Running personal awareness workshops.
- Providing an opportunity to take part in the John Muir award.
- Having firm policies and procedures to support delivery.



Understanding the benefits of green exercise

There is growing body of evidence to show that there are synergistic benefits of engaging in physical activity in natural environments (referred to as 'green exercise'⁴). Exposure to the natural environment brings substantial mental health benefits, with the key message emerging that contact with nature improves psychological health by reducing stress levels, enhancing mood and improving self-esteem⁵. The quality and quantity of nature and greenspace in the surrounding environment can transform a person's mental health, both at home, at work and at the places they visit⁶. At the same time, participating in physical activity has also long been proved to be an important determinant of both physical health and psychological wellbeing⁷. Moderate regular exercise reduces morbidity rates by 30-50% and has a particularly protective effect against the onset of Type II diabetes, coronary heart disease, musculo-skeletal diseases and cancer. The research findings⁸ suggest that those who are currently sedentary, inactive, and/or mentally unwell would see immediate mental health benefits if they were able to undertake regular, short-duration physical activity in accessible green space.

Although there is a rich qualitative evidence base describing the physical, mental and social health benefits of exposure to nature and the outdoors, there remains a shortage of the quantitative data that commissioners, such as health and social care providers, often require. Intent on addressing this gap, Julian Housing Support set out to capture both quantitative and qualitative evidence of impact. They invited The Green Exercise team, which forms part of the interdisciplinary Centre for Environment and Society (iCES) at the University of Essex, to assist them with the ongoing evaluation of their work.

There are two phases of the evaluation involving beneficiaries; firstly a longitudinal study comparing outcomes at the beginning and end of the six month Discovery Quest programme; and secondly a series of before and after activity evaluations at regular intervals during the programme. Data collection methods include: questionnaires, on-site participant observation and informal interviews by primary researcher and participatory appraisal techniques.

A series of internationally recognised, standardised measures are used to assess mental wellbeing changes. These are:

- Warwick Edinburgh Mental Well Being Scale (WEMWBS)
- Rosenberg Self Esteem scale (RSE)
- Profile of Mood States (POMS)

In addition, the Discover Quest team speak to the families and friends of beneficiaries, they survey support providers and they hold internal reviews of their progress. The evaluation of experiences by one cohort of participants has now been completed and informs the learning below.



⁴ Pretty J, Peacock J, Sellens M and Griffin M, 2005. The Mental and Physical Health Outcomes of Green Exercise. *International Journal of Environmental Health Research*, 15, 319-337

⁵ Bird W, 2007. *Natural Thinking. A Report for the Royal Society for the Protection of Birds, Investigating the links between the Natural Environment, Biodiversity and Mental Health*; Burls A, 2007. People and green spaces: promoting public health and mental wellbeing through ecotherapy. *Journal of Public Mental Health* 6 (3)

⁶ Takano et al, 2002. Urban residential environments and senior citizens' longevity in megacity areas: the importance of walkable green spaces. *J. Epidemiol. Commun. Health*, 56, 913-18; Mitchell R and Popham F, 2008. Effect of exposure to natural environment on health inequalities: an observational population study. *The Lancet* 372, 1655-1660

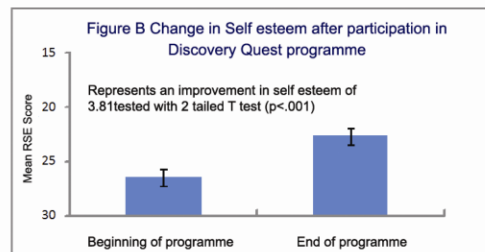
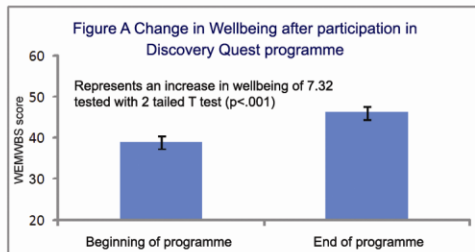
⁷ Foresight, 2007. *Tackling Obesities: Future Choices*. Government Office of Science, London; Department of Health, 2004. *At least five a week: Evidence on the impact of physical activity and its relationship to health*. London; Laumann K, Gärling T and Stormark KM, 2003. Selective attention and heart rate responses to natural and urban environments. *Journal of Environmental Psychology* 23, 125-34

⁸ Barton J and Pretty J, 2010 What is the Best Dose of Nature and Green Exercise for Improving Mental Health? A Multi-Study Analysis. *Environ. Sci. Technol.* 44, 3947-3955

What Discovery Quest has learnt

About wellbeing

Positive changes in all three wellbeing measures have been observed among the first cohort of participants on the Discovery Quest programme and the majority showed a statistically significant improvement in wellbeing, self esteem and total mood disturbance. These improvements were observed both from the beginning to the end of the programme and before and after some of the evaluated walks and challenges (See Figures A and B).



These findings have important implications for the participants' psychological health, as there is a strong relationship between increased self esteem, and lower levels of depression, anxiety, loneliness and alienation. Having good self esteem is also a key indicator of emotional stability and predicts subjective wellbeing. Participants described in their own words, in the questionnaires, the participatory sessions and in interviews to the participant observer, that they felt better in themselves, and had gained confidence and a sense of achievement through physical challenge:

"I have met new people, learnt new things and I have learnt that I can relax and not panic. This is a useful skill when coming down mountains".

"I didn't have a good day yesterday but when I got to the top and it all opened up in front of me, I started to put things in order and it all started to make sense".

"DQ has done more for me than I could have imagined, it has released my spirit and I feel completely different".

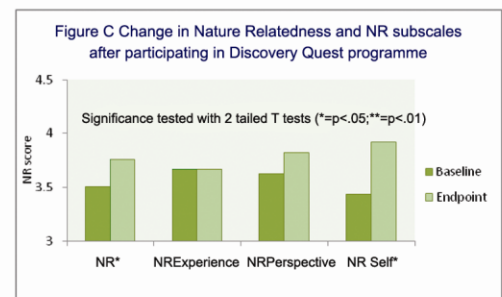


About nature-relatedness

Connection to nature is also considered to be an important predictor of subjective wellbeing and has been found to facilitate social contact and belonging, factors which are considered helpful to the participants in the Discovery Quest programme. With this in mind, changes in participants' nature relatedness, or connection to nature, have been assessed using the Nature Relatedness Scale (NRS)⁹ at the beginning and end of the programmes to date. The majority of Discovery Quest participants (79%) experienced an increase in the way they related to nature and analysis showed a statistically significant increase in nature relatedness scores (NR) from the start of programme to the end of programme – Figure C.

Observations by the walk leaders, illustrate the changing relationship between the participants and the environments they were experiencing:

"At the start of the programme many beneficiaries have a tendency to walk with their head down and isolate themselves. As the walks continue and the groups are introduced to the natural environment with input from the wildlife experts, they start to see nature around them, develop interests and socialise".



⁹ The Nature Relatedness Scale is a relatively recent scale (2008) designed to measure an individual's level of connectedness with the natural world. The scale consists of 21 items rated on a 5-point Likert scale. Scores range from 1 to 5 with a high score endorsing a strong connection with nature. See Nisbet et al, 2009. Environment and Behaviour, vol 41 no. 5, 715-740

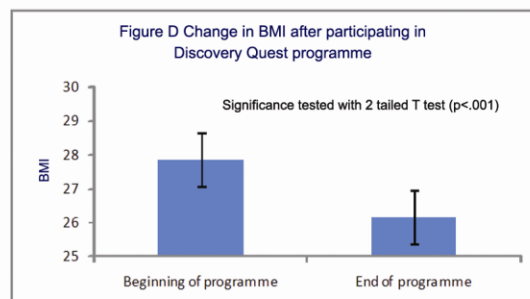
About physical health benefits

A mix of physical measures (BMI and Waist to Hip Ratio) and outcome measures relating to physical activity, eating, smoking and drinking habits were used to assess healthy lifestyles. Nearly all participants (96%) experienced a decrease in BMI (Body Mass Index) and over half saw a decrease in their waist to hips ratio (WHR), representing a reduction in health risk, as a result of participating in the Discovery Quest programme. Several participants had moved to a healthier BMI category and there was a statistically significant decrease in participant BMI from the start to the end of the programme – Figure D.

Physical benefits, and the links with mental health, were described by some participants:

“The Discovery Quest programme has been very good for me in disciplining me to walk regularly and I am back to my old fitness levels. I have also started eating more fruit etc”

“I have thoroughly enjoyed the Discovery Quest programme and I love the outdoors and going to beautiful places. I have also enjoyed the experience of being in a group and have made some new friends. Hopefully, I have got fitter and also improved my mental health too as I find walking very therapeutic and relaxing and good for the mind as well as the body.”



Finally

It is clear that the Discovery Quest experience has contributed significantly to a range of important outcomes for the beneficiaries and with learning that informs the work across mental health and green care. The majority of participants have left the programme with better self esteem and communicative skills, enhanced psychological health and wellbeing, improved physical health, a sense of personal achievement from the physical challenges and an increased connection to nature. Discovery Quest has shown itself to be successful in developing and providing an innovative nature based approach to the continued recovery of those suffering from severe and enduring mental health problems in Norfolk.

Acknowledgements

Special thanks go to all of the Discovery Quest 2010 participants for sharing their Discovery Quest experience; for generously giving up time and energy for the evaluation – even when the weather was bad or when not feeling well; for being patient with the researcher with the video camera; and for being such an inspiration. Further thanks also go to Edward Jackson (www.uncled8249.co.uk) for the use of his wonderful photos.

This paper was jointly produced by Icarus Collective and Rachel Hine, Carly Wood, Jo Barton and Professor Jules Pretty of the Department of Biological Sciences and Interdisciplinary Centre for Environment and Society, University of Essex, Wivenhoe Park, Colchester, Essex, CO4 3SQ

Alternative formats

Our documents are available as PDF downloads from our website, suitable for text reader technology. We may be able to provide other formats [e.g. Braille, a minority language, or large print] for specific documents where there is a proven communication need.

Please contact: Natural England Enquiry Service

Tel: 0845 600 3078 (local rate)

Email: enquiries@naturalengland.org.uk

Address: Enquiries, Natural England, Block B, Government Buildings, Whittington Road, Worcester WR5 2LQ

