Green care and mental health: gardening and farming as health and social care

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Abstract
This article discusses the role that gardening, horticulture and farming can play in promoting mental well-being and in supporting the recovery of individuals with mental health problems.

Key words
Green care; Mental health; Well-being; Horticultural therapy; Health promotion

A brief history
Both the experience of the natural landscape and working within it have been associated with physical and mental health for a long time. For example, in ancient Greek culture, Epidauros was considered to be a place of healing and attracted visitors in the way that modern religious shrines (such as Lourdes) do today (see Gesler, 1996). The study of Epidauros and other healing places led Gesler (1992; 1993) to propose the concept of a ‘therapeutic landscape’, which has been used to explore how places and landscapes can influence the perception of health and well-being. This viewpoint is essentially from a cultural and spiritual position. The landscape itself, its cultural context and its significance to the participant, all play an important role in its perceived healing properties. The notion of therapeutic landscapes has been broadened to include many different settings and environments that provide the backdrop to human activities (see Williams, 2007). Various physical environments are, therefore, seen as ‘inherently healthy’. In some cases, the emphasis has been on the aesthetic qualities and tranquillity of the particular spaces. For example, in the Middle Ages, many medieval hospitals and monasteries were built with gardens within their grounds that provided a peaceful and beautiful space that was considered to promote reflection and healing (see, for example, Gerlach-Spriggs et al, 1998).

However, it is not only the natural environment that was considered to be healthy, but also the
work within it – farming and gardening. Farms and gardens have existed alongside hospitals and other formal communities, such as prisons, for example, for centuries. The produce from the farms and gardens fed patients and carers and also gave patients a meaningful occupation. There were opportunities for physical labour, rehabilitation and often a pleasant pastime in the company of other people, frequently drawn not only from the residents of hospitals, but also from the surrounding community. So, the gardens and farms satisfied physical, social and productive needs of patients.

The association of farms and gardens with hospitals (particularly with the old Victorian asylums) continued until around the middle of the 20th century. During that time, many official reports of the day (the equivalent of today’s reports from the Department of Health or National Institute for Health and Clinical Excellence (NICE)) concluded that such outdoor labour, the natural surroundings and the fresh air were of prime benefit to the patients (see for example, Tuke, 1882, pp383–384). Observations of the benefits of outdoor occupation were also noted in the medical literature of the mid 20th century. Writing in 1955, O’Reilly and Handforth reported that working in a gardening group caused a substantial improvement in the condition of a group of women patients suffering from mental illness, including schizophrenia.

However, a number of factors were already converging to challenge and displace such approaches. These included the availability of the antipsychotic chlorpromazine, already being used in 1955 in the US to treat schizophrenia (Kinross-Wright, 1955); the desire to modernise mental hospitals; and major policy changes taking place in the UK, most importantly the formation of the NHS in 1948. The view of the government was that the Minister of Health did not have the authority to allow the NHS to farm unless it was absolutely necessary for the well-being of the patients (Ministry of Health, 1955). Farming was seen as a commercial activity that was becoming increasingly mechanised and therefore provided fewer opportunities for being ‘therapeutic’. The move to close the farms proved a protracted and somewhat controversial process. Exchanges in Parliament reveal closures to have been the subject of intense debate with some MPs lending strong support to hospital farms in their constituencies (see, for example, Hansard, 11 February 1959, cc1317–1318).

In spite of the opposition, most of the farms and market gardens closed. A few remained within occupational therapy departments but they were now considerably smaller and not focused towards production.

However, many of the people who had been involved with the old farms and gardens began to recreate them in a different format. They were led by the guiding spirit that working with and within nature promoted health. They were joined by others from a variety of different disciplines including horticulture, nursing and occupational therapy, and influenced by social movements linked to nature, conservation, community and social gardening, and allotment keeping. They were also influenced by a developing pedagogy from overseas, for example from the US, related to the use of nature as a specific health intervention. One important influence was that of ‘horticultural therapy’, which by 1973 had its own association – the American Horticultural Therapy Association. The growing movement also began to attract serious academic research. The modern era of nature work had begun.

Green care: a new set of nature paradigms

One of the first structured approaches using nature as therapy was ‘horticultural therapy’. This can
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be viewed as a specialised form of occupational therapy (OT) using plants and horticulture as its main activity. Related to that is ‘therapeutic horticulture’, which adopts a more generalised way of using horticulture and gardening for promoting health. The distinction is that horticultural therapy has a predefined clinical goal similar to that found in OT, while therapeutic horticulture is directed towards improving the well-being of the individual in a more generalised way (see Sempik et al, 2003, p3). Since therapeutic horticulture usually has an important social context, the term social and therapeutic horticulture (STH) is generally used in the UK.

STH is not the only way in which nature can be used to promote health. Small-scale agriculture has been widely used in Europe as a form of rehabilitative social care, particularly for people with mental health problems and learning difficulties. In some European countries, this marks the continued development of hospital farms, while in others it represents an evolution of agriculture to become ‘multifunctional’, ie. not simply producing food but also providing care (Hine, 2008). Such farms have been termed ‘care farms’ (see Hassink & van Dijk, 2006) and while this movement started in Europe it is now active in the UK (Hine et al, 2008a). Alongside farming activities, the animals themselves have also been used as ‘co-therapists’ for promoting health and well-being within treatments that are referred to as animal-assisted therapy (AAT) and animal-assisted interventions (AAI) (Kruger & Serpell, 2006; Sempik et al, 2010, pp32 & 38). AAT is structured and formalised, while AAI involves more general contact with animals that might be found by working on a small farm. The rationale for these approaches is that caring for an animal and responding to its needs and learning to communicate with it helps to develop psychological well-being and self-esteem.

Collectively, these and other approaches using nature have been termed ‘green care’ (see Sempik et al, 2010). Research into specific interventions and into the general field of green care has increased substantially in the last 10 years, as academics have increasingly seen that it is a ‘legitimate’ field of
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study. Parallels have been drawn between green care and therapeutic communities (Haigh, 2008; Sempik et al, 2010, p55) since, in most cases, green care interventions involve the creation of communities that coalesce around a particular activity or setting. Indeed, Hickey (2008) has described a therapeutic community (TC) in a garden setting. It is both a therapeutic community and a social and therapeutic horticulture ‘project’. It is important to point out here that group therapy is an important feature of TC, however most green care approaches do not include formal psychotherapy. The therapeutic potential of green care is considered to reside within the activities, the setting and the social environment.

Social and therapeutic horticulture

Social and therapeutic horticulture (STH) can be described as a community of vulnerable people working together on horticultural activities in a garden or allotment, with the aim of providing mutual support and benefit to their health and well-being. It is considered that benefits are derived from the organised structure of the community that provides meaningful occupation that is similar to employment but lacks its pressure (Sempik et al, 2005, pp68–71). The activities and structure promote and foster the development of skills, self-confidence and self-esteem. A recent report of the Royal College of Psychiatrists, Mental Health and Work, recommended that people with severe mental illness should have:

‘Access to meaningful occupation such as voluntary work or other unpaid work. This work should be of a nature that builds work skills and confidence and whenever possible prepares the person for paid employment in the future.’ (Royal College of Psychiatrists, 2008, p42)

STH projects provide meaningful occupation in a natural setting and some prepare their clients for eventual paid employment. However, such employment is not always desirable or beneficial.
Importantly, STH projects also provide opportunities for social contact (which is particularly valuable for people with mental health problems) and experience of the natural environment, which provides a psychological and spiritual context. This connectedness with nature is considered to be an essential element in STH and in other forms of green care (see Sempik et al, 2010, p17).

Sempik (2007) has suggested that STH projects have a number of defining features that can be summarised as follows.

- **Therapeutic intent and practice** – therapeutic garden projects are intended to promote mental and physical health and well-being in their clients who may have mental, physical or social problems. There is an accepted and organised practice of STH.

- **Location** – an outdoor site with shelter to enable the group to meet together, socialise and eat together. The presence of a ‘home’ location enables clients to form a bond with a specific location and develop a sense of place.

- **The natural environment** – as mentioned above, connectedness with nature is an essential feature of STH.

- **Democracy and involvement** – STH projects enable their clients to become involved in the running and organisation of the projects.

- **Social coherence and community** – STH projects foster the development of a community that works together, and socialises within the boundaries of the project (and occasionally outside).

- **Production** – is an essential part of STH. It enables clients to develop a sense of identity as workers or gardeners, however, without the pressure seen in paid employment.

- **Routine** – the activities and procedures at STH projects are designed to facilitate the development of routine and there is an expectation of commitment by the client to a regular, rather than a casual attendance.

- **Arts and crafts** – Many STH projects have facilities for arts and crafts. These may be linked to the garden, either by making decorative or practical items for the garden or using materials from the garden in the artwork, or they may represent rural crafts.

**Evidence of effectiveness**

Sempik et al (2003) conducted an extensive literature review of STH and horticultural therapy and found that there had been little in the way of quantitative studies, but that qualitative work suggested that STH was highly valued by participants. It was perceived by them, their families and carers to be responsible for an improvement in their symptoms or for preventing deterioration in their condition. The research suggested, in particular, improvements in social functioning and quality of life. For example, Fieldhouse and his co-workers (Seller et al, 1999; Fieldhouse, 2003) studied an allotment project for a group of patients with a range of serious mental health problems. Fieldhouse found that the project was perceived as ‘a restorative and affirming environment’, which enhanced mood and self-awareness and consequently ‘underpinned their sense of meaningful occupation and well-being’ (Fieldhouse, 2003, p286). Similar results were obtained by Perrins-Margalis et al (2000) using semi-structured interviews and diaries in a heterogeneous group of patients with chronic mental ill health. Sensory aspects of horticultural activities – smells, colours and textures – were considered particularly important, as were the social dynamics offered by the group. Prema et al (1986) showed an improvement in social functioning in 10 schizophrenic patients attending a horticulture programme. Again, responses were elicited through interviews.

More recently, Stepney and Davis (2004) reported perceived improvement in social inclusion and social functioning in a heterogeneous group of patients and a fall in some individual scores for depression, by using the Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983; Snaith & Zigmond, 1994).

Sempik et al (2005) studied a wide range of garden projects in the UK and concluded that STH projects promote social inclusion through the dimensions proposed by Burchardt et al (2002) of ‘production, consumption, social interaction and political engagement’. They suggested that STH had many of the attributes of work i.e. meaningful occupation, development of skills, physical activity, routine and structure, social opportunities within a framework that promoted participants to exert a degree of control (the ‘political engagement’ dimension of social inclusion). In a subsequent study, Sempik (2007) interviewed a sample of clients of STH garden projects and reported that all of them considered to have been helped by STH. Some reported suffering distress when a project had closed temporarily due to lack of funding.
Lee et al. (2008) reported that a horticultural therapy programme improved self-esteem and depression scores in a group of battered women. These scores were significantly different from the control group. Recently, Gonzalez et al. (2009) showed a statistically significant fall in depression scores in a group of patients with moderate to severe depression attending a therapeutic garden project. An evaluation of a garden project for ex-servicemen with post-traumatic stress disorder reported that both clinical staff and patients viewed the project as having ‘positive therapeutic benefits’ (Atkinson, 2009, p9). Such benefits derived from a sense of purpose, physical activity, learning new skills and providing an environment in which patients could ‘immerse themselves’.

It can be seen that evidence of ‘effectiveness’ is varied, but it is important to remember that STH is used for a wide range of vulnerable people. It is usual practice for people with different vulnerabilities or disabilities to be cared for together. Even at therapeutic gardens specifically intended for people with mental health problems, the population of clients is heterogeneous, with many different conditions and comorbidities.

STH is a complex intervention that has not been claimed to address any specific illness or condition, but which aims to provide a range of experiences, opportunities and activities within an alternative model of social care. Hence, the construct of effectiveness in this case has not been defined and is contested. Therefore, exploring and understanding individual participants’ feelings, emotions and reactions to STH may be as important as measuring changes in specific outcome measures.

Gathering research data is difficult, and this is one reason why methods such as randomised controlled trials (RCTs) have not yet been used in this area. Indeed, in this respect STH shares some of the difficulties with therapeutic communities where the issue of RCTs has proved problematic (see Manning, 2004, p119).

**Funding**

While results from an RCT of therapeutic horticulture would be desirable, there are issues of costs and funding of such a study; and also difficulties caused by the heterogeneous mix of clients. As for therapeutic communities, the evidence base for STH is slowly building through smaller studies and assessments. There is a hope that a stronger evidence base will eventually lead to more funding for the area and greater accessibility for clients. Most garden projects in the UK currently struggle for funds, and often their existence is precarious. Fees paid by health trusts and social care agencies rarely meet running costs, and many STH projects survive by raising additional funds through a variety of activities – grants, donations, sales and others.

There are around 1,000 therapeutic garden projects in the UK that provide a service for 22,000 individual clients each week, equivalent to around one million sessions each year (Sempik et al, 2005). Almost half of these projects (41%) provide a service for clients with mental health problems.

Our research has shown that in 2004/05, the cost of STH per session was similar (at around £50) to the cost of day care at a centre. However, the range of fees charged was wide, with a mean of £27 per session, equivalent to approximately half of the cost of actual service delivery. Hence, around £27 million is spent on STH by way of fees paid by health and social care departments and an additional £23 million is spent by the general public or received as grants from charitable
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institutions. Therefore, considering that around 41% of STH provision is for people with mental health problems, £11 million is spent annually by government on mental health services by way of therapeutic horticulture; this is almost matched by money collected from the public. Considering the cost to society of services for people with mental health problems, this is a very small amount indeed. For example, Thomas and Morris (2003) calculated the cost relating to depression alone in England and estimated that direct treatment costs to the NHS were £370 million. This excluded any social care costs. Including these, McCrone et al (2008) estimated that the cost of treatment and care amounted to £1.7 billion annually.

Social and therapeutic horticulture is an inexpensive way to treat and care for people with mental health problems, and there is considerable room for expansion of service provision, should adequate funding become available.

To some extent, social and therapeutic horticulture is a grassroots movement that continues to function and provide care because of the dedication and beliefs of those involved. Much of the evidence that provides the impetus for those working in the field comes from their own personal experience and practice. Many of the beliefs centre around an environmentalist viewpoint, and garden projects often use organic methods and sustainable practices, such as recycling and wind power (see Sempik et al, 2005). Indeed, Sempik et al (2005) have noted that some volunteers were attracted to particular gardens specifically because of those practices, and some project workers felt that such an approach contributed to the well-being of clients. An organic philosophy promotes engagement with nature and concern for it. This also fosters a connectedness with nature that is considered to be important for human well-being (see, for example, Mayer & Frantz, 2004). Recently, Hine et al (2008b) have shown that connectedness with nature is related to an increase in both awareness of environmental issues and in environmental friendly behaviour.

The underlying philosophy of therapeutic garden projects encourages such behaviour and therefore promotes connectedness with nature. STH is one way in which people with mental health problems can engage with nature and extend their connectedness with it. It also enables their participation in a variety of activities that promotes their inclusion within their community and within society.

References


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A history of hospital farms and gardens

Joe is interested in writing a history of hospital farms and gardens. If you worked in a hospital farm or garden as a member of staff or as a patient and would like to share your memories, please contact him on 01509 223671 or email jsempik@lboro.ac.uk. If you have any photographs or documents relating to the farms and gardens they would be very welcome. All original material will be returned.