

Psychological health and mental well-being

Introduction

Mental health problems are increasing: one in six adults have mental health problems at any one time, and for half of these people the problem will last for more than a year; it is also estimated that around one in four people will suffer some form of mental illness at some point in their lives (DoH, 2009: 8; The Future Vision Coalition, 2009). The World Health Organization predicts that by 2020, depression will be the second largest single cause of ill health (MIND, 2007: 3).

There is strong evidence suggesting that green spaces have a beneficial impact on mental well-being and cognitive function through both physical access and usage (Whitelaw *et al.*, 2008), as well as through access to views (Ulrich, 1984). In particular, green spaces have been shown to provide a restorative environment which helps alleviate stress and mental fatigue.

Benefits

Benefits include reductions in stress, mental illnesses, GP consultations and referrals, hospital admissions, health inequalities and crime, as well as improvements in educational achievement, physical health, employment opportunities and social inclusion.

Economic evidence

- According to the Sustainable Development Commission (2008), mental ill health in England costs the country £12 billion per annum in terms of health and social care, and £64 billion per annum in terms of the wider economy, giving a total cost of £76 billion per annum.

Evidence linked to psychological health and mental well-being

- A study conducted by Hartig *et al.* (2003) included various controlled field experiments, one of which involved 112 participants who were randomly assigned to a walk in either an urban or natural setting. This study provided evidence of the positive impact of natural settings on improved attention functioning, emotional gains and lowered blood pressure.

- In a large postal survey of residents in nine Swedish towns and cities, Grahn and Stigsdotter (2003) found that there was a statistically significant relationship between the use of urban green spaces and reported levels of experienced stress, regardless of other demographic and socio-economic factors. The results suggest that the more often a person visits urban open green spaces, the less often he or she will experience stress-related illnesses.
- A study by Ulrich *et al.* (1991), a video of either natural settings or urban settings was shown to participants after they had viewed a stress-inducing video. They found that those who viewed the natural settings had a significantly better recovery from stress, indicated by lower blood pressure, skin conductance and muscle tension.
- Other self-report studies have indicated that to regulate their feelings people visit certain places, especially green spaces which afford them an emotional release and restorative experiences (Korpela, 1989; Korpela, 1992; Korpela and Hartig, 1996; Korpela *et al.*, 2001). For example, Korpela *et al.* (2001) asked 101 students to name their favourite places; a significant proportion named natural places and reported that they made them forget their worries, aided contemplation and helped make them feel relaxed.
- MIND (2007) – the leading mental health charity in England and Wales – has conducted evaluations of green exercise activities. Of particular relevance is a small-scale study evaluating the effects of walking in a group in a country park as opposed to walking in a group in an indoor shopping centre. They found that walking in the different settings provoked different responses in terms of self-esteem and mood and that walking in a natural setting had a more positive effect.
- However, some epidemiological studies have shown that badly managed green space can cause fears about crime and personal safety (Tzoulas, 2007: 171).

Practical considerations

Access is a key factor to consider in relation to green space and its social and community value, since distance to urban green space is associated with levels of use (Giles-Corti *et al.*, 2005; Kaczynski and Henderson, 2007; Neuvonen *et al.*, 2007; Royal Commission on Environmental Pollution, 2007). As a result, Natural England (2009) have developed the *Accessible Natural Greenspace Standard* (ANGSt) which sets benchmarks for access to green space.

However, proximity to green space alone cannot explain levels of usage. Green spaces also need to be accessible (i.e. have good, affordable public transport links, good access points away from busy roads). The green infrastructure approach is an important element of tackling accessibility since it is a networking approach, concerned with the connectivity of green spaces, which can aid movement through landscape.

The facilities available within green spaces also impact upon usage. For example, green spaces with a variety of attractive attributes such as landscaped features, ponds, trees and lakes can encourage higher levels of use (Giles-Corti *et al.*, 2005). Green spaces also need to facilitate diverse uses since single-use spaces, such as sports fields, do not encourage undedicated use (Croucher *et al.*, 2007). Where one green space site cannot accommodate all users or serve a full range of purposes, the green infrastructure approach can prove vital because it can enhance the wider spread of green space provision in an area as a whole (Urban Green Spaces Task Force, 2002).

Links to climate change

The link between green space/green infrastructure, psychological health and well-being and climate change is the potential reduction in CO₂ emissions gained through active travel and the utilisation of green infrastructure as a walking and cycling network.

Tools

Health impact assessment of greenspace – a guide

<http://www.greenspacescotland.org.uk/upload/File/Greenspace%20HIA.pdf>

This document offers a guide on how to assess the health and equity effects of green space initiatives. It also provides advice on how to maximise the positive impacts and minimise the negative impacts of such projects.

Public Benefits Recording System (PBRS)

<http://www.pbrs.org.uk/>

PBRS is a tool originally conceived by the Forestry Commission and the Northwest Regional Development Agency to help with the selection of derelict land sites for regeneration in the Newlands land reclamation scheme. The PBRS uses GIS to identify synergies between social, environmental and economic needs and opportunities, strategies and investments to ensure value added results.

RPTI Good Practice Note 5: Delivering healthy communities

http://www.rtpi.org.uk/download/6443/GPN5_final.pdf

A guidance note from the Royal Town Planning Institute which points out that the delivery of attractive, healthy, safe residential areas are key objectives of spatial planning. It promotes an approach which integrates public health and spatial planning processes so that neighbourhoods which provide opportunities for active lifestyles can be created.

Social outcomes through Investment in Forestry Tool (SIFT)

<http://www.forestry.gov.uk/forestry/INFD-7KDHQJ>

SIFT was originally developed to help Forestry Commission Scotland make decisions about prioritising investments in woodland management and creation for social benefits. It is a spatial tool using GIS datasets which are assigned scores according to their relative potential benefit. These scores are then combined and analysed in relation to specific locations using GIS.

Social Return on Investment (SROI)

- http://www.sroi-uk.org/component/option,com_docman/task,doc_view/gid,53/Itemid,38/
- <http://www.greenspacescotland.org.uk/upload/File/Greenlink%20SROI%20Final%20report%205%20October%202009.pdf>

SROI is a framework for measuring and communicating a broad concept of value, incorporating social, environmental and economic costs and benefits. The framework concentrates on change and measures outcomes using monetary values to represent them. Nevertheless, SROI is about value, as opposed to money; monetary figures are simply used because they are a widely accepted way of conveying value.

Case studies

Blairbuie Woodland Project, Argyll

http://www.reforestingscotland.org/projects/woods_for_all.php#Blarbuie

Branching Out, Glasgow and Clyde

www.forestry.gov.uk/branchingout

Chopwell Wood health project

<http://www.forestresearch.gov.uk/fr/INFD-6HCDBW>

The Good Wood Project

A New Caledonian Woodlands Project

www.newcaledonianwoodlands.org/

Knowledge gaps

Unfortunately, there is little evidence to show whether different types of green space have different impacts on mental health and on different kinds of people (Croucher *et al.*, 2007: 19; 27). More multidisciplinary studies which integrate qualitative and quantitative indicators could provide a better understanding of the role of green spaces in the mental health of urban communities (O'Brien *et al.*, 2010). There is also a lack of longitudinal studies, as Croucher *et al.*, (2007: 19) argue: while there is strong evidence that green spaces have a positive effect on recovery from stress and attention fatigue, little is known about the impact of exposure to green spaces over the long term. In terms of value or economic evidence, there is an obvious knowledge

gap. Large-scale surveys are needed which look at green space accessibility and use in relation to health outcome measures such as Health Related Quality of Life (HRQOL; CJC Consulting *et al.*, 2005).

Citations of national policies/priorities

At least five a week: evidence of the impact of physical activity and its relationship to health 2004

http://www.dh.gov.uk/dr_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4080981.pdf

Choosing Health: Making healthy choices easier 2004

http://www.dh.gov.uk/dr_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4120792.pdf

Health Challenge England – next steps for Choosing Health 2006

http://www.dh.gov.uk/dr_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4140333.pdf

Be active, be healthy: a plan for getting the nation moving 2009

http://www.dh.gov.uk/dr_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_094359.pdf

New Horizons: towards a shared vision for mental health – consultation 2009

http://www.newhorizons.dh.gov.uk/assets/Reports/299060_NewHorizons_acc.pdf

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DoH [Department of Health] (2009). *New horizons: towards a shared vision for mental health – consultation*. http://www.newhorizons.dh.gov.uk/assets/Reports/299060_NewHorizons_acc.pdf accessed 04/02/10

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