

therapeutic communities



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'Green Care' edition

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Editorial

Green Care: A Natural Resource for Therapeutic Communities?

Joe Sempik

Welcome to this special issue of the Therapeutic Communities Journal devoted to 'Green Care'. The purpose of this is to draw parallels between green care communities and therapeutic communities and also to describe nature-based activities (and their underlying theories and justifications) that could be incorporated into the life of a therapeutic community. Indeed, in some cases such approaches are already used. Most readers will be aware of the influence of philosophies centred around nature and spirituality on therapeutic visions for mental health. For example, the anthroposophic philosophy developed by Rudolph Steiner has been incorporated into the Camphill movement, which provides a sheltered environment for people with learning difficulties (and, to a lesser extent, also for those with mental ill health). The same principles are used by some therapeutic communities (as we understand the term) for people with mental ill health. These are created around farms and gardens and often use organic practices of cultivation and agriculture derived from Steiner's biodynamic doctrine. This takes a holistic view of farming and places a great importance on the equilibrium between the soil, the plants that grow in it and the animals that feed on them. Such a system which he termed the 'farm organism' is self-nourishing, as far as possible, and requires no additional input, especially from 'artificial' fertilisers or pesticides (see Vereijken et al. 1997). The biodynamic concept also acknowledges a spiritual dimension which Steiner developed in his construct of 'anthroposophy' (see, for example, Steiner 1925¹). Many other communities and practices have formed around nature and the belief in its healing or restorative properties. The green care movement is

¹ Many of Steiner's writings are available on the internet from the Rudolph Steiner Archive: www.rsarchive.org

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an attempt to organise and promote research and practice around these communities and activities. It is not a formal 'movement' or a single organisation but a number of different national and international initiatives and networks that cooperate with one another.

Today, 'green' is an overused word. It was originally intended to convey a sympathetic, caring and non-destructive attitude to the environment, community and society. However, there is a surfeit of *green* in our consumer society. The most unlikely things now have green credentials. Politicians vie among themselves to be greener than each other, cars are marketed as being greener than their competitors and suppliers of energy produced from fossil fuels boast of being green. In this jumble of green it is no surprise, then, that when researchers and practitioners who use outdoor activities and nature in a therapeutic context recently got together to talk about their work they felt somewhat lukewarm about calling it 'green care'. This international gathering had first come together as a community of practice centred around 'Farming for Health' - the use of land-based sheltered employment as a form of social care. An awareness had spread across Europe that, from Norway to Slovenia, from Denmark to Poland, communities were being created on small, productive farms and used to promote the health and wellbeing of vulnerable or disadvantaged people, particularly those with mental ill health or learning difficulties.

Parallels were quickly drawn between these modern farms and the farms and market gardens previously associated with hospitals and asylums. Whilst the ills of the Victorian asylums are well documented, so too are the apparent benefits of their work regimes, although these often receive less prominence. Farm work gave patients the opportunity for a variety of different activities. It was considered a useful way of keeping them out of mischief and of providing them with an interesting pastime. For example, consider the following extract from the Report of the Commissioners of the Scotch Board of Lunacy of 1881:

It is impossible to dismiss the subject of asylum farms without some reference to the way in which they contribute to the mental health of the inmates by affording subjects of interest to many of them. Even among patients drawn from urban districts, there are few to whom the operations of rural life present no features of interest; while to those drawn from rural districts the horses, the oxen, the sheep, and the crops are unfailing sources of attraction. The healthy mental action which we try to evoke in a somewhat artificial manner, by furnishing the walls of the rooms in which the patients live with artistic decoration, is naturally supplied by the farm. For one patient who will be stirred to rational reflection or conversation by such a thing as a picture, twenty of the ordinary inmates of asylums will be so stirred in connection with the prospects of the crops, the points of a horse, the illness of a cow, the lifting of the potatoes, the growth of the trees, the state of the fences, or the sale of the pigs (Tuke 1882: 383-384).

Why should these contemporary observations be seen as less credible and be treated any differently from those of James Lind,² John Snow³ or Joseph Lister? The answer is quite simple. Although their work was careful, thousands upon thousands of subsequent studies have explored the role of vitamin C, the transmission of cholera and surgical infections, and have verified the results and observations of those early researchers. But there has been little work, until relatively recently, on the mental health benefits of working on a farm or working with nature in other ways.

In spite of the reservations mentioned above, the term 'green care' has become the accepted terminology. 'Green Care in Agriculture' is the official title of an ongoing collaboration of European researchers under the auspices of the European Science Foundation's COST (Cooperation in Scientific and Technical Research) scheme. The COST Action (number 866) is a network of scientists, physicians, psychiatrists and practitioners (including some actively involved in the UK therapeutic community movement) who are committed to exploring therapeutic interventions and approaches that use the natural environment or elements such as plants and animals as a focal point.

Through the COST and other collaborations it has become clear that in the modern day many different models and paradigms of the practice of green care exist. These include small farms; various types of gardens and allotments; activities such as woodland conservation (green gyms, for example); and approaches with animals that include, for example, 'animal-assisted therapy' and 'pet therapy'. All of these practices have as their central dimension the engagement of the individual with nature (in a structured and facilitated way) to provide a benefit to health. Whilst green care has probably been used with all vulnerable groups, people with mental ill health represent the largest single client group.

The UK and the US have a well-established (but under-researched) tradition of using horticulture and gardening as therapeutic activities. These are termed 'horticultural therapy', 'therapeutic horticulture' or 'social and therapeutic horticulture' depending on their context (see Sempik, Aldridge & Becker 2003). The rest of Europe has tended to use small-scale agriculture, including animal husbandry as its model and this is usually termed 'care farming'. However, the UK is now catching up with its European counterparts and care farms are beginning to appear across the UK. These are often aimed at young people excluded from school or those involved with the criminal justice system.

The green care movement represents this diverse set of activities and seeks to promote not only its practice but also rigorous research into the effects of those approaches. Rigour is important not just as a device for legitimising research and practice but also for understanding the mechanisms and processes involved so as to inform research, practice and policy in the area.

² For historical accounts (including some facsimiles) of the work of James Lind, Joseph Lister and other pioneers of medicine visit the James Lind Library at www.jameslindlibrary.org

³ For a detailed account of John Snow and the 1854 London cholera epidemic, see Brody et al. (2000).

Currently, the issue of methodology is one that is being examined and discussed within the field of green care. One of the specific 'milestones' of the COST action of green care in agriculture is to establish a coherent methodological framework for use in the area. Such concerns around methodology are also common to the area of therapeutic communities.

In both areas there is acknowledgement of the difficulty in conducting rigorous research, such as a randomised controlled trial, and also of the contested nature of the validity of some approaches. The green care community is exploring the use of randomised controlled trials to study the interventions in their area - not only the practical and technical difficulties but also the more fundamental questions of whether such an approach is necessarily appropriate to green care and whether it will provide a greater understanding of it (see, for example, Sempik 2007). A similar argument has been presented by Manning (2004) with respect to therapeutic communities. He concludes:

The RCT is for many observers of medical and social practice a powerful method of developing a strongly legitimate means for gathering evidence which carries extensive social power.

However, the RCT as practised is not an appropriate gold standard solution for all problems. It certainly cannot be the required standard for an assessment of the therapeutic community movement, or a single local therapeutic community. While it could answer some questions about therapeutic communities, there would be massive problems and large costs. This is not to say that RCTs should not be done where appropriate.

Other approaches may be needed first, though, and continued monitoring of therapeutic communities through a variety of assessment methods will be necessary not only to replace RCTs if cost or feasibility rules them out, but also to check whether RCT results are sustainable and generalisable (Manning 2004:119).

We, in the green care movement, are aware of the 'extensive social power' of RCTs and also of the 'massive problems' associated with them when used for interventions of the complexity seen in green care or therapeutic communities. Hence, we are torn between two opposing needs - that of utilising the social power of RCTs to help such approaches gain acceptance; and that of gaining a deeper understanding (for ourselves and others) through qualitative approaches that may not be valued highly by policy makers and researchers in the mainstream. Indeed, some practitioners and supporters of green care do not see the value of more 'formal' research; instead they base their belief in its effectiveness on their personal experiences and ideological standpoint. It could be argued that this is just one, extreme, form of evidence-based practice. However, research experience in the area is growing and there is a desire among most researchers and practitioners to build up the evidence base. This is evident within the European COST Action.

The importance of *green* in green care

What distinguishes green care from other social or community-based approaches to mental health and other aspects of wellbeing is the belief that the green component is fundamental to it. Early on in our research we encountered the view from the managers of one project that the most important aspects were the essence of productivity, structure and routine and that their clients could just as easily (and happily) be making plastic windows or components for cars. That particular project was engaged in mushroom growing on a small commercial scale, and this took place within a polythene tunnel in which the lighting, humidity and growing conditions were tightly controlled. This presented an environment that few would hold up as an icon of 'nature'. Yet the view of the managers was strongly contested by the clients themselves; for example, one responded as follows:

... we see it right from the start, from the filling the tunnel with all the bags and, in my case, I come in and water the floors and do the temperatures at the week-end, so you see it right from the start right till you're picking, so it's your own product, what you've grown from the start six weeks previous, sort of thing, what you're picking, and then, you know, see the fruits of your labour, sort of thing.

[Colin, client, project for people with mental ill health]
(from Sempik, Aldridge & Becker 2005: 80)

Cultivating mushrooms had been of such fascination to that particular individual that he had recreated a smaller version of the mushroom tunnel at home and had started to grow them there. Within a seemingly unstimulating and uninteresting environment he was able to observe an important process of nature and also to participate in it through the care that he provided. Being able to see the whole growth cycle and to nurture it were important themes that emerged in our research. Other research has also shown that interaction with nature is so highly valued – providing an opportunity to enact a nurturing role and to develop a connectedness with nature that satisfies a personal spiritual need which can exist in an entirely secular, non-deist form. However, whilst it can easily be shown that nature is highly valued, it is far more difficult to demonstrate its effectiveness at actually improving health.

This Green Care issue

The articles in this special issue form an eclectic mix of scientific study and personal experience of using animals and plants as 'therapeutic' elements within communities of vulnerable people. Since green care encompasses a number of different elements – plants, animals, being outdoors and so on, it supports a diverse set of specific interests in both research and practice. Some authors in this issue, such as Ambra Burls, have taken a conceptual approach to the general area of green care; whilst Bjarne Braastad and Bente Berget present the underlying theories to their specialist field of animal-human interactions;

Brendan Hickey and Liz Ormerod, on the other hand, have described their first-hand experiences of nature and animals within therapeutic communities. Many of the papers are descriptive; however, they provide an insight into how nature-based activities are used and experienced in the context of mental health.

One purpose of this issue is to draw attention to the use of natural settings and activities as forms of therapy or adjuncts to therapy so that, perhaps, they can be incorporated into the practice of many more therapeutic communities. Indeed, my first experience of a therapeutic community – Lothlorien (see the article by Brendan Hickey) – was of one where working with nature played a pivotal role. It was also my introduction to green care, although at the time the term had not been coined. Some years later, when visiting a residential therapeutic community I was shown an abandoned vegetable garden, which had previously been cultivated by former residents of the unit. The shapes of the beds were clearly visible and some bean canes were still standing. I was told that there was no-one to supervise its restoration and use. Besides, the client members did not seem to be keen on gardening. Yet I have heard many accounts of how one person working on a plot has drawn in another; and then one more; and soon an active community has developed from apparently unenthusiastic individuals. Whilst a good knowledge of horticulture is essential for specialist approaches such as horticultural therapy, most people can manage a vegetable plot. The process of learning, sometimes from one's own mistakes, is often the most valued part of becoming a gardener. And the most fun. Outdoor spaces represent opportunities for meaningful collective work and responsibility; for client members to work together with nature. Such opportunities should be taken where possible and not lost.

Another purpose of this issue is to draw attention to initiatives such as COST 866 and research in the area of green care in the hope that practitioners and researchers working with therapeutic communities will also become involved in green care. We already have had valuable input from some and hope for more to come. So please read on, and, if you wish to know more, use your favourite internet search engine to find the websites of the following organisations:

- COST 866: Green Care in Agriculture
- The National Care Farming Initiative (UK); there are links to care farming projects
- Thrive (a UK charity that provides support for research and practice into 'Social and Therapeutic Horticulture')
- Cultivations (another charity supporting therapeutic horticulture)
- Farming for Health (a European 'Community of Practice' comprising both practitioners and researchers).

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Seeking Nature: A Contemporary Therapeutic Environment

Ambra Pedretti Burls

ABSTRACT: This paper introduces the concept of contemporary ecotherapy as a new practice and professional education milieu. The author's research in this area of practice has shed light on its far-reaching therapeutic, social and environmental outcomes. The therapeutic dynamics of contemporary ecotherapy are elucidated from the backdrop of associated practice and theoretical models (ecological approach, 'ecohealth' and other models), which help to identify how ecotherapy can bring about useful outcomes for people, their community and their environment. This is further presented as a viable holistic and systemic approach suitable for therapeutic community settings.

Introduction

Most therapeutic approaches seem to focus on the characteristics of the individuals seeking recovery and their presented problems. Often the properties of their social context are not considered in their fullest systemic parameters and there is a propensity to shed little or no light on the processes of accommodation between person and environment. This paper will attempt to define the parameters of a theory/practice model which addresses this inequity by bringing nature into the therapeutic milieu as a living partner. Presenting what constitutes the core of an ecological approach (Bronfenbrenner 1979, 1981, 1990) to human holistic growth and healing and the concept of 'ecohealth' (Butler & Friel 2006) will further help the reader to acquaint with the concept of ecotherapy.

Insights gained from the author's research and observation of practice has led her to define a new model of contemporary ecotherapy (Burls 2007a). For this it was necessary to acquire understanding and seek guidance from preceding associated experiences and definitions. It can be said that ecotherapy has some common denominators with what is now known as Social and Therapeutic Horticulture, which has been practised in diverse guises since the 1950s. However, the model of ecotherapy departs in many respects from the above and befits a more systemic approach. This is based on findings which

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reveal the multifaceted interconnections between settings (Burls & Caan 2004; Burls 2005; Burls 2007a). Thus the original eco-educative/ecotherapeutic model proposed by Clinebell (1996) has been extended on the basis of new, real and observed practice (Burls 2007a, b, c). This paper will elaborate on the similarities and variances of related models and present how the alternative and innovative approach of contemporary ecotherapy can be adopted in therapeutic communities by involving the ecosystem (nature) as an integral part of the operational treatment milieu.

Conceptual definition of contemporary ecotherapy

Inspired by prior literature on the techniques of ecotherapy or nature-guided therapy, respectively by Clinebell (1996) and Burns (1998), research was instigated (Burls & Caan 2004; Burls 2005, 2007a, b) into ecotherapeutic activities vis-à-vis the need to define contemporary ecotherapy. This was necessary in order for it to be relevant to 21st century practice and led to the observation of at least two distinct levels of impact: the micro level and the macro level (Burls 2007a). The micro level refers to:

- the person requiring the re-establishment of health and wellbeing,
- the processes to re-establish such goals,
- the 'therapeutic' environment in which those processes take place (ecotherapy).

The macro level, on the other hand, is characterised by a multifaceted involvement of the same persons with the wider environment. Whether social or ecological, such involvement takes place in a direct and active way, providing a healthy green space for the use of their community as a result of their activities at the micro level.

This context brings about a broad spectrum of spontaneous and self-directed personal empowerment processes and self-elected stewardship of a green space, which result in outreach impact on the community. Therefore the benefits and outcomes of these processes also serve to benefit the 'other', be it the community and/or the ecosystem. This process of social embracement (Burls & Caan 2004) is espoused by people who would otherwise be disempowered or marginalised. The empowerment found in caring for the environment seems to re-awaken a sense of possibility, relief from struggles and the opening of new social opportunities (Wong 1997). There is an equivalent set of actions which are intrinsic and implicit in the activities at the micro level. These are embodied in a spirit of reciprocity of individuals with their community and 'man with nature'.

The green spaces in which these processes have been observed can vary and include allotments, gardens, hospital grounds, farms, forest and wooded areas, public parks, urban green spaces and purpose-built therapeutic or healing gardens (Stigsdotter & Grahn 2002, 2003).

A series of phases of personal, group and environmental development is derived from the interactions with the nurtured and hosting environment and,

in many cases, with the general public. Such interactions go across the boundaries of built environment and wildlife, human and non-human and are generated not only by the needs and wishes of the participants (be they clients or practitioners), but, equally, by the assessed or conveyed needs of the ecosystem in which the activities take place.

As mentioned earlier, there are models such as Horticultural Therapy (HT), which could be construed to have a close association with ecotherapy. HT is predominantly described as a process which focuses on gardening activities and the care and nurturing of plants, by people of all ages, backgrounds, and abilities and by which individuals may develop wellbeing. It dates back as far as the 1950s; however, Relf is its eminent prime mover. Relf strived towards a more precise definition of this therapeutic model. Her model of Horticultural Therapy (Relf 2005; Relf & Dorn 1995) is helpful in aiding the development of an appropriate definition for contemporary ecotherapy. Others have defined Horticulture/al Therapy or Therapeutic Horticulture, but Relf's definition seems very similar to the definition of the more current Social and Therapeutic Horticulture in the UK, also adopted by Thrive (www.thrive.org.uk; Sempik et al. 2005). The latter seems to be based on an occupational-therapy model. Further analysis of definitions leads to the American Horticultural Therapy Association (AHTA), which requires 'measurable (clinically defined) treatment goals and a trained professional.' Relf's model similarly targets clients with a clear diagnosis and focuses on the care and nurturing of living plants through a process based on defined clients' activities and therapist's skills. In this the three main elements are: Living Plants, Diagnosed Client and Measurable Goals. The Trained Professionals, aided by volunteer support, represent the people responsible for the outcomes (Figure 1).

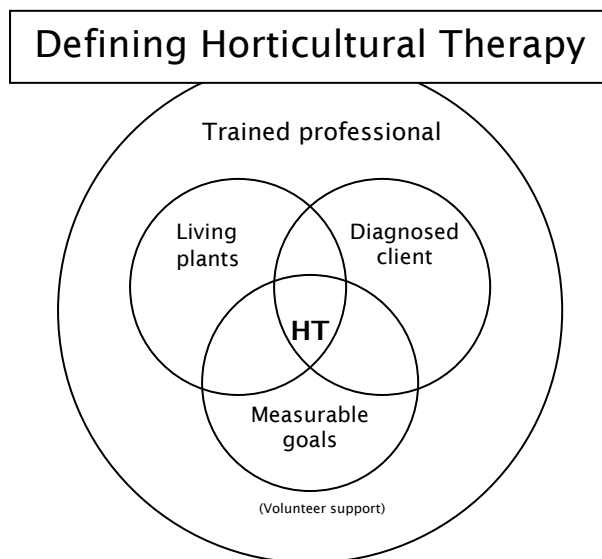
Relf (1998) also discussed the role that '*plants can play in developing a life-centred philosophy to bring spiritual stability and meaning to individuals.*'

However, ecotherapy represents the experiences of people working with landscapes, which require their care through *active* conservation or maintenance of (for example) urban or rural green spaces (Burls & Caan 2005). This is therefore much more complex than working with living plants. Ecotherapeutic activities are well suited to a number of individuals and groups who may have amongst them the diagnosed client, but would equally apply to people with social or other vulnerabilities and who may derive a variety of benefits from such activities. Indeed it would also have a direct effect on the community, through the social interconnections of these activities. The term 'contemporary ecotherapy' can indeed act as an 'umbrella term', which can embrace traditional activities such as allotments, gardening and conservation work, but equally suit the inclusion of existing activities such as those of 'green gyms' (BTCV), 'green care' and 'farming for health' (2008). It also directly promotes activities which are associated with physical exercise in the outdoors such as 'green exercise' (Pretty et al. 2005a, b) and 'walking for health' (Ramblers Association).

Others (Matsuo 1995; Burls 2007a) added dimensions such as creativity in the 'action' of horticulture/ecotherapy and asserted that they bring balance to life, leading to a fuller human existence.

These parameters are interchangeable with the experience of working with nature to heal self and ecosystem that is characteristic of ecotherapy. This has evidenced a series of behaviours which can easily be confirmed within Relf's model. However, there are a number of other more composite elements of behaviour which can be described as peak experience (Maslow 1970a, b, 1971) and flow (Csikszentimihalyi 1990), culminating in embracement (Burls & Caan 2004).

Figure 1: Relf (2005) model of Horticultural Therapy



Peak experience is a term used to describe certain transpersonal states where happiness, unification, harmonisation and interconnectedness can be present. Participants characterise these experiences, and the revelations conveyed therein, as possessing a deeply spiritual quality or essence. This is experienced when there is an 'opportunity to practice all the learning that has occurred and apply it to one intensive challenge' (Herbert 1996:6). Participants experience the challenge as more intense and complex, and these experiences are often used as the culmination of the group experience.

Flow is an optimal experience that stems from people's perceptions of challenges and skills in any given situations (Csikszentimihalyi 1990). People become absorbed in their activities, while irrelevant/negative thoughts and

perceptions are screened out. The 'flow' state requires a balance between a high level of challenge perceived in a given situation by an individual and a high level of skills an individual brings to that situation; it is solely determined by the individual's perceived state of how challenges and skills match each other, bringing together the theoretical underpinning of eco-psychology (Roszak, Gomes and Kanner 1995), social capital (Field 2004; Fine 2003) and experiential learning (Beard 2004). The amalgamation of these behaviours culminates into the creativity referred to above and, in turn, gives rise to a social phenomenon recently conceptualised as embracement (Burls & Caan 2004).

Embracement is an experienced social development representing a self-directed drive to become directly and actively involved, self-procuring a social niche in the fibre of the community as an agent of change.

Integrative dynamics

Relf (2005) commented on the disadvantage of the two-dimensional model of HT which restricts 'the graphic display of many critical interactions' and that, 'for example, the psycho-cognitive response for the acquisition of new skills and knowledge are not appropriately linked.' However, she also highlighted the advantage held in the fact that a

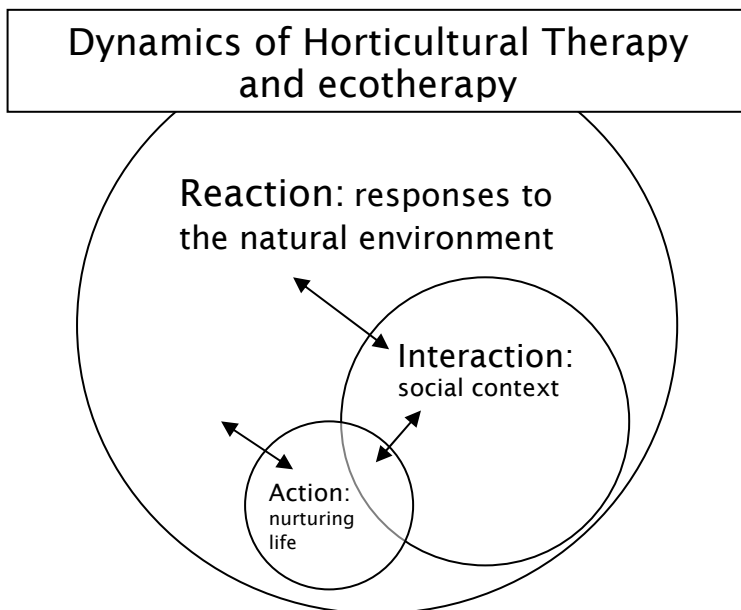
generalized model presents the potential for greater insight into the human-nature interaction (thus its therapeutic potential) by offering the potential for overlays of information across clientele to create a picture of similarities in response.

Relf's (1981) philosophy was that 'the care of living plants is the unique element that HT brings to a treatment program and the mechanism involved needs to be fully understood and utilized.' She asserted that 'this broad structure demands that it be refined for each clientele group in order to address the goals of different treatment programs' and developed a mechanism of dynamics by distinguishing three areas of responses which seem common with the experiences observed in contemporary ecotherapy settings (Figure 2).

- **'Interaction'**: how the activities take place in a social context, provide an optimum setting for various forms of social exchange and facilitate human responses to visual and other cues about the natural surrounding.
- **'Reaction'**: the response of humans to the environment around them, as also expressed in the Biophilia hypothesis (Kellert & Wilson 1993; Wilson 1984). This well-known hypothesis affirms that 'people possess an inherent inclination to affiliate with natural processes and diversity [which are] instrumental in humans' physical and mental development' (Kellert & Derr 1998:63).
- **'Action'**: the impact of the act of cultivating and caring for the living plants [and nature] becomes the focus and will elicit the 'reaction' to nature.

However, a ‘synthesis’ approach (Brown 2007) can help to expand these dynamics into a wider structure of ‘circular’ or ‘systemic’ rather than ‘linear’ relationships. In placing themselves into a relationship with their ecosystem, human beings find an ‘I-Thou’ relationship with nature, as referred to by Buber and Smith (1999). This has been reported to lead them to an empathy and reciprocity within their ‘being there’, which needs no social masks, nor words or preconditions. As this develops with the guidance of the educator/therapist, a bond emerges where each participant responds by enlarging themselves and other people in the peer group through dialogue, sharing of ideas and skills development. Mutual learning processes help the individual and the group develop a strong support system and a driving and creative energy, which bestows a sense of place and commitment to mutual support and a critical awareness of the multiple dimensions of their environment. One can begin to see here how these processes could become very powerful metaphorical bases for the work inherent to therapeutic communities.

Figure 2: The dynamics of Horticultural Therapy and, similarly, ecotherapy (adapted from Relf 1981)



In the practice of contemporary ecotherapy there are also other clearer and tangible characteristics, when observed in the therapeutic micro-environment over time.

Nature is a living co-educator and functions as co-therapist by:

- acting as a catalyst which also provides concrete examples of the consequences associated with individual and group actions;
- giving insights into any change which may occur in the natural environment and providing the relevant guide for metaphors;
- aiding experiential, narrative and curative learning, by providing the backdrop and time for individual reflection, modelling, self-disclosure, and metaphoric processing.

Metaphors are used to link the learning and growth, provided through the lived 'here and now' experiences, to situations found in the person's 'real-life'. They can therefore be applied to the client's own history or circumstances and are both theoretically and therapeutically associated with the activities themselves. This will eventually lead to: personal change; skill development; social engagement; and ultimately, recovery through subjective degrees of embracement. Whichever the pedagogical or therapeutic model the educator/therapist elects to deploy in these processes, the main and overriding role of the practitioner has to be that of conduit. Such a conduit actively helps the participant to build metaphorical meanings, and provides them with actual educative/therapeutic tools, designed to help successfully negotiate their personal life challenges and instigate a change process in their own healthy/unhealthy environments. This fosters sustainability in terms of rehabilitation/recovery, which, from the backdrop of nature, can be transmitted to one's own life and be sustained outside the educative/therapeutic context. When this becomes part of the individual's daily tool kit for health maintenance, used independently from the therapeutic context, it becomes sustained and ongoing self-improvement (Burls 2007c). It can be seen here that the professional is not the sole agent of positive outcomes as illustrated in Relf's model, but more the initiator or channel for a set of connections which eventually lead to individual and group self-development in both the micro and macro domains.

Phases of intervention crystallise further into: 'healing pedagogy' (learning and teaching which has a direct healing effect on the person) (Willenbring 2002). This is often accomplished through experiential learning (learning by doing), which is, in turn, based on creativity, reflection and applied knowledge. The sense of absorption in the activities and a strong feeling of responsibility, kinship and awe for the habitat, which is actively nurtured day by day, seem to bring about a wish to be a part of that same habitat by all who work and interact with it. Alongside this, environmental literacy (Coyle 2005) also develops in people, leading the context of rehabilitation to take on a much broader scope.

The activities help individuals towards recovery in health terms with additional skills-development in the area of environmental sustainability as well as gardening, horticulture and plant retailing, to name but a few. The broader outcomes for the individuals involved are employability and a newfound 'personal value' in society. In other words this approach promotes *diversity* in

every sense and social facet of the word, within the remit of rehabilitation and that of citizen-driven sustainable development.

Here one can see therefore how ecotherapy seems to enlarge the scope for 'interaction', 'reaction' and 'action' into a systemic social context.

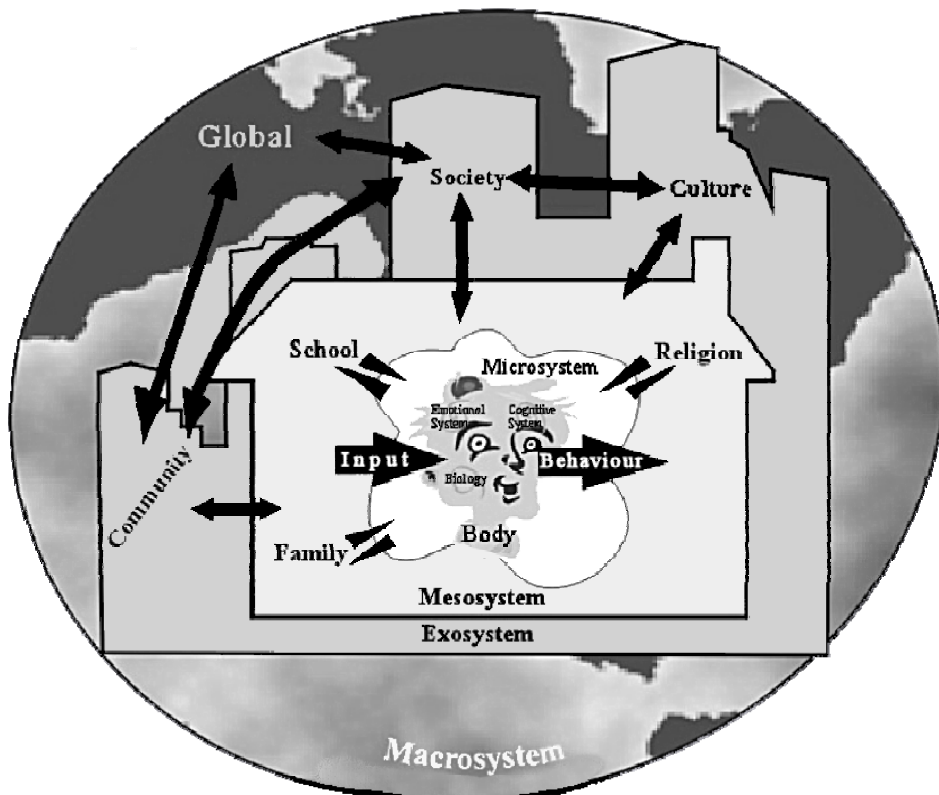
Nature is a fully intrinsic part of these activities and inherently fosters a type of community engagement and public participation which may engender neighbourhood cohesiveness, sustainable environmental benefits and public health outcomes. These extend outside the therapeutic micro-environment referred to by Relf and convey the macro-level benefits of contemporary ecotherapy. They also fit well within the context of 'ecohealth' (Butler & Friel 2006). This concept widens the relationship between human and non-human species, stressing the importance of ecological factors such as biodiversity and the health of our ecosystem. In considering humans as a part of the global biosphere, this concept inevitably brings human health into a systemic and synthesis thinking approach (Brown 2007). The remit of ecohealth is therefore to deliver social, economic and environmental goals in an integrated way. This is a refined 'joined-up approach' for all operative aspects of health promotion, which also includes the health and safeguarding of green spaces and wildlife, through such activities as ecotherapy.

This can be further illustrated if one applies Bronfenbrenner's (1979, 1981) social ecology model to ecotherapy. Although his model was designed around the educational and social development of children, on closer scrutiny it can equally and very appropriately be applied to the model of contemporary ecotherapy and the development of vulnerable adults in their journeys of recovery. His model derived from Ecological Systems Theory, and was also called 'Development in Context' or 'Human Ecology' theory. It specifies five types of 'nested' environmental systems, in a kind of Russian doll fashion, with bi-directional influences within and between the systems. The theory was generally regarded as one of the world's leading paradigms in the field of developmental psychology (Paquette & Ryan 2001) and is characterised by the following systems, which are here applied more specifically to ecotherapy.

- **Microsystem:** the environment where therapy takes place (therapist, nature, peer group, here equated to the concept of micro-level);
- **Mesosystem:** a system encompassing the connections with wider immediate environments (i.e. the group of fellow clients, the socio-geographical area where the activities take place and its immediate neighbourhood);
- **Exosystem:** those external environmental settings which indirectly affect development (such as relatives and friends, the local community, the public who may use the green space in which the activities take place);
- **Macrosystem:** the larger cultural context (subcultures, economy, political culture - in contemporary ecotherapy as described here, exo and macro systems could both be subsumed within the macro-level);
- **Chronosystem:** the patterning of environmental events and transitions over the course of life (for example the sustainable bio-psycho-social

benefits embodied in the activities and skills learnt through ecotherapy may continue through the individual's own learning and development).

Figure 3: Bronfenbrenner's structure of environment



Source: Bronfenbrenner.webquest/index.htm (1 of 4) [7/12/2001 6:36:39 PM]; Paquette & Ryan (2001)

Because the person's own biology is considered part of the microsystem, Bronfenbrenner's theory does have some strong affinity to the observed 'biophilic' attributes (Wilson 1984) of contemporary ecotherapy practice (Burls 2007c). In the micro-level (ecotherapy model) or micro-system (Bronfenbrenner's model, Figure 3) the human emotional, cognitive and biological systems are influenced by the direct contact with the environment and their relationships. Interactions and reactions with it lead to the personal and collective behaviours and actions referred to by Relf. Bronfenbrenner's micro-system also contains the cognitive and emotional subsystems in common with Relf's modified model. It also befits the elements of experiential and curative learning, reflection and metaphorical processing of the ecotherapeutic

approach. The 'input' here can derive from the triad of client-therapist-nature and the 'behaviour' can also be influenced by the same triad, but equally by interactions with the peer group, the public, nature and other social and environmental stimuli. In turn the meso, exo and macro systems are inter-reliant and influenced by one another. Once again this is resonant in the interactions with the public and the extension of these into embracement, derived from ecotherapeutic activities and outcomes. It could also echo some of the philosophy fundamental to the processes within therapeutic communities.

Bronfenbrenner's theory has also been called the 'Bio-Ecological Systems Theory'. The theoretical basis of his model derives from his interpretation and integration of Lewin's Gestalt work (Bronfenbrenner 1979). From this came Ecological Counselling, which proposes that 'the person is inextricably situated within radically specific and interdependent ecological systems' (Conyne & Piel Cook 1994; Conyne & Cook 2004).

The notion of Ecological Counselling seems to be appropriate in terms of the integration of systems and the conceptualisation of human issues existing within those systems. The integration of personal and environmental factors is achieved through focusing on their interaction. The practitioner can therefore overlay any elected therapeutic, educational or counselling model into a logical and coherent narrative, which includes the 'eco' (the human's *home* or *habitat* from the Greek *oikos*) and the ecological (learning about the environment and its problems) and from these glean how man can react to analogous personal problems by means of the examples given by nature. The processes described in both the contemporary ecotherapy model and the systemic influences depicted by Bronfenbrenner can be brought together to assist client and practitioner in the re-creation of the health and recovery of both man and ecosystem. In the therapeutic community context this could become very advantageous.

By using metaphors taken from the environmental background, ecotherapy seeks to underscore the 'auto-corrective' capabilities of nature and the living systems around us. It helps to discover their equilibriums, and to accept their redundancies and flexibilities both on the cultural and the biological level (Tamburini 2000). It is about how man can make use of these examples, with the unpredictabilities and mistakes of nature, so as to re-learn to respond to one's own obstacles and life changes and events in non-pathological ways.

Bateson (1972) called it *systemic wisdom*: the capacity to learn auto-corrective ways and feel part of a wider system.

Levy (1999) called it *collective intelligence*: finding common knowledge, techniques, signs and relations which allow us to think together, concentrating intellectual energy, multiplying imagination, mobilising competencies (Tamburini 2000). Once again one can see the relevance of these concepts for therapeutic community settings.

With ecotherapeutic approaches it is possible to lead those who experience bio-psychosocial problems to feel less isolated and be stimulated to restructure their cognitions and develop new expectations of their reality. The educational/therapeutic methodology of ecotherapy can instigate new knowledge, values

and actions which are coherent and which lead to an understanding of our interdependence with wider systems. The environment does therefore have implications for knowledge, ethics, economy, and the political dimensions of our communities (Tamburini 2000). These processes seek to develop inner peace and self-improvement, based on ecological responsibility and the positive social relations which derive from it. This can also lead to a heightened level of cultural-political responsibility (embracement) towards the community, of local identity and of 'global' insight, including such far reaching issues as climate change.

The wider scope of the ecotherapeutic milieu

The observations on activities defined as contemporary ecotherapy challenge the insights and analyses of the terms 'treatment' and 'non-treatment' settings (Relf 2005). This brings to light the whole issue of public green spaces becoming multi-functional therapeutic spaces. Such multi-functionality is possible by virtue of the ecotherapeutic philosophy, wherein the therapy can also meet the terms of actions directed at environmental sustainability. The maintenance of public green spaces through ecotherapeutic activities makes it so that these spaces sit well within the hypothesis of Biophilia (Kellert & Wilson 1993; Wilson 1984) and can be the very same spaces where the public can go to for 'green exercise' (Pretty et al. 2005a, b) and/or have contact with 'nearby nature' and enjoy its 'restorative' benefits (Kaplan 1995; Kaplan & Kaplan 1990; Ulrich et al. 1991).

This is a distinctive vision of a therapeutic community with a difference: the therapeutic space becomes a shared green space where 'seeking nature' is the main goal for all those involved in using it. In developing inwardly-directed goals such as skills and technical know-how, the individuals participating in therapeutic activities 'cultivate' a kinship with the immediate environment, which needs their nurturing. Within the micro-level of activities there develops a synergy with nature, a process of enquiry and reflection, and of collective and individual self-improvement towards recovery goals. These actions add up to a learning circle by and within the peer group. Within these dynamics there is both self-healing and the realisation of creating a 'ripple effect' of coherent and credible services to the community. These outwardly-directed goals create critical interactions at the macro-level, rooted in engagement by and with the public and a driving energy from individual and peer group, culminating in social change in both micro and macro levels, concurrently.

So, looking at the complexities of these interactions begs the question: what or where in these shared spaces is the demarcation line between 'treatment' and 'non-treatment'?

In terms of therapeutic communities, a number of further dimensions may also challenge the current parameters and practices, but equally may empower practitioners, participants and the wider community. This kind of '*natural* therapeutic community', with its shared goals and reciprocity, may not currently be envisaged by practitioners and may well break several universal cardinal

rules of this specialist field. Indeed it may contrast with the ‘scientific lens’ of current models, which may reduce the opportunities held in how human beings respond to an active reconnection with nature. Implicit in the ecotherapeutic approach is the inclusion of the health and relationship with the ecosystem as an embedded element to overall, holistic wellbeing. This can be envisioned in those above-mentioned all-encompassing goals as far reaching as the wellbeing of neighbourhood, communities and the environment. The notion that those who participate in ecotherapeutic activities are ‘renovating’ and repairing both self and the environment, giving sustenance to wildlife and biodiversity, but, most of all, connecting with the public and having a direct impact on public health, may raise alarm bells in terms of therapeutic focus. However, far from feeling exploited or exposed, these participants reach for the added value of abating stigma, by virtue of their interaction with the public, and pride themselves as direct contributors to health promotion and ecohealth. The civic engagement, ownership and personal agency outcomes derived from this raise their social profile and identity. This is an intrinsic component of true recovery.

For the therapist there are considerable advantages, too, if the client’s personal history, particular capacities, limitations, temperaments and preferences are taken into consideration alongside the symbolic representation systems which are provided by the natural environment in which they work. Bronfenbrenner’s theory and concept of ecological counselling lend themselves to the construction of the individual ecological niches within the micro-level of therapy, but can also be embedded and evolved into the systemic structures of the varying environmental settings: the macro-level in which they live. In socio-political terms these niches (Paquette & Ryan 2001) are what we all experience as our world. The process of recovery from ill-health, or any other form of marginalisation and vulnerability, means re-acquiring such niches.

Campling’s (2001) definition of a therapeutic community is clearly indicative of the commonalities found in ecotherapeutic environments such as, for example, those observed at the MIND Meanwhile Wildlife Garden in Kensington and Chelsea in London (Burls 2007b), which is also a part of a public green space maintained and managed by a group of ‘trainees’ with mental health problems and practitioners. Campling specifies:

the term ‘therapeutic community’ is usually used in the UK to describe small cohesive communities where patients (often referred to as residents) have a significant involvement in decision-making and the practicalities of running the unit. Based on ideas of collective responsibility, citizenship and empowerment, therapeutic communities are deliberately structured in a way that encourages personal responsibility and avoids unhelpful dependency on professionals. Patients are seen as bringing strengths and creative energy into the therapeutic setting, and the peer group is seen as all-important in establishing a strong therapeutic alliance.

The above discussed question: ‘where is the demarcation between “treatment” and “non-treatment”?’ does, once again, come under scrutiny here. Contemporary ecotherapy is about ‘day-to-day experience of living and working

together.’ The active niche of the living-learning experience is as important as the elements of ‘formal’ therapy, which may be seized by the practitioner and the client alike, during the activities, often provoked by spontaneous events. Such events are provided by the ‘interactions’, ‘reactions’ and ‘actions’ held in working with/for nature. They are often instigated by the ‘experiential learning’, which is recurrently also ‘curative learning’, particularly when associated with opportunistic metaphorical meanings, carefully harnessed by the (skilled) practitioner. Understanding of these dynamics by the client is both educational and therapeutic. If these outcomes are closely integrated and client and practitioner inform each other about the outcomes of their work, this understanding is then directly emerging from the systemic layers described above. This is corroborated by Campling’s definition, amongst others, that the setting is fundamentally a social setting wherein the

important underlying principle is that all involved are encouraged to be curious about themselves, each other, the staff, the management structure, psychological processes, the group process, the institution and everything else pertinent to events and relationships within the community.

Campling (2001) refers to this as ‘the “culture of enquiry” (Main 1946) – an openness to questioning, so that understanding is owned by all and not seen solely to reside in professionals.’

When one adds the wider systemic layers on the interactions indicated above in the ecotherapeutic and bio-ecological system approaches, one can see that ‘non-treatment’ activities are just as incisive in the dynamics which lead to recovery. Nature, the public, the local community or neighbourhood are intrinsic and active partners (Burls 2007a) in the ‘ecotherapeutic community’ and within it ‘learning is therapeutic’ and ‘therapy is educative’. Furthermore both learning and healing are sustainable in the fact that, once the process is initiated in the ‘defined therapeutic *room*’ (whether this is an enclosed therapeutic garden or a public park or urban green space), the skills learnt from within the therapeutic kit and enclosed in the collaborative triad of nature-client-practitioner, can be transposed to any other situation the individual may find themselves in.

Conclusion

The active niches in the therapeutic environment and, inherently, in the ecosystem heralded by the model of contemporary ecotherapy are coherent with that of human growth and development, also outlined in ecological counselling. The principal aim is to ‘seek to understand people’s *ecological niches* and assist them to live a satisfying life.’ This also resonates with Relf’s assertion that having interaction with our biosphere (including plants) helps in developing ‘a life-centred philosophy to bring spiritual stability and meaning to individuals.’

In undertaking to improve coexistence, harmony and the nurturing of our biosphere through interventions at both the personal and environmental levels, the practitioner, client and nature are all equal protagonists in influencing outcomes which have wide-reaching implications. Innovative approaches based on contemporary ecotherapy can be and are important vehicles for meeting policy targets (Burls 2007a) in: clinical practice; practitioner training; health and social service delivery; public health research; social justice initiatives; community interventions towards consultation and cohesiveness; and collective behavioural change towards a sustainable future.

The fruit of the research and definition of contemporary ecotherapy (Burls 2007a, b) is in the concrete development of recently validated Higher Education curricula in the UK, directed at existing and new practitioners who want to make this new approach a recognised and mainstream part of health and social care provision. They would be working in environments which transcend the disciplinary boundaries of health/social care sciences, land-based sciences, ecology, public health and many others. Many decision makers in these fields are beginning to recognise the value of partnerships and associations, leading to a specialist labour force directly involved in practising and developing a body of evidence in the systemic provision of sustainable health benefits for man and biosphere. This could be deemed as a new enlightened approach to therapeutic communities and public/global health, which supports and empowers practitioners through authoritative and innovative training and professional recognition.

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Care Farming in the UK: Contexts, Benefits and Links with Therapeutic Communities

Rachel Hine, Jo Peacock and Jules Pretty

ABSTRACT: There is increasing evidence for the positive role of nature in human health, particularly in the light of the increase in sedentary lifestyles and the emergence of growing health concerns over obesity, coronary heart disease (CHD) and mental illness. This paper addresses the links between contact with nature and improved health and wellbeing, introduces the concept of various green care approaches and examines the links between care farming and therapeutic communities. Two studies outlining care farming in the UK are described. The first is a scoping exercise to discover the current extent and diversity of care farming in the UK, in order to form baseline data on which to build future research needs and to help support care farmers. The second study is an in-depth analysis of clients from different types of care farm, and provides empirical data on psychological health and wellbeing outcomes. The aim of this study is to help build up a body of robust scientific evidence to inform health and social care providers (amongst others) of the benefits of time spent on a care farm. We conclude by setting care farming in a wider context by looking at the potential impact that an expansion of care farming could have on emergent health and social issues and policy in the UK.*

1. Introduction to Green Care

There is a growing body of evidence on the positive relationship between exposure to nature (incorporating a variety of outdoor settings, from the open countryside, fields and forests, to street trees, allotments and gardens) and an individual's health (Pretty et al. 2003, 2005a, b, 2007; Peacock et al. 2007; Bird 2007; Burls 2007; Mind 2007). The key message emerging is that contact with nature improves psychological health by reducing pre-existing stress levels,

* Full results of both studies can be obtained from the NCFI (UK) at <http://www.ncfi.org.uk/documents/Care%20farming%20in%20the%20UK%20FINAL%20Report%20Jan%202008.pdf>

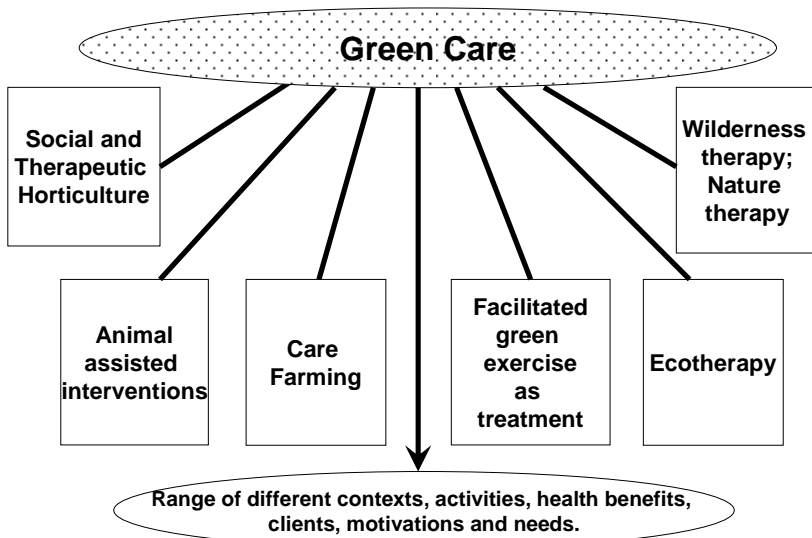
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enhancing mood, offering both a 'restorative environment' and a protective effect from future stresses (Kaplan & Kaplan 1989; Hartig et al. 1991, 2003; Kaplan 1995; Louv 2005).

In addition, recent studies have found that 'green exercise' (the synergistic benefits of engaging in physical activities whilst simultaneously being directly exposed to nature) results in significant improvements in self-esteem and mood measures, as well as leading to significant reductions in blood pressure (Pretty et al. 2005b, 2007; Peacock et al. 2007; Hine et al. 2008a). Recent research also suggests that therapeutic applications of various green exercise activities and other nature-based approaches, such as therapeutic horticulture (Sempik et al. 2003), ecotherapy (Mind 2007; Peacock et al. 2007) and care farming (Hine et al. 2008b) effectively promote health and wellbeing. Collectively such nature-based approaches have been termed 'green care'.

Green care approaches typically comprise a therapy or a specific intervention, rather than simply providing a 'therapeutic' experience; or are designed for particular participants or for a specific group of patients (for vulnerable or excluded people, for example). In the UK there is a growing movement towards green care in its different forms and, although there is diversity in the approaches used, a common ethos exists; that is, to use nature to produce health, social or educational benefits. Figure 1 shows the main distinct nature-based approaches that fall under the umbrella of green care.

Figure 1: Under the 'green care' umbrella - the diversity of green care



Using nature to nurture good health is not a new idea; historically prisons, hospitals, monasteries and churches have been associated with having different outdoor therapeutic spaces (Gerlach-Spriggs et al. 1998; Frumkin 2001; Hickman 2005; Bird 2007). Yet, over the past century, with the advancement of modern medicines and healthcare technologies, the importance of nature for our health has tended to be overlooked.

Now, however, there are calls for a reconnection to nature, with more and more public bodies, government departments and voluntary organisations promoting the importance of contact with nature for health and wellbeing (see, for example, O'Brien 2005; Natural England 2007). This increasing interest in various forms of green care in the UK has originated from many sectors, including: healthcare professionals, social services providers, local authorities, offender management teams, probation services, youth services, education authorities and farmers.

2. Care farming

Care farming (also referred to as 'farming for health', 'social farming' or 'green care in agriculture'), is defined as 'the use of commercial farms and agricultural landscapes as a base for promoting mental and physical health, through normal farming activity' (Hassink 2003; Braastad 2005; NCFI (UK) 2008). It aims to provide health, social or educational benefits through farming activities for a wide range of people. These may include those with defined medical or social needs (e.g. psychiatric patients, those suffering from mild to moderate depression, people with learning disabilities, those with a drug history, disaffected youth or elderly people) as well as those suffering from the effects of work-related stress or ill-health arising from obesity. Care farming represents a partnership between farmers, health and social care providers and participants. Care farming is a well-established movement in many European countries such as the Netherlands and Norway (Hassink et al. 2006) and is one of the recent developments gaining popularity in the UK.

Although care farms vary, with differences in the extent of farming or care that they offer (context, client group and types of farm), they all offer some form of farming, of crops, horticulture, livestock husbandry, use of machinery or woodland management. Similarly, all care farms offer some element of 'care'. The success of social rehabilitation at some care farms relies on the presence of a working, commercial farm with farm staff and on the noticeable absence of a 'care' or 'institutional' element (Elings et al. 2004; Hassink et al. 2007). The successes at other care farms are based on the provision of 'care' with the farming element present primarily to produce benefits for clients rather than for agricultural production.

Care farming is taken here to be an inclusive term, including all of these different types of farm and their variation in motivation and type of application (be that social, therapeutic or vocational). In the same way, in this study 'care' includes not only health or social care but also aspects of social rehabilitation, education or work training, as shown in Figure 2.

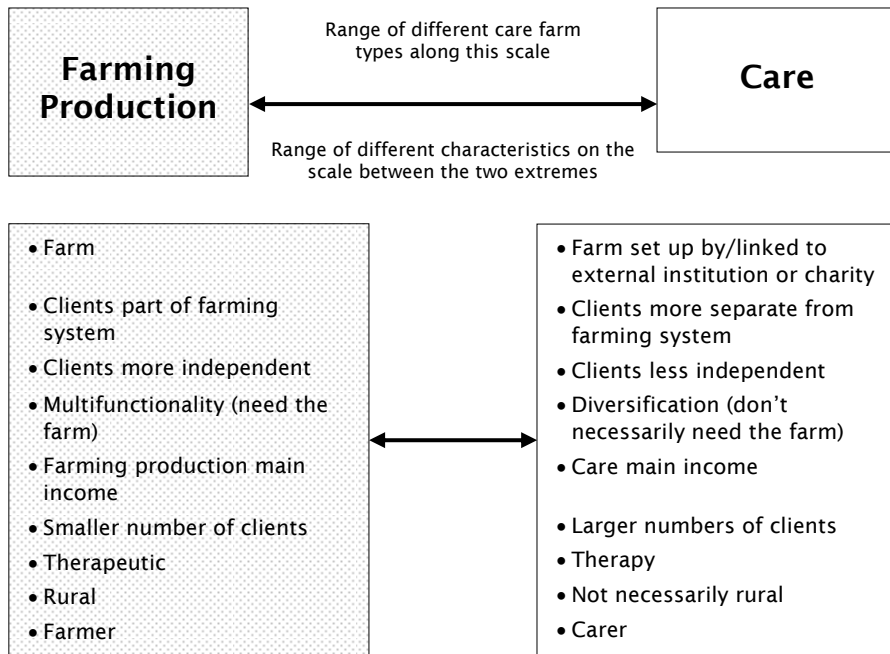
Figure 2: Diversity in the type of 'care' provided on farms



There are many different types of care farm, from, on one end of the spectrum, operations with farming production as their primary focus, to care farms with a main focus on provision of care services. Between the two extremes of the scale many different positions exist but there are certain characteristics of care farms at the two opposite ends of our care farming scale which differ and these are represented in a very simplified manner in Figure 3. However, it must be emphasised that the differences in characteristics shown in this representation are greatly simplified in order to illustrate the extremes.

Evidence from continental Europe and the UK shows that there are differences in the range of care farming choices available both *between* countries and *within* countries (Hassink 2003; Hassink & van Dijk 2006; Hine et al. 2008b). It is this diversity in care farming that is its strength, providing a multitude of different services and settings, thus enabling a good range of choice for both participants and referring bodies alike. However, it is this diversity that also makes developing a simple, non-prescriptive and workable typology of care farms a particular challenge.

Figure 3: Characteristics of care farms with differing focus



3. Care farming in the UK: two case studies

There were two phases to this research; firstly a scoping study was carried out in order to discover the current extent and diversity of care farming in the UK. The aim of this research was to understand future research needs, to give help and support to farmers and to examine implications for policy.

We also conducted an in-depth case study analysis involving clients of different types of care farm, to provide some empirical data addressing psychological health and wellbeing effects of spending time on a care farm. The aim of this snapshot study was to help build up a body of evidence to inform health and social care providers (amongst others) and to support the promotion and spread of care farming in the UK.

Methodology

We designed a questionnaire survey which was disseminated to city farms, therapeutic communities, prison and school farms and other interested parties, with the aim to reach as many care farms as possible for the scoping study. Seventy-six care farms completed the questionnaire.

For the in-depth health benefit study, a mixed method design incorporating both quantitative data and qualitative narrative was used to collect health benefit data using a composite questionnaire. The questionnaires included i) qualitative questions for detailed narrative and information on farm activities; and ii) internationally recognised, standardised tools which measure participants' levels of self-esteem and mood. These were chosen as the scoping study revealed that participation in care farming significantly enhanced self-esteem and mood. The questionnaires were administered immediately before and immediately after participants spent time on the care farm, to enable comparisons to be made and to allow identification of any changes in health parameters as a direct result of exposure to the care farm environment. Seventy-two participants took part in the in-depth health benefit survey.

Self-esteem was measured before and after the care farm session using the Rosenberg Self-Esteem Scale (RSE) (Rosenberg 1989), which is a widely-used measure of self-esteem in health psychology. Mood change was measured before and after the care farm session using the Profile of Mood State questionnaire (POMS) (McNair et al. 1984). This is a short form version of the POMS test which has a background of successful use for mood change post-exercise. The POMS subscales measured were anger, confusion, depression, fatigue, tension and vigour. In addition, a Total Mood Disturbance (TMD) score was calculated to denote an overall assessment of emotional state. This method is regularly used as it provides an indicator of overall mood (McNair et al. 1992: 6). Although the measures for self-esteem and mood are used widely, the questionnaires are exclusive in that they are not designed for completion by children or those with learning difficulties.

In the field of healthcare evaluation, the robustness and effectiveness of evidence is traditionally assessed using the idea of a 'hierarchy of evidence' where particular elements of evaluation design are seen as indispensable. These elements usually include a 'control' sample, random sampling, the use of 'blinding', and the use of replicable methodology and standardised, validated instruments. The randomised control trial (RCT) contains three of these elements (comparison, randomisation and blinding) and is therefore seen as the 'gold standard' in effectiveness methodology (Sempik 2007). However, in the evaluation of care farming (and other green care) interventions it is often difficult to live up to the RCT standard, as they, by their very nature, preclude the use of one (or several) desirable methodological elements.

Care farming usually does not involve the application of a discrete or defined 'treatment' such as a medicine. Care farming is also not amenable to placebo (e.g. it is not possible to design an activity that is just like being on a farm, but isn't being on a farm at all). Similarly, care farming activities cannot easily be blinded as it would not be possible for a patient to be honestly unsure whether they had been on a farm or not. The outcomes being looked for in care farming are not necessarily discrete or easily measurable (e.g. feelings of improved general wellbeing, increased social inclusion etc.) and, finally, it could be construed as unethical to deny participants access to a care farm (i.e.

withholding treatment) when they consider that it might be beneficial to their health and wellbeing.

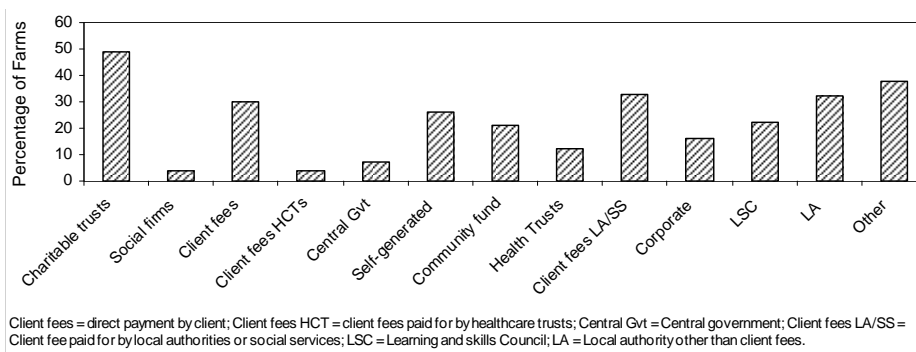
Scoping study

Of the care farms that completed the care farm scoping questionnaire, 19 are city farms, 16 independent farms and 41 are farms linked to external institutions or charities (including three Camphill communities).

The survey found that UK care farms vary in size between 0.3 hectares and 650 hectares and most have a mix of crop and livestock enterprises. In terms of organisational structure, a third of care farms in the study are farms, a third are a 'charity and company limited by guarantee', 25% are city farms and 22% are charities. A total of 355 full-time staff and 302 part-time staff are employed by the 76 care farms in the survey together with 741 volunteers. Care farms in the UK offer many different services including the development of basic skills (87% of farms), of work skills (70%), of social skills (65%) and some accredited training or education (63%).

Although the funding sources for care farms varies extensively both between farms and between categories of care farm, nearly half of the care farms surveyed (49%) receive some funding from charitable trusts and 33% receive client fees from the local authority. Thirty-eight per cent of care farms receive some other funding sources including LSC, Health Care Trusts, Social Services, Big Lottery Fund and public donations (Figure 4). However, the biggest variation seen in the care farms surveyed was seen in the fees charged by farms for green care services. These fees vary widely, both in terms of amount and by how they are charged (i.e. per person, per day, per group, for farm facilities etc.). Some care farms are providing services for no charge at all, whilst fees on others range from £25-£100 per day.

Figure 4: Funding sources of UK care farms



The total number of care farm users in the UK is 5,869 per week. However, there is much variation between the levels of usage at different types of care

farm. As expected, more people (230) attend each city farm per week, an average of 46 clients per week are seen at farms linked to external institutions or charities and an average of 29 users per week attend privately-run farms. There is also much variety in the client groups attending care farms in the UK (over 19 different groups) and most care farms provide services for a mix of client groups rather than for just one. Most (83%) care farms cater for people with learning difficulties, over half (51%) provide a service for disaffected young people and 49% of farms cater for people with mental health needs.

The majority of care farms have clients referred to them by a range of different sources simultaneously including social services, self-referral or from other sources such as Connexions, private care providers, the prison service, Youth Offending Teams, PCTs, community drug teams, individuals on Direct Payments and the voluntary sector. Nearly a half of farms receive clients through education authorities or other education service providers (including Further Education colleges, Pupil Referral Units, Behavioural Support Units etc.).

Care farmers reported that the physical benefits experienced by clients include improvements to physical health and farming skills. Mental health benefits consist of improved self-esteem, improved wellbeing and improvement of mood with other benefits including an increase in self-confidence, enhanced trust in other people and calmness. Examples of social benefits reported by care farmers are independence, the formation of a work habit and the development of social skills and personal responsibility.

Care farmers were also asked about the key successes of their care farms and, although these varied widely between individual care farms, three broad themes emerged:

- seeing the effects of care farming on people, making a difference to people's lives
- helping the excluded become included into society and/or work
- positive feedback from participants, families and referring bodies.

Examples of some of the comments received from farmers, outlining the successes of their care farms are shown in Box 1.

Box 1: Some successes of UK care farms

'Providing excluded members of society with the opportunity to work with others in a caring environment where they can benefit from the therapeutic environment of working with plants and animals. We have had many individual successes with clients who have had their lives changed by their involvement on our farm.'

'To see people with learning difficulties develop and their characters open up so they become valued members of the community.'

'This success is now being noted by local care managers and community nurses who are starting to send us new clients.'

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'To see others benefit from our lovely farm that we ourselves so enjoy. It is a privilege to see the progress created in others' lives, simply by sharing the farm livestock and environment with them.'

'Pupils with severe learning difficulties achieving foundation level vocational qualifications.'

'Getting groups of different service users to support each other.'

'Several hundred young people and adults who were disadvantaged in some way have been given the opportunity to fulfil their potential and escape the day centre or failing mainstream education trap. A by-product is that we have brought over £1 million over the last seven years to the local rural economy and given over 25 people jobs.'

'Successful rehabilitation of long-term addicts/alcoholics.'

'Our work in an inner city community setting has always focused on disadvantaged individuals. Using animals and plants has been a worthwhile tool for engaging and providing therapeutic support.'

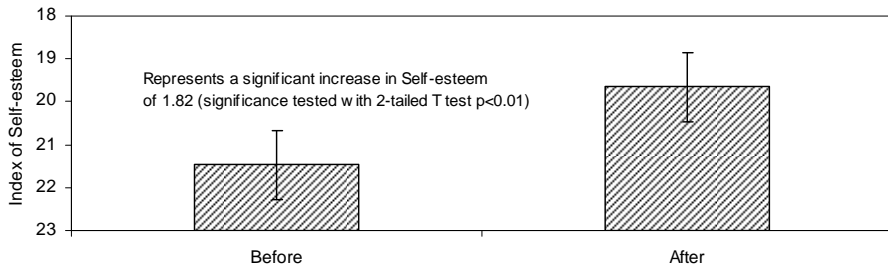
Health benefit study

Seventy-two participants from seven care farms around the country took part in the in-depth health benefit survey and participants included people with mental health needs, those who were unemployed, homeless or vulnerably housed, disaffected young people, those recovering from drug and alcohol misuse, older people, offenders, ex-offenders and people recovering from accident or illness.

Paired sample t-tests were conducted to identify any significant changes in starting self-esteem and mood levels and those reported after spending time on the care farm. Results from the Rosenberg Self-esteem tests showed there was a significant increase in participants' self-esteem after spending time on the care farm ($p < 0.01$), with 64% of participants experiencing an improvement in their self-esteem (Figure 5). The Profile of Mood States results indicated that there were statistically significant improvements in all six mood factors ($p < 0.01$ – $p < 0.001$) (Figure 6) and the Total Mood Disturbance (TMD) scores (which provide an indicator of overall mood) also revealed a highly significant increase ($p < 0.001$), with the majority of participants (88%) experiencing improvements in their overall mood (Figure 7).

In addition to the standardised questions, participants in the survey were also asked what they enjoyed most about spending time on the care farm. Responses were rich and varied but largely centred around the enjoyment of being out in the fresh air, having contact with farm animals, spending time with other people and feeling confident as a result of learning new skills. Some of these comments are highlighted in Box 2.

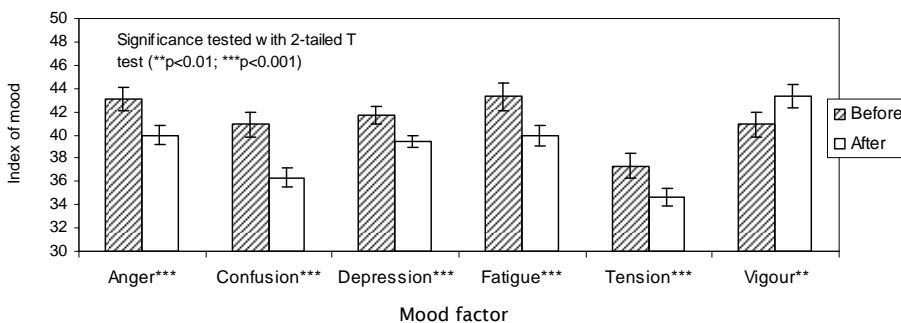
Figure 5: Changes in self-esteem after spending time on a care farm



Note: The lower the value, the higher the self-esteem.

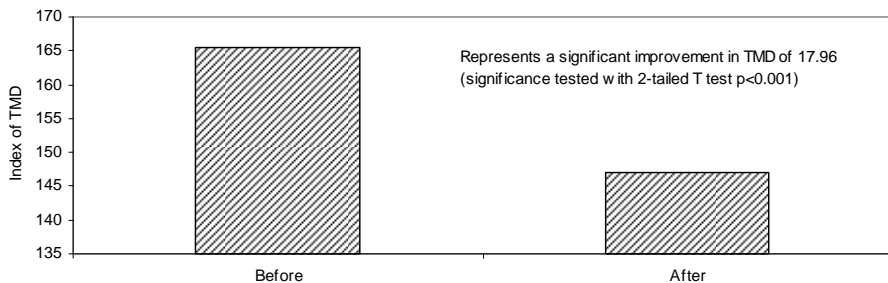
Source: Hine et al. 2008b.

Figure 6: Changes in all mood factors after spending time on care farm



Source: Hine et al. 2008b.

Figure 7: Change in Total Mood Disturbance (TMD) after spending time on a care farm



Source: Hine et al. 2008b.

Box 2: What participants enjoy most about being on a care farm

‘Spending time with people and animals – I think it makes me feel better about myself.’

‘I enjoy being part of the running of the farm on a day-to-day basis. I enjoy all aspects of training, working and living on the farm as part of the experience and as a way of life.’

‘I enjoy spending time on the farm because it is a really nice family environment.’

‘Making new friends, learning new skills.’

‘Gives me some self-worth and is helping me therapeutically with my issues.’

‘Being in a safe environment.’

‘I like to get stuff done – it’s satisfying – can’t sit in a chair all day so this helps me get up.’

‘I like looking at the animals, like the surroundings, meeting and talking with people – helps me with getting back into work, to gear myself up again. Feeling stronger and physically fitter because of it – especially after my breakdown.’

‘The tranquillity, socialising.’

‘Open place, don’t feel so much pressure, like the animals, good staff, like stroking the animals – I want to cuddle them sometimes, I feel more free.’

‘I like the safeness of the farm, the fresh air and I like the work.’

‘A sense of achievement from doing something on my own.’

The findings from this snapshot study clearly show that spending time participating in care farm activities is effective in enhancing mood and improving self-esteem. Working on a care farm can significantly increase self-esteem and reduce feelings of anger, confusion, depression, tension and fatigue, whilst also enabling participants to feel more active and energetic. Care farming can therefore offer an ideal way of helping a wide variety of people to feel better.

4. Discussion

The evidence from the scoping study shows that there is a minimum of 76 care farms currently operating in the UK. This is thought to be an underestimate of the true picture; thus there is likely to be a need for ongoing and wider-ranging research into the extent of UK care farms in the future. Care farms in the UK already vary enormously in context, in the services they offer, their participants and in their motivations. The majority of care farms are linked to or associated with institutions or charities and many are not involved with commercial

agricultural production. Several of these care farms could be considered as therapeutic communities. The majority of care farms do not offer residential services; however, 25 care farms are residential and a small number of these could also be described as 'therapeutic' communities.

The two studies show that there are both similarities and differences between care farms and therapeutic communities. Some (but not all) care farms are undoubtedly therapeutic communities, just as some (but not all) therapeutic communities could be referred to as care farms.

Communities such as the Camphill Communities founded by König provide a community environment predominantly for people with learning disabilities (and, to a lesser degree, those with mental health problems and other special needs) (Association of Camphill Communities GB 2008). The Camphill community setting is usually 'therapeutic' rather than one that offers specific 'therapy', i.e. psychotherapy or counselling. Of the 37 Camphill communities in the UK and Ireland, where residents live and work together, many are based in countryside or farm settings (Association of Camphill Communities GB 2008) and could therefore be considered as care farms (three Camphill communities were involved in this study). The Camphill experience is therefore very similar in approach to the majority of care farms in the UK, providing a therapeutic environment rather than therapy.

Therapeutic Communities (TCs) largely cater for people with mental health issues and are group-based treatment programmes offering 'therapy' (including psychotherapy and counselling) rather than (or in addition to) a 'therapeutic' environment (Association of Therapeutic Communities 2008). Again, like many Camphill communities, some TCs are centred in farm or horticultural settings and could therefore be considered as care farms. TCs in this situation would come under the category of 'care' focused care farms as opposed to 'farming production' focused care farms, where the emphasis would be on the presence of healthcare professionals in a farm setting rather than of farmers in a commercial farm setting.

The snapshot study undoubtedly gives a more detailed and quantitative analysis of the mental health and wellbeing benefits experienced by care farm participants and the results provide a sound basis for future research opportunities in this field. Such opportunities could include the development of a longitudinal study where changes in i) physical health; ii) mental health; and iii) social functioning parameters are measured over a longer timescale. Also, in order to be fully inclusive for future health benefit analysis on care farms, additional or alternative evaluation methods, designed for use with children, people with learning difficulties, people with very limited literacy or those unable to use questionnaires for other reasons, need to be used. In addition, the inclusion of a control group in future evaluation projects could, for example, provide a comparison between attending a care farm and partaking in farm activities; and taking part in alternative activities in other settings (either inside or outside).

5. Conclusions

In the UK there is much pressure on health and social care providers, the prison and probation services and on education providers to supply successful solutions for a range of current health and social challenges such as obesity, depression, prison overcrowding, re-offending rates, disconnection from nature and the increase in number of disaffected young people. The agricultural sector in the UK has also been fraught with difficulties and setbacks such as BSE, foot and mouth and bluetongue as well as fluctuations in markets, late subsidy payments and adverse climatic conditions (such as flooding) resulting in threats to the economic viability of farms.

Evidence both from continental Europe (Hassink & van Dijk 2006; Hassink et al. 2007) and from the two UK studies outlined in this paper suggests that care farming could address some of these emergent health and social issues, and offer a chance to combine care of people with the care of the land. Care farming could also present a cost-effective option in areas of social rehabilitation. Already there are at least 5,000 people attending care farms across the UK every week. People who are vulnerable or excluded from society; those suffering from mental ill-health or recovering from alcohol or drug addiction, children, adults and many others are benefiting from contact with a farm environment. However, care farms exist largely in spite of government policy rather than because of it, so increasing support for and access to care farming activities for vulnerable and excluded groups in society should produce substantial economic and public health benefits as well as reducing individual suffering.

Potentially care farming could represent a win-win option for participants, farmers, health and social care providers, offender management services and education bodies alike; but, for this promotion to be successful, several key issues which could be ameliorated by policy support in future (such as funding structures, recognition of legitimacy and a recognised referral procedure) need to be addressed.

Whilst care farming has important policy implications for a *wide range* of sectors and is relevant for a variety of different government departments, NGOs, the private and voluntary sectors, in the health and social care sector, care farming has great potential. However, there is still limited acceptance from healthcare and social service providers, of the role that care farming and other green care approaches can play in health. Whilst the full extent of the range of different health benefits from care farming needs to be better understood, researched and more effectively communicated, the health sector needs to consider the contribution that care farming can make to both individual health and public wellbeing, and stress the therapeutic value of the outdoors (both rural and urban) for delivering physical and mental health and wellbeing.

Healthcare professionals generally should be encouraged to take the idea of 'care farming' more seriously and GPs should be encouraged to consider and recognise the value of 'green prescriptions'.

Care farming represents an additional choice for health and social care in the UK. Successful care farming initiatives in Europe and the UK rely on an ethos of tailor-making the treatment options to the individual rather than one programme of care for all clients, thus fitting in to the concept of personalised healthcare advocated by the NHS. Health and social care professionals and policy makers are therefore urged to promote the idea that nature can help people feel better. Local authorities and other agencies responsible for providing social care services would also benefit from recognising the potential of care farming activities to increase the health and mental wellbeing of patients and clients.

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Lothlorien Community: A Holistic Approach to Recovery from Mental Health Problems

Brendan Hickey

ABSTRACT: This paper describes the work of Lothlorien Community. The natural environment is a central part of the therapy, with the daily programme primarily based on organic gardening. This has a very beneficial effect on mental wellbeing. Interacting with others in a mutually supportive atmosphere and contributing to the working life of the community helps to rebuild residents' self-esteem and self-confidence. Relaxation groups influenced by Buddhist meditation practice help to further develop the sense of mindfulness and relaxation which is gained through gardening.

Introduction

This paper will look at the work of Lothlorien Community, a therapeutic community for people with mental health problems situated in a quiet rural setting in the Galloway hills in South West Scotland.

Edward Podvoll (2003) talks about the universal impulse to create a healing environment based on our deep, intuitive understanding that mind, body and environment are enmeshed and interdependent. Lothlorien attempts to put this principle into practice. The paper (with comments from current and former residents) will look at how the different aspects of community life, such as gardening, relaxation/mindfulness groups, mutual support and staff input, combine to provide a holistic approach to recovery.

The community has 17 acres of land, which includes organic vegetable gardens, woodlands and an orchard. The main house has places for eight residents, who can stay up to two years, usually in the aftermath of a crisis or an acute hospital admission. Five voluntary co-workers live in the house in a befriending role. In 2003, a second house, Roan Lodge, was opened as a move-on house, with places for five residents, who can stay up to five years. Although there are close links between the two households, Roan Lodge has a separate structure and will not be looked at in this paper.

The four staff, known as the Core Group, have backgrounds in psychotherapy, counselling and social work. They are non-resident and are present

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during the working week. They come in on emergencies at other times, although in practice this rarely happens. Their main function is maintaining the structures and boundaries of the community and facilitating the therapeutic aims of Lothlorien.

Although the Core Group has certain managerial responsibilities, important day-to-day decisions are devolved as much as possible to the community.

History

The original Lothlorien Community was founded by the Haughton family who purchased the land in 1974 and, with the help of volunteers, built the large 13-bedroomed, two-storey house from locally-cut larch and Scots pine. Readers of Tolkien will recognise the name. In 'Lord of the Rings' (Tolkien 1954) the woods of Lothlorien are a place of healing, where time stood still.

The community had a broadly Christian ethos. Hospitality was a central principle, and, as well as being home for members of the Haughton family, the community welcomed vulnerable people seeking help and support. When the community ran into financial difficulties in the late 1980s, they agreed to pass on the ownership to the Rokpa Trust, who took over in 1989.

The Rokpa Trust runs Samye Ling Tibetan Buddhist Monastery in Dumfriesshire, Scotland, which was founded in 1967 by Akong Rinpoche, a Tibetan lama with an interest in healing. Over time, Samye Ling became known as a community with an atmosphere of tolerance and acceptance. Many people came looking for help in facing psychological or physical problems rather than wanting to study Buddhism or learn how to meditate. From the early 1980s, Akong Rinpoche began to develop ways to pass on his knowledge and understanding, both as a Buddhist meditation teacher and as a doctor of traditional Tibetan medicine, in a form which would be accessible to all, no matter what their beliefs. He collaborated with a small group of psychotherapists, psychologists, psychiatrists and other health care professionals in order to integrate methods from Buddhist understandings of the mind with Western psychotherapy. This led to the development of a method of psychotherapy, Tara Rokpa Therapy (Irwin & Hensey 2001), and more recently into a way of training therapists and others in health care, particularly in the field of mental health. An emphasis on developing compassion has been held at the core of Akong Rinpoche's approach, as he identifies lack of compassion for ourselves and others as a primary cause for mental suffering (Rinpoche 1987). This is also reflected in current research into compassion-based approaches within psychology, which suggests that our ability to develop compassion for self and others helps to develop ways of living which increase wellbeing (Gilbert 2005).

In the 1980s, as the number of people with mental health problems requesting to come to Samye Ling was increasing, Akong Rinpoche saw that their needs would be better met in a smaller, secular community which offered specialist support. He had plans to develop a residential centre when the Rokpa Trust was presented with the opportunity to take over the running of Lothlorien in 1989.

Lothlorien was then run as a supportive community by volunteers for three years until grant funding allowed the appointment of a manager and staff in 1992. Over the next two years, the structures, roles and procedures were modified to give Lothlorien a defined purpose as a therapeutic rather than a supportive community. An important part of this process involved having a number of feedback consultations with community members, using an external facilitator. A Management Advisory Group, which included key people involved in the development of Tara Rokpa Therapy, was formed in order to assist with the development of the therapeutic community model. The members of this group had a wide range of experience in mental health work, psychotherapy and in therapeutic communities such as the Philadelphia Association in London, Soteria House and Burch House in the United States.

The philosophy of Lothlorien

Between 1992 and 1994, Lothlorien's approach was developed and articulated.

It was strongly influenced by the Buddhist model of psychology, which in common with some western models such as the Systemic and Constructivist approaches, takes an optimistic view of human nature. Buddhist Psychology is based on the premise that basic health and sanity are intrinsic in our deeper nature, manifesting as openness, clarity and compassion (Trungpa 2005). This is always present, even in the midst of pain and distress. All human beings have within them the resources to heal themselves at a deep level when they are able to reconnect with this ground of basic sanity. This can be fostered in an environment of emotional warmth and acceptance, which helps people in recovery from serious mental health problems to find a more gentle and accepting attitude towards themselves and to move away from painful self-preoccupation (Podvoll 2003).

Over the years, the approach at Lothlorien has been influenced by the fact that most members of the Core Group, as well as a significant number of co-workers, have come with a background of individual meditation practice. In the area of mental health, our expectations in our engagement with others have a powerful effect on outcome (Mosher & Burti 1989). The deeper one goes in one's meditation practice, the more confident one becomes in the presence of basic health and sanity in oneself (Trungpa 2005). This leads to an optimistic and respectful view of others. When one comes to see that everyone has a similar potential to reconnect with basic sanity, one sees that, ultimately, people need not be imprisoned by their past nor by what they are experiencing in the present. It becomes natural to focus on strengths rather than on deficits. This can also help in the breaking down of the tendency to distinguish those who are 'well' from those who are 'unwell'.

In recent years, research has shown the benefits of a mindfulness-based approach as a means to helping people who experience mental distress (Kabat-Zinn 1996). From the point of view of Buddhist Psychology, basic sanity can be fostered through relating mindfully to the here and now, especially in the process of bringing mind and body together when relating to the external world

(Podvoll 2003). When people in emotional distress came to stay at Samye Ling, Akong Rinpoche usually recommended that they do gardening or physical work within the community as a means to regaining a sense of balance. As this was seen to be very effective, it was decided to make the therapeutic use of horticulture the central feature of the programme at Lothlorien and to apply methods from Tara Rokpa Therapy as a means of further developing the sense of mindfulness and relaxation.

Lothlorien has also been influenced by the phenomenological approach of R.D. Laing (1960) and Loren Mosher (Mosher & Burti 1989), which focuses on the development of non-intrusive, non-controlling but actively empathetic relationships with those experiencing psychosis. Through unconditional acceptance of the experience of others as valid, the aim of this approach is to develop, over time, a shared understanding of the meaningfulness of the individual's experience without having *to do* anything explicitly therapeutic.

Selection of new members

The approach at Lothlorien has been designed in particular to help people who are in the early stages of recovery from psychosis. However, it has also benefited people with a wide range of mental health problems. In considering applications, we look at whether the person is motivated to change, wishes to take responsibility for themselves and is able to live with others with an attitude of respect and cooperation. Due to the low level of staffing, we cannot consider those with a history of violence or those who are likely to seriously self-harm. It is important that people apply at a stage in their recovery when they are motivated to join in the daily programme, although naturally we understand that those who come after a long spell in hospital or a period of inactivity will need to ease their way into the programme.

Residents come to Lothlorien from all over Britain. Most are funded through their local Social Services, but some are able to self-fund as charges are relatively low in comparison with most therapeutic communities. If the applicant fits the criteria for being at Lothlorien, they are invited for a two-week trial stay. The community, who are normally very astute in assessing who could benefit from being at Lothlorien, then decide whether to invite the person to join on a long-term basis. A minimum commitment of six months is required and the maximum stay is two years. There is a relatively low dropout rate. Over the last seven years, about 10% of residents have dropped out before the end of the first six months, with each of these staying for periods of between 10 to 16 weeks.

It has been important to develop a collaborative working relationship with the local statutory mental health services, as none of the Core Group is medically trained. Most residents have had a long involvement with psychiatric services and would not be able to sustain being at Lothlorien without medication. They are required to register with a local doctor and to receive input from the Community Mental Health Team.

Community life: making and sustaining relationships

Lothlorien, in common with all therapeutic communities, sees the community itself not just as the backdrop, but the primary therapeutic factor. Most residents have experienced social isolation and lack of support prior to coming to Lothlorien, with little opportunity to contribute meaningfully to society. The normal process of daily community life encourages a sense of interrelatedness and acting in a manner which takes into account others' needs and feelings, as well as one's own. Positive qualities which can serve the interests of the community are seen as inherent in each individual and are respected and reinforced when they emerge. This helps to counteract the low self-esteem, lack of confidence and demoralisation which affects many people who experience serious mental health problems (Mosher & Burti 1989).

Lothlorien is characterised by a non-intrusive approach. In order to benefit from being at the community, it is not essential for residents to significantly self-disclose their personal history, either in one-to-one support sessions with the members of the Core Group or in the community meeting. Many residents have said that living in an atmosphere of acceptance and non-judgmentalism is in itself the crucial aspect.

The most valuable thing about being here is the unspoken camaraderie, being part of something where people are accepted and having a sense of belonging. You don't necessarily have to talk about your problems. People empathise with you, especially when you are having a hard time.

Others find that the mutual support among residents to be the main therapeutic factor. Sharing experiences of mental distress with fellow residents results in relief and validation and the sense of having something to offer each other. Choice in self-disclosure is highly valued and the following sentiment was echoed strongly by a number of other residents.

There is a lot of personal disclosure with specific people you form friendships with. There is always someone with a listening ear, but it's important to me that I feel in control of who to share with, what to share and when to share it. There are some things I want to talk about with the Core Group and other things I share with people I've become friendly with here in the community.

We believe that alleviating mental distress is not just the domain of experts but is a human problem that can be addressed with a human response. Drawing on the example of the Soteria House project (Mosher, Hendrix & Fort 2004), non-professionals play a key role at Lothlorien in creating a homelike, non-authoritarian environment. Co-workers come to live at Lothlorien on a voluntary basis for a period of between six months and two years. This reinforces the notion of community, because co-workers are choosing to make Lothlorien their home, rather than being paid to 'look after' residents. As community members, they have an acknowledged right to have their individual needs and limitations

taken into account rather than being continuously expected to be in the caring role.

Although distinctions between co-workers and residents are minimised, the co-workers have a key role to play by helping to provide support and encouragement and by sustaining the daily routines. They aim to take an approach of 'doing with' rather than 'doing for' so that everyone is encouraged to participate to the best of their ability. In this way, unnecessary dependency is avoided and residents can develop their sense of autonomy and independence.

Forming and sustaining meaningful social and personal relationships is a major part of recovery. The co-worker's role is, as much as anything else, a befriending role which eases the residents' transition into the social world from which many people with mental health problems are excluded. In this regard, the leisure time of the community is as important as the work routine, whether it's relaxing together after a day's work or sharing the simple pleasures of rural life, like going for a walk in the surrounding countryside or a swim in the river during the summer. Community members have built links with the wider community. They feel well accepted when they go to the village pub for a drink or a game of pool and often attend social events in the local area, where people have been very supportive of Lothlorien over the years.

Before coming here, I had difficulty in socialising. Here I have been able to do things, especially with the co-workers, whether I have felt well or unwell. I feel that sometimes I am regressing in a fun way, having a deep sense of enjoyment in doing things with other people here, without the fear I felt in my childhood.

Community life: work routines

There is a structured daily programme between Monday and Friday. After breakfast, there is communal chore time, followed by the community meeting. There are work periods of two hours each in the morning and in the afternoon. Participation in the work programme helps residents to feel valued through making a positive contribution. It also allows residents to re-learn patterns of healthy, everyday living.

The routine is very important for me, from doing chores in the morning to working in the garden or cooking. Before I came here I was living on my own and my life was very chaotic. The structure and the routine here has helped me to be much more stable.

The organically-cultivated vegetable garden is the main focus of daily life and gives a sense of purpose to the community. The work is productive and, with a growing area of about 1,500 square metres, we are self-sufficient in vegetables for about four months of the year. Two polytunnels extend the growing season and, by storing surplus fruit and vegetables, we have the option of using some of our produce throughout the year.

The Horticultural Support Worker provides the necessary expertise in planning and overseeing the work and in offering practical instruction. Every day there is a wide variety of tasks on offer and people can gravitate towards the type of work that they most enjoy, whether it is hard, energetic work like digging or lighter work, such as weeding. Some people like to work on their own. Others benefit from working as part of a group, which helps them to feel connected, even when they are struggling with their mental health or finding it hard to engage at a verbal level: 'I value the companionship. An ease develops when you are working alongside people.'

We take into account that many residents have been inactive for a long time before coming here. The pace of work is gentle and there is a tea break half-way through each work period. The dissociative effect of medication may also slow down energy levels and motivation, but most residents generally manage to participate in the programme every day. Peer pressure and mutual encouragement are the main motivating factors and those who are less keen on gardening can spend some of their time on other practical tasks which benefit the community.

All the community members get involved to a greater or lesser extent in cooking the communal meals, with frequent sharing of ideas and recipes. There is also regular bread-making and baking. Cooking wholesome food, especially when it is harvested from the garden, reinforces the sense of being in a nourishing environment and also leads to the satisfaction of making a positive contribution to the community's welfare.

The therapeutic benefits of gardening

There is a growing recognition of the therapeutic benefits of gardening (Grut & Linden 2002). Community members report improvements in their physical health and a sense of fulfilment though carrying out a meaningful activity which benefits the community. Learning to care about the natural world through the process of planting seeds, nourishing them and watching them grow before finally harvesting the vegetables can help to re-activate a sense of caring for oneself and others.

Working alongside people who really enjoy gardening has opened up how to appreciate the joy of the natural world. It's taught me to respect the natural world and to respect ourselves in the process.

Laing (1960) says that there is often a split or dissociation between mind and body as a result of psychosis, with mind experienced as 'self' and body as 'other'. This tendency can be counteracted by physical activities, such as gardening, which promote mindfulness in a very natural, gentle manner by bringing body and mind together, leading to a sense of relaxation.

Gardening helps me to feel grounded and helps to take away the negative thoughts I might be having. It helps to stop me from becoming too preoccupied.

When I was most unwell gardening was difficult, but over time I built up a strong relationship with it. It was about me and the natural world. I liked working on my own in the garden. It helped to calm my mind and allowed my emotions to settle.

Residents often find metaphorical links between the garden and their own journey, with the garden offering readily available metaphors which reflect their inner process. One person found that there was a parallel between being part of the cycle of nature and her own life.

Relating to the four seasons has helped me to relate to the cycle of change and growth. It is a metaphor for growth and change in myself.

Individual support

In therapeutic communities with an action-based programme, it is important that residents are supported in bringing the gains made to conscious recognition by verbalising them (Blake, Millard & Roberts 1984). The Core Group facilitates this process through offering regular one-to-one support. Although the members of the Core Group are trained in psychotherapy, individual psychotherapy is not offered as it would detract from the community as the locus of therapy and could also create preferential relationships. We respect that people may not want to explore past distressing events or indeed to use the one-to-one support to any significant extent. However, to varying degrees, residents may wish to explore the context in which their mental health problems emerged. This can help them to find new ways of understanding their experiences and to look at how they can use Lothlorien to create a better quality of life in the future.

If a resident experiences a relapse in his/her mental health while at Lothlorien, there is generally felt to be a great deal of tolerance and support among the community members at these times. However, with low staffing levels, we are not set up to work intensively with those in a crisis for any length of time, as was the case in communities like Soteria House (Mosher, Hendrix & Fort 2004). Sometimes the individual's distress can be contained through more intensive one-to-one support from the Core Group, and through support from the statutory services. Occasionally, a short hospitalisation may be required if the person is so distressed that they feel unsafe, or when the situation is resulting in exhaustion and stress for the rest of the community.

The community meeting

In keeping with the therapeutic community ethos of democratisation and empowerment, a daily community meeting is held, which usually lasts between 20 and 30 minutes. It is chaired in turn by members of the group and primarily focuses on information sharing, planning, negotiating and decision making with regard to work tasks and practical day-to-day issues in the community. It promotes the idea that community life is a shared responsibility.

The community meeting serves as a reminder every day that you are part of a group of people who are trying to help each other.

The meeting does not function as a psychotherapy group and we do not attempt to explore deeper unconscious or transference issues or to foster regressive processes, as we feel that this is not beneficial for those in recovery from psychosis. The vast majority of residents freely acknowledge that they would have not come to Lothlorien if it were based on intensive group psychotherapy with an expectation of a high level of self-disclosure. Therefore, rather than breaking down defences, we see the purpose of the meeting as building up self-confidence, developing interpersonal skills and fostering mutual support and understanding.

It was important that the meeting was non-threatening when I felt most fragile. It provided a safe holding space, with a sense of acceptance, patience and tolerance.

At the beginning and end of the week, the meeting offers the opportunity for personal sharing. This fosters an atmosphere of mutual support and a sense of being connected to the group, which spreads to informal interactions within the community. The focus on the here and now and the community members is not encouraged or expected to explore links with past events. When conflict or differences emerge in the meeting, the Core Group take a facilitative role. However, it is not necessary to deal with all conflict within the whole group and there is the option to use a member of the Core Group as a mediator in a private meeting when two people have interpersonal issues to resolve.

Relaxation and mindfulness

According to Podvoll (2003), Western approaches pay more attention to the content of the mind, rather than to the process of mind. They rarely show a person in recovery from psychosis how to care for their mind. In a mindfulness-based approach, the key task is to bring the mind back to its focus in a gentle way whenever it gets caught up or distracted by discursive thoughts or emotions. At Lothlorien, this can be fostered in a natural way in activities such as gardening, which increase mindfulness and sensory awareness of the environment. It can be further developed through participating in sessions which use methods based on Tara Rokpa Therapy. These are held after the work period three times per week and are led by the Deputy Manager, who is a trained Tara Rokpa Therapist. Attendance is optional, but the majority of people come regularly.

The sessions consist of relaxation exercises which develop mindfulness through gentle breathing exercises and the cultivation of awareness of body sensations (Irwin 1999). These are usually done lying down rather than sitting. Self-healing visualisations are also presented. The exercises are based on the premise that all human beings have within them the resources to heal themselves at a deep level by connecting with the healing quality of the mind,

which is intrinsic. One learns to be present in the here and now and to develop a relaxed openness to whatever is encountered. This helps in identifying less strongly with thoughts and emotions and can counteract the tendency to self-absorption.

Sometimes the sessions are followed by massage, which is presented at a beginner's level with the emphasis on friendly exchange. Art materials are also used in the sessions as a means of playful exploration and self-expression.

Participants in the group report a variety of benefits in these methods. For some, it is initially very difficult to relax and to sustain the exercises. It may take months before they can feel comfortable enough to stay until the end of the session. However, over time the exercises help them to reconnect with emotions in a safe way. Some participants may find that they fall asleep and achieve a deeper sense of rest than they do at night. Others find that there is a positive effect on their mood.

The exercises relax me and settle me. It's become part of my routine. It gives me a focus to clear myself. It puts me in a more positive mood and sets me up for the rest of the day.

The process of mindfulness and relaxation is further augmented by Qigong, a system of gentle exercises closely related to Tai Chi, which are designed to promote health and vitality. We do a 20-minute session of Qigong three mornings a week. Again this is optional, but well attended.

Discussion

We have not been in a position to undertake specific research on Lothlorien, although we have participated with about 20 other communities in the ATC/NLCB research (Lees et al. 2004). The evidence as to the effectiveness of our approach is based on feedback from current and former community members. This seems to be in line with research which shows that adopting the therapeutic community ideology, actively participating and forming close relationships leads to improvement (Smith, Wood & Smale 1980).

The moving on process from the community can be challenging for many residents, due to Lothlorien's geographical isolation. For those moving to the local area, it is possible to have a gradual transition and follow-up support, which includes having the opportunity of visiting the community on a weekly basis to work in the garden. However, for those who return to their home area outside the region, it is more difficult to offer a similar level of support. Although residents are encouraged during their time at Lothlorien to keep in touch with networks of support in their area of origin, moving from a highly-supportive structured setting to living independently can present some initial difficulties. One ex-resident said that leaving was 'like landing with a bump.'

The opening of Roan Lodge as a move-on house has addressed this issue for some residents. At Roan Lodge the benefits gained from participating in the structured lifestyle at Lothlorien can be consolidated and residents can achieve

a gradual transition back to independence by undertaking some activities locally, such as voluntary work or training courses, in addition to working within the community garden

From the point of view of social and psychological recovery processes (May 2004), most former community members say that Lothlorien has made a significant difference to their quality of life, in spite of some people having initial difficulties with the transition back to independence. Residents feel that Lothlorien gives them a greater confidence at the interpersonal level which they carry on to new situations. It has created a supportive social network which continues long after people leave, with most community members keeping in contact with their peer group for years after leaving and also visiting the community on occasion.

Most residents experience a higher level of social inclusion as a result of their stay. Almost everyone moves on to live independently after being at Lothlorien. Those who have been able to achieve a more active lifestyle say that the structured daily programme at Lothlorien has helped them to re-discover internal discipline and healthy daily rhythms. Rather than singling out a particular part of the programme, it seems that it is the totality of all the different aspects of community life, the work, the interpersonal and the relaxation, which helps to lay the foundation for recovery.

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Group Gardening in Mental Outpatient Care

Erja Rappe, Taina Koivunen and Elli Korpela

ABSTRACT: Several therapeutic goals, such as improvement in interaction level, communication skills and self-esteem, can be achieved by gardening activities. The aim of the study was to assess the suitability and effectiveness of group gardening in contributing to the rehabilitation of mental health outpatients. The method was a participatory study amongst mental health outpatients and their support persons gardening on a plot in Annala Manor Park in Helsinki. Ten participants completed the questionnaire about the importance and health-related effects of gardening and four returned their diaries at the end of the study. The researchers participated in 17 weekly meetings, observing and making notes in their personal diaries. The participants valued highly the opportunity to be outdoors, to do meaningful work, and to experience nature with all of their senses. They also appreciated harvesting and working together in a group. The participants reported feeling calmer and invigorated, and their ability to concentrate was improved due to gardening. The social support of the group and the atmosphere of approval contributed to the autonomy and coping resources of the outpatients. The study indicates that group gardening can promote the development of healthy communities in which individuals have equal opportunities for a fulfilling everyday life despite their health or social state.

Key words: gardening, mental health, outpatient, voluntary work

Background

Gardening is associated with the inner sense of serenity, peacefulness and tranquillity (Lewis 1996), which may explain its high status among leisure activities around the world. Gardening includes both the natural outdoor environment and meaningful physical work. Contact with nature provides many health benefits such as reduction of stress levels and enhancement of mood (Ulrich et al. 1991; Hartig et al. 2003). In the urban context natural environments offer distraction, which helps people to relax and recover from

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mental fatigue (Kaplan & Kaplan 1989). In addition, green exercise (such as exercise in a park) has been found to result in improvement in self-esteem and mood measures, and reduction in blood pressure (Hine et al. 2007).

Community gardening enables people who do not have their own garden to grow plants. Armstrong's study (2000) stated that the most common reasons for community gardening were availability of fresh foods, enjoyment of nature, and health benefits. Parikka (1995) found that the most important aspects for urban plot gardeners in Helsinki were relaxation and green exercise. The economic result from cultivation was not of primary importance.

Community gardening also has some social benefits when compared with individual pursuits. It facilitates improved social networks and builds up social capital.* Twiss et al. (2003) found that, in addition to enhanced nutrition and physical activity, community gardening was associated with increased social capital because it promoted neighbourhood ownership and a sense of civic pride. Parr (2005) suggested that community gardening helps people with mental disorders to recover from both illness and ill identities by contact with nature and by collective activities which build up social citizenship.

In their study, Milligan et al. (2004) examined how communal gardening on allotments contributed to the maintenance of health and wellbeing among older people. They concluded that communal gardening combats the physical shortcomings due to aging by creating inclusionary places in which social support can be experienced. Gardening in long-term care enhanced social interaction among older people by creating various roles which gave opportunities for the expression of expertise (Rappe & Evers 2001).

Gardens and horticultural activities have been widely used for centuries as therapy for inpatients in psychiatric hospitals (Cooper Marcus & Barnes 1995). As a treatment modality the advantage of horticultural therapy is that it can be modified to meet the therapeutic needs of many diagnoses. However, there is some evidence that people with depression disorders tend to benefit most (Sellers 2001). Horticulture is associated with beneficial effects on mental and social wellbeing, such as increased self-esteem and attention span, improved social interaction and communication skills, a sense of accomplishment, and a decrease in impulsive behaviour (Haas et al. 1998; Sellers 2001; Szofran & Meyer 2004).

Sellers (2001) showed that inpatients enjoyed attending horticultural therapy sessions and they felt comfortable with the interaction in the group. Horticultural therapy resulted in improved interaction, task completion, leisure skills improvement and acceptance of positive feedback. In a study among outpatients (12 persons) all participants responded positively to horticultural meetings. Therapists reported that outpatients paid more attention to tasks at horticulture sessions than to tasks at other sessions. All participants reported an elevated mood as a result of horticultural therapy (Szofran & Meyer 2004).

* Social capital refers to the value of social networks and to mutually supportive and confidential relationships within communities (e.g. Putnam 2000).

In Finland, Mental Health Associations, the activities of which are based mainly on voluntary work, contribute substantially to the rehabilitation of mental patients after discharge. In our pilot study, the aim was to assess whether group gardening provided by a mental health association is a suitable and effective way to contribute to the rehabilitation of mental outpatients. We analysed the factors motivating gardening and the health-related effects of gardening, and we evaluated the organisation of the activity.

Subjects and methods

The study was conducted in summer 2006 among a gardening group of mental outpatients (OP) and their trained voluntary support persons (SP). Each OP had her or his own personal SP. SPs help OPs to cope with everyday life and they participate in rehabilitation and recreation activities together with their OPs. The Association for Mental Health has a plot for its members to carry out gardening in the Annala Manor Park (Annala) in Helsinki, Finland. Annala is a well-kept public park and popular recreation area surrounded by apartment houses. There are 75 rentable 100 m² outdoor plots in the park for organic cultivation by hobby gardeners. The group met weekly at a set time, but it was also possible to visit the plot at anytime by oneself. The number of participants per meeting varied from one to 10 (Table 1). The researchers met altogether 12 people taking part in activities at the plot.

The group cultivated vegetables such as peas, zucchinis (courgettes), onions and cucumbers, and flowers such as marigolds and amaranths. Also, perennials grew on the plot: flowers, herbs and soft berries. A compost heap and a tap for filling the watering cans were available. The Association financed the rent of the plot, seeds, tools and fertilizers.

At the beginning of the study the researcher group (three persons) from the University of Helsinki introduced themselves and the study project to the participants. All members of the gardening group consented to the study voluntarily. No-one denied the observation of her or his activities. The results of the study were introduced to the group and discussed together before publishing them. There were altogether 17 meetings with gardening group members and the researchers from 11th May to 7th September.

Every group session began slowly, the group members walking one by one to the plot. At first the participants looked at the plot, admired flowers and plants and estimated which parts of the plot needed most maintenance at the moment. Next they began to weed the chosen areas and to carry plant wastes to the compost heap. After finishing the weeding and other tasks the participants picked flowers and vegetables and herbs for their own use. Summer 2006 was very dry and watering was an essential activity during the meetings. At the end of each session one or two of the participants filled the watering cans and the group watered the plot and the compost heap. Preparing the ground, sowing and planting, for the most part organised by SP5, were completed during the first meetings in spring (Figure 1). The participants also protected

the plants against frost, divided perennials and collected flower seeds during the season.

Table 1: The number of garden group participants during the set summer sessions at the plot

Date	Outpatients	Support persons	Researchers
11 th May	3	2	2
18 th May	1	3	2
1 st June	3	4	2
8 th June	3	2	1
15 th June	2	3	1
22 nd June	3	1	1
29 th June	3	3	2
6 th July	4	0	1
13 th July	2	0	3
20 th July	1	0	2
27 th July	1	0	1
3 rd August	2	2	1
10 th August	3	2	1
17 th August	2	2	1
24 th August	2	2	1
31 st August	0	2	1
7 th September	4	4	2

The SPs and the researchers encouraged the OPs to make decisions about what to do. To strengthen the initiative and responsibility of the participants, individual plot visits outside the weekly meetings were also recommended. The OPs often asked for acceptance of their activities from the SPs or the researchers. Positive feedback was given whenever it was deserved.

The participants did the weeding mostly separately and with great concentration, but they were so near each other that conversation and hearing of others were possible. Conversations included everyday issues and memories connected with the plants and gardening. Topics related to mental health issues were avoided intentionally because the aim was to create as normal an atmosphere as possible.

During the first meetings the participants received a diary for making notes about their experiences related to plot activities. At the end of the season the participants received a questionnaire and an envelope. They were asked to reply to the questions in their own time and to return the questionnaires as well as the diaries anonymously within one month. A camera was frequently available in the meetings to take photographs. The researchers observed the activities and made notes in their own diaries during the study.

The 59-item questionnaire comprised scaled statements and open-ended questions. The questions concerned demographic variables (gender, age, role,

family, styles of living, outdoor activities and hobbies), self-rated gardening skills, motivation for group gardening, activities at the plot, social interaction, and self-rated importance of gardening. The importance of gardening was asked using 13 scaled items (fresh air, exercise, seeing other people, working with other people, useful work, working with plants, plant growth, chatting, calming down, scents, harvest, flowers and tastes). Information concerning the health-related effects (concentration ability, mood, pain, sleep, fitness, rehabilitation) of plants and gardening was also requested. Information about the patients' psychiatric diagnosis, medication or therapy interventions was not requested.

Ten participants returned the questionnaire; five OPs and five SPs. The group members took a total of 78 photographs during the meetings. In autumn, two OPs and two SPs returned their diaries.

Figure 1: The start of the season at the plot



The mean age of the group was 53.3 years (range of 41 to 64 years). All participants, except one OP, were female. Three OPs and three SPs participated in a gardening group for the first time.

All OPs lived in a flat without their own gardens, but one had plants on her balcony. Two SPs lived in a flat and three in a house or a terraced house. All

female respondents had previous experiences in gardening, and they also had house plants. Seven of them considered that they were capable of taking care of plants.

Seven respondents informed that they regularly took part in the meetings in Annala. Six of them visited the plot at least once a week. The two SPs who lived in a flat took part regularly in the meetings. Six respondents also visited the plot by themselves. Only one OP met with her own support person frequently in the meetings. The average time spent was one hour and 20 minutes (range from ten minutes to three hours).

Data from the scaled statements were analysed using descriptive statistics. Open-ended questions and diaries were analysed by quantitative content analysis and by categorising the statements of respondents according to the phenomenological approach (Lukkarinen 2001; Tuomi & Sarajärvi 2002).

Results

Activities at the plot

All group members participated in one or more of the following activities: sowing, planting, nurturing or harvesting. Weeding was the most common activity. Observing nearby plots and chatting with other people in Annala, as well as with plants, were also included in the activities. OP5 wrote: 'I watch, I tell stories. People like stories, and so do plants.' In their written answers every SP mentioned that observing plants and admiring their beauty was one of their activities in Annala. SP1 reported: 'In the springtime I sat at the plot listening to birds and in the summer I sat admiring flowers and the great quantity of plants.' At the end of every meeting the group watered the plants together.

Usually everybody plunged into their work and accomplished their tasks, but one OP was impatient and often vanished without a word. She would weed here and there or she totally stopped weeding. Otherwise she chatted eagerly, preferred watering and harvested with pleasure.

At first it was difficult for OP2 to accept being allowed to take the yield home. She felt that her work input was insufficient, and she wanted to pay for the products; but gradually her attitude changed. On her 11th visit she wrote in her diary: 'I took one marigold with my own permission, but the flowerbed was huge.'

Motives for plot gardening

Being outdoors

The main motives for joining the gardening group in addition to an interest in plant growing were the possibility of spending time outdoors and of getting fresh air. Gardening work, being outdoors and going to the plot were regarded as a good combination of exercise. Outdoor exercise especially motivated the regular visitors.

The plot, as well as the park surroundings stimulated all the senses. The participants were especially enthused about the aesthetic experience. All female respondents valued working with plants. According to the diaries, written answers and verbal expressions, sensory experiences were motivating. All respondents appreciated flowers and the scents of plants. Producing a neat and pleasant environment was also satisfying. OP2 wrote: 'Our plot looks fine now, when harvesting time is about to start.'

Meaningful work

The SPs looked forward to the opportunity to perform useful work in a gardening group, and also those whose own OP did not want to garden at least introduced the plot to their pair. SP1 wrote: 'It is fine to do something useful in a pleasant environment.' SP5 had a need to organise 'meaningful, refreshing and rehabilitating activity both for the SPs and for the OPs.'

The participants felt themselves as productive and their labour input as needed. All SPs and three OPs mentioned that harvesting was quite important for them. SP3 and OP5 reported that they did not harvest at all.

Social interaction

Togetherness and conversations were important for almost every respondent: 'Chatting with others was nice and brought relief to my agony' (OP4). Working together was an important motive for regular visitors. SP4 described her impression as the following: 'The atmosphere is intensive. We are side by side and concentrated on work.'

The answers and the diaries described the supportive and positive atmosphere at the plot. SP2 wrote about her OP-pair: 'It is important for her to belong to a group and to experience her usefulness in teamwork. She considered the plot visits important and enjoyed them in every respect.'

Cognitive motives

All participants, except the male OP, had previous gardening experiences. They had been introduced to gardening during their childhood. In verbal expressions the participants often recalled their memories: 'The marigolds in a terracotta pot were so pretty in my childhood home' (OP2).

Learning gardening skills did not motivate the OPs, but it motivated the two SPs who took part in the meetings regularly. SP4 reported: 'For me learning new things is the best I know.' However, the majority of respondents reported learning to identify new plants and pests and they became acquainted with new working techniques. After the seventh meeting SP5 wrote in her diary: 'Everybody seemed to know what to do. Working seems to be rather independent and confident.'

Nobody was interested in receiving written instructions. People discussed gardening together actively, but only the SPs reported that they had advised others. The expression of expertise was characteristic of SP5, who was a trained

gardener. Her main activity at the plot was educating others: 'I guide, advise and show how and why everything is to be done.'

Gardening had several connections with the participants' other interests. For example, the male OP said that taking part in group gardening had given him ideas for his writing hobby. One of the main topics was how to use harvested products in cooking. Knowledge gained from the conversations was modified for taking care of plants at home.

Health-related effects

All respondents agreed that after visiting the plot their ability to concentrate was better and they felt calmer. Also, the majority felt more cheerful and invigorated after the plot visits. The OPs' comments concerning the state of their mood were mostly positive: 'My temper has been calm' (OP3) and 'I feel that I am not as depressed as usual' (OP4). Working and chatting with others eased distress, although work was often very monotonous. The participants also joked at the plot and posed playfully and voluntarily in photographs (Figure 2). In 38% of the photographs, the objects had eye contact with the lens.

Figure 2: The successful growing result at the end of the season



During the summer, steady improvement in the initiative and self-confidence of two OPs was found in the diary notes of the researchers. It was apparent in many answers that a feeling of usefulness was important to participants. To be together with others was relaxing and to notice the joy of others was pleasing. The participants used many positive expressions like joy, satisfaction, enthusiasm and ownership: 'Picking flowers made me glad. I could watch them at home for many days and the colours please me' (OP4) and 'I have taken care of the plot as if it were my own' (OP3). A few OPs not participating in sowing and planting mentioned that they sometimes felt unambitious and guilty.

All respondents experienced that their health was at least fairly good. OP2 reported: 'The gardening is refreshing me and I believe it will promote my health.' Effects of the plot visits on burden, sleep or pain were not as distinct as effects on mood and ability to concentrate but they were, however, mainly positive. SP4 stated: 'Also, physical fatigue can be satisfying in a way.' Half of the respondents slept better at night after visiting the plot. In general, the group members considered the garden work as quite light, but those who performed the digging at the plot noticed some effects in their physical well-being. OP4 reported: 'My functional ability is improved. My feet feel lighter.'

Evaluation of the activity

The set meeting time was important and motivated the participants to leave for the plot. The group size was felt to be appropriate and everybody became acquainted with each other on some level. The SPs, however, wanted more OPs to join the group. The inspiring and supportive atmosphere and the sense of responsibility in the group were praised in many written answers. SP1 wrote of a 'Jovial atmosphere and everybody's commitment to taking care of the plot.' The majority of the respondents planned to join the group the following year; they picked seeds for the next season and planned which new species they would grow.

The majority of the group were satisfied to cultivate shared plants because the burden of work could be divided. Few respondents (two OPs) expressed a wish to grow their own plants. In the fifth meeting one OP brought her own marigold seeds, which she sowed by herself.

Half of the respondents reported that they could have carried out their own ideas. SP5 stated: 'In a garden it is possible to use imagination, become inspired, struggle and create.' Two OPs reported that they were not able to affect the activities.

Weeding was ranked as both the most pleasant and the most unpleasant work. The positive aspect in weeding was that the results could be seen right away. OP4 disliked weeding, but she commented: 'If you don't weed, next time there is more to weed.' Nice activities were planting, filling watering cans and watering. Heavy digging was ranked unpleasant and some participants complained about the poor quality of tools.

Evaluation of the method

It came out that questionnaires and diaries were not the most proper methods to study the opinions of those OPs who had difficulties in verbal and written expression. The gathering of data might have evoked stress responses because they were unsure of their ability to express their thoughts clearly enough. In some cases the observations of the researchers gave a different view than what was concluded from the answers to the questionnaire. However, it should be kept in mind that the inner meaning of an experience can differ from the external behaviour recorded by the researchers. Anyway, the observed discrepancies in reports call for development of more reliable data-gathering methods.

It is also possible that the role as a research subject could have influenced the answers given by the SPs and the OPs, because both groups clearly expressed the preconception that nature, gardening and outdoor activities are good for the health.

Discussion

This study suggests that group gardening may be a feasible way for NGOs to support the recovery process of individuals with mental disorders. Bortz and Gal (2002) stated that horticultural therapy can be used at varying stages of recovery as an inward therapeutic modality. According to our results, people with mental disorders can benefit from horticultural activities also after discharge. Gardening encompasses various tasks which give the chance to choose appropriate activities for different mental conditions and motives.

Gardening motivated both the OPs and the SPs and was experienced as equally beneficial to wellbeing by both groups. The combination of a supportive group and meaningful physical activity in an aesthetic green environment was seen as promoting psychological, emotional and social wellbeing. These observations are in accordance with previous studies about green environment (Kaplan & Kaplan 1989; Ulrich et al. 1991) and green exercise (Hine et al. 2007). For those living in an apartment, the plot provided possibilities for leisure time gardening, which was evidenced by frequent visits to the plot. The study indicates that group gardening can be a way to contribute to the development of healthy communities in which individuals have equal opportunities for a fulfilling everyday life despite their health or social state.

In a study by Milligan et al. (2004) the important element of allotment gardening was the development of a peer group working together and sharing expertise. Working in a group offered both the OPs and the SPs opportunities to carry out meaningful and successful tasks which in addition benefited others. People having mental disorders are often isolated and their initiative is weak. Gardening together in a group enhanced the development of social networks and combated social isolation. The SPs whose OP-pair was not interested in gardening acted as support persons for all OPs who participated in the meetings. Thus the group activity enabled interesting voluntary work for SPs

regardless of the interests of their own OP. The fact that the OPs also visited the plot by themselves indicates interest and commitment, but particularly courage to initiate self-action.

Through sowing and planting, the plot became personal and both commitment and a feeling of ownership strengthened. The two OPs who reported that they were not able to influence the activities or could not carry out their ideas did not plant or sow plants. Success was important because harvesting the products was experienced as encouraging by all. Therefore it is essential to guarantee that adequate gardening expertise is on hand. Plans for the next seasons are a part of gardening, so it is important that the participants can rely on the continuity of the activity. By recalling childhood or other memories, planning for the future and having connections with other ongoing activities, gardening at the plot was not an unconnected episode, but intertwined in many ways with the participants' lives.

In evaluating gardening activities as a means for voluntary mental health care, this study has the following strengths: the follow-up time was the whole season, the activity was a real one, not a study intervention, there were three researchers to make the observations and notes, and the atmosphere at the plot was positive. However, the group size was small, researchers did not meet all participants regularly and no medical data were requested, which limited substantially the evaluation of the health effects of the gardening.

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Companion Animals and Offender Rehabilitation – Experiences from a Prison Therapeutic Community in Scotland

Elizabeth Ormerod

ABSTRACT: Interaction with companion animals is now known to confer health and social benefits to people of all ages, whether living in the community or living within an institution. Carefully-planned Animal Assisted Therapy (AAT) programmes can be introduced to enhance the therapeutic milieu and as an adjunct to client care to help address diverse health and social needs. This paper provides an introductory overview of the role of animals in institutions. The author draws on her experience with particular reference to a programme in a prison-based therapeutic community. The introduction of carefully planned AAT programmes would bring many benefits to prisoners, staff and ultimately to society. A multidisciplinary approach is emphasised. A consistent approach to animals in institutions is required and programmes should work to recognised standards. The effects of AAT on offenders requires more research including monitoring of recidivism.

Companion animals and the prison therapeutic community

The Shotts Special Unit, a small therapeutic community opened in 1990, was a self-contained Category A facility situated within HMP Shotts, a Category B prison in central Scotland. My first visit to the Shotts Special Unit (SSU) was in 1991 during research into the role of animals within the Scottish penal system (Ormerod & Whyham, 1992). Fourteen Scottish establishments were selected for visits including the Barlinnie Special Unit (BSU), another experimental regime. The State Hospital at Carstairs was also visited.

The purpose of the Scottish special units was 'to provide an intensive treatment resource for those prisoners who are unable or unwilling to accept the operation of mainstream prisons and who it is agreed might benefit from removal from their prison of allocation' (HMIP report 1998).

Both BSU and SSU were small, secure units for holding difficult, volatile prisoners. The BSU regime had been criticised as lacking purpose, structure and

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discipline. However, it had attracted worldwide interest for its progressive approach, its good community links, and the high standard of art created by some of the Community. Permission to visit all of the prisons in the Scottish Prison Estate was given by the Scottish Office. However, I also had to obtain permission to visit from the Communities at BSU and SSU. During my visit to BSU I was introduced to three cats and a small flock of pigeons. The BSU Community members were very fond of the animals and advised of many benefits arising from their presence. In particular they referred to the calming effect of the cats, and they ascribed the cats as an important factor in maintaining the mental health of one of their fellow prisoners. The birds provided constant interest, helped pass the time and were seen as good role models for human relationships: 'We could learn from these birds - they are faithful to each other ... although occasionally there are some small indiscretions!'

Companion animals in Shotts Special Unit

The SSU was a purpose-built facility with accommodation for up to 12 prisoners. The regime benefited from lessons learned at the BSU. The SSU facility was carefully designed to help ameliorate the effects of institutionalisation and to facilitate social interactions. It comprised a very large open plan living and dining area; leading off this were numerous small workshops, communal kitchen, small gymnasium, the cells at a lower mezzanine level, and there was a small visits area with several booths. Outdoors were a small sports pitch, greenhouse and small garden areas. Meals were taken communally: prisoners, staff and visitors together. Most meals were supplied by the kitchens in the main prison, but once weekly they were prepared by the Community. Great emphasis was placed on Community life. An important aspect of the regime was the weekly meeting attended by the whole Community, at which issues were addressed.

Visits to establishments were to learn about resident animals and any associated benefits or drawbacks. Animals at the SSU during my first visit included a cat, a pair of lovebirds, a cockatiel, a tarantula and a pair of corn snakes, and there were several tropical aquaria. The animals in Shotts were clearly held in high regard by the Community. The prisoners appreciated the therapeutic value of the animals: for example, the animals helped them to relax and were someone to speak to during the lonely hours: 'Without them I would be alone in here and no-one likes to talk to oneself because of the adage that to do so is one of the first signs of madness.'

Staff placed emphasis on how the animals helped to structure the day and also described how tense situations had been defused by animals' presence. The staff were surprised how tenderly prisoners behaved towards animals: 'I have observed prisoners relating to animals in a totally different way to people. You see in the men a side that you don't normally see' (Angus MacVicar, Governor).

The cat was the first pet to become part of the Community. 'A Cat' (a pun on Category A prisoner) had been found as an orphaned kitten in the SSU garden by a prisoner when he was extremely low. He advised me that at that time he had feared for his sanity, having arrived at the Unit after several years in solitary confinement at a previous prison. The regimes were poles apart and he thought he must be the subject of a bizarre psychological experiment. He felt like 'the Prisoner' in the TV series and attested that 'A Cat' had been key in rebuilding his trust in people.

This wee cat saved my sanity. It was the first thing I showed affection to in seven years. The cat has brought me through some very difficult times. If you have lost that concern for other people and you get a pet to care for, I think that's where caring begins in a place like this.

Following my first visit, the Governor invited me to be their adviser on Animal Assisted Therapy. Many visits were made over following years and I was elected by the Community as a Friend of the Unit.

As is commonly found in many British institutions, the pet programme had developed in an ad hoc manner, starting with the adoption of 'A Cat'. A written protocol was therefore prepared for the programme to ensure the planned introduction and appropriate care of carefully selected, healthy, compatible animals. Additional animals, including two more cats, rabbits, guinea pigs and hamsters were gradually introduced over the years. Most were present in communal areas: the fish tanks, lovebirds, cats, rabbits and guinea pigs. The work of the Community - handicrafts and computing - was conducted within the Unit so the animals enjoyed a high level of attention, and all Community members benefited from their presence. This point was made by those who chose not to have an individual pet of their own. Although the Unit was a Category A facility with a high staffing level, there was greater personal freedom than in mainstream regimes, including the selection of personal pets.

One of the unexpected, and very welcome, benefits of the pet programme concerned the weekly Community meetings. These used to be very fraught occasions; individuals got angry, tempers frayed, decisions could not be reached and the fallout could last for days. 'Lucky', a well-socialised house rabbit, helped to resolve these difficulties. During weekly meetings she interacted with everyone in turn, standing on her hind legs, nuzzling them, begging for a tiny piece of toast crust. Her unconditional affection and regard generated warmth and good humour and ensured that meetings were conducted without animosity. Consensus was quickly achieved and the meetings were more productive.

'Lucky' also generated positive interactions outside of meetings. If a member of the Community sat in the lounge, holding her, the rest would soon gather round. They would talk about her, stroke her and make closer contact, even resting their arms on each other. Given the level of animosity that existed between some of the men this was remarkable to witness. A governor at an open prison described a similar effect with pet rabbits which had ostensibly

been introduced for the benefit of visiting children. Men would gather in the evenings at the petting zoo, talking to each other quietly, standing close to each other, rivalries forgotten whilst stroking the rabbits. Prisoners have often spoken to me about the calming effect of interacting with animals, birds and fish: 'I was a violent man and used to find it difficult to communicate with other people. But "Puss" really helped me and because of her my behaviour has improved.'

There were several fine tropical aquaria in the unit, mostly containing community fish, i.e. different species of fish that are compatible. Such tanks provide much interest and contain fish selected for compatibility that have contrasting appearance and occupy different levels within the tank. On one occasion a new prisoner had been introduced to the Community. He had not been accepted by the others and was finding things very difficult. I found him staring into a fish tank. A catfish was tearing around the tank, unable to settle. The prisoner asked what was wrong and I explained that the fish was a new introduction to the established community and had not settled in. He had not been accepted yet; but that this was normal for a new arrival and that, within a short time, he would be accepted by the others and would feel at home. He was very relieved and reassured. We both knew that we weren't just talking about fish.

At the suggestion of the Community, an outdoor petting corner was introduced for visiting children. Rabbits and guinea pigs were introduced and became very popular. Parents spoke to me of the positive and calming effect this had on their children. The petting corner had made prison less frightening for them, and the children now looked forward to the visits without apprehension.

Visits to programmes in the USA

My interest in the role of animals in institutions arose from my understanding of the human-companion animal bond and the associated health and social benefits. In 1988 I was awarded a Churchill Fellowship, and travelled throughout the USA visiting many outstanding human-companion animal bond programmes. In addition to hospitals, nursing homes, mainstream and special schools I also visited two acclaimed prison programmes: at Lorton Prison, Virginia, serving Washington DC, and the Purdy Women's Prison in Tacoma, Washington State.

The Lorton Programme was established by Dr Earl Strimple, a veterinary surgeon. Within the prison he established a pet-keeping club, People Animals Love (the PAL Programme) and introduced a two-year veterinary technician training course for the prisoners. Pets kept included cats, fish and birds. The Lorton programme ceased when the prison was decommissioned. However, Strimple continues to work with prisoners' families in a humane education programme. Humane education is a values education that encourages, through greater understanding and awareness, greater respect and empathy for others: other people, other animals, plants and our shared environment. Prisoners,

aware that their children are statistically at higher risk of incarceration, had asked Strimple to develop this programme.

At Purdy Prison women are taught how to rehabilitate unwanted dogs with behaviour problems. Becoming a good dog trainer requires the development of patience, careful observation, calm assertiveness and knowing how to effect change through praise, not punishment. In discussions with the prisoners they stated that, in rehabilitating the dogs, they were also rehabilitating themselves. They saw analogies between the dogs and themselves. The dogs had been surrendered to animal shelters because of their misbehaviour. They were incarcerated because of their crimes. Neither group was wanted by society. As they trained the dogs, the dogs became biddable, obedient and became easy to adopt. In witnessing improvements in the dogs' behaviour prisoners were motivated to effect change in themselves: 'If a dog can change, so can I.' Training an unwanted dog also gives prisoners the opportunity to give something back to society and increases their feelings of self worth. The vocational skills involved in dog training, grooming and care also help them to find jobs on release. Marked reduction in recidivism rates have been recorded following participation in prison dog training programmes. During a subsequent study trip I visited Project Pooch, a similar programme for young male offenders at MacLaren Youth Correctional Facility, Oregon. The dog training programmes have received much support from prison staff, prisoners, public and animal welfarists. There has been a rapid expansion of prison animal programmes in the USA since 2000 with Furst reporting programmes in 40 of 50 states in her national survey (Furst 2006) and there are now over 65 'cell dog' programmes (Sister Pauline 2004, personal communication).

The Garth Prison programme

Following my Fellowship, in collaboration with Mary Whyham MBE, past Assistant Chief Probation Officer for Lancashire, I helped introduce a prison pet programme at HMP Garth, a Category B prison with over 100 lifers. This pet programme benefited from the involvement of a multidisciplinary committee: with a governor, prison officers, educators, social workers, probation officer and veterinary surgeon. Animals included caged birds, fish and visiting Pets as Therapy (PAT)* dogs, which visited the education department. In addition to individuals keeping animals in their cells, there were also communal fish tanks and aviaries in the education centre and in the visits area. Evening classes in animal care and humane education were provided and were very popular. The presence of the animals helped to normalise the prison environment and resulted in better interpersonal relationships – between prisoners and between prisoners and staff. A small unpublished study by a prison psychologist found that men with caged birds were less aggressive, less stressed and happier.

* Pets As Therapy (PAT) is a UK charity whose volunteers provide dogs and cats to hospitals, hospices, residential care homes and other institutions including prisons.

Again, those who opted not to have pets reported that they welcomed their presence.

Mary Whyham conducted a national survey in 1989 to determine the presence of animals and birds in prisons throughout the UK (Whyham 1993). We subsequently visited a number of English prisons to interview staff and prisoners. At any time roughly one-third of prisons in England have some animal presence. At the time of the visits to Scottish establishments 76% of the Scottish prisons had programmes involving animals. We found other regional differences. The Scottish establishments that allowed pet-keeping were in the main the small special units and the Category C and D prisons. In England pet-keeping is found more often in closed establishments. There is a strong argument for a greater need in closed, long-term facilities and in remand centres where stress levels are high. Fish-keeping is very popular in Scottish prisons. It is interesting to note that aquaria are unusual in English prisons because of concerns about hiding drugs in the tanks. Caged bird-keeping is popular in mainstream prisons in England; but not in Scotland where an erroneous, but widespread, assumption was that they were banned.

Discussion

The involvement of animals in therapy is not new. In Ancient Rome dogs were kept in healing temples; their presence was thought to be curative. Notable historical figures who advocated the involvement of animals in therapy include Pliny the Elder, Dr Caius, John Locke and Florence Nightingale (Serpell 2000). The first documented programme in a psychiatric hospital was at the York Retreat, England in 1792. The animals provided friendship and interaction with them '[tending] to awaken the social and benevolent feelings' (Tuke 1813). In 1867 animals were introduced to Bethel at Bielefeld in Germany for the benefit of patients with epilepsy. This programme is still operational (Bustad 1995). The presence of animals in institutions was widespread throughout the 19th century, particularly in large psychiatric hospitals. In the 1830s the British Charity Commissioners, in a heavily critical report of Bethlem Hospital, advised the introduction of companion animals to normalise the environment (Serpell 2000). Sadly, during the 20th century, animal programmes were disbanded in psychiatric hospitals and prisons throughout the UK as farm and garden programmes were thought not to be cost-effective and land was sold for development. Clearly the therapeutic value of the programmes was not understood.

Research evidence

The first serious studies of human-animal interactions were only begun following the work of Boris Levinson, an American child psychologist, who 'discovered' the benefits of involving his dog during therapy sessions. He encouraged other mental health professionals to study the effects (Levinson 1969). The first studies examined the role of animals for populations within

institutions. Corson et al. (1977) found that 94% of withdrawn psychiatric inpatients who had failed to respond to other therapies showed improvement following the introduction of dogs. The presence of mascot cats was also found to enhance the therapeutic milieu (Brickel 1979). Benefits for people with Alzheimer's disease have been documented (Kongable, Buckwalter & Stolley 1989; Batson et al. 1997; Edwards & Beck 2004). Thomas (1994) recorded normalisation of the environment, reduced staff stress, reduced staff turnover, reduction in psychotropic medications, reduced patient infections and reduced mortality in a nursing home. The first planned programme in a correctional setting in the USA was at the Oakwood Forensic Center in 1975. The programme arose following the observation of residents working as a team, co-operating to protect a sick sparrow. Staff had never succeeded in getting the men to do anything as a group before. The animal care programme introduced by a psychiatric social worker was extended to patients throughout the facility following a year-long comparison of two matched wards, one with pets and one without. In the first group there were no attempted suicides, no rioting and a 50% reduction in drug-taking. The ward without pets had eight documented suicide attempts (Lee 1987). The recidivism rate for the men in the PAL programme at Lorton Prison was 11% compared to the usual rate of over 90% for this population. There was less violence, and drug-taking was reduced (Moneymaker & Strimple 1991). Project Pooch, for young offenders in Oregon, documented a 0% recidivism rate in over ten years of operation (Dalton 2004). In a more recent study youth imprisoned there stated that working with the dogs had positively affected their personalities – becoming more patient, more empathetic, had improved anger management and encouraged greater self-discipline (Davis 2007). A study of women prisoners at Purdy Prison found that the programme transformed their outlook and approach to life (Bustad & Gowing 1986).

The Spanish prison pet programmes, which involve resident mascot dogs and education in comparative preventive medicine, have been subject to the greatest analysis. Benefits documented by psychologists include reduced recidivism, reduction in violence, improved social interactions and reduction in drug-taking (Torner 2001). However, especially given the potential for these programmes to address offending behaviour, there has been insufficient research into human-animal interactions in forensic settings. Furst states a 'critical need for empirical investigation and for long term follow up' (Furst 2006).

What are the mechanisms resulting in such changed behaviours? Animals provide a safe topic of conversation and opportunities for touch and nurturance (Katcher 1988); they satisfy our need for 'biophilia' – to relate to other life forms (Katcher & Wilkins 1993); they are good listeners and will not betray confidences. As stated by Corson they 'wag their tails, not their tongues.' Their spontaneous and unpredictable behaviours can provide a welcome interruption to a monotonous routine, generating humour and encouraging play. For therapists, they can provide a communication bridge through which to reach those who have lost their trust in other people. Furst (2007) discusses possible

mechanisms to explain the effectiveness of human-animal interactions in the prison setting and the effects of animals on self-identity.

Most research into human-animal interactions has studied individuals living in the community. Serpell (1991) documented improved general health following the acquisition of a pet. Siegel (1990) found that pet owners made fewer demands on health services. Pet owners had improved survival following myocardial infarction (Friedman et al. 1984) and were found to have reduced systolic blood pressure and reduced triglyceride levels, risk factors associated with cardiovascular disease (Anderson, Reid & Jennings 1992). Qureshi (2008) reported that cat owners were underrepresented by 40% in stroke incidence in a retrospective study. Interaction with animals resulted in increased levels of neurotransmitters (including serotonin, dopamine, oxytocin and prolactin) and a concurrent reduction in cortisol (Odendaal & Lehmann 2000).

Programme planning

Reservations and concerns are often raised during preliminary planning, particularly by non-professional and inexperienced staff (Kranz & Schaaf 1989). It is commonly found in follow-up studies that staff who had earlier expressed reservations state that their concerns were unfounded (Carmack 1989). Issues raised relate to hygiene, zoonotic infection, allergies, phobias, increased workload and animal welfare. In forensic settings there can also be resistance to allowing people to have animal companionship due to concerns about being seen to allow offenders to be 'rewarded' instead of punished (Deaton 2005). It is important to plan carefully utilising a multidisciplinary approach and to involve *all* relevant departments within the organisation including security, housekeeping and infection control. A local veterinary surgeon should also be involved from a very early stage to advise on the most suitable species for the facility. At a later stage the veterinarian should screen and select animals for the programme - selecting for health, temperament and behaviour, draw up written care plans and then regularly monitor the animals' health. Patients', prisoners' and staff views should also be sought prior to animal introduction. People who have allergies or phobias to animals should not be forced to have contact, and animal-free zones should be delineated. A carefully considered written protocol should be implemented. New staff and prisoners/patients should receive orientation about the programme on entry to the facility. Guidelines should be drawn up and consistently applied (Ormerod 2005).

Longitudinal studies have found that zoonotic disease has not been a problem in well-planned programmes (Stryler-Gordon, Beal & Anderson 1985; Lerner-DurJava 1994; Khan & Farrag 2000; Guay 2001). Even immunocompromised patients can benefit from human-animal interaction with additional safeguards. However, staff should be aware that humans with certain infections, for example tuberculosis, could pose a risk to the animals and should not have animal contact.

In forensic settings, given the link between animal abuse and antisocial behaviours (Lockwood & Hodge 1986), there are additional concerns for animal

safety. However, the actual incidence of animal abuse in institutions appears to be lower than in the wider community. There is strong peer pressure to deliver high standards of animal care. Low standards are quickly perceived by others, and the care of the animal transferred. During a visit to another Scottish establishment I met a prisoner serving a very long sentence. When his budgerigar had taken ill he had nursed the bird round the clock for 72 hours, keeping him warm and giving him sips of water. The bird made a full recovery. Such a degree of dedicated nursing has not been witnessed in my veterinary clients. This man told me that his 'relationship with this bird is the best I have ever known. I have never before experienced unconditional affection.'

Patients or prisoners with a known history of animal abuse should not have unsupervised contact with animals. It may be necessary to limit their nurturing opportunities to plants. Fish tanks and aviaries in communal areas should be made secure. The most common problem is overfeeding, which can be especially detrimental to fish. Large facilities often experience problems with feral cats, pigeons and wild animals including rabbits. It is important that problems are addressed humanely and sensitively, with advice from veterinary surgeons and assistance from animal welfare organisations.

Sadly, where pets are not permitted, prisoners and patients sometimes make their own provision and 'adopt' such wild animals or birds - with attendant risks for health, safety and animal welfare. Species adopted include pigeons, seagulls, wild rabbits, squirrels, mice, rats, feral cats, cockroaches and other insects. Since people have a strong need to nurture and will attempt to keep inappropriate animals, it is much better to introduce animals in a controlled and regulated way. The need to nurture and connect with other life forms can be very strong and should not be denied (Ormerod & Whyham 1997).

Conclusion and recommendations

Experience from existing programmes demonstrates that Animal Assisted Therapy can be an effective, low-cost approach to patient care and to prisoner rehabilitation. Risks, including zoonoses, are minimal in properly planned programmes. Where there is no planned programme residents may make their own provision, with attendant risks.

Whilst the keeping of animals in British institutions is widespread, proper planning is often lacking and animals are frequently introduced in an ad hoc fashion without screening. Many programmes have been developed without a multidisciplinary approach including lack of veterinary involvement. Failure in planning also makes programmes vulnerable to closure, for example, through over reliance on one or two key individuals. Lack of planning, and in particular poor animal selection also reduces the potential for therapeutic benefits.

There is therefore an urgent need for a logical and consistent approach to introducing animals to institutions. This will require the introduction and implementation of appropriate standards. The International Association of Human Animal Interaction Organisations (IAHAIO), a working partner of The World Health Organisation, has issued resolutions encouraging the introduction

of animal assisted activities and therapies to institutional settings, including prisons and hospitals (IAHAIO; accessed 12/7/2008).

The lack of detailed research in this field is evident and should be rectified, with studies to compare the outcomes of different approaches to delivering AAT and humane education in various offender and clinical populations. Training in these subjects should also be introduced to the relevant health and social care professions.

For many years we have been asking ourselves 'What works?' From the mounting evidence relating to the benefits associated with human-animal interactions it seems we may have an effective 'new' approach to rehabilitation.

Sources of further information

The Society for Companion Animal Studies (SCAS), an educational charity that provides information and training on AAT (www.scas.org.uk).

The International Association of Human Animal Interaction Organisations (IAHAIO) (www.iahaio.org).

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Behavioural Effects of Goats on Disabled Persons

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ABSTRACT: It is well known that contact with animals may benefit humans in a number of ways. In our pilot project we arranged weekly contacts of ten multiply-disabled adults (all deaf, four women and six men, aged 18-45) with well human-socialised goats. This is part of an effort to team up residential institutions for disabled clients with suitable farms. Over a period of three months, clients were video-taped when in contact with goats, one hour per week, 11 weeks in a row. In parallel, clients were video-taped in a dining room situation. This was done with the consent of clients and with support of the residential institution in Upper Austria. From these tapes, a number of parameters were coded for each client covering behaviour, communication and mood. Over time, attentiveness, active participation in the programme, and expression of joy increased, whereas withdrawal decreased in contact with the goats. In contrast, no changes were recorded in the dining room situation. Only in the goat situation, the population variance of most significant parameters decreased indicating an increasing homogeneity of the clients' behaviour over the weeks. We conclude that regular animal contact had contributed to the wellbeing of multiply-disabled clients, and had a sustained effect on their behaviour when with the goats, but did not lead to a measurable behavioural change of clients in other situations.

Key words: Animal-assisted therapy, goats, long-term human-animal interaction, multiply-disabled clients

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Introduction

Animal companions may improve quality of life, particularly in disabled persons (Allen & Blascovich 1996; Lane, McNicholas & Collis 1998; Wilson & Turner 1998; Duncan & Allen 2000; Fine 2000; Tschochner 2000; Brehmer 2003; Zieger 2003). Dogs, for example, are trained to be practical helpers and, thereby, enhance individual independence, but also boost self-esteem, responsibility, communication skills and openness and finally promote societal integration of their human partners (Hart, Hart & Bergin 1987; Bateson et al. 1998; Hart 2000; Sanders 2000).

In general, a common denominator of human-animal interactions seems to be the disposition to develop mutual emotional links (Wilson 1984; Bradshaw & Nott 1995; Podberscek, Paul & Serpell 2000), even in clients with severe cognitive impairment (Duncan & Allen 2000). In a number of therapeutic contexts, animals positively affected client compliance and counteracted therapy resistance (Corson et al. 1977; Fine 2000; Olbrich & Otterstedt 2003). This was already appreciated by Freud and Jung. Interestingly, despite their theoretical differences, both employed their dogs, Chow Chows in both cases, to facilitate communication with difficult clients (Niehus 2004). To our knowledge, neither of the two mentioned this kind of animal assistance in their theoretical writings. In fact, animal contact may facilitate social interactions among humans (Wells 2004). Motivational effects and locomotory stimulation may, for example, explain the effectiveness of hippotherapy (Fine 2000; Otterstedt 2001) or of swimming with dolphins (Nathanson et al. 1997).

Regular animal contact over long periods of time may enrich lives, particularly in mentally-impaired persons (Edney 1992; Lane et al. 1998; Raina et al. 1999; Duncan & Allen 2000; Palla 2002). Workable approaches are needed to get such clients in contact with animals. For practical and ethical reasons domestic animals should be employed. Domestication included selection for tameness, and improved attention towards, and communication with, humans (Soproni et al. 2001, 2002; Hare et al. 2002; Miklosi et al. 2003). Hence, domestic animals are disposed to make good animal companions (Serpell, 1986; Bradshaw & Nott 1995; Robinson 1995; Podberszek et al. 2000); they are generally better suited in a therapeutic context than most tame wildlife. Goats are particularly socially responsive and gentle animals.

Many residential institutions for disabled persons are located in rural areas, where animals are still kept on small farms. Therefore, our idea was to team up institutions for the mentally-disabled with suitable farms. Contracting farmers would allow clients regular animal contact at relatively low costs to the institution, because these would not have to run an animal-keeping unit of their own, often a logistic hurdle (Grosse-Svestrup 2000). In addition, this may create a new economic niche for a number of farmers. Towards that goal, we initiated a pilot project together with an Upper Austrian housing institution for multiply-disabled persons. In this first study, we employed goats, housed in a stable which is ten minutes' walking distance from the institution. Animal-keeping was not directly connected with a farm, but was established at a purpose-built stable

on the premises of the residential institution, because we first intended to concentrate on the relationships between the clients and the goats, and wanted to work out interaction routines. If goats would have been housed at a farm, this may have added additional complexity, for example, a greater distance to the residential institution and more factors than could have been handled practically and in the frame of this study (e.g. other animals and humans present and interfering, etc.).

The aim of our pilot study was 1) to test the workability of our concept and 2) to study the potential effects of regular visits, over more than four months, on the behaviour and wellbeing of these clients. Based on the available evidence, we predicted positive effects (Duncan & Allen 2000; Fine 2000). We also predicted that behavioural effects, if any, would mainly become manifest in contact with the goats, rather than producing context-independent behavioural changes in the clients. Finally, we predicted that behavioural effects would not only show at the beginning of the goat programme and, hence, represent a novelty effect, but would rather persist over the period of animal contact.

Materials and methods

We conducted this study in summer and autumn 2003 at a residential institution for deaf and multiply-disabled adults, 'Lebenswelt Schenkenfelden', in collaboration with the management and staff. Of a group of 15 clients, who initially volunteered for this programme, ten (four women, six men, age range 18–45) participated regularly. As well as being deaf and impaired in vocal communication, clients showed a range of other, mainly mental, impairments. All of the clients were involved in a range of therapeutic activities, individually as well as in groups, which mainly aimed at improving communication. None of these programmes, however, included animals.

The following gives brief descriptions of the ten participating clients:

- A: Female; depression spells with somatic symptoms, is only considerate of others if she likes them.
- B: Female; stable but unable to say no, dependent on the opinion of her girl friend.
- C: Female; on her own, unstable, difficulties coming to grips with novel situations, joyful about achievements.
- D: Female; friendly and sociable, very short attention span, low in sign language skills, but innovative, initially low motivation to visit the goats.
- E: Male; low self-esteem, anxious, cheerful about achievements and when praised.
- F: Male; reserved and restrained, dislikes being in a group.
- G: Male; low in general drive, perseverance and stamina, little contact with group, mainly because of limited communicative means.
- H: Male; friendly and curious, only limited sign language repertoire, therefore restrained in his communication.

- I: Male: distant at the beginning, but cooperative and helpful later on, occasional bursts of rage.
J: Male; hyperactive, initially aggressive against the goats.

Ten goats of four breeds, all of them females and gently tempered, were housed in a stable (approx. 15 m²), in walking distance from the institution. The goats had no horns, were approximately five months old and were well socialised with humans. The goats had access to an outdoor enclosure (meadow, approx. 2000 m²) at all times. A farmer from the neighbourhood provided basic care for the animals. Additional care was given by the clients. By the end of the observation period, mid-October, the goats were moved to a nearby farm for the winter. There, clients could still visit them. Five of the goats were moved back to their stable near the residential institution in spring, where a total of seven kids were born. Clients resumed their regular visits and the kid goats particularly triggered great interest and empathy.

Clients regularly visited the goats once a week, after supper (1900–2000 hrs) as a group. Apart from the weekly visits, only a few clients visited the goats regularly, mainly because their daily routines left little spare time. During the one-hour period, clients interacted with the goats spontaneously for approximately one-third of the time, stroking, brushing, feeding goats with herbs from outside the enclosure, etc. Another third of the time was occupied by organised activities, mainly playing with the goats in the group to promote social interactions (teach goats little tricks, let them search for hidden food, etc.). Finally, one-third of the time was devoted to feeding the goats with hay, twigs, freshly-cut grass, pellets and replenishing water. Care was taken that the goats were not harmed by interactions with clients, although this risk was low as goats could always escape or avoid contact.

During weekly visits, from mid-July to mid-October 2003, clients were video-taped in contact with the goats. They were accompanied by six persons, one communicating about the activities in sign language, one video-taping, two with check-sheets, one making structured qualitative observations and one photographer. In addition, clients were video-taped the same day for half an hour (1530–1600 hrs) during leisure times in an unstructured situation, in the dining room of their residential area. This was the regular break of their afternoon work period, when also a light meal and fruit were offered. Our goal was to monitor the undisturbed and spontaneous behaviour and interactions of clients. Obviously, this was not a control situation in the proper sense. However, if any effects over time would show in the situation with the goats, we could check whether or not a parallel shift in behavioural parameters would also occur in the dining room situation. A total of 11 such observation periods were coded and analysed. In addition to video-taping, events were recorded on paper and staff were interviewed regarding potential changes in client behaviour.

From these tapes, 26 behavioural parameters in three classes were coded by GR, VP and MR via one-zero-sampling over one-minute periods for each of the clients for at least 15 minutes per client per situation resulting in at least 300 minutes of total observation time for each of the clients. Coders synchronised

well ahead of data taking by analysing the same tapes. Behavioural parameters were chosen according to their functional significance for disabled persons, because, particularly in institutional settings, low physical inactivity and social retreat may be major problems. Hence, we chose physical activity (locomotion), interacting and communicating with the goats and among themselves, and expressions of emotions as relevant behavioural parameters. It was scored on an individual base whether or not (one or zero) the following behaviours occurred within a minute of observation.

- 1) Locomotion: sit, walk, stand; social activities: interactions with other clients, interaction with goat (including stroking, feeding, etc.), interaction with other clients over goat, interaction with staff, interaction with staff over goat, touching goat, stroking goat, brushing goat, spontaneous play with goat, does/does not participate in suggested activity, passive, withdraws, attentive.
- 2) Sign language and acoustical communication: sign language with/without excitement, vocal expression with/without excitement.
- 3) Expressions of emotion: signs of anger, joy (laughing), fear, aggression, stereotypic behaviour.
- 4) A number of parameters were combined as a measure of 'activity'. These included: interactions with other clients, interaction with a goat, interaction with another client and a goat, interaction with staff and a goat, interaction with staff, touching a goat, stroking a goat, brushing a goat, spontaneous play with a goat, participation in suggested activity.

An index for being passive was derived from the following parameters: does/does not participate in suggested activity, passive, withdraws.

For data analysis by SPSS software, means within parameters of those ten individuals who participated regularly in the goat visitation programme were formed over each of the 11 observation days, separate for the dining room situation and the period with the goats. For evident reasons the dining room situation was too different to be regarded as a control situation, for example, there were structured and guided interactions at the goats, but only free interactions between clients in the dining room. Therefore, we did not compare behavioural parameters between the situations directly, but only within each of the two situations. Kendall's tau was used to check for changes of parameters over time, because this non-parametric correlation is well suited for small sample sizes and more resilient against outliers than, for example, Spearman's rank correlation. A power analysis of the different correlations revealed 'intermediate' power of our analyses ($1-\beta \Rightarrow 0.45$ to <0.53) (<http://calculators.stat.ucla.edu/powercalc/>). Trends in variances over time were analysed based on the coefficients of variation (VR%) at the 11 time points and by then applying Kendall's tau.

Results

Quantitative results

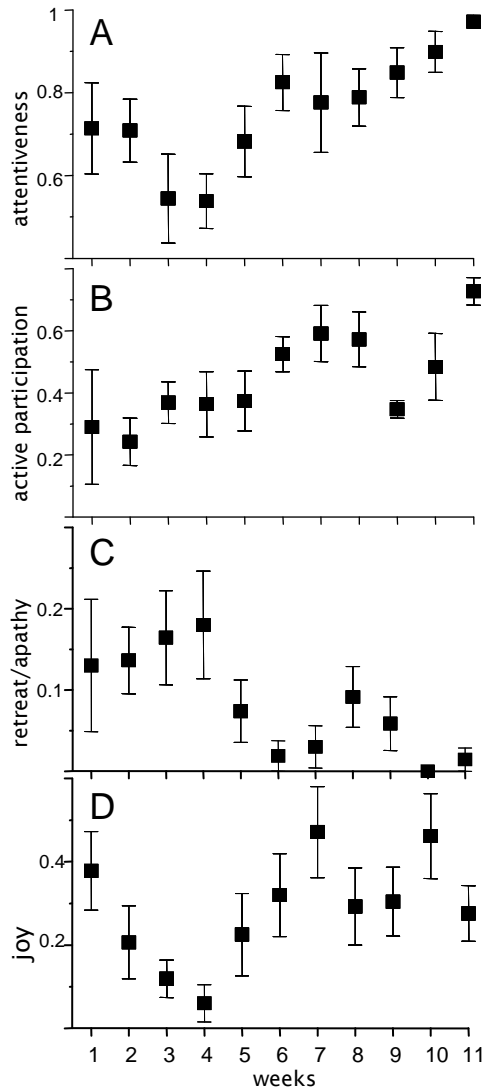
When with the goats, the ten regularly participating clients differed in how intensely they touched each other and the animals spontaneously (outside the structured play situations), in how withdrawn or attentive they were, and in expression of joy. They did not differ, however, in the degree they participated in activities with the goats. Similar differences between individuals were also found for the dining room situation (Table 1).

Only over the 11 successive weekly meetings with the goats did a number of client behavioural parameters change (Figure 1). None of these parameters changed in the dining room situation. At the goats, participation in guided activities increased over time (Kendall's tau, $n=11$ in all following cases, $\tau=0.709$, $p=0.002$), as did attentiveness ($\tau=0.782$, $p=0.001$), but also expression of anger ($\tau=0.597$, $p=0.021$). Withdrawal and apathy decreased ($\tau=-0.564$, $p=0.016$), as did touching each other and the goats ($\tau=-0.6$, $p=0.01$). Not all changes were linear over time. During weeks 3 and 4, attention and joy were at a minimum, retreat and apathy at a maximum (Figure 1). In a few of these parameters the variance within the population decreased exclusively in the goat situation, but not in the dining room. These were participation in activities over time (Kendall's tau, $n=11$ in all following cases, $\tau=0.527$, $p=0.024$), attentiveness ($\tau=0.6$, $p=0.01$), withdrawal ($\tau=-0.556$, $p=0.025$), and touching each other and the goats ($\tau=-0.6$, $p=0.01$).

Table 1: Parameters in which the ten clients differed within the situations without goats and with goats

Behavioural parameters, comparison between clients within situations Kruskal-Wallis, d.f.=9	Dining room	At the goats
Tactile contacts between clients	Chi square=7.53 n.s.	Chi square=26.88 $p=0.001$
Retreated, disengaged	Chi square=36.54 $p<0.001$	Chi square=26.62 $p=0.002$
Attentiveness	Chi square=36.23 $p<0.001$	Chi square=22.02 $p=0.009$
Expression of joy	Chi square=26.53 $p=0.002$	Chi square=46.44 $p<0.001$

Figure 1: Change of parameters in the group of ten clients over 11 weekly sessions with the goats, one per week, over three months. Data coded from video-tapes taken at the goats. Means \pm standard deviations of 1 min one-zero samplings over the visit given, based on individual averages. A) Change of attentiveness (Kendall's tau, $n=11$, $\tau=0.782$, $p=0.001$). B) Participation in structured activities (Kendall's tau, $n=11$, $\tau=0.709$, $p=0.002$). C) Retreat and apathy (Kendall's tau, $n=11$, $\tau=-0.564$, $p=0.016$). D) Expression of joy (Kendall's tau, $n=11$, $\tau=-0.434$, n.s.).



Qualitative results

Qualitative observations and communication with staff revealed that the regular contact with goats had a beneficial influence on a number of clients. In the following we summarise three cases.

1. *Increase of joy and responsibility in A:* From the beginning she enthusiastically participated in the programme and showed much joy in contacting the goats. Through mutual interest, A established a close relationship with 'her' goat, with which she often interacted by hugging. Also, A was devoted to caring for her goat. Evidently, she developed feelings of protection and affection for, and from, the goat, which made her visibly happy. A took responsibility for 'her' goat. She was concerned about her wellbeing and often paid visits on her own.

2. *Initiative and increasing skills and mobility in E:* At the beginning, E had difficulties in coping with the goats. Still, he was not discouraged and did not retreat, but intensely communicated with the observation team over the goats by sign language and by acoustic verbalisation. His intense interest and engagement enabled E to become increasingly successful in contacting and handling the goats (skilful brushing, attracting goats with twigs). He evidently gained much joy and satisfaction from that. Staff members were surprised by E's activity and lack of fear of the goats. His activity and his usually low muscular tone were increased in contact with the animals.

3. *Overcoming fear, increased mobility and ability to concentrate in D:* D is open for contact, but is usually unable to keep her attention focused on social partners for some period of time. In contact with the goats, E's attention time spans clearly increased. At the beginning, her attention deficits in interaction with the goats evidently provoked some of the goats to jump up on her to reach the food which she held too high above ground. Occasionally, goats knocked her off her feet this way, which caused her fear. Over time, however, E learned to present the twigs appropriately low, so that the goats did not need to jump any more. Improved concentration on her side also increased her trust in the goats. E had so much joy from the goats that she often demanded to contact them outside the scheduled time. This is remarkable, because the ten-minute walk is a considerable effort for her due to her walking impairment.

Discussion

Our study showed specific behavioural changes over time in contact with the goats. Particularly, the interested clients adjusted their behaviour accordingly. Also, the goats showed interest in the clients and thereby substantially activated them and triggered communication of clients, among themselves, with staff or the observers, and with the goats. Similar effects of animal contacts on humans of all ages and states are reported in the literature (Anderson, Hart & Hart 1984; Edney 1992; Friedmann 1995, 2000; Allen 1996; Olbrich 1997; Fine

2000; Podberszek et al. 2000; Otterstedt 2001; Hergovich et al. 2002; Brehmer 2003; Kotschal & Ortbauer 2003). Not all of the changes measured were positive, although the increase of anger spells over time measured at the goats was mainly due to the behaviour of a single client.

In the dining room situation, clients did not show any behavioural changes over time in parallel to the goat situation. This indicates that the observed changes were specific to the goat contact and may not be interpreted as general changes in the individuals involved. In addition, our design would not allow estimation of potential subtle changes in individuals' social and communicative performance. Finally, because clients are enrolled in a multiple-therapeutic programme, it would not be possible to attribute any general change in a client to the contact with the goats only.

Because of the steady changes in client behavioural parameters at the goats over the 11 weeks of the programme (Figure 1), we suggest that the regularity of animal contact was a major factor for these changes (Raina et al. 1999; Robinson 1995). Attentiveness, activity and expressions of joy increased, withdrawal and being passive decreased. A low of attentiveness and joy but high in passivity, measured during weeks 3 and 4 of the programme (Figure 1), indicates a crisis, probably reflecting the initial hurdles on the side of the clients and the staff to come to grips with this new situation. Hence, a temporal limitation of such a programme to just a few weeks or occasional visits may not overcome such thresholds and, therefore, may not reach the quality of regular, long-term projects.

Sustained effects are evidently achieved when the animals become part of the daily environment of clients. Structured interactions with animals took some time to gain momentum. Clearly, there was no 'novelty effect', not unusual in other therapy programmes. Such an effect should have been measurable as a quick return-to-baseline of the parameters studied. In contrast, there was a continuous change over the 11 weeks. It was also remarkable that only while at the goats, the variance between clients in the parameters 'participation in the activities with the goats', 'withdrawal' and 'attentiveness' decreased over time, whereas none of this occurred in the dining room situation. This indicates a gradual increase in homogeneity of the clients' behaviour over time, which again underlines the value of long-term animal contacts.

Our results suggest once more, that animal contact may contribute considerable extra value to therapeutic settings (Lane, McNicholas & Collis 1998; Fine 2000; Podberscek, Paul & Serpell 2000). Contact with goats spontaneously increased joy of life in most participating clients. At least during their time in contact with the animals, they became more attentive towards their surroundings. Some withdrawn clients became more openly communicative at the goats, exchange was triggered between some individuals and conflicts were attenuated. The goat project also remarkably increased the clients' locomotory activity (Olbrich 1997), potentially counteracting the rapid bodily decline which tends to affect impaired persons older than 40 years of age. Also, it is well known that regular animal contact may positively affect physiological variables

(Baun et al. 1984; Edney 1992; Burch et al.1995; Friedmann 1995, 2000; Allen 1996; Baun & McCabe 2000).

Nonetheless, caution is required to not over-interpret. The dynamic and positive changes in client behaviour over the 11 weeks of observation (Figure 1) were only measured in contact with the goats, but not in the dining room situation. Clearly, animals are not a miraculous cure, but they may improve quality of life and support therapy in those clients who accept the animals. In fact, five of the initial 15 participating clients pulled out early, mainly because they were not interested in animal contact. No injuries or traumatic events occurred in contact with the goats. Hence, we conclude that clients enjoyed benefits without evident disadvantages. Regular animal contact clearly enriched their daily routine. Although the additional effort for the host institution may not be substantial, if, for example, basic housing and care for the animals is provided by a neighbouring farm, such a programme may still increase the workload for the institutional staff. On the other hand, the improvements in client mood and sociability, potentially also in conscientiousness and enhanced dependability, a certain period after goat contacts may also enhance the work of staff members.

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Green Care Farms, A Safe Community Between Illness or Addiction and the Wider Society

Marjolein Elings and Jan Hassink

ABSTRACT: This paper presents the results of focus group interviews with 42 people with a psychiatric or addiction history who work on eight different green care farms. Green care farms provide an opportunity for a useful occupation activity for different kinds of client groups and are a growing phenomenon in the Netherlands. In general, participants start at green care farms without concrete expectations; most of them are looking for a useful way of spending their day. Once working on a farm, they especially come to appreciate the social aspects such as belonging to a group, feeling at ease and informality. In addition, they also appreciate the space and being involved in useful activities. Undertaking farming activities helps participants feel useful and healthier and they develop more self-esteem, self-respect and responsibility. Working on a green care farm can contribute more structure and discipline to the lives of participants, which can create the foundation for new activities or (voluntary) work elsewhere.

Key words: green care farms; psychiatry; addiction care; rehabilitation; focus group interviews; therapeutic community

Introduction

The number of green care farms in the Netherlands has increased rapidly from 75 in 1998 to over more than 800 at present. Green care farms, or 'care farming', are defined as the use of commercial farms and agricultural landscapes as a base for promoting mental and physical health, through normal farming activities (Hassink 2006). Care farming is a growing movement that provides health, social or educational benefits through farming for a wide range of people (Hine, Peacock & Pretty 2008). These may include a variety of client groups with defined medical or social needs, such as psychiatric patients,

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people with learning disabilities or people with a drug history. People suffering from the effects of work-related stress are also included (Hine, Peacock & Pretty 2008; National Care Farm Support Centre 2008). The combination of agricultural production and social care is not new in the Netherlands. Some farmers and health institutions can be regarded as pioneers who recognised the benefits of combining agriculture and care. These pioneers were strongly motivated and many were inspired by the anthroposophical movement (Elings & Hassink 2006). Anthroposophy is a spiritual philosophy based on the teachings of Rudolf Steiner, which postulate the existence of an objective, intellectually-comprehensible spiritual world accessible to direct experience through inner development (Baars 2005). Green care farms that are based on the principles of anthroposophy are often therapeutic (work) communities where participants work and live together on the same farm. Haigh (2007) has also described the parallels between therapeutic communities and green care, particularly in terms of underlying values.

The growing numbers of green care farms, and the increasing numbers of clients working on those farms, have led to a need on the part of healthcare organisations and the Dutch government to evaluate the effects of care farms on clients. Therefore we held focus group interviews on eight farms, interviewing a total of 42 people with a psychiatric and/or drug-addiction history.

In addition to the qualitative study, we also started a more sizable quantitative study. In this study, questionnaires are used to collect quantitative and qualitative data over a period of one year. Participants complete a questionnaire before they go to a green care farm ($t=0$), after six months ($t=1$) and after one year ($t=2$). In addition to the green care participants (experimental group) we are also following participants at other day activity centres (Elings, Van Erp & Van Hoof 2005). This quantitative part of the research is still in progress.

The present paper highlights the details of the focus group interviews, just one aspect of the research programme on green care farms. The results represent an analysis of the qualitative material collected in those interviews.

Method

Focus group interview

We did focus group interviews with 42 participants on eight different green care farms. On each farm we also interviewed the farmer, the farmer's wife or the occupational therapist. This qualitative research method was chosen for a number of different reasons. The main reason was to draw upon respondents' attitudes, feelings, beliefs, experiences and reactions. Other methods such as observation or questionnaire surveys would not have been able to adequately reflect the ideas of the respondents. Furthermore, one-to-one interviewing would have cost too much time. Pragmatic focus group research enables the researcher to gain a larger amount of information in a shorter period of time than, for instance, one-to-one interviewing (Morgan & Kreuger 1993; Gibbs 1997). The research method of focus groups also fitted well with the stage of

research that had been reached. Because there were no other research findings, focus groups were considered a good method to use at the preliminary or exploratory stages of a study (Kreuger 1988). The method allowed us to explore the topic and to generate hypotheses about the effects of green care farms (Kitzinger 1995; Morgan 1988). The focus groups were also a way of exploring the type of questions that might be useful in a follow-up survey (Kitzinger 1994). They are, however, limited in terms of their ability to generalise findings to a whole population, mainly because of the small numbers of people participating and the likelihood that participants will not be a representative sample (Gibbs 1997). In addition, some participants on farms did not want to join the focus group, for instance because they did not feel at ease or they lacked confidence. The moderator tried to create a relaxed atmosphere at the beginning of each focus group so every member felt free to participate. One of the benefits of focus group research is that participants have the opportunity to give their opinion and be involved in research. In this way, the focus groups were an instrument of empowerment for the participants.

The focus groups were interviewed using a semi-structured topic list where the main question was: 'What does working on a green care farm mean to you?' Derivative questions were asked on the following subjects.

- Reason for choosing a green care farm
- Expectations and degree to which the expectations are fulfilled
- Current motives for working on a green care farm
- Immediate effects on quality of life
- Most and least valued aspects on the farm
- Sustainable effects on quality of life (making a lasting impression)
- Lessons learned by experience
- The extent to which the farm contributes to recovery and empowerment
- The degree to which the farm contributes to future plans

(Elings, Van Erp & Van Hoof 2005)

The focus group interviews lasted about an hour to an hour and a half, depending on the concentration level of the participants. The interviews were recorded and fully transcribed so we could use the participants' original descriptive words and phrases in the analysis.

Participants

A total of 42 people working on green care farms participated in the focus group meetings. Of these, 21 had a psychiatric history and 21 had a history of drug or alcohol abuse. Some of the latter group had a double diagnosis. In the group with a drug or alcohol history the majority of the respondents were male. In the other group the male-female ratio was more equal.

Conducting the research

The size of the focus group varied from two to seven participants per session. Each session was chaired by one person who guided the interview. In general, sessions consisted of a design that followed roughly the same pattern: the reason why they came to the farm (pre-route), their stay on the farm and their future plans. In the discussion of the results later in this paper we adhere to this format. The chair guided the conversation between the participants and made sure that the questions were answered. The two interviewers received the same instructions. The interviews were processed as soon as possible afterwards and entered into a Word database in such a way that quotations could be found quickly and easily, and grouped together thematically during the analysis.

Results

First we present the general results. How did participants get to know about the possibilities offered by a green care farm? What did they expect? And what did they appreciate during their stay on the farm? Then we show the effects of green care farms on the physical, mental and social wellbeing of the respondents. Finally we summarise the results and highlight the community aspects of green care farms.

What did participants expect?

The majority of the respondents being treated on a green care farm are redirected from some part of the Dutch healthcare system. Usually their social worker, occupational therapist or (job) coach points out the possibility of doing various activities at a green care farm. A small number of the respondents were already acquainted with the green care farm or had heard about it from fellow users. The most important motive for going to a farm is the need for a way of structuring the day and being occupied; 'to have something to do' as respondents say. The motives of 'not being alone' and 'contact with others' are mentioned especially by respondents with a psychiatric background. Participants with a drug or alcohol addiction history say that they are especially looking for distraction from their drug habit. In general, both groups of respondents indicated that they did not have specific training or rehabilitation goals. Respondents, and particularly respondents with a drug or alcohol addiction, indicated that no alternative activities were available when they entered the green care farm. For the respondents with psychiatric problems, 'day activity centres' were an alternative.

The results indicate that the majority of the participants did not make a deliberate choice to go to a green care farm; it is regarded as an opportunity that is expected to fulfil some basic needs such as contact with others,

distraction and a day activity; respondents themselves did not have concrete expectations.

How do participants experience the work on a green care farm?

The majority of the respondents highly appreciate their stay on the farm. This appreciation consists in particular of 'the social factor', 'the freedom/space' they experience and the useful activities. The most important factor, the 'social factor' is discussed in more detail at the end of this paper.

Participants like the space the farm offers them. This refers to a number of aspects: the physical space, being outside and not inside in a day activity centre. Participants also mentioned the freedom to choose an activity they like; farms offer different activities. Freedom also concerns the pace of work, the possibilities to make mistakes and to learn from your mistakes. Participants find it important that there is time to think about yourself, but without the more rigid structure such as that of fixed group sessions held in a psychiatric hospital.

The third aspect of being at a green care farm that respondents appreciate is the useful activities. Farm activities have to be done: feeding and caring for the animals and plants is essential for their growth. The nature of the farm activities is valued by most of the participants.

To what extent do green care farms influence future plans of participants?

Respondents' expectations about the future differ strongly among the group. Their reactions vary from wanting to fully normalise (e.g. having a paid job, a family, etc.) to consolidation of the present situation. Nevertheless many of the participants, especially those with an addiction history, contemplate a (paid) job in the future. These participants attach significance to the perspective of having a job in the future and the financial independence, respect, social contacts and support that a job can provide.

Although expectations about the future differ from person to person, a common characteristic is that almost all respondents have difficulties formulating concrete future plans. Many of them do not have a clear idea of what they would like to do in the future and how to go about realising their plans. Some of the respondents with a psychiatric background in particular express fear of a too heavy workload, or a working environment where there is a lack of understanding, and some are afraid of disappointment based on previous experiences. According to the respondents, working on a green care farm can contribute to their future plans by giving them the opportunity to get used to the structure of having a job, regularity, discipline, responsibility and working in a group. For some the farm work helps them to develop new skills or interests. Information gathered from the interviews seems to indicate that

working on a green care farm does not help participants to plan or realise their future plans.

The effects on quality of life

Here we discuss the effects of working on a green care farm on the overall quality of life of the participants. The results are divided into results concerning the physical, mental and social wellbeing of participants. Where necessary, the outcome of the interviews is presented separately for the respondents with a psychiatric and for those with an addiction history. The results are illustrated with quotes from respondents.

Physical wellbeing

The respondents with an addiction history indicate in the interviews that the work on the farm gives them something useful to do; this helps them in overcoming their drug addiction. The useful activities give them a goal and, therefore, they do not need to hang about on the street or at home all day, where temptation lurks.

You have something to do; if you don't come, you just sit at home the whole day. The most important thing is that you have to get the minibus every morning – it gives you a daily rhythm and something to occupy your mind.

The daily activities help to distract the participants' thoughts from their pre-occupation with drugs or alcohol. Having a structured day with something useful to do is also important for the respondents with psychiatric problems. Before they came to the green care farm, most of them did not have a job and were at home all day or living in a psychiatric clinic. Participants enjoy working on the farm and having some purpose for the day.

For both client groups, the physical work is tiring but gives the respondents a feeling of satisfaction. This fatigue is different than being tired from sitting at home all day.

My life has become much more regular. When I come home I'm starving so I eat a big meal ... and I go to bed earlier because I'm tired, and I sleep well. That never happened before.

According to the respondents they also get tired from being outside the whole day. They experience nature more intensely, for example the regular pattern of the seasons. Contact with nature and crops also teaches you how things grow and flourish, and what to eat and how to prepare it.

You live in harmony with the seasons here, as spring, summer and winter come around. You notice that less if you're in a town. When I come here I notice the surroundings have an immediate effect on me.

Furthermore the participants indicate that their physical condition improves and their body recovers. This is not only because of the work; some notice that it helps them to overcome the physical effects of drugs. Most respondents, especially those with mental problems, are not used to exercise; it builds up their muscles and gives them more energy. Sometimes this leads to muscular pain.

For me movement has always been important, and it still is. I've been suffering from depression for three years and I have to have exercise. I notice that I can do more and I have more energy, but it was difficult as my muscles were sore. Then I realised that they were stiff because of picking beans.

Mental wellbeing

The results of the focus group interviews show that working on a farm has different effects on the mental wellbeing of persons with an addiction history compared to persons with psychiatric problems. Therefore the results are discussed separately.

Participants with an addiction history

The respondents are pleased to have some distraction from their addiction and problems. For a moment they do not need to think about their home situation, the drugs scene or the rehabilitation centre.

I'm really glad to have this: it's a chance to get away for a while, do something other than just wonder what's on television. You think about something else for a bit.

Working on the farm gives a feeling of satisfaction and self-respect. The respondents feel the work is useful and gives them direct results. This leads to more self-esteem and self-respect. The group indicates that other people, and the public, also see the participants in a different way.

My feelings of self-esteem and self-confidence have increased enormously. Here you have a chance to make a go of things and that helps you to grow. And I notice that people in my surroundings react differently to me than when I came out of the clinic. That comes through my own self-confidence - before I felt as though there was a sign hanging round my neck with 'junkie' written on it.

You start to respect yourself more, generally. My mother still thinks I'm a weak person, but John says to me, the work's going well, so keep that in mind. I've still got a long way to go, but I know I've got something to focus on, and that keeps me off the junk.

In addition to the results mentioned above, the respondents value the opportunity to be themselves. That is because everyone is in the same boat and the farmer and co-workers know their background and accept each participant.

We are all regarded as equals here, no one is worth more or less than the other. It doesn't matter if you come from an institution or are mentally-handicapped, everyone is the same. I really appreciate that – no-one has a label here.

Participants with psychiatric problems

The psychiatric respondents emphasise 'getting to know yourself', in other words 'self-acceptance'. They indicate that working on the farm has helped them gain more insight into themselves and to accept themselves as they are. This may mean being better able to deal with an illness, or learning to be yourself rather than living up to the expectations of others.

I'm a real perfectionist; everything has to be just right. It happened with planting the onions: it took me a whole week to get them in a straight line, and when they came up they were all pointing in different directions. Then I realized that it didn't really matter if they were an inch or two to the left or right. Literally seeing that it didn't make any difference helped me understand that I don't have to get so worked up about it. It's still something I worry about, but nature goes its own way anyway.

In addition, we noted that the participants with psychiatric problems stressed self-confidence rather than self-respect and self-esteem, in contrast to the participants with addiction problems. The participants indicate that working on the care farm has led to an increase in their self-confidence. The reason they give for this is that they now do work that they enjoy and from which they see clear (and positive) results. As a participant puts it well:

[w]hat I notice is that I see the results of what I've been doing. I always used to say if I had plants in my room they'd commit suicide, I'll never be any good at anything. But then I started planting and sowing and I enjoyed it, and you see the things growing, coming alive. ... Then I didn't go back to where we'd planted green beans for a month, and I was amazed to see plants over six feet tall. I told everyone about it. That sort of thing helps rebuild your self-confidence. For the past three years I've hardly been able to do anything, and because I've had so little energy I didn't start anything new. And here I see that just a little bit of energy can lead to a huge result.

The participants like the fact that working on the care farm gives them an immediate goal, and the realisation that they are doing something useful. These aspects lead to an increase in their self-confidence, and having something to do provides a distraction from one's illness.

When I'm busy I forget everything. The voices disappear and I feel nice and calm. After working I always feel calmer.

Social wellbeing

The participants were also asked about the effect that working on the farm has on their social wellbeing. We start with a general discussion of the results, and then go into more detail for each group separately.

Both groups of participants agree that working on a care farm is good practice for making the step from their illness or addiction to perhaps undertaking voluntary work or to (re)entering the wider society. A care farm is a good place to practise because you often work together with others who have a similar background. On some care farms, people with different problems work together, and participants on these farms also indicate that they appreciate the fact that colleagues are not all 'normal'.

You don't stand out here if you behave strangely. Here they tend to just think, oh she's just having one of those days ... but no-one complains. In the outside world people would say something like 'act normal' or 'don't make such a fuss'.

Contact with people here is different, more relaxed. That's because everyone is different, no one is normal.

The participants not only value being with fellow sufferers, but also working with people who have nothing to do with drugs, alcohol or mental illness.

Being with others in the same boat isn't even that important; it's the farmer who's so straightforward and it's good working with Susan. It's important to be with people who have nothing to do with all that mess, to work with normal people.

Some participants with addiction or mental illness problems attend farms where people with learning difficulties are also present. They indicate that they really appreciate the presence of these people, as it adds an extra dimension to working on the farm.

Now I'm in the nativity play, and a few years ago I'd never have dared even think of doing that. ... standing on stage in front of the outside world and together with mentally handicapped people: we just do that here and it's great. ... You learn how to act with these people, they help you to get rid of your social fears ...

Participants with an addiction history

A striking difference between the participants with psychiatric problems and those with problems of addiction is that the latter value more greatly the sense of community and working for someone else. With sense of community they refer to the fact that they encourage each other to go to the care farm. As one participant puts it:

I've known him for nine years and I'd invited him a couple of times to go along to the farm. Now he's coming regularly and I never expected him to do that. But now,

if I don't feel like going, he's the one who calls and persuades me to go, reminding me that otherwise I'll just get bored. Sometimes we encourage each other – you can stay in bed longer, but you'll only regret it afterwards and go and hang out with the other guys again.

Other participants mention that they work on the farm to show others that they are doing ok, to reassure them.

If my mother calls at the end of the day I hate having to say I've done nothing. And if I say I've been to the farm, she says 'well done' and I'd rather do that than say I've been smoking.

It is also clear that the participants with addiction problems also attach importance to having work as this makes them feel part of society, that they are doing the same as everyone else.

It's not only about earning money for your work and therefore not being dependent on social security, but also being able to say that you have work and that you have something to talk about with others.

When I meet other people socially I say I'm a volunteer on a farm. If you say you're in rehab/addiction care, conversation tends to dry up. So you are still part of society, it's not as though you're not doing anything because of your addiction, or just claiming social security. You're still working, but you're earning money in a different way.

Participants with psychiatric problems

Participants from psychiatric care attach great value to care farms as communities; where a close group is formed from a wide community together with a farmer, farmer's wife, co-workers and colleagues. Being part of the farming family is also valued.

It helps you with getting a life and a feeling of belonging is very important; I don't want to stay behind alone.

The drugs scene gets to be a way of life, and if you give that up you have nothing, especially if you're in a depression, with no-one around. Your family gave up ages ago so you can't rely on them. Now there are people who need your help, are glad that you've come to work here, and you've got good workmates. You build up social contacts. And the respect you feel, that people are expecting you and ask whether you're coming back to work. You've got a circle again.

They organise things here like a Christmas celebration. It's like having a big family, or being in a small village. It's a warm and close group.

People with psychiatric problems also indicate that working on the care farm has taught them how to make contact socially. This is particularly the case for

participants who have built up a particular social fear as a result of their illness; the care farm is a safe place to learn how to build up contact with people.

Community

The results indicate that the social aspects of green care farms are the most appreciated by the participants. The results show two important elements.

First, the fact that there are people with all sorts of backgrounds on the farm, but they all have some kind of 'problem' or 'issue'. These are dealt with in an atmosphere of mutual acceptance and respect. People are not judged on their past or problems. They can be themselves, as there is no pressure to behave differently from how one is. In their appreciation of this aspect, many participants also include the way they are treated by the farmer and his wife. Receiving respect from 'normal' people is a positive experience. At the same time, several participants who were initially wary in the presence of people with learning difficulties now indicate that they really appreciate their presence.

In addition to being accepted and respected (and accepting and respecting others), many participants regard being part of a social group and the feeling of 'belonging somewhere' as a positive experience. Many participants mention the way that the farmer and the farmer's wife create a good atmosphere and the positive experience of being part of a farm household. Many feel that the atmosphere - which they describe using words like 'sociable', 'feeling of community', 'working together', 'spontaneity/lack of rules' - is unique to care farms and that they are unlikely to encounter it elsewhere. Some mention this in reference to a different atmosphere such as the work ethic or therapeutic climate they have experienced elsewhere. Some participants also mention the organised social activities in addition to the work they carry out. This atmosphere is also mentioned by clients in a Dutch study of therapeutic communities. They speak of an equal relationship between clients and co-workers, a respectful approach and the way co-workers emphasise the potential and qualities of the clients (Ketelaars, Baars & Kroon 2001). A similar experience has been described for Geel (Belgium), one of Europe's first therapeutic communities. Roossens and van de Walle (2007) mention that the relationship between guests and family in Geel is of prime importance. If the reciprocal emotional bond which reinforces social inclusion is not present, the relationship becomes problematic.

The social aspect - the feeling of belonging, and being accepted and respected - is clearly at the top of the list of aspects of care farms that the participants value. But the combination of this with other aspects seems also to appeal.

Conclusion

That working on a farm is good for participants is confirmed by the literature and interviews with the participants, farmers and co-workers on the farms in this study.

The atmosphere on the care farms is pleasant and convivial. The farms offer space (both literally and figuratively) and a possibility to do enjoyable and useful work. It is this combination of factors that make the farms different from other opportunities for work or occupational activities. Participants feel better both mentally and physically as a result of time spent on the farms: they say they feel fitter, more useful and regain self-confidence and self-respect.

While the value of the farm starts to be perceived during a stay, the participants' specific wishes and ideas for the future remain unclear, also for themselves.

And, once they have started on a care farm, the participants' wishes (or the steps required to fulfil these wishes) do not become clearer or more concrete.

Possibilities to move on to something related, or for further development, would seem to be (very) limited. Nevertheless, most participants (some more than others) are either considering the possibility of social activities elsewhere or are dealing with their fears related to this.

In conclusion it would seem that for many participants care farms are valued as a pleasant resting place in an existence that fluctuates between undefined hope and fear that is rooted in past experience. It can be a resting place that some would prefer not to leave (for the time being), but also one that others do not (or cannot) regard as the last stop.

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Theoretical Framework for Animal-Assisted Interventions – Implications for Practice

Bente Berget and Bjarne Olai Braastad

ABSTRACT: The aim of the article is to describe different aspects of the human-animal relationship, and why animals may positively impact on human health. Animals may affect their owners at home or in a more specialised setting (Animal-Assisted Interventions, AAI), e.g. in a therapeutic community. Some of the underlying mechanisms in this relationship are presented. These include animals as facilitators of social contact, providing social support, and contributing to improvement of self-esteem and self-efficacy. Animals may also serve as attachment figures, and different elements of this are presented; emotional bond, secure base, and representational models. Animals may also have direct physical effects on humans, e.g. by reducing risk factors of cardiovascular diseases. Finally, practical advice on how Animal-Assisted Interventions may be implemented in a therapeutic community is given.

1. Introduction

According to historical and prehistoric evidence, it is believed that the social symbiotic relationship between man and animal developed without any coercion from the human's side (Odendaal 2000). It is thus possible to explain the unforced, natural way of establishing a social symbiotic relationship between man and animal by well-developed needs for attention. However, although the basic mechanism may still be the same, the human-animal relationship has become more varied and intensified in modern times. During the 20th century the introduction of animals to institutional care settings increased, and the concept of animal-assisted therapy was first mentioned by the child psychotherapist Boris Levinson, the founder of pet-facilitated therapy (Levinson 1962). Levinson described the benefits of his own dog in counselling sessions with children and youth, and gave numerous examples of ways in which the dog could enhance therapy.

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What are Animal-Assisted Therapy (AAT) and Animal-Assisted Activities (AAA)?

Animal-Assisted Therapy (AAT) is the term now used for a goal-directed intervention in which an animal that satisfies certain criteria is an integral part of the treatment process for a particular human client. The process is directed by a therapist who is practising within the scope of his/her professional expertise, and the intervention is documented and evaluated (Delta Society, USA). The therapeutic role of companion animals is mainly established for physically-ill persons, persons with psychiatric disorders, emotionally-disturbed persons, prisoners, drug addicts, the elderly, and children. A recent update of this evidence was edited by Aubrey H. Fine (2006). More recently the therapeutic role of horses and farm animals is being investigated for different target groups.

In contrast, Animal-Assisted Activities (AAA) is the term used for a less controlled service that may have a therapeutic effect, but which is not a true therapy in a strict sense. Both health personnel and lay persons can be involved. As there may not always be a clear-cut distinction between AAT and AAA, it has been suggested to collectively term such organised use of animals as Animal-Assisted Interventions (AAI; Kruger & Serpell 2006). In this article we will use the term Animal-Assisted Interventions to focus on different aspects of the human-animal relationship.

Green care as part of a therapeutic community

Related to Lees (1999) a therapeutic community is defined as a

consciously designed social environment and programme within a residential or day unit in which the social and group process is harnessed with therapeutic intent. In the therapeutic community the community is the primary therapeutic instrument.

In a broad understanding of a residential or day unit, green care may fit into the context of a therapeutic community. Green care is basically the utilisation of agricultural farms for promoting human mental and physical health in cooperation with health authorities. On the farm, the animals, the plants, the forest and the landscape are used in recreational or work-related activities. If not pure therapy, such activities may have therapeutic value according to extensive experience. In several European countries the therapeutic use of plants and farm animals is well known and, historically, psychiatric hospitals were often situated on farms which provided green care, e.g. in Norway (Haugan et al. 2006). Today, most green care projects involve community gardens, city farms, allotment gardens and traditional farms. Because many green care farms are rather small compared with most modern farms, there is often a diversity of activities, with the possibility of meaningful work for different people and target groups.

Another important quality of green care farms is the protective and caring environment provided by the farmer's family and the social community in which the clients are working or living. Frequently, a small group of clients work together on the farm. In a Norwegian master's thesis on AAI among patients with depression, Nordaunet (2008) found that the patients with the largest decrease in depression and anxiety and the largest increase in self-efficacy during a three-month intervention with dairy cattle were those who were most pleased with the cooperation with the farmer. Green care farms may differ somewhat between different European countries. Yet, according to Hassink and van Dijk (2006), positive experiences with green care like self-esteem, responsibility and sense of purpose are similar in the different countries.

Why do animals positively impact on human health?

Animals may be beneficial to humans because they are part of nature, are nice to touch and stroke, serve as a social companion or a subject to care for, or serve as a subject for work that the person manages to do resulting in enhanced self-efficacy. It is likely that there are several mechanisms representing different ways in which animals may positively impact on human wellbeing and health. The mechanisms in operation may depend on the target group, the animal species and the setting. Because there is hardly any evidence comparing the therapeutic effects of different animal species on separate target groups, this article will focus on animals in general. If animals are to be beneficial to human health, the interaction must function well. In the following, a short description of some of the main aspects of this interaction is given, together with theories that may explain the mechanisms involved. Finally, we will point out some practical implications of AAI in a therapeutic community setting.

The following mechanisms will be discussed: (i) animals as social mediators, (ii) animals as facilitators of self-efficacy, (iii) animals as attachment figures, and (iv) animals as contributors of physiological changes.

2. Human-animal interactions

According to Katcher (2000), animals are suitable therapeutic agents because they show intentional behaviour, they are capable of giving active affection, they can never contradict the attributes projected into them with words, and they can serve as vehicles for projection traits one might find lacking in human beings. To maintain this relationship, interactions are necessary and will affect both the human and the animal (Bokkers 2006).

It is not obvious that the human and the animal have a similar perception of their interaction. What a human experiences as pleasant, may be unpleasant for the animal. Breuer et al. (2000) found that cows' fear of humans accounted for 19% of the variation in milk production between farms. In a standard fear test, cows approached an unfamiliar experimenter less at farms where the milk yield was low than at farms where the milk yield was high.

It has been known for many years that dogs and cats that have close contact with humans early in their lives are much friendlier to humans than animals that are exposed later on (Bateson 1990). The restricted age range within which such socialisation is readily formed is known as the sensitive period for socialisation, typically 3–12 weeks of age in dogs and cats. When this period starts, the animal is ready to form an attachment to a wide range of objects, but as it receives experiences with one object, it narrows its preferences to that object. The effect is to shut out the experiences with others, and the animal is no longer able to enable new attachments. If the animal is exposed to several views of the same object while it is still narrowing its preferences, each of those views will be equally effective. Similarly, if the animal is exposed to different animals, including humans, it may form attachments to each of the objects, and the strength of the attachment will be related to the length of the exposure to the different individuals. When young animals are being exposed to several human individuals, the effect is more a general socialisation on humans than attachment to a specific individual. If pet breeders do not give the young animals sufficient experience with humans, the animals will hardly function as pleasant, sociable pets. It is assumed that also farm animals should be socialised on humans in early life to function most effectively in animal-assisted interventions and to avoid aggressive or fearful behaviour (Berget 2006). Even without specific work on socialisation, farm animals can usually be stroked, people can talk to them, and they may be good transitional beings like pets are.

To summarise, animals' interaction with humans can be gentle, friendly and caring, or aggressive and unfriendly. The interaction can be of different types; non-tactile or tactile, vocalisations or eye contact.

2. Animals as facilitators of social contact

One suggested mechanism is that animals may serve as catalysts or mediators of enhanced conversation skills among people. A study by Messent (1983) showed that dog owners walking in a park experienced a significantly higher number of chance conversations with other park users than when walking the same route without the dog. The study also demonstrated that the conversations were significantly longer when the dog was present. The presence of a dog acted as an ice breaker, providing a neutral and safe opening for conversation. A similar study by McNicholas and Collis (2000) showed that being accompanied by a dog in daily routines such as taking children to school, on public transport, for example, led to an increased number of conversations between people. However, the length of interactions did not increase, and the study demonstrated that the nature of the interaction depended on the relationship between the participants. The effects of the dog as a social catalyst were largest with strangers and smallest with friends. Another study by Bernstein, Friedmann and Malaspina (2000) demonstrated that geriatric persons subjected to AAT were more likely to initiate and participate in longer conversations than a control group getting Non-Animal Therapy (NAT) like arts, crafts and snack bingo. Similar effects were found in a 12-month controlled

study of elderly schizophrenic patients where contact with a pet, either a dog or a cat, resulted in significantly improved conversational and social skills in the experimental group compared with the controls (Barak et al. 2001). These and other studies have demonstrated the robustness of the effects of companion animals as catalysts for social interaction between people.

It has been shown that AAT may improve the abilities of traumatised children with affective-relational and behavioural problems to better differentiate between oneself and others, and to help the children to enter in contact with their own emotions (Levinson 1962; Buttram et al. 2007). There is also evidence that in a child-psychiatric population aged seven to 14 years, the children developed significantly higher social adjustment if they grew up with domestic animals and if they were able to adequately cope with loss of the animal during childhood (Kacic, Zimmermann & Strehlau 2007).

3. Animals as social support

According to Cobb (1976) social support is defined as an interpersonal relationship that leads to where 'the persons believe in being cared for, loved, esteemed, and a member of a network of mutual obligations.' Cobb suggested that social support that derives from a social relationship could provide protection from anxiety, depression and other related illnesses. This belief has been supported by research associated to mortality and morbidity of coronary heart disease (Eriksen 1994), recovery of surgical procedures (Kulik & Mahler 1989), and psychological wellbeing under stress (Winefield, Winefield & Tiggermann 1992). The emotional support in initial stages of a severe stressor, like loss of functionality (Glass et al. 1993) and cancer diagnosis (Wortman 1984), are also shown to be of importance for successfully coping with such stressors.

It is hypothesised that social support acting as a buffer against stress responses or illness can be derived not only from human relationships, but also from a human-animal relationship. According to McNicholas and Collis (2006) social support from pets may be a replacement for lacking human support, providing a release from relation obligations, enhance reorganisation, re-establish routines, and 'top up' existing human support.

4. Animals as facilitators of self-efficacy and self-esteem

Another benefit of AAls is often ascribed as the ability of animals to act as living, interactive tools that can be used to help people see both themselves and the world in new ways, and add new skills and responses to their behavioural repertoires (Nebbe 2000).

Based on social cognitive theory, there is a continuous relationship between a person's cognition, behaviour and environment, and the goal of therapy is to bring about positive changes in a person's self-perception and hence their behaviour by improvements in self-efficacy, self-esteem and locus of control. According to Albert Bandura (1977) self-efficacy is concerned with judgements

of how well one can execute courses of action required to deal with prospective situations. People avoid activities that they believe exceed their coping capacities, but they undertake and perform assuredly those that they judge themselves capable of managing. People with low self-efficacy avoid difficult tasks, they lower their goals, and seek less support from others. Failures make them lose faith in themselves, and in turn contribute to lowered mood and depression (Bandura 1982, 1986, 1997).

Previous studies have demonstrated that therapeutic horse riding can improve self-confidence, social competence and quality of life (Fitzpatrick & Tebay 1997; Burgon 2003; Bizub, Joy & Davidson 2003). There are to date few long-term follow-up studies of the impact of AAI with pets on self-efficacy and self-esteem. However, a recent doctoral thesis based on a randomised, controlled study of a three-month intervention with dairy cattle for severely diseased psychiatric patients (mainly mood disorders, anxiety disorders, personality disorders, and schizophrenia) showed that anxiety was lower and self-efficacy higher at follow-up six months after the end of the intervention compared with baseline for the treatment group, but not for the controls (Berget 2006; Berget et al. 2007). Among the diagnostic groups only the patients with affective disorders showed significant increase in self-efficacy and quality of life during the follow-up registration. The study indicated that positive effects of animal interventions on self-efficacy among these patient groups may take a long time to develop.

5. Animals as attachment figures

According to Triebenbacher (1998) humans have an innate, biologically-based need for social interactions, and this interaction becomes increasingly focused toward specific figures. Behaviours such as following, smiling towards, holding and touching are evident in the relationship between child and attachment figures. Bowlby (1982) defined attachment as a form of behaviour in an individual seeking or maintaining proximity to another that serves as a secure base, and who is perceived as better able to cope with life stressors. Fundamentally this kind of attachment is found between a mother and offspring.

To date, theories of attachment used in research on human-animal relationships are based on theories applied on human-human relationships. Katcher, Beck and Levine (1989) recorded that a lot of persons appeared to have an attachment to their companion animals similar to that experienced with their friends and family, and Stallones et al. (1988) found that 95% of elderly respondents regarded their companion animals as friends. In other studies, Cain (1983) and Voith (1985) found that a majority of the subjects regarded the pets as members of the family. Sife (1998) showed that as many as 70% of people who share their lives with companion animals reported that they consider them as children, while a similar study of Wallendorf and Belk (1987) documented that a majority of the respondents answered that their pets were substitutes for children, which may explain the tendency for people to use baby

talk when speaking to their pets. Many human personality variables have been identified as being related to pet attachment. For example, people who had pets during childhood or adolescence tended to be more attached to their current pet than first-time caregivers (Kidd & Kidd 1980). Women tended to be more attached to their cats than men, adults without children were more attached than those having at least two children (Sandem & Braastad 1999), while single adults tended to be more attached than married adults (Kidd & Kidd 1980). People who indicated a dog as their favourite pet tended to express a stronger attachment than those who reported a cat to be their favourite pet (Johnson, Garrity & Stallones 1992).

Crawford, Worsham and Swinehart (2006) examined if there were some common concepts between traditional attachment theory and human-animal attachment. The authors divided these aspects into, among others, emotional bond, secure base, and representational models.

Emotional bond

According to Crawford, Worsham and Swinehart (2006), emotional bond is associated with closeness, frequency of petting or grooming one's animal, and levels of exercise. Enders-Slegers (2000) related emotional bond to caressing or holding an animal, or comfort derived from the relationship with the companion animal, while Odendaal (2000) claimed that the success of human-animal interaction is based on a two-way fulfilling of attention needs, and that the more social behaviour an animal exhibits, the more successful the bonding between human and animal can be.

Secure base

As mentioned earlier, the concept of secure base is fundamental in the field of attachment theory (Bowlby 1988). The emotional security that pet owners report feeling in the relationship with their pets may in some ways parallel physical and emotional security as discussed within attachment theory (Triebenbacher 1998).

Representation models

One's representational model of attachment often influences one's ability to deal with stressful life events (Bretherton 1985). Similarly, with traditional attachment theory, an individual's relationship with a companion animal may determine how well he or she will cope with stressful life events (Siegel 1990).

To summarise, attachment implies a long-lasting bond, and correlations between attachment and positive therapeutic outcomes have yet to be convincingly established in relation to human-animal relationship. In the context of AAI, the animal as a transitional object may appear to be more

therapeutically desirable than that of an attachment figure (Katcher 2000; Kruger & Serpell 2006).

6. Animals as contributors of physiological changes

In general, there is pronounced interaction between physiological and psychological mechanisms, particularly with regard to brain mechanisms that influence behaviour. Contact with companion animals is associated with positive changes in cardiovascular functioning and concentration of various neurotransmitters, reduction in psychosomatically-related diseases and afflictions, and fewer visits per year to the doctor among the elderly. In addition, regularly walking a dog or working with farm animals may improve the physical condition, which again may positively affect psychological functioning. Good physical health is desirable for its own sake, and can be regarded as a positive side-effect of some types of AAls.

The first published report on effects of companion animals on physical health was made by Erika Friedmann et al. (1980). This report showed a relationship between owning a dog or cat and increased probability of survival one year after heart attacks, myocardial infarctions or severe angina pectoris. While 28% of non-owners died within one year, only 5.7% of pet owners died. Later research has confirmed this finding (Friedmann & Thomas 1995). The increased survival could not be related to differences in seriousness of the attack, psychological or social status, or demographic variables. A large-scale study of 5,741 people attending a health clinic in Australia showed that male pet-owners on average had lower levels of systolic blood pressure, cholesterol and triglycerides in the blood stream than non-owners (Anderson et al. 1992). In women, these effects were only found for those above 40 years of age. While dog owners exercised more than cat owners, these risk factors for coronary heart disease were equally low in both dog and cat owners. Stress-reducing effects of watching fish in an aquarium have been shown in several studies (e.g. Katcher et al. 1983). The same parasympathetic effects apply to watching animals of other species that people trust, while the opposite may be found for watching threatening animals. Interaction with a companion animal is also related to increased parasympathetic nervous activity (Matsuura et al. 2007) and increased level of salivary amylase activity, which is associated with improvement of the immune function.

People who adopted dogs or cats from an animal shelter experienced significant reductions in minor health problems, like headaches, hay fever, painful joints, insomnia, tiredness, and digestion problems (Serpell 1991). The effects were maintained longer in dog owners than in cat owners. Serpell tentatively explained this as being due to increased exercise in dog owners and merely a psychosomatic effect in cat owners.

Positive physical contact between humans, like nursing a baby or stroking, caressing or massaging between adults, may release the hormone oxytocin, which is produced in the hypothalamus (Uvnäs-Moberg 1998). General effects of oxytocin are relaxation and reduced stress level. Oxytocin coordinates both the

causes and the effects of positive social interactions, and it can be conditioned to the psychological state or imagery of people. Odendaal (2000) found in studies of positive interaction between humans and their dogs that both species showed lowered blood pressure and increased levels of oxytocin and β -endorphin. This indicates a mutual benefit of such interaction in both man and dog.

To summarise, animals may positively affect human physical/physiological health in two directions, both involving psychological components: (i) by stimulating exercise and physical condition, also resulting in reduced stress and enhanced mental wellbeing, and (ii) by stimulating psychological mechanisms, leading in turn to improved protection against psychosomatic diseases and afflictions.

7. Attitudes to animal-assisted interventions among therapists

Studies among therapists have shown that they utilised pets as vehicles for cultivating or modelling the positive nature of interpersonal relationship (Rice, Brown & Caldwell 1973). Most of the 40 respondents pointed out that animals were used to ease the stress of the initial phase of therapy to establish rapport. Another study by Berget, Ekeberg and Braastad (2008b), examining psychiatric therapists' (n=60) and farmers' (n=15) knowledge, experience and attitudes to green care and AAT with farm animals for people with psychiatric disorders, showed that most of the therapists thought that AAT with farm animals contributed to increased skills in interactions with other humans. Two-thirds of the therapists believed that AAT with farm animals to a large extent could contribute better to mental health than other types of occupational therapy. There were no differences in attitudes to AAT between psychiatrists/psychologists and psychiatric nurses.

8. Implications for practice

According to the CEC (Community Education Centers 2005), Therapeutic Community (TC) programmes provide a treatment milieu that motivates and assists residents in achieving meaningful goals and developing work skills that are consistent with the behaviour of responsible members of society. The TC programmes use a hierarchical model that reflects increased levels of individual and social responsibility, and the residents learn and assimilate social norms through work assignments and peer group processes. Interventions with animals may facilitate responsibility and social skills through daily work that includes feeding, brushing, cleaning and caring for living others. Animals may provide a milieu that facilitates the respondents to 'get in touch' with their feelings. Interventions with animals may also be important in helping individuals to achieve increased self-esteem, self-efficacy and locus of control. Previous studies by Berget (Berget 2006; Berget et al. 2007; Berget, Ekeberg &

Braastad 2008a) appear to confirm this. Therefore, including animals in TC programmes may potentially enhance the efficiency of the social processes.

Although an intervention with animals may be enjoyable, it does not necessarily have any therapeutic effect. The mechanisms described above will be valuable in order to understand how interventions may work, so the best practice procedures and programmes can be implemented into a therapeutic community. If the therapeutic community were located in a town, it would be difficult to get use of traditional farm animals, and interventions with companion animals would be more suitable. Interventions with farm animals require knowledge of feeding, possible animal diseases, zoonoses, the animals' need for exercise and stall conditions. AAls may need to involve local human service providers, veterinarians, and animal care providers. To make sure AAls function well, a number of considerations need to be addressed. First, to organise the programmes it will be advantageous to establish an interdisciplinary advisory board with knowledge about the patients, the animals, authorities and organisations involved. Second, it will be essential to calculate costs that are reasonable and compatible with budgetary constraints. Third, it will be appropriate to establish lines of authority, duties of responsibility, and procedures of quality control. Fourth, it will be necessary to consider the welfare of the animals, and also the welfare of patients, staff and visitors who do not appreciate animals. Finally, it will be of importance to minimise sanitation needs, zoonotic problems, noise and other environmental impacts that could cause objections to such programmes.

9. Conclusions

The relationship between people and animals is complex and multideterminate. The theoretical framework is at present insufficient. Processes of human–animal interactions may partly be explained by a number of different models or theories, other candidate theories not presented here being sociobiological theories (biophilia hypothesis, Wilson 1994), attention restoration theory (Kaplan 1995), and learning theory. The biophilia hypothesis may serve as an umbrella theory merely explaining why nature is interesting to humans, but cannot easily provide scientific predictions. The various theories are not mutually exclusive; sometimes several theories may be in operation at the same time and most probably with individual variation among clients. For example, Beetz (2007) found positive correlations between empathy among severely-disturbed children and the ability to use animals as social support, and a significant relationship between empathy and physical contact with a pet. New theories should be developed that generate testable predictions of specific effects of human–animal interactions. Yet, also, a comprehensive theory of human–animal interactions should be developed as a necessary base for further research.

Although some theories are used to explain the effects of companion animals on human health, e.g. physiological changes, no theory is established to explain the effects of farm animals on human health. One can assume that

there is great, but perhaps not complete, overlap between these two major types of AAI. It will be of great importance to further develop a theoretical framework that also covers effects of farm animals on human health and wellbeing.

Collaborations between the various disciplines involved in AAIs are important to help the topic to expand into new therapeutic arenas and treatment milieus, develop more professional standards of practice, achieve additional credibility, become recognised as a legitimate and multidisciplinary speciality, and gather much-needed clinical and research data. Studies of different AAIs in TC settings will be of importance to document whether animals may have clinical implication and enhance the TC processes.

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Epilogue

Growing Together

Rex Haigh

Green care is a range of activities which promote health and wellbeing through contact with nature. Those used and generally accepted as valuable for mental health include care farming, therapeutic horticulture, animal-assisted interventions and green exercise. *Care farming* is the use of a farm environment in various ways; *therapeutic horticulture* specifically working with plants, usually for food, while *animal-assisted interventions* use a range of routine and specialised ways of relating to animals for therapeutic purposes. *Green exercise* involves undertaking a structured exercise regime in contact with nature, specifically for health reasons. Others, which are closely related, such as woodland crafts, wilderness therapy, maintenance and restoration ecotherapy work, and other regular and purposeful contact with nature, have not yet become part of the mainstream.

Therapeutic communities are consciously designed social environments. In some, people with various emotional problems spend time and engage in treatment together in an organised and structured way without drugs, other addictions or self-harming behaviour so that a new life in outside society is made possible. In others, people who cannot live normally in society (for reasons such as severe learning disability or persistent psychosis) engage in an interdependent form of group living which helps them live a more fulfilling life and achieve their maximum social potential. The workings of the communities themselves are the method, and through these social and group processes, change and growth are promoted.

Both Green Care and Therapeutic Communities have long and honourable histories, and it is only in the last few years that both have evolved and 'rebranded' themselves to reassert their value, and their values, in a modernised, more regulated and more tightly-managed world. In this, they face similar challenges, such as the requirement for experimental evidence in order to gain due recognition of their worth (Sempik 2008, this volume) and, although

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these two definitions might seem to be unrelated, there are underlying similarities that are seen as much in practical details as theoretical foundations. For example, many therapeutic communities have evolved their own horticulture and animal care without any specific knowledge of, or interest in, the existence of a discrete field of endeavour called 'green care'; some have gone as far as to have developed commercial operations to sell produce or to achieve partial self-sufficiency. In the other direction, most green care projects engender a sense of connectedness to nature and for the participants to each other – the latter being a fundamental requirement of a therapeutic community in how people are attached to it, feel safe with each other, and are involved in it. The self-affirmation of productive activity, be it through animal care or growing plants, also is absolutely in keeping with the sense of empowerment and personal effectiveness that come from successful time in a therapeutic community. These themes emerge in Marjolein Elings' paper, in how she describes Dutch care farms as transitional spaces, in a way that therapists might see as Winnicottian.

In this special edition of the *International Journal of Therapeutic Communities*, several theoretical essays and practical projects have been included to capture a number of areas of mutual interest. The item about Lothlorien by Brendan Hickey is about a Scottish therapeutic community, which could be a textbook case study of an almost equally-balanced mixture of green care and therapeutic community – and deliberately designed to be so. Some of the papers describe innovative green care projects which are not part of therapeutic community programmes, but would fit well within them: Silke Scholl and Kurt Kotrschal's paper about measuring the therapeutic effects of structured contact with Austrian goats, and Erja Rappe's description and an evaluation of group gardening in Finland. A major strand of therapeutic community work in the UK is in custodial settings, and Liz Ormerod puts the case for pet programmes in prisons; the observed reduction in disturbed behaviour with pets is analogous to that seen in prison wings that operate as therapeutic communities. In a more theoretical vein, Ambra Burls gives a systemic discussion of some of the dynamics of green care, while Rachel Hine, Jo Peacock and Jules Pretty give an authoritative account of the nature of green care and their research into current activity in the field.

For several reasons, this conjunction is very timely. In mental health, dissatisfaction with the loss of human and social aspects of psychiatry in the face of scientific and technological dominance has been forcefully articulated by Bracken and Thomas (2005). Another current trend is to play down a focus on illness and pathology, and take a more positive attitude: Cloninger (2006) describes 'The Happy Life; voyages to well-being'. A related venture, in the face of the relentless rationalism of evidence-based decision making, is work to define an underlying value base: evidence-based practice may be necessary for services and units to survive in the current climate, but many feel it is not sufficient. Fulford (2004) has related it to principles of moral philosophy, and the Sainsburys Centre for Mental Health has developed a workbook, by Woodbridge and Fulford (2005), for practitioners to examine the values which

underlie their practice. A value which is rarely mentioned in academic writing, but frequently mentioned as of importance in day-to-day green care or therapeutic community work is that of understanding and working with spiritual needs as well as biological, psychological and social ones. A working paper for the COST Action 866 has been submitted on this theme (Hadden & Haigh 2007).

Recent work by the Royal College of Psychiatrists' 'Community of Communities' project has defined a set of ten core values upon which accreditation standards are based.

- Healthy attachment is a developmental requirement for all human beings, and should be seen as a basic human right.
- A safe and supportive environment is required for an individual to develop, to grow, or to change.
- People need to feel respected and valued by others to be healthy. Everybody is unique and nobody should be defined or described by their problems alone.
- All behaviour has meaning and represents communication which deserves understanding.
- Personal wellbeing arises from one's ability to develop relationships which recognise mutual need.
- Understanding how you relate to others and how others relate to you leads to better intimate, family, social and working relationships.
- Ability to influence one's environment and relationships is necessary for personal wellbeing. Being involved in decision making is required for shared participation, responsibility, and ownership.
- There is not always a right answer and it is often useful for individuals, groups and larger organisations to reflect rather than act immediately.
- Positive and negative experiences are necessary for healthy development of individuals, groups and the community.
- Each individual has responsibility to the group, and the group in turn has collective responsibility to all individuals in it.

The European Union Action 866 project is compiling a 'conceptual model framework' for green care, and work to define its value base is also underway. An early draft of it includes the following values (Hegarty 2008).

- Contact with nature is important to human beings.
- People can find solace and therapeutic benefit from contact with natural places and animals.
- Contact with nature, when allied with a therapeutic programme and relationship with care workers and therapists, can be used as an element in a therapy programme for people seeking help.

Of more practical and economic significance than the value base are the policy drivers, which are relevant to the case to be made for therapeutic programmes based on green care. Several current government initiatives are relevant, but much high level work will be needed to 'join them up' in a way that might

encourage the development of green care programmes based on therapeutic communities.

- Contestable commissioning: health commissioners are expected to consider a range of providers to ensure best quality and value for money.
- 'Personality Disorder: No Longer a Diagnosis of Exclusion': requires the commissioning of user-friendly local services for personality disorder.
- New Ways of Working: more efficient and effective working practices for psychiatrists and mental health professionals.
- Extending choice for patients: supporting service user empowerment and 'partnership with patients'.
- World Class Commissioning: organising and coordinating health services based on a complex array of requirements.
- DEFRA Leader Plus initiative: to encourage innovation in use of farm resources.
- Wellbeing and the Natural Environment: to promote 'sustainable and health-promoting use of the environment'.
- Putting people first: 'A shared vision and commitment to the transformation of adult social care'.
- Social Enterprise: a strategy for success: Government strategy launching social enterprises and Community Interest Companies.
- Offender mental health care pathway: offender management system to introduce coordinated mental health care for prisoners.
- The Common Agricultural Policy Single Payment and Support Schemes Regulations: changes from old 'set-aside' arrangements to the single payment scheme.

Therapeutic communities have long-established methods for effectively using day-to-day activities of living as part of intensive treatment programmes, and modern methods of quality assurance, audit and accreditation. Green care has widespread support, its organisations can facilitate the contact with nature that is called for, and its various activities could provide a wide range of purposeful work as part of people's therapy. Many types of green care will not require the treatment intensity inherent in therapeutic community work, and many therapeutic communities do not have the facilities or access to make much use of green care – but where the two can come together, both could benefit from each other's strengths in developing new programmes, which are values-based as well as evidence-based, sustainable and very powerful.

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Cultural Review

Imagining Animals – Art, Psychotherapy and Primitive States of Mind

By Caroline Case

Routledge, 2005 P/P, pp.241, £18.99, ISBN: 1-58391-958-9

Main House, a 'no pets allowed' National Health Service Therapeutic Community, has seen a plethora of cats, dogs, rats, fish, birds, squirrels and ducks in its eight-year history, which have impacted in various ways upon the life of the Community. I chose to review this book to explore further the influence of animals/animal images upon people in therapy. Outlined as 'of interest to all arts and play therapists working with children as well as adult psychotherapists interested in the use of imagery,' I read the text from the perspective of someone from a nursing background working with adults with complex needs.

Caroline Case has much experience in the use of analytical art therapy with children and in this book she explores how the use of animal imagery and taking on an animal persona in play can help a traumatised child begin to express difficulties and develop psychically. It is structured in three parts, each with an introduction followed by chapters exploring a theme: Part 1 'Working with children who are hard to reach'; Part 2 'Closeness and separation'; and the third, titled 'Case study: the heart and the bone'. Throughout, there are explanations of theories, including neurological research, effects of maternal depression upon the child, Bion's theory of 'container/contained', attachment, object relations and the process of projection, which are conveyed in an accessible yet informative way. I found that the case studies used throughout provided an engaging and emotionally-moving perspective to her work and helped me understand the links to the theories outlined. The photographs of the actual images that the children in the case studies made add further impact for the reader.

The author explained that art therapy and psychotherapy for children developed only after use in adults. It seems paradoxical then that, to gain further understanding of the adults that participate in therapeutic environments

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such as a Therapeutic Community, this process is reversed and clinicians first gain an understanding of the child. As stated in the first chapter, early intervention for damaged children is important in their recovery but 'it is not too late for older children' although reparative work is 'a slow and uphill task.' The focus of the work in the text is upon older children but, as we know, effective reparative therapeutic work continues with traumatised adults. Whether child or adult, so much of what people bring to therapy is 'unspeakable' and the ease at which animals physically breached the boundaries of Main House contrasts with the difficulty many clients face in talking about trauma. The use of imagery that the animals may have brought to people's therapy is perhaps as accessible for children as it is for adults and a creative way for clinicians of all disciplines to grasp another opportunity to help people express the 'unspeakable'.

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OK

[SCAS logo goes in here - in greyscale - to fit space]

OK

The Society for Companion Animal Studies (SCAS) is a UK-based charity dedicated to understanding how interactions between people and companion animals can improve quality of life and wellbeing. SCAS works with the public and people of different professions to positively influence understanding, policy and practice. It provides information, education and training on many aspects of the human-companion animal bond through publications, conferences, training and research.

SCAS will be running a training course
in animal-assisted therapy
in the UK next year:

“Companion animal interventions
in therapeutic practice”

The dates are:

5-11 May 2009 (Part 1)

and

25-28 September 2009 (Part 2)

For further information, please visit www.scas.org.uk

Guidelines for Contributors

Therapeutic Communities were born out of the radical and creative forces that established alternative forms of mental health care, from the 1950s to the present day. Therapeutic environments, influenced by the ideas developed by this movement, exist in psychiatric settings, social work or penal institutions, in community schemes, in projects for the homeless, in the drug and alcohol fields, and in educational and industrial settings. The Journal aims to build upon this creative legacy by stimulating a continual critical re-thinking of the possibilities for developing therapeutic and relational potential, within whatever communities readers work and live. It aims to provide a forum in which those engaged in developing, managing and sustaining therapeutic cultures can communicate their experiences, the effects of political and social policy on their own settings, their ideas, developments and findings; and can disseminate good practice and explore what happens when things go wrong.

The Journal publishes academic papers, case studies, empirical research and opinion. The Journal is interested in publishing papers that critically and creatively engage with ideas drawn from a range of discourses: the therapeutic community movement and other related professional practice, psychoanalysis, art, literature, poetry, music, architecture, culture, education, philosophy, religion and environmental studies. It will be of value to those who work in health services, social services, voluntary and charitable organisations, and for all professionals involved with staff teams, service users and experts by experience in therapeutic communities, therapeutic environments and supportive organisations.

General Guidelines

Original contributions that fall within the scope of the Journal are welcomed, including articles on current issues, practice, theory and research (academic papers), case studies of particular communities or organisational environments, and personal contributions arising from the experience of the author. The Editorial Collective uses different criteria to assess contributions in these categories, and the following guidelines are provided. It will assist us in assessing papers if authors indicate which guidelines they have followed.

Final articles for publication should be typed in double spacing and submitted as an email attachment to Lorna Viikna, the Journal Manager (tcj@nottshc.nhs.uk). All articles are submitted for peer review by anonymised assessors drawn from the Editorial Collective, the International Editorial Advisory Group, and a panel of assessors. Authors will receive acknowledgement of their submissions.

Note: For authors submitting an article where English is a second language, it is recommended that the article be proofread by a fluent interpreter prior to sending, in order that intended meanings can be checked in the translated article.

Ethical Issues

The editorial collective aim to ensure that all articles published in the Therapeutic Communities Journal report on work that is morally acceptable. To this end, the Journal will appraise the ethical aspects of any submitted work that involves human participants and will ensure that authors obtain informed consent from any participants included in their research.

Academic Papers

These can include reports of original research, papers developing original links between theory and practice, review articles and critiques of current practice. The normal

conventions of academic papers should be observed, with a brief abstract (up to 150 words), followed by a review of the relevant literature, statement of the problem, method, findings, discussion and conclusion. References should follow the style of the Journal. Academic papers should normally not exceed 5,000 words excluding references.

Case Studies from Practitioners

These describe examples of practice, innovation, action research or evaluation in the practitioner's own unit. They should include: a brief description of the setting, of the piece of work undertaken and the reasons for doing it; a clear account of the process and findings with relevant data in easy to read tables or graphics; a brief conclusion with discussion of the findings and their implications for practice within the unit and perhaps more widely. A small number of relevant references may be included, following the style of the Journal, but no literature review is needed. Case studies should normally not exceed 2,500 words.

Commentary/Response

The Journal would welcome short papers (up to 2,000 words), which address topical issues. These issues may arise from recent themes or views addressed within the papers in the Journal, from within therapeutic communities, they may emanate from strategic developments within the Association of Therapeutic Communities (for example the issues of accreditation of communities and training), or be generated by national and international policy initiatives, that have an effect on therapeutic practice, the way in which it is thought about or conducted. We are seeking relevant commentaries, which are reflective and thoughtful, yet critical and perhaps at times controversial; and views and opinions which will stimulate debate, provoke thoughtfulness and hopefully new ideas, with which to approach contemporary issues.

Letters

We would welcome short letters (up to 200 words) from readers picking up on issues raised within the Commentary/Response section that develop and debate issues further.

Personal Contributions

Readers are invited to send in personal accounts of some aspect of their work that may be of interest to others. The intention of such contributions is to share experience and problems, raise questions and encourage discussion. These may describe an event or situation involving the writer, occurring at the individual, group or organisational level. Contributions from experienced practitioners as well as novices are welcomed. The account should begin with a brief description of the setting, participants and background, followed by details of the particular event or situation and, if appropriate, the responses of the writer and others involved. No literature review, theoretical exposition or references are needed. Confidentiality should be maintained by disguising the identities of individuals or organisations, and authors may request that contributions are published without attribution. Personal contributions should normally be limited to 1,500 words. With the author's permission comments may be sought from practitioners with relevant experience to appear alongside personal contributions.

Website

Unless you inform us to the contrary, after three months papers will be posted on the ATC website at: www.therapeuticcommunities.org.

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Joe Sempik

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