

Engaging with Nature

The impact of the natural environment on both physical and mental health is well recognised at government level. A White Paper from the Department for Environment, Food and Rural Affairs “*The Natural Choice: securing the value of nature*” (2011) set out the importance of protecting nature and strengthening the connection between people and nature, both in the countryside and in urban green spaces and recognised the need to do more to create equality of access. As we intuitively know:

“Ecosystems can affect both physical and mental health of all social groups, and people’s quality of life in general; this evidence often relates to the wider non-specific landscapes and seascapes, or specific urban green space, particularly for leisure in public parks and private gardens.” Quoted in the White Paper from UNEP-WCMC, Cambridge. (2011) UK National Ecosystem Assessment: understanding nature’s value to society synthesis of the key findings. The White Paper can be read at

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/228842/8082.pdf

In 2016, Natural England published a specific report concerned with the commissioning of more nature-based interventions for primary care and mental health health services: “*A review of nature-based interventions for mental health care.*” The report investigated three approaches: social and therapeutic horticulture (STH), care farming and environmental conservation, which often feature similar activities and have a similar ethos. The investigators found that

“An estimated 8,400 people with mental health problems receive STH services per week and at least 5,865 service users on 173 care farms receive services for mental ill-health per week. Available anecdotal evidence suggests there is growing interest and demand for these services though overall referrals from clinical commissioning groups or from GPs for green care services remains patchy and relatively uncommon. As a consequence there is significant unused capacity across all three green care services.” Bragg & Atkins (2016) A review of nature-based interventions for mental health care. *Natural England Commissioned Reports*, NECR204. <http://publications.naturalengland.org.uk/publication/4513819616346112>

This report is a fund of information and includes a literature search investigating the evidence for any benefits of the three green care approaches for people with mental health problems. The researchers (Key findings page vii) found that “The mental health benefits for social and therapeutic horticulture, environmental conservation interventions and care farming were similar and include:

- Psychological restoration and increased general mental wellbeing
- Reduction in depression, anxiety and stress related symptoms
- Improvement in dementia-related symptoms
- Improved self-esteem, confidence and mood
- Increased attentional capacity and cognition
- Improved happiness, satisfaction and quality of life
- Sense of peace, calm or relaxation
- Feelings of safety and security

- Increased social contact, inclusion and sense of belonging
- Increase in work skills, meaningful activity and personal achievement.”

They noted that “It is crucial to make a distinction between i) specifically designed and commissioned interventions for individuals with a defined need (green care), and ii) public health programmes for the general population.” (Key findings page ix)

At a UK population level, a large study involving the Department of Psychiatry at Oxford has shown and quantified the protective effect of a green environment in relation to the lifetime prevalence of major depressive disorder: “Interaction analyses indicated that the beneficial effects of greenness were more pronounced among women, participants younger than 60 years, and participants residing in areas with low neighbourhood socioeconomic status or high urbanicity.” The authors survey the possible mechanisms which may account for their findings, primarily reductions in physiological stress and ruminative thought patterns. Additionally, “at a lifestyle level, residential greenness provides spaces for people to interact and support one another and facilitates a positive perception of neighbourhood and sense of community.” Sarkar et al (2018) Residential greenness and prevalence of major depressive disorders: a cross-sectional, observational, associational study of 94 879 adult UK Biobank participants. *Lancet Planet Health*; 2(4):e162-e173. <https://www.sciencedirect.com/science/article/pii/S2542519618300512?via%3Dihub>

A number of studies have been published that take a more qualitative perspective to investigate benefits for individuals with mental health problems. An example is the work carried out at Westonbirt Arboretum:

“This study used qualitative mixed methods including in-situ 'being and doing' activities with participants, interviews, and participant observations to explore participant's experiences of a multi-visit nature-based intervention at Westonbirt Arboretum in England.

The research found that three engagement types: (1) social, (2) woodland craft, and (3) creative and sensory, provided a meaningful programme to engage those with mental health, addiction, autism and behavioural problems. These types of engagement conferred a wide range of well-being benefits on participants. The study highlights key elements of the programme that were effective including the importance of repeat visits to nature to enable familiarity, using creative, sensory and craft activities, creating a supportive environment, involving the volunteers, and understanding the needs of participants and the organisations that work with them.

The research suggests that nature-based programmes can be designed to be flexible and adaptable to meet the needs of participants with mental health and behavioural problems. Small numbers of participants can be involved in an intensive and immersive way that encourages an emotional affinity with nature. Inclusive and supportive programmes are particularly important for those who are vulnerable, as they are less likely to engage with nature than the wider population.” O'Brien (2018) Engaging with and Shaping Nature: A Nature-Based Intervention for Those with Mental Health and Behavioural Problems at the Westonbirt Arboretum in England. *International Journal of Environmental Research and Public Health*; 15(10). pii: E2214. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6210670/>

Another area of study is the restorative value of solitary experiences in Nature, particularly for people recovering from stress-related mental disorders. This aspect is discussed in detail in a very interesting Swedish study of a long-term garden project. Palsdottir (2014) *The Role of Nature in Rehabilitation of Individuals with Stress Related Mental Disorders: Alnarp Rehabilitation Garden as Supportive Environment.* Doctoral thesis at Swedish University of Agricultural Science; Alnarp, Sweden. https://pub.epsilon.slu.se/11218/1/palsdottir_a_140522.pdf

Another group found that longer nature-based rehabilitation may contribute to a faster return to work in patients with reactions to severe stress and/or depression.

Rehabilitation may contribute to a faster return to work in patients with reactions to severe stress and/or depression. *International Journal of Environmental Research and Public Health*; 14:1310. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5707949/>

Most studies in this field are qualitative. In a rare quantitative study, Nature-based therapy was compared with CBT in a randomised controlled trial assessing their usefulness for helping people return to work after stress-related illness. Both treatments were found to have beneficial effects in terms of reduced sickness absence and fewer GP consultations, sustained at one year follow-up.

Corazon et al. (2018) A long term follow-up of the efficacy of nature-based therapy for adults suffering from stress-related illness on levels of healthcare consumption and sick-leave absence: A randomized controlled trial. *International Journal of Environmental Research and Public Health*; 15:137. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5800236/>