The needs of people with serious mental health problems are frequently not met by services and service users' difficulties are further compounded by social isolation and exclusion. Clients attending a community mental health team horticultural allotment group described the importance that they attached to social contact in the group. This study aimed to develop an understanding of how this experience came about so that it could be harnessed more effectively.

A qualitative approach was used to explore the subjective experience of *meaning* that had underpinned regular attendance by nine group members. Qualitative interviews and a focus group generated data, which were examined in the light of concepts drawn from the literature on therapeutic horticulture, social networking and meaning in occupation. The participants described the restorativeness of the allotment setting, a resurgent destigmatised identity and attachment to a highly valued social network.

The study concludes that there are particular qualities of the plant-person relationship that promote people's interaction with their environment and hence their health, functional level and subjective wellbeing. The embeddedness of allotments within communities means that they have great potential as media for occupational therapy and as mechanisms for social inclusion.

The European Year of Disabled People

The Impact of an Allotment Group on Mental Health Clients' Health, Wellbeing and Social Networking

Jon Fieldhouse

Introduction

> The mentally ill are amongst the most alienated people in our society, daily confronting the key elements of alienation – meaninglessness, powerlessness, normlessness, and estrangement from society and from work (Warner 2000, p59).

The deinstitutionalisation era has witnessed the frequent inability of services to meet, or even to understand, the most basic needs of clients with serious mental health problems (Stein and Santos 1998, Leff 2001). Warner (2000) noted that the earlier *institutional* neurosis has merely been swapped for an *existential* neurosis, which stands in the way of recovery from psychosis.

An occupational perspective of this failure suggests that occupation, as a primary health mechanism, needs to be adopted at both the micro level of client contact and the macro level of service configuration if the occupational risk factors – imbalance, deprivation and alienation – are to be tackled (Wilcock 1998a).

Deinstitutionalisation was initiated on the basis of evidence of the harmful nature of institutions, but in the absence of any research evidence for the benefits of harnessing 'the community' in community care (Brooker and Repper 1998). Against this backdrop, occupational scientists' assertions about the efficacy of real life occupations merits further exploration (Yerxa 1994, Wilcock 1998b). However, arguments about the clinical applicability of occupational science (Lunt 1997, Forsyth 2001) have created confusion about its potential influence on practice.

The onus is on occupational therapists to resolve these arguments and identify the therapeutic media at their disposal in the community. The National Service Framework for Mental Health (NSFMH) requires services to focus on health promotion and social inclusion by ensuring equitable access to services, to the standard of living enjoyed by the wider community and to supportive mainstream social networks (Department of Health [DH] 1999, Sainsbury Centre for Mental Health 2002).

In 1995, a horticultural allotment group was established to work with people referred to an inner-city community mental health team (CMHT). Group members described a strong attachment to the social milieu of the group and found communication easier within it (Seller et al 1999). Most continued to attend weekly sessions despite occasionally high levels of distress and some socialised together outside the group.

This study set out to understand how this social networking might have arisen by investigating what the

group *meant* to each member. This broad overarching line of inquiry was designed to capture the full range and diversity of phenomena potentially related to social networking processes. It is an approach that reflects the traditional occupational therapy ethos of developing practice by learning from one's clients; takes the occupational scientist's stance that occupational therapy should emerge from a study of occupation; and implicitly recognises the primacy of the subjective experience of meaningfulness in human occupation.

Literature review

This inquiry unites ideas about an occupational form (allotmenting) with the process of social networking (the allotment group) and with individuals' subjective experience of meaning during occupation. Accordingly, three separate bodies of literature were reviewed, as follows.

Therapeutic horticulture

The efficacy of horticulture depends on the relationship that people may have with living plants and natural, green environments. Physiological and affective changes have been noted during human contact with such environments (Ulrich et al 1991). These have been understood as unlearned or evolutionary responses reflecting the environments that earlier humans evolved within (Relf 1998).

Kaplan (1995, p174) described a *fascination* or involuntary attention at the core of the plant-person relationship. Fascination excludes competing thoughts while stimulating information-processing capacity and is achieved without effort. Settings that additionally promote a sense of *being away*, of immersion in a 'whole different world', and of a *compatibility* between the setting and one's inclinations to act have been shown to restore directed attention, which is seen as the linchpin of other cognitive subprocesses and, ultimately, of human effectiveness (Kaplan 1995).

Parallels between a therapeutic interpersonal relationship and relationships with plants (in terms of growth, patience and optimism) have been highlighted (Schwebel 1993). Plants are seen to bestow non-discriminatory rewards on their carer without imposing the burden of an interpersonal relationship and, by responding to care or neglect, can immediately reinforce a sense of personal agency (McDonald 2003).

The efficacy of horticulture in a group context has been demonstrated by Perrins-Margalis et al (2000). Where allotments are used in mental health work, the positive impact on anxiety, depressed thinking, access to employment and social inclusion has been shown empirically by Stepney and Davis (2000); and efficacy in terms of participants' social networking, destigmatisation and motivation has been shown by Galvin et al (2000). However, little exploration of the processes supporting such outcomes has been done. It is difficult to know *how* they are produced.

Significantly, although a recent large-scale review of social and therapeutic horticulture literature highlighted a consensus on social benefits, the dearth of rigorous research-based evidence was also noted (Sempik et al 2003).

Social networks

A social network consists of people with whom an individual maintains contact and has some form of social bond. Social networks can act as buffers to stressors, provide a structure for acquiring skills, validate and enhance an individual's self-concept, and positively influence affect and arousal (Nolan 1995, Langford et al 1997).

Social networks may be seen as mechanisms for psychosocial adaptation and health and as essentially occupational phenomena. The development of communities has been considered as the accumulated expression of human beings' occupational nature over time (Wilcock 1998a) and, consequently, engagement in occupations carries social and cultural, as well as personal, meanings (Kielhofner and Barrett 1998, Hocking 2000). Indeed, social exclusion has been defined as non-participation in key *activities* of the society in which a person lives (Burchardt et al 2002), linking it inextricably with occupational deprivation.

For mental health clients, a primary source of disability and distress lies within the interpersonal domain (Nolan 1995) and wellbeing and engagement vary independently from symptomatology (Wiersma 1996, Repper and Perkins 2003). The efficacy of a social network lies in its reciprocal relationships and in it being a configuration of support of the individual's *own* making (Mitchell and Trickett 1980). Enabling clients to improve their social functioning requires an awareness of how supportiveness is actually experienced (Nolan 1995). Accessing *social capital*, or community networks and the supportiveness that characterises them, is now a clear challenge for mental health services (DH 1999, Sainsbury Centre for Mental Health 2000, Sainsbury Centre for Mental Health and mentality 2001).

Controlled studies have shown the relevance of this to mental health services. Becker et al (1997, 1998) highlighted a link between reduced hospitalisation and enhanced quality of life and the supportiveness of social networks. However, the lack of qualitative data describing *how* such outcomes arose hindered clinical applicability.

Meaning making through occupation

To frame ongoing inquiry into human occupation, occupational science has highlighted three dimensions: form, function and meaning (Clark et al 1998). Meaning is a vital phenomenon for occupational therapists because it influences clients' initial engagement (Clark et al 1998), the continuing process of therapy (Kielhofner and Barrett 1998) and outcomes (Trombly 1995).

Therapists cannot bestow meaning on an occupation used in therapy. Although occupations have common culturally based meanings, these influence but do not completely determine personal meaning. This is subjective and contextual and incorporates unique meanings ascribed to the occupation by the 'doer' himself or herself (Clark et al 1998).

The complexity of these processes makes them elusive to scrutiny (Bonder 1992) and best studied phenomenologically (Emerson 1998). This approach has generated concepts such as *personal narrative, spirituality* and *flow* within the professional literature. Personal narrative is the process by which an individual develops an identity and understands his or her experiences in terms of a continuing personal life story (Mattingly and Fleming 1994, Kielhofner and Barrett 1998). Spirituality refers to the discovery and experience of meaning in everyday life (Urbanowski and Vargo 1994), as distinct from any religious sense of the meaning *of* life. Flow is a subjective psychological state accompanying absorption during occupation, which is characterised by enjoyment, self-motivation and feelings of self-worth and competence (Csikszentmihalyi 1992).

These concepts informed a series of broad questions (see Table 1), used as an interview guide in data collection (Patton 1990).

Method

By capturing rich description from the individual's point of view, qualitative methodology seeks to answer questions about how social experience is created and given meaning (Denzin and Lincoln 2002). This study comprised data collection through interviews and a focus group.

Data collection

Interviews

The interviews were in-depth and semi-structured. The interview guide was a starting point, not an exhaustive checklist of possibilities (see Table 1). Unanticipated and disconfirming data were explored and refined in the focus group. The participants could choose to be interviewed on the allotment, at the CMHT base or at home. For two participants, the interviews were conducted through an interpreter and member checking was done in translation.

Table 1. Interview guide

Q1: I am interested in what has kept you coming to the allotment group for so long. Can you tell me something about that?
(*Probe:* What has maintained that? Can you give me an example of that?)

Q2: What kinds of things have you enjoyed, or felt good about, on the plot?
(*Probe:* What has made them so [participant's words]?)

Q3: What kinds of things do you do on the plot?
(*Probe:* Has this changed over the time you've been going?)

Q4: What has being down on the plot as part of a group been like?

Q5: Looking back at your time in the group, what sense do you have of it?

Q6: Sometimes we're busy on the plot, and sometimes we're taking a break – how have you found that?
(*Probe:* How do you decide what to do down there?)

Q7: I'm interested in what you think about the site itself. Can you tell me something about that?

Focus group

Interviews can access individuals' viewpoints, but not how different perspectives may influence one another. By partially replicating the allotment group dynamics and everyday modes of communication (Morgan 1997, Kitzinger 2000), the focus group allowed this to occur. It also member checked aggregated or *collective* data.

Data analysis

The data analysis was in four stages: categorisation, quantitative analysis, firming up categories and developing relations between categories.

Categorisation

The transcripts were analysed by the researcher and separately by an independent investigator. Constant comparison (Maykut and Morehouse 1994) was used to isolate units of meaning, which were then categorised.

Quantitative analysis

'Weighing' categories is a relatively objective measure of potential bias at an early stage of analysis (Miles and Huberman 1994). It acknowledges that counting is implicit in concepts such as consistency and patterning within data. The categories were scanned to identify those with the broadest range of contributions (that is, from at least 50% of the participants) and those with the highest total number of units of meaning.

Firming up categories

Weighing allowed the independent categorisation by two investigators to be combined more reliably. Writing a proposition, using the participants' own language, for each category produced embryonic findings.

Developing relations between categories

Hocking's (2000) review of occupational science's knowledge base and the Model of Human Occupation (Kielhofner 1998) together provided a lens through which to view the categories so that they could be linked together, making the data more intelligible (Coffee and Atkinson 1996). For example, the concept of *occupational behaviour settings* (Kielhofner 1998, p10) guided thinking on how the physical, social and occupational elements of an environment intertwine to provide a context for performance.

Trustworthiness

Member checking, triangulation, indwelling and close attention to disconfirming data attest to the credibility and confirmability of this study. A clear audit trail enhances its dependability. Transferability is maximised by presenting participants' demographics and direct quotations, so as to allow reasonable speculation about the applicability of the findings to other settings.

Ethical considerations

Approval was given by the ethics committees at the university and the National Health Service trust. Prospective

participants were approached in writing by a third party – the CMHT manager – assuring them that participation was voluntary and that their consent could be withdrawn at any time. They were informed that interviews would be audio-taped but could be terminated by them at any point and that a copy of the tape and/or transcript would be available. The written consent of each person's consultant psychiatrist and general practitioner was also gained.

Participants

The participants were clients of the host CMHT. Consequently, they were of working age and had been assessed as having a serious mental health problem. A purposeful sampling strategy – homogeneous sampling (Patton 1990) – was used to recruit current and recent former allotment group members.

Thirteen individuals were approached and nine participated. The reasons for non-participation were not sought. Nine is an appropriate size for a homogeneous sample (Kuzel 1992), for in-depth interviewing (Cresswell 1998) and for a focus group (Morse 1994). The participants' names have been changed but their actual demographic details are given in Table 2.

Findings

The participants described what the group meant to them from various perspectives. The data pertinent to social and occupational functioning fell into three broad categories:

1. Dimensions of the environment (or external factors)
2. Dimensions of individuals' subjective experience (or intrapersonal factors)
3. Dimensions of occupational performance – individuals' perceptions of their own changing performance over time.

These categories and their subdivisions are presented in Table 3 and are illustrated with typical quotations below.

Dimensions of the environment

The environment comprised the physical environment, the occupational form and the social milieu.

The participants valued the natural, outdoors, green environment, which afforded a sense of peacefulness by being away from customary stressors. By contrast, the built environment was described as being fast paced, crowded, noisy, polluted, overstimulating and frightening:

> *Jack:* When you realise nature's surrounding you ... you don't need to worry about the ambulance going driving past, or what's happening across the road ... If a bird sings you're not going to worry about that.

The participants felt that engagement in a normal occupation in its natural, real life setting was destigmatising,

> *Kevin (on horticulture):* I think it's something that so many of us do, don't we – I mean, y'know, millions of people do it.

and they responded to the immediate appeal of free, fresh food produced by their own efforts.

The social milieu was felt to be accepting, safe and supportive. It was characterised by an easy flow of communication arising from shared experience and a common purpose:

> *Jack:* I just felt I was part of a team, sort of thing. I felt like my life had a bit of worth to it, y'know, it wasn't worthless or anything. I could achieve something.

Dimensions of individuals' subjective experience

Thinking

Most participants described 'a clearer head' or were aware of 'thinking differently' on the allotment. They noted improved concentration and flow experiences, a fascination with growing plants and an enhanced sense of personal agency:

> *Amy (via interpreter):* She says it's the actual, the physical work she was doing that draws her attention into just one point.

> *Tim:* Just looking how plants grow – studying plants – especially how they just find a bit of wire and crawl up the wire. I think it's amazing ... it's like it's got its own set of eyes! [Laughs.]

> *Kevin:* You see all the produce growing and you think 'I'm partly responsible for that'.

Emotional responses

The participants described an appreciation of beauty and an awareness of the stable, responsive and caring relationships that they could have with living plants:

> *Tim:* I'll never forget that robin sitting on the fork when Frank was there [laughs] – just stood there on the fork without a care in the world, y'know ... I just think it's beautiful.

Table 2. Participants' demographics

Participant	Gender	Age (years)	Diagnosis	Ethnicity	Employed	Living situation
Tim	M	48	Schizophrenia, substance misuse	White UK	No	Alone
Norman	M	56	Hypomania	White UK	No	Alone
Kevin	M	42	Acute psychotic episodes, anxiety	White UK	No	Alone
Victoria	F	61	Psychotic episodes, depression	African-Caribbean	No	With daughter
Alex	M	24	Undetermined – outbursts, low mood	White UK	No	With parents
Amy	F	59	Schizophrenia	Thai	Part-time cleaner	Alone
Zelda	F	50	Depression with somatic symptoms	Kurdish	No	Alone
Jack	M	25	Schizophrenia	White UK	Part-time voluntary	Alone
Rob	M	49	Schizophrenia	Indian	No	With mother

Table 3. Categorisation of data

1. Dimensions of the environment

1.1 *Dimensions of the physical environment*
- Outdoors, natural, green
- Peaceful and away from customary stressors

1.2 *Dimensions of the occupational form*
- Destigmatising and 'normalising'
- Productive

1.3 *Dimensions of the social milieu*
- Accepting, mutually supportive
- Ease of communication

2. Dimensions of individuals' subjective experience

2.1 *Thinking or cognition*
- Improved concentration
- Fascination with growing plants
- Flow experiences
- Enhanced sense of personal agency

2.2 *Emotional responses*
- Appreciating beauty
- Attachment to the group
- Relationship with plants
- 'Feeling different' – enhanced mood, reduced arousal, feelings of spirituality

2.3 *Aspects of 'being' or identity*
- Destigmatised identity
- Awareness of physical self and environment
- Temporal orientation
- Personal narrative

3. Dimensions of occupational performance

3.1 *Becoming engaged*

3.2 *Generating goals*

3.3 *Social networking*

> *Kevin:* I just like plants, y'know – to see them growing. It's a bit of stability in the world, I think. They're not going to go anywhere and they're not threatening or anything ... they stay in one place – not like people, or vehicles, or something.

All the participants felt a strong attachment to the social group:

> *Victoria:* I belonged to that group – y'know – this is *my* group.

All the participants also noted that they felt 'different' on the plot, described variously as an absence of 'butterflies', an absence of headaches, feeling 'lighter', a lift in mood, an inner quietness or feeling more relaxed.

> *Victoria:* There was a feeling. I had a feeling of relaxation – but I didn't know what it was.

Feelings of spirituality were also commonly experienced:

> *Norman:* Suddenly you realise you are at one – you don't know what with – but it's a nice feeling.

Aspects of being or identity

The participants described a heightened awareness of their physical selves in a physical world, particularly in relation to the rich sensory environment:

> *Norman:* It's a difference in texture and colour. That's dark – you know that you pick it up it's gonna break in your hands – very soft; and that's grey – and that's very dry and brittle. I'm not a gardener but I like the smell of that soil too ... 'cos, I mean, you can't get more real than digging up a clod of earth, and the smell of that – it's real.

This physicality offered the participants new perspectives of their own abilities. It prompted some to revise their assumptions about what they were capable of and reacquainted others with a destigmatised sense of self:

> *Kevin:* It's good to do something physical as well, really. I live in my head a lot, y'know, sometimes.

> *Norman (on how he felt after an allotment session):* You walk differently, you're breathing differently, you wouldn't mind if you bumped into somebody you knew – whereas ordinarily you don't want to bump into anybody you know 'cos that means a conversation.

The participants felt more attuned to seasonal changes and the passage of time through their occupational engagement with this physical environment. They also described a sharpened sense of the immediacy of the present, helping them to structure time generally. For several participants, this temporal orientation prompted autobiographical memories and stories that meshed with the allotment experience, introducing metaphors of stability, growth, resilience, hopefulness and nourishment:

> *Tim:* It's become part of my life – it's joined up with me, y'know – it's become like eating – a routine – which is good.

Dimensions of occupational performance

Three themes emerged: the participants' stories of their gradual engagement with the allotment group, the spontaneous emergence of goals and social networking.

Engagement was compared favourably with previous experiences of social isolation and inactivity:

> *Jack:* It was the first thing since my breakdown that I really felt quite good about and I quite enjoyed it ... On the whole I felt it was really benefiting me rather than other groups that I went to such as, y'know, the day hospital.

> *Victoria:* Staying on my own all the time makes me feel tense and frustrated – but now I was going out with people that I could talk to – adults.

Goals appeared to spring from reflection on personal stories, newly mobilised skills and achievement:

> *Tim:* It's a miracle really ... I'm not thinking about drugs or anything like that while I'm down there ... I'm thinking about how I can live my – a better life.

> *Alex:* You're getting experience so when I do come off my medication an' that, and I'm properly one hundred percent an' that, and I'm alright, I could use my skills – put it down on my cv.

The participants described the benefits of regular access to a social network characterised by friendships and reciprocal support,

> *Norman:* [Tim] might say 'Oh I'm having trouble with my flat' – and because I've been in the same boat – or might have been – I can at least empathise with what he's going through.

peer learning and modelling,

> *Amy (via interpreter):* She had a feeling that if she did the same with them, she could control herself and overcome that paranoia ... they influenced her to keep still and sit down in one place for longer times, and it took her a few months.

and the freedom and confidence to improvise and experiment:

> *Kevin:* When you're with other people you can try things out – can't you, really. 'Reality testing' I believe it's called ... I mean, you get some feedback to what you say, hopefully. You wouldn't get it if you walked down the street and spoke to somebody because they'd think you were a lunatic or something.

Discussion

In keeping with the ethos of emergent design (Patton 1990), literature on sensory processing and affirming social milieux is incorporated into this discussion to illuminate the participants' accounts of their sensory experiences and of the impact of being with other people with serious mental health problems. These two categories of findings took the study beyond the initial literature review, but are included here because they emerged strongly and appear to be factors in the participants' social and occupational functioning. The findings are discussed under two broad headings: the restorative environment and the affirming social milieu.

The restorative environment

The participants' descriptions of enhanced mood, reduced arousal and improved concentration are intrinsic to their descriptions of being away, of becoming fascinated and absorbed, and of their tasks being in harmony, or compatible, with the setting. This strongly suggests that *attention restoration* (Kaplan 1995) experiences occurred among the participants.

It seems that both attention restoration and flow may have contributed to the cognitive and affective changes described and there is much interplay between these two phenomena. For example, fascination with plants is the prelude to attention restoration and it is plants' responsiveness to care that also gives the consistent feedback on performance necessary for flow experiences. The enhanced concentration, happiness, self-esteem and work productivity associated with flow (Rebeiro and Polgar 1998) mirror the restored focus and confident engagement in activity associated with attention restoration (Kaplan 1995). Similarly, the characteristic wish to repeat flow-generating activity (Csikszentmihalyi 1992) matches the pattern of a growing fascination with successive visits to the allotment, as described by the participants. In this way, both phenomena may be factors in the participants' engagement process.

Furthermore, a *compatible* occupation is likely to produce a diverse range of tasks for the participants to choose from. Self-selected tasks are more likely to foster autotelic or self-motivating behaviour (Emerson 1998) and become attuned to individuals' abilities, creating the 'just right' challenge which is a precondition for flow (Csikszentmihalyi 1992). It is significant, given that five participants specifically referred to feeling different 'in the head', that 'clearing the head' is acknowledged as the precursor to a recovery of directed attention capacity (Kaplan 1995). It is notable that the improved responsiveness to interpersonal cues identified by Kaplan (1995) is also apparent among the participants:

> *Kevin (on feeling 'lighter in the head'):* It makes me feel less depressed and it helps me to respond to other people more spontaneously.

These phenomena have particular relevance for people with mental health problems because 'attention plays a vital role in areas such as learning, performance of activities of daily living, and social and vocational functioning' (Nakano 2001, p37). Attention restoration focuses on the directed attention fatigue associated with any prolonged mental effort (Kaplan 1995), such as that required to inhibit depressed or anxious thinking or to manage hallucinations or delusions.

Appreciating beauty has a similar function to flow in that attention is 'captured' by it. This 'is not a rarefied frill but a vitally important aspect of how we relate to the world' (Csikszentmihalyi and Rochberg-Halton 1981, p176) because it obliges a person to recognise the pervasiveness of his or her environment *on its own terms.*

This pervasiveness characterises the sensory environment that envelops participants. Its potency is that it makes a physical connection with broader abstract notions in a direct and unambiguous way:

> *Victoria:* It reminds me of life ... the growth, the tenderness of handling things.

A number of factors appear to relate to the resurgence of destigmatised identities. Sensory experiences and temporal orientation clearly anchor and amplify the participants' awareness of a physical self, while the personal narrative and spiritual feelings arising during occupation seem to reinforce the psychological structures of the self (Kirsch 1996).

The latter stages of attention restoration combine self-reflection with a contemplation of the natural world (Kaplan 1995) and this seems to be a factor here: infusing narratives with positive, affirming metaphors drawn from the natural setting and the participants' own active complicity with it. Indeed, the capacity of horticulture to do this has been demonstrated empirically by Unruh et al (2000). People seek to behave within a narrative once it becomes established (Mallinson et al 1996), so positive metaphors are likely to promote the hopefulness and goal-orientated behaviour that the participants described (Clouston 2003).

The emergence of spiritual feelings as the participants acknowledge an active, destigmatised self reflects Howard and Howard's (1996) view that spirituality is a process of

engagement in and reflection on meaningful occupation, and Egan and Delaat's (1994) assertion that it is the active expression of an individual's truest self.

The multisensory stimulation and feel of physical activity have important implications for cognitive functioning as well. Dunn (2001) noted that effective cognitive processing relies on the nervous system finding a balance between excitation and inhibition, and that optimal functioning occurs when external cues (sights, sounds, smells and textures) correspond with internal proprioceptive, vestibular and somatosensory cues related to posture and activity. Dunn (2001) also noted that sensory processing is a meta-level of brain functioning orchestrated by occupation, echoing Wilcock's (1995) assertion that it is *occupation* (not mere *activity*) that guarantees most effective cognitive functioning. This sheds more light on the engagement process that the participants describe. It seems likely that the participants' passive respite (*being away*) from unwelcome stimulation encourages increasingly active exploration and engagement, because the occupation feels like a natural expression of a regained sense of agency in managing their own sensory thresholds again.

There are implications here for people living with psychosis. It is suggested that hallucinations arise out of attempts to make meaning out of new and fluctuating sensory relationships with the environment (Light and Braff 2000, Frith et al 2000, cited in Dunn 2001). The sensory integrative experience of occupation may stabilise or ground that relationship, providing a platform for higher level skill acquisition. For example, Reisman and Blakeney (1991) cited various studies of sensory integration with individuals living with schizophrenia and reported the improvements noted in coordination, affect, socialisation, motivation and psychotic symptomatology.

Furthermore, many people adopt 'techniques' for guarding against excitation, such as passivity or developing limited daily routines with predictable, 'safe' sensory input (Dunn 2001). The relaxation of this sensory defensiveness can be considered along with the recovery from directed attention fatigue. Both appear to be factors in the restorativeness of the allotment environment.

It seems that with a *compatible* occupation, restorative processes are embodied and expressed in changed behaviour very readily. The participants described becoming aware of doing something differently *as they were doing it*. This effectively bypasses or preempts negative cognitions that might otherwise have deterred experimentation or caused paralysing indecision. The participants are able to reflect on how something has happened, rather than being left pondering unknowables:

> *Norman:* You're only aware of it when you're actually aware of it – you think 'it's happened'.

An affirming social milieu

When the focus group was asked to speculate on what themes might have emerged from the interviews, the first suggestion was 'cooperation'. It seems that working on the plot was as much an expression of social relationships within the group as it was about caring for plants. For example, the participants described an increase in activity levels when the group was larger, not when a finite number of tasks had to be performed by fewer people as one might expect:

> *Zelda:* I don't know why, when we are more – like we are five or six – we will be more busy working, and helping each other, and talking with each other. But if we are two or three we don't have a lot of things to discuss.

It seems that communication continues as it passes back and forth between its verbal and non-verbal elements and that both are maintained by this circulation. This may explain why many participants felt positive about their own socialisation process. They could control it and could switch between working alone, in a pair or in a group at different times.

Tea breaks were highly significant to the participants both socially and as a forum for planning the work of the group. The discrete process of 'goal setting' may not necessarily be experienced as meaningful at all (Kielhofner and Barrett 1998), but here the occupational context of goal-orientated thinking and behaviour sustained it. It was not an imposed task.

Rebeiro (2001) has shown that an affirming milieu can enhance the performance of mental health clients and that a significant factor is being with 'the own', a term borrowed from Goffman (1963) to describe people who are felt by an individual to share his or her stigma and to be empathic. Goffman (1963) noted that stigmatised individuals maintain a vigilance during social situations for any potential disclosure of personal information and that this creates interpersonal tension:

> *Norman:* I might let out that I'm feeling very black, that's what worries me ... I don't want it to come out accidentally, that's all, and things like that happen when you bump into somebody ... That's the overriding thought – not the conversation but how to end it quickly.

This effort of vigilance is likely to be a factor in directed attention fatigue. Relaxing it in the allotment group may be another factor in reducing arousal and promoting feelings of ease, in the same way as attention restoration and the relaxation of sensory defensiveness. Far from negating the social inclusiveness of public allotments as sites for occupational therapy, this feature of being with 'the own' seems to provide a platform for the participants to develop confidence and a preparedness to take certain risks. The reality testing described by Kevin seems to allow the participants to shape themselves into roles while working a plot of land like all the other plot-holders, interacting with them on equal terms about common issues as they do so. In this way, through the occupation itself, the participants appear to derive additional personal meanings from a broad sociocultural connection with other people and with the wider local community. Here, being with 'the own' is an enabler of social inclusion. It is an access point into the community rather than a departure point from it, so much so that one participant acquired his own allotment on the same site.

The qualities of the natural setting and those of the social milieu are intermingled in most participants' experience and their descriptions of the crops that they grew demonstrated this clearly. Hocking (1997) pointed out that any object encountered in a person's environment will have a unique meaning arising from interactions with its concrete form, its occupational significance and its personal, social and cultural meanings. In this study, produce was valued as food, as objects of beauty, as affirmations of continuing life and as the symbolic fruit of collective effort:

> *Alex:* I had those runner beans that me and you planted ... and they were nice.

The produce seemed to draw together and embody these meanings, so that harvesting became the culmination of the group's activity both actually and metaphorically. Sharing out produce became a way for the group to reinforce its own togetherness and to nourish its own group processes – to, quite literally, feed itself.

Repper and Perkins (2003) suggested that mental health clients' recovery is built on the re-experience of hope, success, meaningfulness, taking control and positive relationships; and having places to tell stories together is a recognised means of reclaiming and depathologising individuals' experiences as part of this recovery (Dillon and May 2003). It seems that this was a function of the allotment group.

The social network was constructed exclusively by the participants' use of it and was particularly valued for being self-generated in this way. The participants' belief in the group's supportiveness has an occupational basis because each individual's commitment was regularly demonstrated through collective activity. Each participant regarded the others as having something positive to contribute and, more significantly, each person experienced the others experiencing *him or her* in a similarly positive way.

Critique

This study endorses the role of service users as evaluators of their own services, which is highlighted as a research priority within occupational therapy (Ilott and White 2001).

The researcher's subjectivity, in having worked in the allotment group prior to the study, is acknowledged. This heightened reflexivity (Hammell 2002) has been used as a strength of the inquiry and as an opportunity to capitalise on tacit knowledge of the local context in ways that a pre-constructed research instrument could not manage (Maykut and Morehouse 1994). Indeed, the methods of data collection specifically involved interaction with the participants to facilitate this. Focusing on the subjective experience of meaning while building theoretical frameworks for the data through inductive analysis reflects a constructivist approach to grounded theory (Charmaz 2002), which underpins this study.

The findings of this study are emergent and tentative. However, the richness of the data and the degree of consensus on the participants' enhanced mood and cognitive capacity, and their reduced arousal, suggest that actual experiences have been identified. Attention restoration and the relaxation of stigma management and sensory defensiveness cohere convincingly as facets of a single lived experience. The study's authenticity is endorsed by the catalytic validity (McLeod 1994) apparent during the interviews, whereby the interaction was felt to be an empowering and focusing experience for the interviewee. Also, most participants maintained their involvement over the 12 months of data collection, including convening as a focus group. Furthermore, the design incorporates trustworthiness, as described earlier, and adopts a revised framework to encompass unanticipated themes.

It is acknowledged that the question of what is meaningful is a complex one that could have equally compelling answers if the data were to be approached from other perspectives. In this respect, it is emphasised that the study focuses on *process*, not outcomes. The participants' sustained engagement in the allotment group is a fact that is independent of these findings. It should also be noted that certain phenomena, such as attention restoration, have a cumulative effect and that the participants' accounts reflect a combined total of over 14 years' membership of the allotment group.

Clearly, interviews are not the only means of capturing the participants' lived experience. It was originally intended that field observations would complement the interview data, but this ethnographic element was dropped from the study because not all the participants consented to it.

Implications of the findings

This study places a fresh emphasis on a traditional therapeutic medium. It indicates that a service focused on skills and aspirations, rather than symptoms and deficits, can fulfil its remit of prioritising severe need and engaging individuals from a client group noted for its vulnerability, disability and often tenuous engagement with services (Brooker and Repper 1998, Repper and Perkins 2003).

By highlighting a connection between social and occupational functioning, the findings suggest that occupational therapy can make a unique contribution to current health promotion and social inclusion agendas (Wilcock 1998a, Sainsbury Centre for Mental Health 2002). Rather than segregating clients and compounding society's stigmatisation of them (Dunn 1999), services may be better equipped to integrate individuals with their wider community if they harness mainstream occupations. This has implications for the health and quality of life of individuals (Huxley 1999, Sayce 2000) and in health-economic terms as well. It endorses occupational science's emphasis on the unique meaningfulness of real life occupational settings and skill acquisition in situ (Yerxa 1994). Significantly, it also points to the benefits of using dedicated groups within ordinary settings to promote social inclusion and recovery for people with serious mental health problems (Repper and Perkins 2003).

Standard One of the NSFMH specifically points to increasing access to green, open spaces as a matter of public mental health (Sainsbury Centre for Mental Health and

mentality 2001). Public allotments are widely available and inexpensive and have been accorded a new future as routes into mainstream social networks, which can have an inclusive, protective and preventative function (Crouch et al 2001). If clients' pathways into these are navigated using the care programme approach (DH 1990), it enables statutory services to access a supportive community infrastructure (Hemming et al 1999) while retaining a high degree of flexibility and responsiveness in their delivery of care. Practitioners get to know clients well and the chances of early detection of distress and relapse are increased. Adaptive ways of asking for help are also reinforced because support is continuous rather than being activated by crises.

Further research

This study has explored a popular occupation in its natural, community setting and has indicated how this may be harnessed for occupational therapy. Similar exploration of other occupations in their normal settings may assist occupational therapists in developing community mental health services in line with the NSFMH.

More specifically, the capacity of attention restoration and sensory processing to enhance cognitive functioning could be explored further in relation to information-processing difficulties. These are frequently encountered in traditional, clinic-based psychoeducational work, such as social skills or assertiveness training, for people with serious mental health problems (Nolan 1995, Luboshitzky and Gaber 2000). This study suggests that such obstacles may be less of an issue in non-clinical settings and need not hinder skill acquisition.

Conclusion

This study presents social networking as an occupational phenomenon. The findings suggest that key phenomena arising from the natural setting, the plant-person relationship, the social milieu and the public location combined together and synergised. This allowed the participants to ease the continuous efforts of directed attention, stigma management and sensory defensiveness. It also provided a platform from which they could explore their environment more confidently, promoting improvisation, social interaction and skill acquisition.

The participants regarded the whole experience as being integrative intrapersonally, in the renewed sense of an active, competent self; interpersonally, in their membership of a social network; and socioculturally, as citizens within their community.

The findings have implications for the way that occupational therapists conceptualise and harness 'the community' as a tool for therapy and for how occupational therapy contributes to interprofessional and interagency agendas of engagement, health promotion and social inclusion for clients with serious mental health problems.

Acknowledgements

This study was carried out in part fulfilment of an MSc in Occupational Therapy at Brunel University and the supervision of Beth McKay is gratefully acknowledged. Thanks are also due to Dipti Amin for her independent categorisation of raw data, to Thrive for their grant to cover the costs of carrying out the study and to the participants for their cooperation. The full dissertation will soon be available from the COT library.

References

Becker T, Thornicroft G, Leese M, McCrone P, Johnson S, Albert M, Turner D (1997) Social networks and service use among representative cases of psychosis in South London. *British Journal of Psychiatry, 171,* 15-19.

Becker T, Leese M, McCrone P, Clarkson P, Szmukler G, Thornicroft G (1998) Impact of community mental health services on users' social networks. *British Journal of Psychiatry, 173,* 404-408.

Bonder BR (1992) Issues in assessment of psychosocial components of function. *American Journal of Occupational Therapy, 47(3),* 211-16.

Brooker C, Repper J (1998) Serious mental health problems in the community: future directions for policy, research and practice. In: C Brooker, J Repper, eds. *Serious mental health problems in the community: policy practice and research.* London: Baillière Tindall, 311-27.

Burchardt T, Le Grand J, Piachaud D (2002) Degrees of exclusion: developing a dynamic, multidimensional measure. In: J Hills, J Le Grand, D Piachaud, eds. *Understanding social exclusion.* New York: Oxford University Press.

Charmaz K (2002) Grounded theory – objectivist and constructivist methods. In: NK Denzin, YS Lincoln, eds. *Handbook of qualitative research.* 2nd ed. Thousand Oaks, CA: Sage.

Clark F, Wood W, Larson E (1998) Occupational science: occupational therapy's legacy for the 21st century. In: M Neistadt, EB Crepeau, eds. *Willard and Spackman's occupational therapy.* 9th ed. Philadelphia: Lippincott, 13-21.

Clouston T (2003) Narrative methods: talk, listening and representation. *British Journal of Occupational Therapy, 66(4),* 136-42.

Coffee A, Atkinson P (1996) *Making sense of qualitative data: complementary research strategies.* Thousand Oaks, CA: Sage.

Cresswell JW (1998) *Qualitative inquiry and research design: choosing among five traditions.* Thousand Oaks, CA: Sage.

Crouch D, Sempik J, Wiltshire R (2001) *Growing in the community – a good practice guide for the management of allotments.* London: Local Government Association.

Csikszentmihalyi M (1992) *Flow – the psychology of happiness.* London: Random House.

Csikszentmihalyi M, Rochberg-Halton E (1981) *The meaning of things – domestic symbols and the self.* Cambridge: Cambridge University Press.

Denzin NK, Lincoln YS (2002) The discipline and practice of qualitative research. In: NK Denzin, YS Lincoln, eds. *Handbook of qualitative research.* 2nd ed. Thousand Oaks, CA: Sage.

Department of Health (1990) *The care programme approach for people with a mental illness referred to specialist psychiatric services.* London: DH.

Department of Health (1999) *National Service Framework for Mental Health.* London: DH.

Dillon J, May R (2003) *Reclaiming experience. Open Mind, 120,* 16-17.

Dunn S (1999) *Creating accepting communities – report of the Mind Inquiry into social exclusion and mental health problems.* London: Mind Publications.

Dunn W (2001) The sensations of everyday life: empirical, theoretical, and pragmatic considerations. *Eleanor Clark Slagle Lecture. American Occupational Therapy Association 81st Annual Conference and Exposition, Philadelphia, Pennsylvania, 19-22 April, Conference Proceedings.* Bethesda, MD: AOTA.

Egan M, Delaat MD (1994) Considering spirituality in occupational therapy practice. *Canadian Journal of Occupational Therapy, 61(2),* 95-101.

Emerson H (1998) Flow and occupation: a review of the literature. *Canadian Journal of Occupational Therapy, 65(1),* 37-44.

Forsyth K (2001) Occupational science as a selected research priority. (Letter.) *British Journal of Occupational Therapy, 64(8),* 420.

Galvin K, Sharples A, Hume S, Dumbrell A (2000) Users' perspectives of work rehabilitation with horticultural therapy. *British Journal of Therapy and Rehabilitation, 7(6),* 262-65.

Goffman E (1963) *Stigma – notes on the management of spoiled identity.* Harmondsworth: Pelican.

Hammell KW (2002) Informing client-centred practice through qualitative inquiry: evaluating the quality of qualitative research. *British Journal of Occupational Therapy, 65(4),* 175-84.

Hemming M, Morgan S, O'Halloran P (1999) Assertive outreach: implications for the development of a model in the United Kingdom. *Journal of Mental Health, 8(2),* 141-47.

Hocking C (1997) Person-Object Interaction Model: understanding the use of everyday objects. *Journal of Occupational Science: Australia, 4(1),* 27-35.

Hocking C (2000) Occupational science: a stock take of accumulated insights. *Journal of Occupational Science, 7(2),* 58-67.

Howard BS, Howard JR (1997) Occupation as spiritual activity. *American Journal of Occupational Therapy, 51(3),* 181-85.

Huxley P (1999) Advancing the methods for assessing quality of life. In: S Priebe, JPJ Oliver, W Kaiser, eds. *Quality of life and mental health care.* Petersfield: Wrightson Biomedical, 41-47.

Ilott I, White E (2001) 2001 College of Occupational Therapists' research and development strategic vision and action plan. *British Journal of Occupational Therapy, 64(6),* 270-77.

Kaplan S (1995) The restorative benefits of nature: toward an integrative framework. *Journal of Environmental Psychology, 15,* 169-82.

Kielhofner G (1998) *The Model of Human Occupation workbook.* Chicago: University of Illinois.

Kielhofner G, Barrett L (1998) Meaning and misunderstanding in occupational forms: a study of therapeutic goal setting. *American Journal of Occupational Therapy, 52(5),* 345-53.

Kielhofner G, Forsyth K (1997) The Model of Human Occupation: an overview of current concepts. *British Journal of Occupational Therapy, 60(3),* 103-10.

Kirsch N (1996) A narrative approach to addressing spirituality in occupational therapy: exploring personal meanings and purpose. *Canadian Journal of Occupational Therapy, 63(1),* 55-61.

Kitzinger J (2000) Focus groups with users and providers of health care. In: C Pope, N Mays, eds. *Qualitative research in health care.* London: BMJ Books.

Kuzel AJ (1992) *Sampling in qualitative inquiry.* In: BF Crabtree, WL Miller, eds. *Doing qualitative research.* London: Sage.

Langford CPH, Bowsher J, Maloney JP, Lillis PP (1997) Social support: a conceptual analysis. *Journal of Advanced Nursing, 25,* 95-100.

Leff J (2001) Why is care in the community perceived as failure? *British Journal of Psychiatry, 179,* 381-83.

Luboshitzky D, Gaber LB (2000) Collaborative therapeutic homework model in occupational therapy. *Occupational Therapy in Mental Health, 15(1),* 43-55.

Lunt A (1997) Occupational science and occupational therapy: negotiating the boundary between a discipline and a profession. *Journal of Occupational Science Australia, 4(2),* 56-61.

Mallinson T, Kielhofner G, Mattingly C (1996) Metaphor and meaning in a clinical interview. *American Journal of Occupational Therapy, 50(5),* 338-46.

Mattingly C, Fleming MH (1994) *Clinical reasoning: forms of inquiry in a therapeutic practice.* Philadelphia: FA Davis.

Maykut P, Morehouse R (1994) *Beginning qualitative research – a philosophic and practical guide.* London: Falmer Press.

McDonald J (2003) Why is horticulture a good medium for work with people with special needs? Available at: *http://ourworld.compuserve.com/homepages/Jane_Stoneham/jmcd.htm* Accessed on 2.7.03.

McLeod J (1994) *Doing counselling research.* London: Sage.

Miles MB, Huberman AM (1994) *Qualitative data analysis: an expanded sourcebook.* 2nd ed. Thousand Oaks, CA: Sage.

Mitchell RE, Trickett EJ (1980) Task force report: social networks as mediators of support. *Community Mental Health Journal, 16,* 27-44.

Morgan DL (1997) *Focus groups as qualitative research.* 2nd ed. Thousand Oaks, CA: Sage.

Morse JM (1994) *Critical issues in qualitative research methods.* Thousand Oaks, CA: Sage.

Nakano M (2001) Treatment approaches for attention deficit in schizophrenia. *Occupational Therapy in Mental Health, 17(2),* 35-47.

Nolan P (1995) Survey of the social networks of people with severe mental health problems. *Journal of Psychiatric and Mental Health Nursing, 2,* 131-42.

Patton MQ (1990) *Qualitative evaluation and research methods.* 2nd ed. London: Sage.

Perrins-Margalis NM, Rugletic J, Schepsis NM, Stepanski HR, Walsh MA (2000) The immediate effects of a group-based horticulture experience on the quality of life of persons with chronic mental illness. *Occupational Therapy in Mental Health, 16(1),* 15-32.

Rebeiro KL (2001) Enabling occupation: the importance of an affirming environment. *Canadian Journal of Occupational Therapy, 68(2),* 80-89.

Rebeiro KL, Polgar JM (1998) Enabling occupational performance: optimal experiences in therapy. *Canadian Journal of Occupational Therapy, 66(1),* 14-22.

Reisman JE, Blakeney AB (1991) Exploring sensory integrative treatment in chronic schizophrenia. *Occupational Therapy in Mental Health, 11(1),* 25-43.

Relf D (1998) Human issues in horticulture. In: J Stoneham, T Kendle, eds. *Plants and human well-being.* Bath: Sensory Trust and Horticulture For All, 1-16.

Repper J, Perkins R (2003) *Social inclusion and recovery – a model for mental health practice.* Edinburgh: Baillière Tindall.

Sainsbury Centre for Mental Health (2000) *On your doorstep: community organisations and mental health.* London: Sainsbury Centre for Mental Health.

Sainsbury Centre for Mental Health (2002) *Working for inclusion. Making social inclusion a reality for people with severe mental health problems.* In: P Banes, ed. London: Sainsbury Centre for Mental Health.

Sainsbury Centre for Mental Health, mentality (2001) *An executive briefing on mental health promotion: implementing standard one of the National Service Framework.* London: Sainsbury Centre for Mental Health/mentality.

Sayce L (2000) *From psychiatric patient to citizen – overcoming discrimination and social exclusion.* Basingstoke: Palgrave.

Schwebel AI (1993) Psychological principles applied in horticultural therapy. *Journal of Therapeutic Horticulture, 7,* 3-12.

Seller J, Fieldhouse J, Phelan M (1999) Fertile imaginations: an inner city allotment group. *Psychiatric Bulletin, 23(5),* 291-93.

Sempik J, Aldridge J, Becker S (2003) *Social and therapeutic horticulture: evidence and messages from research.* Loughborough: Thrive/Centre for Child and Family Research.

Stein LI, Santos AB (1998) *Assertive community treatment of persons with severe mental illness.* New York: WW Norton.

Stepney P, Davis P (2000) Growing concerns: promoting social inclusion and the Green Agenda at the local level. *Growthpoint, 85,* 11-13.

Trombly CA (1995) Occupation: purposefulness and meaningfulness as therapeutic mechanisms. *American Journal of Occupational Therapy, 49(10),* 960-72.

Ulrich RS, Simons RF, Losito BD, Fiorito E, Miles MA, Zelson M (1991) Stress recovery during exposure to natural and urban environments. *Journal of Environmental Psychology, 11,* 201-30.

Unruh AM, Smith N, Scammell C (2000) The occupation of gardening in life-threatening illness: a qualitative pilot project. *Canadian Journal of Occupational Therapy, 67(1),* 70-77.

Urbanowski R, Vargo J (1994) Spirituality, daily practice, and the occupational performance model. *Canadian Journal of Occupational Therapy, 61(2),* 88-94.

Warner R (2000) *The environment of schizophrenia.* London: Brunner-Routledge.

Wiersma D (1996) Measuring social disabilities in mental health. In: G Thornicroft, M Tansella, eds. *Mental health outcome measures.* Berlin: Springer-Verlag, 111-22.

Wilcock AA (1995) The occupational brain: a theory of human nature. *Journal of Occupational Science: Australia, 2(1),* 68-73.

Wilcock AA (1998a) An occupational perspective of health. Thorofare, NJ: Slack.

Wilcock AA (1998b) Occupation for health. *British Journal of Occupational Therapy, 61(8),* 340-45.

Yerxa EJ (1994) Dreams, dilemmas, and decisions for occupational therapy practice in a new millennium: an American perspective. *American Journal of Occupational Therapy, 48(7),* 586-98.

Author

Jon Fieldhouse, BA(Hons), DipCOT, MScOT, SROT, Senior Occupational Therapist, South Bristol Assertive Outreach Team, Susan Britton Wills Centre, Bristol General Hospital, Guinea Street, Bristol BS1 6SY. Email: jon.fieldhouse@awp.nhs.uk