



Research & Evidence

Benefits of community growing, green spaces and outdoor education

Over the last few years there has been a growing body of evidence supporting the benefits of community growing, green spaces and outdoor education for physical and mental wellbeing. Horticultural and other tasks involved in community growing (such as regular exercise) alongside healthier eating patterns (usually the result of eating fresh produce grown in the garden) are often cited in such research.

The Growing Well project was set up in 2014 to provide support, record and share good practice in this field, to help other groups who want to maximise the health and wellbeing benefits of their work.

As part of the Growing Well project, FCFCG has collated a selection of this evidence - research, statistics and articles - that may be useful when applying for funding or in promoting the work of community gardens. These are organised below under different headings.

Most of the resources listed are freely available online, though there are also references to academic texts/journals you would need to find in libraries.

In addition, we have published a set of topic-based case studies as part of the Growing Well project:

- Mental health
- Health and wellbeing
- Older people and dementia sufferers
- Refugees and asylum seekers

www.farmgarden.org.uk/resources/health-wellbeing-case-studies-ellerman-project

Which tool to use?

And, this is a new guide to evaluating health and wellbeing outcomes for community growing programmes.

www.farmgarden.org.uk/resources/whichtool

Mental health and wellbeing benefits

MIND's Ecotherapy programme

Seven out of ten people with a mental health problem who took part in a programme of ecotherapy (outdoor activity such as gardening/growing) run by mental health charity MIND reported "significant increases in wellbeing" and more than 250 of them were helped into full time employment.

www.mind.org.uk/about-us/policies-issues/ecotherapy/ecominds

An economic analysis of the MIND project showed that getting 254 people from the programme back into full-time employment resulted in £1.46m worth of savings and contributions to the State in just one year.

www.mind.org.uk/media/338566/The-Economic-Benefits-of-Ecominds-report.pdf

Natural England Commissioned Report NECR129: Wellbeing and the Natural Environment

This Natural England wellbeing survey found that those people who visit the outdoors at least once a month record the highest levels of overall life satisfaction and happiness, and are more likely to believe that the things they do in life are worthwhile.

They also report the lowest levels of anxiety.

Wellbeing scores are also higher amongst those who take part in gardening and those who buy seasonal or locally grown food.

<http://publications.naturalengland.org.uk/publication/6710511932538880>

The Land Trust report: The value of our green spaces

A 2016 study by The Land Trust found that every £1 invested in their green spaces contributed £30 towards health and wellbeing benefits

<http://thelandtrust.org.uk/news/study-demonstrates-value-of-green-spaces-to-society>

A case-control study of the health and wellbeing benefits of allotment gardening

This 2015 study has shown that just 30 minutes of gardening a week has a beneficial effect on mental health.

Researchers from Westminster and Essex universities questioned 269 gardeners and non-gardeners with the former describing their feelings before and after working in an allotment.

They found that one gardening session resulted in significant improvements in self-esteem and mood, with reductions in tension, depression, anger, and confusion.

The authors concluded that local authorities should seek to provide more community allotments for residents.

<http://jpubhealth.oxfordjournals.org/content/early/2015/10/18/pubmed.fdv146.abstract>

Great Outdoors: How our natural health service uses green space to improve wellbeing

A Faculty of Public Health/Natural England report in 2010 showed that safe, green spaces may be as effective as prescription drugs for treating mild to moderate forms of depression and anxiety.

www.fph.org.uk/uploads/r_great_outdoors.pdf

Examining how green spaces affect wellbeing

A 2013 study by the University of Exeter found long-lasting mental health benefits for people relocating to greener urban areas.

www.exeter.ac.uk/news/featurednews/title_349054_en.html

Would you be happier living in a greener urban area?

This 2010 study by the University of Exeter showed that living in urban areas with more green spaces - including community-run sites such as gardens farms and orchards - can significantly improve mental health and wellbeing for local residents.

Data drawn from 10,000 people over 18 years revealed that they showed significantly lower mental distress and significantly higher wellbeing during the times they were living in areas with access to local green spaces.

www.ecehh.org/research-projects/urban-green-space

Gardening as a therapeutic intervention in mental health, (2008)

An article in Nursing Times describes why one low-secure unit chose to initiate a horticultural therapy project and organise it as a 'workers' cooperative'.

The therapeutic benefits of gardening are explored, particularly focusing on the social benefits. The article also discusses the issue of hope, which is an intrinsic requirement in gardening.

www.nursingtimes.net/nursing-practice-clinical-research/gardening-as-a-therapeutic-intervention-in-mental-health/1921374.article

The benefits of gardening and food growing for health and wellbeing

This Garden Organic study reviews the extensive scientific literature showing the benefits of gardening and community food growing for both physical and mental health. It presents a compelling case for action by health professionals and the NHS; local authority planners and Government planning policy specialists to create, protect and promote gardening and community food growing.

www.sustainweb.org/publications/the_benefits_of_gardening_and_food_growing

A summary report of an evaluation of the Master Gardener programme at HMP Rye Hill: An horticultural intervention with substance misusing offenders

Coventry University evaluation of Garden Organic's Master Gardener programme for substance misusing offenders at HMP Rye Hill. Key findings were that the programme encourages people to work together and fosters a sense of community and supports improvements in health and wellbeing.

[www.coventry.ac.uk/Global/08NewResearchSection/ProjectImages/Brown et al Summary Report.pdf](http://www.coventry.ac.uk/Global/08NewResearchSection/ProjectImages/Brown%20et%20al%20SummaryReport.pdf)

Physical benefits

The social, health and wellbeing benefits of allotments: five societies in Newcastle

A report from the School of Architecture, Planning and Landscape at Newcastle University on the social, health and wellbeing benefits of allotments.

www.ncl.ac.uk/guru/documents/EWP47.pdf

How might contact with nature promote human health? Promising mechanisms and a possible central pathway

University of Illinois study finds that the health benefits of spending time in nature may derive from its effect on the immune system.

<http://neurosciencenews.com/nature-immune-system-health-psychology-2663>

City health check: a report from the Royal Institute of British Architects (RIBA)

Survey by RIBA provides further evidence of how green space in cities – or the lack of it – affects health outcomes.

<http://ind.pn/1icWpXJ>

The importance of non-exercise physical activity for cardiovascular health and longevity

Swedish researchers who studied more than 4,200 people aged over 60 found that those who performed a high level of “non-exercise physical activity” (NEPA) including gardening tasks such as cutting the hedge or mowing the lawn, were 27 per cent less likely to suffer from heart attack, stroke or angina.

www.bbc.co.uk/news/health-24710089

Green Space and Stress: Evidence from Cortisol Measures in Deprived Urban Communities

A study of men and women in deprived urban areas of Scotland found that living in areas with a higher level of green space was linked to lowered levels of stress, especially in women.

www.mdpi.com/1660-4601/10/9/4086

Research showing that nature calms the body (lowered blood pressure, cholesterol etc)

- Ottosson, J, Grahn P (2005) *Measures of Restoration in Geriatric Care Residences* (2005) Journal of Housing For the Elderly January 2005
- Kaplan, S. (1995) *The restorative benefits of nature: toward an integrative framework* Journal of Environmental Psychology, 15, 169–182
- Korpela, K. and Hartig, T. (1996) *Restorative qualities of favourite places* Journal of Environmental Psychology, 16, 221–233 (With thanks to the Forest Schools Association & Dr Margot Sutherland for the reference)

General and other social benefits

Communities Living Sustainably: Growing and Green Space

A 2015 report produced by FCFCG shows that involvement in community growing can act as a ‘powerful tool’ to help vulnerable people, bring communities together and encourage people to adopt greener and healthier behaviours. The report tracks the progress of growing and green space projects funded by Big Lottery Fund ‘Communities Living Sustainably’ programme.

www.communitiesliving sustainably.org.uk/about/learning-reports/cls-growing-and-green-space-report-august-2015

Growing Together - Social and therapeutic horticulture for vulnerable adults (2005)

This report describes a three-year research project promoting social inclusion, health and wellbeing for vulnerable adults

through the use of horticulture and gardening. The research was undertaken by the Centre for Child and Family Research (CCFR) at Loughborough University. As part of the study, a literature review was carried out.

www.lboro.ac.uk/service/publicity/news-releases/2005/38_thrive.html

The true value of community farms and gardens: social, environmental, health and economic

Research carried out by FCFCG to assess and document the impact and value of community farms and gardens to individuals and communities, focussing on opportunities for engagement, volunteering, training, capacity building and empowerment.

www.farmgarden.org.uk/resources/true-value

Glasgow's community gardens: sustainable communities of care

A Glasgow University study on community gardens in the city, including three FCFCG members, has outlined their positive effect on individuals and communities. The report concluded that community gardening promotes community empowerment and "offers a learning environment that goes beyond the skills associated with horticulture to include individual health, self and community wellbeing and democratic citizenship."

www.farmgarden.org.uk/news/1347-study-confirms-benefits-of-community-gardens

Making the case for designing active cities

There are "significant economic benefits" to cities that increase green space, walking and cycling, according to a University of California study.

<http://activelivingresearch.org/making-case-designing-active-cities>

Human health benefits of natural landscapes

A collection of papers from the University of Illinois at Urbana-Champaign, looking at the health benefits of natural landscapes.

<http://lhl.illinois.edu/all.scientific.articles.htm>

Educational and behavioural benefits

Demos: Pupil power study

A 2016 study by Demos found that 45% of pupils saw an improvement in behaviour after taking part in pupil-led 'co-production' projects such as renovating a garden.

www.demos.co.uk/project/pupil-power

Green spaces and cognitive development in primary schoolchildren

A study from Barcelona, reported in the USA journal Proceedings of the National Academy of Sciences (PNAS), found that the mental development of primary-aged

children is affected by the amount of green space they can see from school.

www.pnas.org/content/112/26/7937.abstract

Impact of views to school landscapes on recovery from stress and mental fatigue

Researchers at the University of Illinois found that students with a green view from school windows (2016 study) performed better on tests requiring focused attention and recovered better from stress.

www.sciencedirect.com/science/article/pii/S0169204615002571

At Home with Nature: Effects of 'Greenness' on Children's Cognitive Functioning

Wells, N.M. Environment and Behavior. Vol. 32, No. 6, 775-795 (With thanks to the Forest Schools Association & Dr Margot Sutherland for the reference).

www.researchgate.net/publication/232435701_At_Home_with_Nature_Effects_of_Greenness_on_Children's_Cognitive_Functioning

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