Sydenham Garden

Evaluation of a primary care rehabilitation project

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Sydenham Garden
A growing community

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Executive summary

Sydenham Garden is a primary care based rehabilitation project using social and therapeutic horticulture and arts and crafts activities to help people with significant illness in the London boroughs of Lewisham and Bromley. The project was evolving and growing during the evaluation period and continues to do so.

Evaluation aim

The evaluation was conducted between 2007 and 2009. Its aim was to construct a detailed picture of the experiences of the co-workers (the people whom the project was designed to support) attending Sydenham Garden.

Methods

Quantitative study

Co-workers using the garden and art activities at the time of the evaluation completed a range of questionnaires designed to assess mental state and functioning: Social Functioning Scale (SFS) [1], Manchester Short Assessment of Quality of Life (MANSA) [2], Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM) [3,4] and Psychological Outcomes Profile (PSYCHLOPS) [5]. They repeated these three and six months later.

Qualitative study

In-depth, individual interviews with co-workers were also conducted using a topic guide based on the mission statement of the project. Broad topics were the most and least liked activities and the perceived benefits of participating in Sydenham Garden. The interviews also explored the importance to the participants of 'being outside'.

Sixteen co-workers agreed to be interviewed. Data were analysed using constant comparison and thematic analysis techniques.

Results

Fourteen men and 14 women participated. Diagnoses were available for 25 co-workers, and included (n): anxiety (1), bipolar affective disorder (2), depression (13), mixed anxiety and depression (2), multiple sclerosis (1), personality disorder (1), psychotic disorder (4) and social isolation (1). Three co-workers also had long-term physical health conditions. They had been attending the project for between three weeks and four years.

Quantitative study

- The co-workers reported low levels of social functioning, high levels of distress and a wide range of personal problems at initial measurement.

- At follow-up there was a much missing data, especially at three months. At six months, the most data were available for the CORE-OM.

- There was a significant reduction in distress (CORE-OM) at six months (n = 26); 53% (n = 17) achieved a clinical recovery, i.e. went from clinical to 'normal' levels of distress.

- Improvements were also seen at six months in ability to perform skills necessary for independent living (SFS-independence-competence), engagement in common social activities (SFS-prosocial) and in the problems they had reported (PSYCHLOPS). However, these changes were not statistically significant.

Qualitative study

Interview data were overwhelmingly positive about participation in Sydenham Garden. The following themes were identified:

- **First impressions and expectations**: Some co-workers expressed initial anxiety about attending the project, but most had positive expectations and settled in quickly.

- **Well-being**: The co-workers talked about how participation in the garden improved their well-being in terms of 'being free' – as in not being pressurised to perform, being able to choose how they spent their time and being able to express themselves emotionally. Participation in Sydenham Garden also provided purposeful and pleasurable activity and interest, improved mood and self-perceptions and an escape from life's pressures.

- **Relationships**: This was linked to well-being, but was also a strong theme in itself. Social contact was mentioned by all co-workers as the thing they liked best about Sydenham Garden. The atmosphere was considered welcoming and the sense of community was valued. Co-workers reported benefits of both receiving and giving help. A few co-workers had developed friendships from Sydenham Garden outside the project.

- **Ownership and belonging**: The co-workers felt a sense of ownership of Sydenham Garden. They attributed this both to their sense of belonging to place and to the contribution they felt they had made to its development. However, some downplayed their contribution, possibly due to existing feelings of low self-worth.

- **Being outside**: All the co-workers, including those who participated only in the arts and crafts, valued being outside. They related being outside to feeling better in themselves. However, some appreciated the outdoors only if there was a reason to be there, such as gardening, making crafts or socialising. These people were less likely to say they visited the nature reserve area where limited work is done.

- **Transferable skills**: The co-workers valued the new gardening, ecology and craft skills they had developed at the project. Some people applied these skills at home. Others had gained nationally recognised qualifications or taken on new responsibilities within the project. Leaving the project was mentioned only by two co-workers. The issue of where else to go was considered problematic.

Conclusions

Sydenham Garden provides a feasible model for the delivery of social and therapeutic horticulture and arts and crafts participation for the improvement of mental health in primary care.

Sydenham Garden has been successful in engaging people with serious health issues and enduring problems.

The quantitative data collected suggest that the model can produce improvement, especially in terms of reducing perceived distress.

In common with other studies of complex interventions, attribution of improvements to participation in the project is difficult; however, interview data support the quantitative changes observed.

The qualitative work indicates that participation in Sydenham Garden is considered by co-workers to promote well-being by providing purposeful and enjoyable activity and interest, improving mood and self-perceptions and providing an escape from life's pressures.

Social contact derived as a result of participation in Sydenham Garden is especially valued by the co-workers.

Many of the co-workers interviewed have developed transferable skills, including nationally recognised qualifications which they value highly. However, long-term studies are needed to address what happens to the participants of this and similar projects after they leave.

Sydenham Garden has developed over eight years and continues to attract funding which is allowing it to grow further.

Introduction

Gardening as therapy

"Social and therapeutic horticulture (STH) can be seen as the participation by a range of vulnerable people in groups and communities whose activities are around horticulture and gardening. STH is distinct from domestic gardening because it operates in an organised and formalised environment."[6]

A systematic review[7] of the literature concludes that there is evidence for the effectiveness of horticulture and gardening in a number of therapeutic settings. The benefits include increased self-esteem and self-confidence, the development of horticultural, social and work skills, literacy and numeracy skills, an increased sense of general well-being and the opportunity for social interaction and the development of independence. Involvement in social and therapeutic horticulture programmes can also lead to employment or further training or education.

Further work from the same research team[8] has identified that many projects using work in horticultural or garden settings offer clients with a range of health and social problems a number of opportunities. These include self-reflection, relaxation and restoration, increased access to nature ('being outside') and the peace of the natural environment. In addition, experimental evidence from environmental psychology supports a theoretical framework for active horticulture and gardening as well as the passive, restorative effects of the natural environment (see Figure 1)[7]. However, there is an absence of controlled evaluations in the literature reviewed and few attempts to quantify effects.

Figure 1 (reproduced from Sempik et al 2002[7])
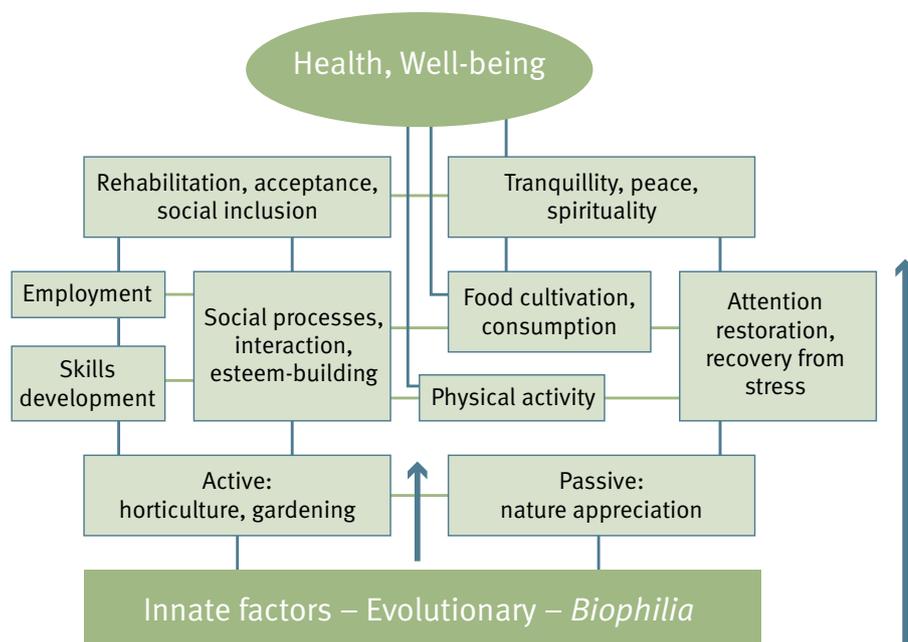
Arts and crafts as therapy

Community-based arts for health is a growing field covering a diverse range of activities[9]. There is some evidence that participation in arts projects has a positive impact on the mental health of participants through raising self-esteem, improving emotional literacy and reducing social isolation[9–11]. Arts can affect some of the major determinants of health, including the physical environment, education and skills, employment, community cohesion, social exclusion and access to services[12–14].

Sydenham Garden

Sydenham Garden is a primary care rehabilitation project using social and therapeutic horticulture and arts and crafts activities to help people with significant illness in South East London. The Garden's mission statement during the period of the data collection for this report was:

"To promote the physical and mental well-being of residents living in Lewisham and Bromley, in particular by providing:

• a community garden where horticulture is used for therapy and rehabilitation

• opportunities for training for work and education

• opportunities for artistic and creative expression

• the protection and preservation of the environment for the benefit of the public through nature conservation or the promotion of biological diversity."

Description and history

Following the success of arts and crafts sessions at Sydenham Green Health Centre, Sydenham Garden was founded in 2002 by a small group of local residents who decided to convert a neglected nature reserve into a community garden for use by people with mental health problems and other significant illness. Sydenham Garden was constituted as a charitable company limited by guarantee in 2004. Following a year and a half of rubbish and scrub clearance, the laying out of a community garden began in 2005. A small walled garden enclosing several raised beds was built in front of a disused greenhouse, using bricks reclaimed on site. Volunteers and co-workers (the name given to people referred to the project) were involved in the construction and subsequent planting with vegetables, herbs and flowers.

A proportion of the garden (approximately 0.5 hectares) has been left 'wild' and is managed as a nature reserve. Staff, volunteers and co-workers have established new wildlife habitats, thinned encroaching scrubland and laid new paths to improve site access. A bird hide has been built, a large wildlife pond created and a wooden bridge constructed to link the nature reserve with the community garden. The walled garden was officially opened at a spring fair in April 2006 by TV gardener and writer Gay Search. In 2008–09 the garden won first prize in two annual garden competitions: Lewisham in Bloom Community Garden Award and London in Bloom – Certificate of Excellence.

The aim of Sydenham Garden is to improve the health and well-being of residents of the local London boroughs of Lewisham and Bromley. An integrative approach has been developed with both differing therapeutic activities being offered and also clients with differing degrees of mental and physical ill health coming together with volunteers and members of the local community. This approach aims to reduce exclusion and the prejudice which fuels continuing lack of opportunity for many people with mental health problems. The project is a user-centred service where co-workers and volunteers contribute to decision-making and service delivery processes. By 2009, a record number of 63 co-workers were regularly attending the project.

Therapy and rehabilitation

Horticulture

A variety of therapeutic gardening sessions is run through the week for co-workers who have been referred by local professionals from over 30 community organisations and health sector agencies. Each co-worker sets their aims and objectives with a staff member and the volunteer team, and takes on tasks each week that help them to engage with the project and the land. Work includes sowing, preparation, digging, ground clearance and harvesting. Some of the produce is cooked and shared by the co-workers, and some of it is processed or preserved and sold to local people at events such as fairs and, more recently, the regular Wednesday morning garden stall. Garden sessions begin with the co-workers, volunteers and staff deciding what needs doing and tasks are allotted depending upon individuals' goals.

Arts and crafts

Another key area of therapeutic activity in the project is the arts and crafts sessions. These sessions take place in a group and individuals complete projects such as card making, painting, felt making, mosaic work, marbling and printing. Sessions are led by a volunteer tutor supported by other volunteers from the local community.

Training and development

Throughout the year co-workers and volunteers have a chance to complete accredited training courses through the Open College Network. Qualifications gained include Level 1 and Level 2 Gardening courses, Level 2 Ecology and Conservation, Level 2 Felt Making, Mosaic Making and Batik/Tie Dye. Between November 2009 and October 2010, 37 co-workers or volunteers achieved Open College Network accredited course passes.

Community engagement

Co-workers, staff and volunteers organise and run a range of public events including autumn and Christmas fairs and a friends' summer barbecue. From April 2010, the garden has been open to the public every Wednesday morning with a stall selling Sydenham Garden plants, produce, jams and chutneys and arts and crafts products. This also provides opportunities for co-workers to acquire employment skills and for personal development. In 2009 there were over 1,500 visitors to these public events.

The workers

Co-workers

In 2009–10, 96 people used the project as co-workers. The majority have mental health problems. Co-workers are encouraged to move on to other opportunities after 12–18 months. Men and women participate in both the gardening and arts and crafts groups, although the latter is made up mostly of women. The minimum age for accessing the project is 18 but there is no upper age limit. People with severe enduring mental illness (such as schizophrenia and bipolar affective disorder) as well as common mental health problems such as depression and anxiety, and physical illness such as multiple sclerosis and diabetes are welcomed at the project.

Staff

There are currently seven paid staff members: Chief Executive, Garden and Services Manager, Outreach and Development workers (x2), Therapeutic Garden Worker, Fundraising and Enterprise Assistant and Team Administrator.

Volunteers

When the project began, Sydenham Garden was run exclusively by volunteers who were local residents supported by staff from Sydenham Green Health Centre. Volunteer roles currently include management committee and trustee membership, running of weekly craft sessions and accredited training courses, session support in garden and arts

and crafts activities, book-keeping and preparation of monthly management accounts, IT support and database development and administration.

The future

Resource Centre

The building of new a Sydenham Garden Resource Centre commenced in March 2010 and was completed in January 2011. Following many years of fundraising, £420,000 was raised towards the building and fitting-out costs with pledges from The City Bridge Trust, Lewisham PCT, the London Borough of Lewisham, the Clothworkers' Foundation, the Wolfson Foundation, the South London and Maudsley Charitable Funds, Guy's and St Thomas' Charity – PCT Development Fund, The Henry Smith Charity, NHS Lewisham, London Borough of Lewisham and South London and Maudsley NHS Foundation Trust pooled budget, the Tudor Trust and several other generous funders.

The Resource Centre will provide all-weather facilities for the arts and crafts and garden activities, accessible toilets, a fitted kitchen and a new office base for staff. The single-storey building will be multi-functional and may in the future be available for use by the local community.

Social enterprise – De Frene Road allotment

A 999-year lease for the De Frene Road allotment site, a one-acre site designated for horticultural use, has recently been acquired thanks to generous donations from supporters amounting to over £3,000. This space will be used for continuing the therapeutic gardening, personal development and training work of Sydenham Garden; it is hoped that it will be developed into a sustainable market garden social enterprise that will benefit both our co-workers and the local community.

A feasibility study, local market research and successful test trading of locally grown fresh organic produce have been conducted. In the coming months, co-workers, staff and volunteers will work to make the site more accessible and to develop its facilities and growing areas.

Evaluation

This evaluation was conducted between June 2007 and May 2009. It was designed by Jim Sikorski (JS). Co-worker interviews and questionnaire administration were conducted by Susan Robinson (SR) and Jim Sikorski. Following Susan Robinson's withdrawal from the project due to ill health, Elizabeth Barley (EB) completed the analysis of the collected data and wrote this report with Jim Sikorski.

The aim of the evaluation was to construct a detailed picture of the experiences of the co-workers attending Sydenham Garden at that time. The co-workers were interviewed once during the evaluation period and followed up over six months using questionnaires in order to determine whether any changes in well-being could be detected. All participating co-workers gave written informed consent and full ethical approval for the study was obtained from Lewisham Research Ethics Committee (Ref no 07/Q0701/27).

Methods

Design

Co-workers registered to work in the garden at the time of the evaluation completed a range of questionnaires to assess mental state and functioning which they repeated three and six months later in order to monitor their progress in the garden.

Co-workers were also asked if they were willing to be interviewed. Those consenting were interviewed by SR and JS using a topic guide based on the aims and objectives of the project. Broad topics were the most and least liked activities and the perceived benefits of participating in Sydenham Garden. The interviews also explored the importance to participants of 'being outside'.

Measures

Measures were completed at the start of the evaluation period and three and six months later (the MANSA[2] was collected at baseline and six months only).

The Social Functioning Scale (SFS)[1] is a 79-item questionnaire that has been shown to be a reliable, valid and sensitive measure of social functioning in outpatients with schizophrenia. Each item has dichotomous or Likert-style response options. An overall score and seven subscores (representing: social engagement/withdrawal; interpersonal behaviour; prosocial activities; recreation; independence-competence; independence-

performance; and employment/occupation) are produced. Raw scores are transformed to give each subscale equal weighting. For all scales, a higher score indicates better functioning.

The Manchester Short Assessment of Quality of Life (MANSA)[2] is a 16-item measure derived from the Lancashire Quality of Life Profile[15] which has been validated to measure the quality of life of chronic psychiatric patients. Four questions concerning whether the respondent has friends and has been involved in crime have to be answered with 'yes', 'no' or 'don't know' and measure 'objective quality of life'. 'Subjective quality of life' (QoL) is measured by 12 questions which assess satisfaction with life as a whole, job (or sheltered employment, or training/education, or unemployment/retirement), financial situation, number and quality of friendships, leisure activities, accommodation, personal safety, people that the individual lives with (or living alone), sex life, relationship with family, physical health and mental health. Each subjective item is rated on a seven-point scale, from 1 ('Couldn't be worse') to 7 ('Couldn't be better'). The mean of the 12 subjective items represents overall QoL (higher score = better quality of life). Only the subjective QoL measure was used to assess change.

The Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM)[3,4] is a 34-item self-report questionnaire that provides a measure of distress and has been validated to use with clients with a range of psychological conditions. Items are scored on a five-point scale from 0 ('Not at all') to 4 ('All the time'). Half of the items focus on low-intensity problems (e.g. 'I feel anxious/nervous') and half focus on high-intensity problems (e.g. 'I feel panic/terror'). Eight items are keyed positively. The Global Distress score is calculated as a mean value multiplied by 10, and has a range of 0 to 40, where a higher score represents a higher level of distress. The clinical threshold is a score of 10[16]. Clinically significant improvement is defined as the change from scores being in the 'clinical' range to being in the 'non-clinical' range, i.e. a client's pre-intervention CORE-OM score being equal to or above the clinical threshold of 10 and their post-intervention scores dropping below that point[17].

Psychological Outcomes Profiles (PSYCHLOPS)[5] is a short, self-administered, idiographic mental health outcome measure validated for use in primary care. Pre-intervention, respondents are asked to write down one or two problems 'that trouble you most' and to choose 'one thing that it is hard to do because of your problem' (i.e. the consequence of the problems). They then rate the severity of the problems over the last week on a scale from 0 to 5 (higher score = worse health). Scores therefore relate to problems of personal significance to the individual. A final question measures global well-being on the same scale. Post-intervention, the problems are transcribed by the interviewer and rated again by the individual. Scale scores are summed to provide an overall score ranging from 0 to 20 (higher score = worse health). Where a respondent has recorded only one problem, the score is doubled to ensure that all scores are out of 20.

Analysis

Questionnaire data

All analyses were completed using SSPS 15.0 for Windows[18]. For questionnaire nomothetic data, median (range) questionnaire scores were calculated and tabulated for each questionnaire at all time points (Tables 2 and 3). Since the data were skewed, non-parametric tests (Wilcoxon signed-rank tests) were used to assess change from baseline.

With PSYCHLOPS idiographic data, co-workers' responses to the three free-text questions were listed. The published conceptual framework for the questionnaire responses[19] was used to group the co-workers' responses about their stated problems and their perceived consequence of these problems into higher-level themes and subthemes (Appendices 1 and 2). If a problem or consequence did not seem to fit to an existing subtheme, a new subtheme was created. Co-workers' responses were fitted to the conceptual framework by EB; this was agreed by JS.

Interview data

Sixteen co-workers were interviewed as well as providing questionnaire data. Two of the evaluation team (EB and JS) coded three interviews independently and agreed descriptive codes through discussion. EB applied these and, where appropriate, new codes to the following transcripts. Descriptive codes were collated into themes and a preliminary explanatory framework devised. This was used as the basis for coding. Data for each theme were gathered and coded by EB using computer software (NVIVO 8). The robustness of themes was tested by examining differences and similarities between coded data. Coding was agreed between two researchers (EB and JS).

Results

Questionnaire data

Participants

Fourteen male and 14 female co-workers completed some or all of the questionnaires. They were aged from 24 to 91 years (mean 51 years, SD 14.71 years). The majority had been referred by GPs or local community mental health teams. Reasons for referral have only been recorded during the last six months; hence diagnoses were available for 25 participants only. The most common diagnosis was depression (Table 1).

Table 1: Reasons for referral to the project for evaluation participants

Reason for referral/diagnosis	N
Anxiety	1
Bipolar affective disorder	2
Depression	13*
Mixed anxiety and depression	2**
Multiple sclerosis	1***
Personality disorder	1
Psychotic disorder	4
Social isolation	1
* Two of these co-workers also had physical health problems (multiple sclerosis; diabetes and wheelchair bound); **one of these co-workers also had a diagnosis of cancer; ***this co-worker did not have any mental health diagnosis.	

Duration of attendance at Sydenham Garden

Self-reported data were available for 22 of the co-workers participating in this evaluation. Their duration of attendance at Sydenham Garden varied widely (range: three weeks to four years). Prior to completing their baseline set of questionnaires, five had been attending between two and four years; five between one and two years; seven between three and 12 months; and five had been attending for less than three months. Frequency of attendance was not routinely recorded.

Severity and type of problems at baseline

Unfortunately, completion of the questionnaires was erratic; this meant that neither the total nor all the subscores could be calculated for each measure. The range and median questionnaire scores are shown in Tables 2 and 3.

Social functioning: SFS data were collected from 26 co-workers at baseline. However, data were missing for one or more individuals for each of the subscale scores except 'employment/occupation' (Table 2). This meant that overall social function scores could be calculated for 20 co-workers. The median score was 101.6 (range 77.4 to 117.6). A score of 114 or less is considered to indicate a need for clinical intervention[1]; this was the case for all but one co-worker.

Quality of life and distress: According to the objective QoL questions of the MANSA (n = 25), 20 (71%) co-workers had someone they would call a close friend; 18 (64%) had seen a friend in the previous week; two (7%) had been accused of a crime in the last year; and two (7%) had been a victim of physical violence in the last year. Regarding the level of distress experienced by the co-workers, 17 (65%) scored within the clinical range for the CORE-OM (n = 26).

Individual mental health problems: The co-workers' problems and perceived consequences of those problems could all be fitted to the framework described by the authors of the PSYCHLOPS[19] (Appendices 1 and 2). All themes within the framework were represented by at least one co-worker, except 'past events' which were not listed by anyone (Appendix 1).

A wide range of problems and consequences were described (Appendices 1 and 2); these related to interpersonal difficulties (e.g. anxiety about others, loneliness), state of mind issues (e.g. mood problems), physical health problems, daily functioning (e.g. employment issues, difficulties getting out and about), financial problems and lack of confidence.

Effect of participation in the project at three months

Social functioning: SFS data were collected from 13 co-workers. There were missing data from these co-workers for all the subscales except 'withdrawal/social engagement' and 'independence-competence' (Table 3). This makes understanding of changes within the group difficult. Total social function scores could only be calculated for six co-workers (Table 2), two of whom did not provide sufficient data at baseline to calculate a total score. In the four co-workers for whom data were available, improvement from baseline was indicated for two of them; this was not statistically significant *(Wilcoxon: n = 4, z = -0.73, two-tailed p > 0.05)*. Findings were mixed for the subscales: there was no change in median score for 'withdrawal' and 'recreation'; median scores decreased (indicating worse functioning) for 'interpersonal' and 'independence-performance' and increased (indicating improvement) for 'independence-competence', 'prosocial' and 'employment' (Table 2). However, none of these changes was statistically significant *(Wilcoxon: two-tailed p > 0.05)*.

Distress: Only half (n = 13) of those who completed the CORE-OM at baseline completed it again at three months. Overall, there was no significant reduction in global distress *(Wilcoxon: n = 13, z = -1.33, two-tailed p = 0.18)*. This includes data from 10 of the 17 co-workers whose scores were in the clinical range at baseline. In this subset, there was also no significant change from baseline *(Wilcoxon: n = 10, z = -1.27, two-tailed p = 0.20)*. However, inspection of individual scores found that two of these co-workers showed clinically significant improvement, i.e. they now had scores below the clinical threshold.

Individual mental health problems: Only nine co-workers completed PSYCHLOPS at three months. There was no change in the median overall score (Table 2) *(Wilcoxon: n = 9, z = -1.70, two-tailed p > 0.05)*.

Effect of participation in the project at six months

Social functioning: Fifteen co-workers completed the SFS; there were missing data for all subscales except 'interpersonal' and 'recreation' (Table 3). Total scores could be calculated for seven co-workers (Table 2), four of whom had total scores at baseline. The scores of three of these had increased, indicating improved functioning. The median score was 100.5 (range 96.8 to 121.2) which was not statistically significantly different from baseline *(Wilcoxon: n = 4, z = -0.37, two-tailed p > 0.05)*. As at three months, 'independence-competence' and 'prosocial' median scores had increased (improved) from baseline (Table 2). There were no statistically significant changes in subscale scores from baseline *(Wilcoxon: two-tailed p > 0.05)*.

Subjective quality of life: Only 15 participants completed the MANSA at six months. The median score had decreased (worse QoL) slightly from baseline (Table 2) but this was not statistically significant *(Wilcoxon: n = 15, z = -0.11, two-tailed p = > 0.05)*.

Distress: Data were available for all those who had completed the CORE-OM at baseline (n = 26, Table 2). Overall, there was a significant reduction in global distress *(Wilcoxon: n = 26, z = -3.81, two-tailed p = 0.000)*. This was also the case for those who had clinically relevant scores at baseline *(Wilcoxon: n = 17, z = -3.24, two-tailed p = 0.001)*. Nine of these co-workers (35% of the whole sample, 53% of those who were clinically depressed at baseline) showed clinically significant improvement.

Individual mental health problems: Twelve co-workers completed PSYCHLOPS at six months. The change in score indicated improvement (Table 2), but this was not statistically significant *(Wilcoxon: n = 12, z = -0.72, two-tailed p > 0.05)*.

Table 2. Median and range of questionnaire total scores at the start of the evaluation (baseline)
and three and six months later

	Baseline		3 months		6 months	
Measure	N	Median (range)	N	Median (range)	N	Median
SFS total score	20	101.6 (77.4 to 117.6)	6	106.7 (97.1 to114.7)	7	100.5 (96.8 to 121.2)
MANSA	25	4.67 (1.5 to 6.08)	–	–	15	4.42 (2.83 to 6.08)
CORE-OM *†	26	15.9 (1.5 to 32.6)	13	13.5 (0.9 to 24.1)	26	3.2 (0 to 22.4)
PSYCHLOPS*	24	13.0 (0.0 to 20.0)	9	13.0 (3 to 19)	12	10.5 (0.0 to 19.0)

For the SFS[1] and MANSA[2], a high score = better health/functioning; for the CORE-OM[3,4]* and PSYCHLOPS[5]*
a high score = worse health. †Statistically significant improvement at six months from baseline (p = 0.000).

Table 3. Median and range of SFS subscale scores at the start of the evaluation (baseline) and three and six months later

SFS subscale (range)	N	Median (range)	N	Median (range)	N	Median
SFS withdrawal/ social engagement	25	96.5 (70.5 to 124.5)	13	96.5 (84.0 to 116.5)	12	93.5 (80.0 to 133.0)
SFS interpersonal communication	25	124.0 (86.0 to 145.0)	12	117.5 (86.0 to 145.0)	15	111.0 (86.0 to 145.0)
SFS independence-performance	25	112.5 (78.0 to 124.0)	12	110.0 (85.5 to 124.0)	12	109.8 (85.5 to 121.5)
SFS independence-competence	23	103.5 (88.5 to 114.0)	13	107.0 (78.0 to 117.5)	12	107.0 (86.5 to 117.5)
SFS recreation	25	108.5 (81.5 to 145.0)	11	108.5 (80.0 to 129.0)	15	105.5 (89.0 to 133.0)
SFS prosocial	22	78.5 (0.0 to 124.0)	9	96.5 (83.0 to 121.0)	12	92.3 (79.0 to 112.5)
SFS employment/ occupation	26	95.0 (89.5 to 122.5)	12	96.3 (81.5 to 116.0)	15	95.0 (81.5 to 97.5)

A high score = better functioning.

Interview data

Sixteen co-workers were interviewed (one of these had become a volunteer within the project). The diagnosis which led to referral to the project was available for all but one interviewee; the majority suffered from depression (Table 4). Self-reported approximate duration of attendance was available for 12 participants: four had been attending for between two and four years; two for between one and two years; five for between three and 12 months and one for six weeks. Interviews were numbered consecutively in the order in which they were transcribed; quotes are identified by CW (co-worker) plus the number of their interview (i.e. CW1 to CW12).

Table 4: Reasons for referral for evaluation participants who were interviewed

Diagnosis	N
Bipolar affective disorder	2
Depression	8*
Mixed anxiety and depression	1**
Multiple sclerosis	1***
Psychotic disorder	2
Social isolation	1
* Two of these co-workers also had physical health problems (multiple sclerosis; diabetes and wheelchair bound); **this co-worker also had a diagnosis of cancer; ***this co-worker did not have any mental health diagnosis.	

There were six main themes concerning the co-workers' experience of Sydenham Garden: first impressions and expectations, well-being, relationships, ownership and belonging, being outside and transferable skills. Most could be broken down into subthemes.

Theme: First impressions and expectations

Most participants were prompted to say how they felt about coming to Sydenham Garden initially; many discussed their motivations for coming. Several co-workers recalled their initial apprehension when they were first prompted to come to Sydenham Garden by a health or social care professional.

> "I was a bit worried, but after a couple of weeks, I sort of settled in." (CW10)

> "I didn't come for ages, until he [the GP] sort of said 'well, I really think you should do', so then I did." (CW2)

For some, this seemed to be because of existing anxiety problems (e.g. difficulties with leaving the house (CW8), anxiety about finding the garden (CW6)); to help with this, some co-workers (CW6, CW9, CW10, CW12) were accompanied on their first visit by a healthcare worker.

> "I found it difficult leaving home to get here because just before that I couldn't leave my house, I mean to go to the doctor's. Now I can come away from my house and get here because I've got people up here who are friendly." (CW8)

One co-worker had been a healthcare provider and was concerned that 'being on the receiving end' did not fit with her self-image (CW4); however, encouragement from a friend helped her to attend.

> "[My GP] suggested it in one of my consultations and actually initially I completely discounted it... I felt really shocked actually to be on the receiving end when it's normally been the opposite and so and, but, so I kind of, you know, er, declined... and actually it was a bit of a connection with my friend who'd heard of it... but anyway, she was very positive about it and it made me think about it." (CW4)

Another (CW16) felt uncomfortable in her ability to do crafts.

> "I was nervous to begin with about being able to do it at all, because I wasn't used to doing anything like that; probably thinking 'would I be any good at that?'" (CW16)

Three co-workers reported being very positive about coming. One lived near the garden and wanted to be involved in its development (CW11), another was actively seeking structured activity which he knew would help him to cope with his bipolar affective disorder (CW7) and the third had seen the project featured on the television and thought it would be relaxing (CW14).

> "I knew, suffering from the depression the way I do, I needed structure in my week. Because to me structure is very important in managing my manic depression. And I love gardening, I love nature and wildlife, so it was an ideal project to get involved with." (CW7)

Only one co-worker reported being obliged to come by members of his healthcare team.

> "I wasn't 100 per cent over-happy about doing it. I felt like I was a bit obliged to do it, so I'm not happy about being obliged to do it, but as I done it, I've grown to like it a little bit." (CW9)

Motivations for attending included to 'get out' (of their homes) and to 'meet people' (CW1, CW3, CW5, CW6, CW13, CW16).

> "Well, like, you know, go out and about, instead of being in, you know, staying in, always stopping indoors, get out and about." (CW1)

> "I think sort of a social thing, just, you know, getting out and just meeting people and, erm, you know, becoming more, more normal." (CW3)

The chance to develop a new or existing interest was also often mentioned (CW1, CW2, CW4, CW7, CW8, CW14). The feeling was that this would be beneficial for them.

> "I've always been passionate about gardening and it just seemed to be the ideal opportunity to do some of the courses that those – practical, organic gardening, erm, urban wildlife conservation." (CW2)

> "I, you know, do some sort of things like craft things… I've never been a gardener as such, although I would have liked to have been in a way, but… time has been taken up with other things. So that's how that happened – initially it was the art and craft, then that of course led to being open to trying them both." (CW4)

One person, who was depressed at the time of joining, said she wanted to get 'bucked up a bit' (CW5).

Theme: Well-being

A large part of each person's interview concerned the benefits they perceived they had gained from participating in the garden. All those interviewed were very positive apart from one co-worker (CW9) who, although perceiving some benefit of attending, was notably less enthusiastic in praising Sydenham Garden. This may be a result of his communication style, but one difference between him and other participants was that he reported feeling 'obliged' to attend by the staff at the hostel where he was living. Two other co-workers talked about being 'made' to come more often than they wanted, but they, nevertheless, reported benefits from participation (CW6, CW12).

Subtheme: Being free. This subtheme emerged from the data, in that interviewees were not specifically asked about it. Co-workers talked about being accepted, not judged, in terms of both themselves personally and the work they did at the garden.

> "I can come here and do what I like. And there is no pressure, that's the other thing. There is no standard to which you have to perform." (CW2)

> "You feel a sense of acceptance, people aren't judging you, why you're there or, a few people's situations are very different and of course we don't really know what different people's situations are, but people, you know, are accepted whatever, and that's lovely." (CW4)

They also talked about having the freedom to choose what they did in the garden and how and when to come.

> "Freedom to go out and do things, you know? It's great. I'm not saying I didn't have freedom at the Bethlem – we could go ground leave and everything – but I think it's sort of being able to go out and catch a bus, plan for the time you're going to get here, and that's the main thing, you know." (CW10)

One person contrasted Sydenham Garden with another garden project in which he had been involved. That was based in a hospital and was run 'more like a business' (CW10) which the co-worker had enjoyed less.

> "You know, [at the other place] everything had to be done. I mean, it's great here. You're never told. They say 'what do you want to do?' you know? I feel happy." (CW10)

One co-worker (CW8) explained that a staff member who has since left was more demanding; he explained that this put pressure on him and felt less therapeutic. Prior to coming to the garden this co-worker reported having had a breakdown due to work stress. In general, co-workers valued the lack of pressure to perform.

> "It seemed to me when we were doing something... and I'm 60-odd years old, and he'd [ex-staff member] go 'come on mate' and I'd say 'leave me alone, don't..' when [X] took over things got better." (CW8)

People also reported being free to express themselves emotionally.

> "People are given enough space. If you come in and say you're not feeling 100 per cent today, you're encouraged, but not overly encouraged to stay around… And I'm not judged, and it's not like, oh well, if you're not feeing right, you shouldn't have come." (CW7)

Finally, two co-workers volunteered that Sydenham Garden was a place to which they could escape from the demands of their home life.

> "I know it sounds horrible, and I've got a nice family and friends, but sometimes it gets me away from what I wanna do… Instead of me being there doing things for other people, it's, it might sound a bit selfish, but I don't care no more!" (CW5)

> "I don't have to be bothered by my cats or my children or my phone ringing. I'm away doing something that's totally, it doesn't have to be productive in a physical sense, but the benefit I get, it's good." (CW2)

Subtheme: Purpose. Most of the co-workers talked about Sydenham Garden providing them with a purpose: It keeps them busy (CW1, CW6, CW7, CW12).

> "It's been really worthwhile coming along. Erm, and it's like you're doing something, keeping busy, erm, rather than not keeping busy." (CW6)

> "I feel like I'm doing something useful." (CW7)

> "Keeps you busy for a few hours a week." (CW12)

It gives them something to look forward to (CW2, CW4, CW5, CW6).

> "I actually look forward to it. I really resent when we have holidays actually, summer holidays and half terms… I look forward to coming here 'cause even if I don't actually make anything or do anything other than make coffee and hand round sandwiches or biscuits." (CW2)

> "I look forward to it every Wednesday… Although I've got other things to do, you know, I've always got something I'm going and what have you, but I do look forward to this on Wednesday, I do yeah." (CW5)

> "It's getting something to do, to look forward to in your mind." (CW6)

It provides a reason to get up in the morning (CW2, CW4).

> "If I hadn't come here, I just would have stayed in bed." (CW4)

And it is something to think about other than their problems (CW2, CW4).

> "It's good fun, and it's that kind of thing, instead of staying at home and watching another makeover programme or cookery programme, or, you know, just feeling sorry for myself or getting off my face on something, I can come here and do what I like." (CW2)

> "To be able to come along and engage in, erm, some activities – that can help to get you out of it, sort of focus on something else rather than on sitting at home just being able to see what your problems are." (CW4)

Subtheme: Pleasure. Most of the co-workers listed activities they particularly enjoyed, for instance physical activity, brickwork, making tea, watering, crafts, helping at fairs, painting and growing things.

A sense of achievement or of 'doing something useful' (CW7) was also valued, in terms of producing or growing something.

> "Plant things and monitor their progress; to see the germination of seeds that one has helped to sow; to try out new things, learn new skills... with a sense of achievement at the finished result – no matter what it looks like!" (CW4)

> "If I hadn't come here, I wouldn't have got all these onions." (CW6)

One person valued being able to 'express yourself creatively' (CW4). However, most did not state a reason for their enjoyment of specific activities, other than simple pleasure.

> "I am just happy helping in the making of things like marmalade as well and chutneys and so on which have been brought by people at different fairs and even helping with the manning of the stalls and so on." (CW4)

> "I enjoy coming here – painting the pots, that's what I'm gonna do in a minute when I go away – paint them nice pots." (CW5)

"I've thoroughly enjoyed all the time I've been going. I'd miss it terribly if I couldn't get there. And I think it's done a lot for my morale, it's got me hooked on making crafts, and I think it's just a magnificent project, and I really, really enjoy it." (CW11)

Subtheme: Improved mental health. All of those interviewed talked about improvements to their mental health as a result of their participation in Sydenham Garden. Some talked in general terms about the effect on their overall well-being: 'it's helped me' (CW6); 'it's made a huge difference' (CW6); 'it's a bit on the therapeutic side' (CW9); 'it's good for morale' (CW11); 'makes you feel brighter' (CW7); 'restores and makes you feel better' (CW4).

"Take yesterday afternoon, for example. Three depressed chaps, all three of us weren't feeling very well, but we all stayed for the session and we got on and we did stuff, and we were all feeling a bit brighter at the end of it." (CW7)

"Well, put it this way, if you are feeling hacked off with something, there is nothing better than coming and getting your hands really dirty... and it's difficult to get, to remain in a bad mood." (CW2)

"It's lovely, just amongst people who are generally, er, you know, er, quite, erm, you know, sort of intelligent I suppose. It lifts one up rather." (CW4)

Others talked about participation in Sydenham Garden having increased their self-worth.

"I've learnt that I actually do mean something to people and that's something I was never aware of before... deep into my illness and depression, I hadn't thought that I mattered to anybody, but coming here, I do. I know that I do because if I'm not well and I'm not here for a few sessions people actually get very concerned and I get phone calls and I get cards and if I go on holiday people are really excited when I come back... it's a lovely feeling." (CW2)

Completing jobs or courses and seeing things grow that they had planted gave people a sense of achievement which increased their self-confidence.

"Getting on with jobs, without supervision from anyone else and with me being in charge, and sort of me pushing the co-workers with what to do, that helps build up your confidence." (CW7)

"It's just something you're doing well and, you know, I feel more confident in myself because of those tests I'm taking and I've passed them, passed one. I can say 'I've done it!' And when it gets to growing full grown, I will say 'I planted that!' yeah, I did it myself!" (CW8)

However, one participant (CW7) noted how hard it is to take home the good feelings generated in the garden.

"If you're working with nice people, and the weather's nice and you're doing a job that you're enjoying, then you have a nice day; you have a good session. And I try to take that feeling away with me, but, as I said before, that's easier said than done – you have to practise." (CW7)

Two co-workers, however, reported making big changes as a result of their participation in Sydenham Garden; one had stopped taking antidepressants (CW2) and another had stopped drinking and taking benzodiazepines (CW7).

"This is far better than a GP handing out diazepam and trimazepam [sic] to people. And since I've been here, I've not been on any antidepressants. I stopped taking them." (CW2)

"I stopped taking benzodiazepine and I've stopped drinking. It's all linked. All these things are linked together. I found, with the drink, if I know I've got this to come to, I don't want to drink the night before, because then I feel rubbish the day after. So when I was drinking, I would avoid drinking on the nights before the project. But now, I've knocked it on the head completely and that has made a difference, because the depressive episodes that I do still get... are a lot less severe." (CW7)

Theme: Relationships

This theme links with the well-being theme, but personal relationships and their benefits formed such a large part of the content of most people's interviews that an entire theme seemed warranted. Diverse aspects of relationships were discussed, such as the welcoming atmosphere of Sydenham Garden resulting from the people who work there, relationships with staff and with co-workers, the importance of social contact per se and the giving and receiving of help. All the interviewees, when asked what they liked best about Sydenham Garden, mentioned social contact.

"There is just this incredible bond between everyone, you know? The gardeners joke about the craft group, the craft group joke about the noisy gardeners. You know, they're just joshing and fun – it's lacking in other places." (CW2)

"I mean, one of the joys of coming up here is having someone to talk to. Make conversation, talk about this and that, or what I'm going to have for dinner or whatever." (CW15)

Staff, co-workers and volunteers were considered to get on well together (CW5, CW6). Relationships were considered 'caring' (CW3, CW8) and 'encouraging'; one co-worker (CW4) considered these aspects to be 'reciprocal' between staff, co-workers and volunteers. One co-worker (CW14) especially valued not being 'talked down to'.

"They don't treat you like you're nuts!" (CW14)

Some co-workers also talked about how they helped others either individually (CW4, CW7) or by helping to run groups (for instance, the women's gardening group (CW2)).

"I'm coming on the Wednesday, sort of helping with teas and coffees and helping individual people that need a bit of assistance or encouragement or, you know..." (CW4)

"I come to the women's group and I help a lot with that, showing other people how to do things." (CW2)

The consensus was that there is good community spirit in the garden. Empathy between fellow co-workers was evident. One co-worker described another 'losing it' on a day out, but excused them, explaining that they must have been 'very stressed' (CW7). Another (CW8) explained how he understood that you have to 'take people as they are' because 'one day, I might do the same [upset them] to them'. Two people said that seeing others who are worse than you are can be good for you (CW7, CW11).

"It's important to me, because people, they've all got some disability, and I find that very good, in the sense that I see people who are worse than myself. And if ever you go along feeling a bit sorry for yourself, achy and in pain, and you see X coming in in her wheelchair, you know, permanently disabled in her way, and she's always so cheerful, and XX. And XXX used to limp in. And you think, 'oh God, what have I got to complain about?' And I think that's good, that you're forced to see things around the spectrum." (CW11)

"Often I find that if I'm not feeling too good, listening to someone else's problems, sometimes it helps you get your own problems into perspective." (CW7)

Two of those interviewed had made friendships which extended outside their time in the garden; they valued this greatly.

"I've actually made new relationships with people. People that I would never have come across, like one of the ladies here, a very elderly lady [CW11]. She's an absolute treasure and I've not had that kind of contact with that age of woman in the way that we have. I help her, she helps me and she has like children. She comes to my house, I've been to her house. That's an added dimension in my life that I wouldn't have had if I hadn't come to this project!" (CW2)

Another had maintained a friendship with someone who had left the garden (CW9). However, another (CW14) said she would like to make more friends, but found it difficult; nevertheless, she greatly valued the company of others while producing crafts.

"I don't always talk a lot, but it is nice to have people talking around me. Even if I don't join in, that's just nice." (CW14)

One co-worker commented that most people did not see each other outside the garden (CW2) and others talked about the garden being their only chance to socialise (CW7, CW12).

"I was socially very isolated. I still am, in reality, because these sessions go very quickly when you're enjoying yourself." (CW7)

Theme: Ownership and belonging

Most interviewees were asked explicitly if they felt a sense of 'ownership' towards Sydenham Garden. They talked about this in terms of the contribution they felt they had made and also in terms of a sense of 'belonging' or being part of Sydenham Garden. Some people were emphatic about their sense of ownership.

"When we have an event, and the salad that goes with the barbecue has actually been grown in the garden and picked and prepared by people here, you can't beat it. There is no other feelings. It's an 'ownership'. Everybody's taken ownership of the project." (CW2)

"I treat it as my own garden in a way. I feel a sense of belonging and a sense of ownership towards the project." (CW7)

One person (CW2) suggested that ownership was especially strong for people who had been involved since the beginning and had witnessed the most change.

"Everybody feels that the garden is theirs. And most people, not most of the people, a number of people who come to this project, who come to the arts and crafts, remember this garden when it was just a patch of derelict waste land." (CW2)

The strong sense of community experienced by the co-workers was thought to enhance feelings of ownership, with one co-worker (CW7) feeling that wearing a Sydenham Garden shirt helped.

"They [staff] encourage you to feel part of what's going on. Silly little things, like these shirts – they help... and it seems like a funny thing, but it's nice to have a shirt with 'Sydenham Garden' written on it." (CW7)

Having made a 'contribution' to the garden also seemed to be related to feelings of ownership and belonging. However, in people with low self-esteem or confidence, claiming ownership may be difficult and some downplayed the contribution they had made (CW4, CW8, CW9, CW12).

"I have no delusions that my little bit has made a huge difference, but if it's made a tiny difference..." (CW4)

"There's nothing here other than that corner [of the greenhouse which he helped build] which I could turn around and say I've done on my own, not we done together." (CW8)

"I mean, a little bit [contribution], not a great deal. I mean, there are lots of jobs to be done here at the end of the day." (CW9)

"Well, there's a lot more people in this garden, I'll be honest, they've done a lot more work to what I've done." (CW12)

One co-worker noted how her sense of belonging made Sydenham Garden a safe place for her. At a time of distress, it was the first place she came and felt better because she was able to sit there and be supported by a member of staff.

> "I had some shattering news concerning one of my children last year and I had to deal with it and then I was incredibly upset and I came to the garden. I wasn't… there was no scheduled, er, thing – art and craft group or garden group, it just, I just knew that the garden was open that particular afternoon." (CW2)

The co-workers' sense of ownership was evident in that many people had plans or ideas for things they would like to change, for instance one co-worker described in detail his plans for a 'soak-away' to help with drainage on the de Frene site (CW8). Others, including one co-worker who was on the management committee (CW2), talked about wanting more funds.

However, there was some evidence of negative effects associated with feelings of ownership. One co-worker (CW8) expressed his disappointment that a number of his plans had not been carried out (for instance, his method of bricklaying was not taken up and slates which he had found and thought would be useful were not collected). However, it is possible that such feelings may be expected in someone suffering from anxiety problems as this man was. One male co-worker (CW15) felt resentful that on Thursdays the gardening group was for women only. In addition, a co-worker (CW4) suggested that there was tension between the gardening and arts and craft groups over use of space, which may suggest that some people feel 'territorial' and find it hard to share. However, no other interviewee mentioned this and another (CW2) suggested that there was a good bond between the gardening and craft groups.

Theme: Being outside

Interviewees were prompted to discuss how important 'being outside' was to them. Arts and crafts participants were asked to consider the difference between working inside, for instance in a church hall, and working outside. All the gardening co-workers agreed that they like being outside, which may be expected in people who choose to garden. All the people who did arts and crafts also said they preferred to work outside, although, one co-worker (CW13) noted, this depended on the season.

> "'Cause summer and spring's lovely, but I'm not keen on mucky gardens in the winter!" (CW13)

People talked about it making them 'feel better' (CW5) or 'feel good' (CW3) or 'making a difference' (CW11). The reasons given were that it was 'peaceful' (CW5), 'an area of reflection' (CW4), 'relaxing' (CW8, CW10), 'therapeutic' (CW6, CW8) and that you could 'see things growing' (CW5), especially the buds in spring (CW12), and feel in touch with nature (CW6, CW14). The garden was also considered 'pretty' (CW5) and 'charming and exquisite/a lovely setting for crafts' (CW4), with four arts and crafts participants (CW5, CW13, CW14, CW16) saying that nature inspired their art.

When asked specifically about the nature reserve, responses were more mixed. Some co-workers mentioned their enjoyment of the birds and pond life there (CW8, CW10, CW13). Two people (CW13, CW16) liked this area best of all.

> "The bit I like is the bit where it's like the natural meadow, and you almost feel it's like a little bit of very natural countryside. I like that bit most of all." (CW16)

However, five of those interviewed (CW1, CW6, CW8, CW9, CW11) said they never or hardly ever visited the area because they preferred the work in the garden and because there was no one to talk to there. Three older or physically disabled co-workers complained of a lack of accessibility because the paths were too rough for them to walk safely (CW11, CW16) or to use their mobility scooter (CW14). One co-worker (CW14) did not like the atmosphere there as it brought back unpleasant childhood memories.

> "I feel a bit isolated and it reminds me of woods when I was a child and how scary they were, so I tend not to go there." (CW14)

However, another (CW13) was pleased to be reminded there of her country upbringing.

Theme: Transferable skills

Many of the co-workers talked about having learned new skills such as gardening, ecology and craft-making (CW1, CW2, CW3, CW4, CW8, CW11). Five of those interviewed had done, or were doing, one of the taught courses on offer at Sydenham Garden (CW2, CW3, CW4, CW8, CW16); all enjoyed the learning aspect of this.

> "But even if it [the course] isn't [something he could use], I'm still glad that I'm, I'm doing it. The lessons are good. They're interesting, really interesting." (CW3)

> "I'm involved in a course now that's really brilliant, that's really inspiring me and making me… it's fired up my brain cells for a start, reignited dormant learning processes and disciplines and – amazing! I'm actually all the time

looking for things, researching and writing bits and pieces and it's like 'Wow, I didn't know I could do that!'"(CW2)

One co-worker (CW7) was 'promoted' from co-worker to volunteer.

"This year, they asked me instead of being a service user or a co-worker, what about being a volunteer here? And I found that quite thrilling in a way. It was almost like getting promoted." (CW7)

This co-worker also enjoyed the new responsibility he had taken on in promoting Sydenham Garden in other mental health settings. Another (CW15) developed an interest in photography through his participation in the garden. He has now taken on the role of project archivist.

"Then I bought myself a camera and started taking photographs, which was good because it gave me something to do at home as well." (CW15)

Others also reported using new-found skills at home: one woman applied her new craft skills to making her own Christmas cards and gifts (CW13) and another had been inspired to get help with tidying up her own garden (CW14).

These new interests and skills helped promote confidence and provided new interests. The development of such new skills may also be important for moving on from the project. The co-workers were not asked about what would happen after they left Sydenham Garden and very few of them raised this topic. One (CW7) talked about being able to get a reference when he got 'to a point where I feel I want to look for paid employment', but he felt that that would not be for a while. The same co-worker suggested there should be a stricter policy about people leaving the garden after 18 months; however, when asked where they would move on to, he admitted that there were few places to go. Another co-worker (CW8) was asked if the qualifications he was working towards would help him when he left; he hoped so, but wanted to do it for the sense of achievement, regardless of whether it would lead to employment.

Discussion

This evaluation provides a 'snapshot' of the experience of a small group of people with mental illness who were participating in Sydenham Garden. The project was developing and expanding throughout the period of the evaluation. Co-workers participating in the evaluation varied in their duration of attendance at the project; some had been involved for several years whereas others had been attending for only a few weeks when they were interviewed. This evaluation is therefore not a 'before and after' study, but rather reports the perceived progress of the participating co-workers over time.

At the start of the evaluation, the co-workers reported low levels of social functioning and high levels of distress. They also reported experiencing a wide range of personal problems. This was despite the majority having contact with secondary care mental health services and indicates a high level of unmet need. When these outcomes were measured six months later, the co-workers reported an increased ability to perform skills necessary for independent living, increased engagement in common social activities and less distress. They also reported that the problems they had been experiencing six months earlier were less troublesome.

The reduction in distress as measured by the CORE-OM[3,4] was statistically significant, and for approximately half (53%) of those participants whose distress was clinically significant at baseline (n = 17), the change represented 'recovery' – i.e. movement from clinical to 'normal' levels of distress[16]. This compares with data from 12,000 patients receiving primary care psychological therapy across 34 services within the UK, where 54% achieved recovery[17]. Sydenham Garden co-workers represent a more diverse group of people with more severe and enduring problems than those usually seen by primary care psychology services and so fewer may have been expected to recover. Furthermore, the current finding of reduced distress is supported by project monitoring data collected internally by Sydenham Garden. Of 26 co-workers who were surveyed twice during the period November 2009 to October 2010, 58% reported improved mental or physical health and 65% reported improved social interaction or quality of life (data available from JS).

Otherwise, changes were not found to be statistically significant. This may be because the study was insufficiently powered to detect changes due to the high level of missing data for all measures except the CORE-OM. An evaluation of a similar project[20] also suffered from loss of data and found no significant changes in mental health or social or general functioning at 12 months. Interpretation of the changes in scores is also complicated in that, although all participants' progress was measured over six months, several had participated in the garden for some time prior to this evaluation. It is impossible to determine the effect of participation in Sydenham Garden on the problems with which these people originally presented. For those who had recently joined the project, it may be the case that six months is too short a period for the severe, long-term problems measured by the questionnaires to have resolved, in which case any reported improvement is encouraging.

This view is supported by the co-workers' reports of the benefits of participation in Sydenham Garden. Interview data were overwhelmingly positive. Only one co-worker was less than enthusiastic, perhaps because he felt obliged to attend by the care workers where he lived. Nevertheless, he too reported some benefits. Despite some initial anxiety about attending the project, the co-workers reported starting with positive expectations and settling in quickly. They felt engaged with the garden and that they belonged there. This was reflected in a sense of ownership, although some co-workers downplayed this, possibly due to existing feelings of reduced self-worth. There was consensus that participation in the project improved well-being in terms of providing purposeful and pleasurable activity and interest, improving mood and self-perceptions and even of providing escape from life's pressures.

The social contact and relationships made through participation in the garden were especially important to the co-workers. A strong sense of belonging to a community was reported and valued. Only three of those interviewed reported friendships which extended outside the project, however. That few 'true friendships' had been forged may be expected for any small group of diverse people brought together as part of a project. An evaluation of a time-banking project[21] with aims similar to those of Sydenham Garden reported similar findings in this respect. A review of studies of the effect of participation in art on mental health and social inclusion[9] found a greater effect on 'empowerment' than on social inclusion. The authors of that review suggest that working with people from the wider community as well as with people with mental health needs may be important in promoting social inclusion. Co-workers at Sydenham Garden engage with the wider community in a number of ways, including at the annual summer, autumn and Christmas fairs. Since this evaluation, there has been an opportunity for increased engagement in the form of a weekly market stall which sells garden produce and arts and crafts items to the public. However, in future, it may be worth investigating ways of helping participants to mix outside the project or to make other social contacts.

The experience of 'being outside' was discussed with most of those interviewed. All, including those who only participated in arts and crafts, agreed that it was beneficial. Detailed reasons for this were not given, but an appreciation of nature was apparent and people appeared to link this with improvements in their mood. This is supported by evidence that individuals with a range of mental health problems reported greater mental health benefits after exercising outdoors compared with indoors[22]. However, for some people at Sydenham Garden having a reason for being outside, such as gardening, producing crafts or socialising, was important; these people were less likely to visit the nature reserve where there is no work to do or people to see.

It appears that the co-workers considered participation in Sydenham Garden to be beneficial in a range of ways while they were at the garden. Whether these benefits transferred to life away from the garden is difficult to determine. Some co-workers reported applying new interests at home. However, one described how difficult it is

to maintain the improved mood experienced in the garden after returning home, and for a few participants the garden was their only chance for social contact. Nevertheless, many co-workers obtained qualifications and transferable skills (for instance one interviewee promotes Sydenham Garden to other groups) since joining the project. Since completion of the evaluation, a grant has been given by the National Lottery which has allowed more co-workers to obtain qualifications. For instance, in 2009–2010, 30 qualifications were obtained by co-workers. Two of those interviewed reported reductions in medication use and drinking since becoming involved in the project.

Limitations of the evaluation

Problems with data collection

A considerable quantity of questionnaire data was missing. Twenty-eight co-workers provided some questionnaire data at baseline; this reduced to 13 at three months and 15 at six months (although 26 people provided CORE-OM data at six months), with some providing data at six months and not three months and vice versa which made comparisons difficult. In addition, questionnaires were often incomplete and so valid total or subscale scores could not be calculated. This was particularly the case for the SFS which was the primary outcome. Of the measures used, this is the longest and, arguably, the most complex to complete. The researcher collecting the questionnaire data (SR) reported participants' reluctance to complete long and detailed forms. A policy of not pressurising co-workers to perform or judging them on their performance exists at Sydenham Garden; the interview data show that this is highly valued by the co-workers. The researcher was therefore careful not to do this in relation to completing questionnaires and rather allowed co-workers to complete what they felt able to do, instead of pressing them for answers. This may account for the lack of data.

Possibly for the same reasons, a relatively small number of co-workers agreed to be interviewed. This evaluation is not unique in this respect; issues of recruitment and attrition are known to pose a serious risk to studies of social and therapeutic horticulture (and other similar complex interventions)[23].

Attribution of changes to participation in Sydenham Garden

The lack of a control group for this evaluation means that we cannot definitely attribute changes to participation in Sydenham Garden. However, this is a 'real world' study of a developing project and recruitment of a control group was not possible. It is possible that changes may be attributable to confounding factors such as changes in the co-workers' personal circumstances, physical health status, medication use, living conditions or financial status – all of which may have an impact on mental health. Participation in a research project is also known to change outcomes; this is known as the 'Hawthorne effect'[24].

However, a strength of the evaluation was the use of both quantitative and qualitative methods. Improvements suggested by the questionnaires were supported by the co workers' opinions expressed during their interviews. That Sydenham Garden continues to attract both funding and referrals suggests that others also perceive its benefit.

Conclusions

This evaluation shows that Sydenham Garden provides a feasible model for the delivery of social and therapeutic horticulture and arts and crafts participation for the improvement of mental health in primary care. A heterogeneous group of people have participated in the project; these people have considerable unmet need despite contact with mental health services. It is clear that Sydenham Garden has been successful in engaging people with serious health issues and enduring problems.

The case-study design and lack of control group of this evaluation reduces the generalisability of findings to other settings. However, the quantitative data collected suggests that the model can produce improvement, especially in terms of reducing perceived distress. Attribution of improvements to participation in the project is difficult and is a problem common to evaluations of complex interventions[25]; changes may be due to confounding factors or to the 'Hawthorne effect'. However, a strength of this evaluation is in its use of qualitative interviews, the findings of which provide support for the quantitative changes observed.

Furthermore, the qualitative work allows exploration of how and why participation in the project may work[9]. Participation in Sydenham Garden is considered to improve well-being by providing purposeful and enjoyable activity and interest, improving mood and self-perceptions and an escape from life's pressures. The social contact derived as a result of participation is especially valued.

What happens to co-workers after leaving the project was not explored in this evaluation. Longer-term studies are needed to address this issue for Sydenham Garden and for similar projects[9]. However, there is evidence from the co-worker interviews that many have developed transferable skills, including nationally recognised qualifications, which they value highly.

Throughout the period of this evaluation the project has evolved in terms of numbers of co-workers, volunteers and staff involved, activities provided and land and buildings acquired; this makes evaluation complex as the impact of changes are difficult to measure. However, that Sydenham Garden has developed over eight years and continues to attract funding which is allowing it to grow is further evidence for the feasibility and potential benefits to people with complex needs of this model of primary care mental health care.

Appendices

Appendix 1:

Translation of co-workers' stated problems using PSYCHLOPS into themes using the published conceptual framework[19]

Conceptual framework		
Theme	Subtheme	Problem (co-worker ID*)
Interpersonal	Relationships	I sometimes worry where my girlfriend is (J5GM)
		My 15-year-old son (SGC06)
		My elder daughter (SGC20)
		My neighbours (SGG13)
	Social interaction	Loneliness (SGC05)
		Loneliness is my main problem (SGG09)
	Others' behaviour/health	People asking me for money (J4GM)
		The group – since J has come back, she's getting more attention than I am (SGC01)
		SS doesn't do enough crafts for fêtes other than making cards. She should do something different (SGC01)
State of mind	Diagnostic labels	Feeling depressed (J3GM)
		Anxiety (J3GM)
		Depression and anxiety (SGC03)
		I tend to get anxious (SGC12)
		Stress (SGC18)
		Depression and social anxiety (SGG21)
		Probably anxiety. Unable to hold down current job. Worry about this situation in particular and other things too. Fear of the unknown, uncertainty of the future (SGC22)
		Anxiety (SGG13)
		Depression (SGG19)
* Original patient reference code		

Conceptual framework *continued*		
Theme	**Subtheme**	**Problem (co-worker ID*)**
	Unhappiness	How I feel – this is variable. Sometimes I feel OK, sometimes I feel quite happy in myself for periods, sometimes I feel very low, despondent, despairing in my heart, wishing things were different. At the same time, complete relief that I am not presently at work, and very grateful for all positive things that I've been involved with, especially Sydenham Garden. Frequently, how I feel has resulted in me avoiding tasks and experiencing difficulty in getting and staying up (SGC22)
Somatic	Speculative health concerns	My health (SGC04)
		Fear of dying (SGC23)
		Health and safety (SGG02)
	Existing health concerns	It is easy for me to put weight on with my medication (J1GM)
		I have been a bit worried about my stomach (J1GM)
		I get breathless when I try and exercise (J5GM)
		Diabetes (SGC03)
		My health – I've lived with MS for 35 years (SGC06)
		IBS causing flatulence and diarrhoea resulting in social isolation (SGG21)
		Voices (SGG08)
		The diminishing strength in my legs and feet (SGG09)
		Cannabis addiction (SGG19)
	Sleep	
	Sex	
* Original patient reference code		

Conceptual framework *continued*		
Theme	Subtheme	Problem (co-worker ID*)
Past events	Someone's death	
	Traumatic experience	
Competence/ performance	Work/employment	Lack of remuneration and failure to make full use of people's potential (SGG02)
		I haven't worked for seven years and I am an alcoholic (SGG07)
		Having difficulty getting on a course to improve [basic skills] education (SGG11)
	Self-management	I could be doing more with my time (J2GM)
		Worrying about arriving on time at appointments or meeting people (SGC04)
		Crossing roads on my own (SGC05)
		I forget things that I did a few minutes ago (SGC16)
		Trying to make it through to Christmas (SGC17)
		Avoiding people I know and denying myself life/enjoyment of life. Punishments (SGG08)
		Travelling problem; getting from one place to another, like where to get on and off bus (SGG11)
Self-evaluation	Self-esteem	Lack of confidence (SGC12)
	Self-liking	
Material issues	Finance	Worrying about my money situation (SGC17)
		Money problems (SGC20)
	Accommodation	
* Original patient reference code		

Appendix 2:

Translation of co-workers' perceived consequences of their problems using PSYCHLOPS into themes using the existing conceptual framework[19]

Conceptual framework		
Theme	Subtheme	Problem (co-worker ID*)
Competence/performance	Concentrating/focusing	
	Being motivated/productive	Participation (SGG02)
	Coping	Categorising and prioritising everything (SGC06)
		Living (SGC18)
	Achieving	I get nervous about going out (J4GM)
		If I have to go out somewhere strange, it affects me (SGC03)
		Can't keep up with other people's pace (SGC04)
		Ironing; anything requiring bending, like picking things up from the floor (SGC10)
		Going out in the dark (SGC16)
		Scared to answer the phone if I see the number is to do with either problem or if there is no number shown (SGC20)
		Generally getting about from A to B (SGG09)
		Can't get a job; feel useless (SGG11)
		Going out (SGG19)
		Shop for basic necessities such as food and I'll roll [leave the building] (SGG21)
Interpersonal	General social interaction	Didn't want to face coming back to arts and crafts (SGC01)
		Get out and about and meet people (SGC05)
	Relationships	Have no true friendships/friends at all. Nobody will let me 'fly' in psychological terms (SGG08)
* Original patient reference code		

Conceptual framework *continued*		
Theme	Subtheme	Problem (co-worker ID*)
Frame of mind	Feel mentally well	
	Happy	
	Relaxed	Unable to relax (SGG13)
Resolution and progression	Being positive	
	Moving on	Beginning new things (SGC12)
		To really get on and deal with the things I want and need to do (in my flat; begin to face issues and outstanding work in my job; contacting people; thinking about the future, etc). I find it difficult to be proactive (though ironically find it possible/easier to do tasks which I am not emotionally tied up in, i.e. not related to my issues) (SGC22)
	Personal advancement	
	Decision-making	Spending money on stuff I don't need – budgeting (SGC17)
Self-evaluation	Self-esteem	Feeling good about myself (J3GM)
	Confidence	
Somatic	Sleep	Can't sleep (SGC23)
	Sex	
	Eating	
	Breathing	I find it difficult to do sport because of my breathing (J5GM)
	Mobility	Have to use a stick because of my illness (SGG07)
* Original patient reference code		

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