



Dementia Green Care HANDBOOK

of Therapeutic Design and Practice

Garuth Chalfont
Alex Walker



FOREWORD

By Alex Walker, Associate Director, NHS Central Lancashire

The National Dementia Strategy's (DH 2009) over-riding aim was that people should be 'living well with dementia'. For too long, people with dementia have been overly defined by their health condition, which has resulted in care often concentrating on the problems and deficits that can result from dementia rather than encouraging the strengths and abilities people retain.

The structure of service delivery in more enhanced care settings in particular, often means that people spend the vast majority of their lives indoors, losing contact with the natural world around them. Nature and open spaces retain familiarity and a sense of enjoyment for nearly all people and our connection to them is elemental. There are also many staff too, who have never actively cultivated a garden and can therefore lack confidence or skills in thinking through how such a rich therapeutic resource on our doorsteps could be used to enhance the lives of the people they care for.

What this project has demonstrated is that the use of therapeutic approaches connected to nature and the outdoors can have a tremendously positive benefit for people with dementia, whatever their level of need. However, thought around design, training for staff and encouragement from leadership to see this as a norm within the care setting are all required to put this into practice. The ideas set out are practical and easily achievable within all care settings, so I do urge you to think about both the design and the systematic use of the outdoor environment as an essential aspect of your work.

Alex Walker



Alex at Charnley Fold in 2008

Age Concern Central Lancashire
was our partner in the delivery of this project.

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NHS Central Lancashire
Age Concern Central Lancashire
Alzheimer's Society
Lancashire County Council
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Dementia Green Care Handbook (of Therapeutic Design and Practice)

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PURPOSE

The reason for this handbook is three-fold. We are now seeing some very good general guidance about gardens and outdoor spaces for people with dementia. Two in particular are signposted within. This handbook takes these environments a step further, being specifically about therapeutic use of these spaces for beneficial outcomes. In so doing it builds upon [Design for Nature in Dementia Care](#) (Chalfont, 2008). Secondly, it draws insight from research and observations by the authors over a period of time, rather than relying on information from owners or operators about their own facilities. Thirdly, this work has a particular emphasis on the environmental needs of people with dementia and distressed behaviour. This term is used instead of 'challenging behaviour' because a person becomes a challenge to others once they are distressed in themselves, and we wanted to keep the focus on the person's experience. Our approach is to address the causes of distress using nature as a therapeutic tool, rather than trying to manage or change the behaviour solely through care practice indoors.

Intended Audience

This handbook is aimed at managers, owners and operators of care homes, nursing homes and day care facilities. It will also be helpful to landscape architects, architects, commissioners of services for older people and all those involved in the provision of dementia care services.

ACKNOWLEDGEMENTS

This booklet is one output of a design and research project entitled 'Therapeutic Dementia Care' which was funded by the HIEC (Health, Innovation and Education Cluster) of the NHS in Central Lancashire. Further funding came from Hica who generously supported Garuth's work on site at the Lodge, Buckshaw Retirement Village in Chorley. Sincere thanks go to both our sponsors and partners for their support enabling this work to be carried out. The residents and service users whose expert knowledge has largely informed this work are living at The Lodge or at home and attending enhanced dementia day care at Charnley Fold in Bamber Bridge. There are many distressed people in dementia care environments more widely who could benefit from a green therapeutic outdoor space. For that person everywhere, this Handbook is written.

Garuth also expresses gratitude to Anita and Simon for their constant enthusiasm and support, and especially to Flo who is celebrating her 100th year.



Magnolia X soulangiana



Chalfont 2013

Holding Fluffy the rabbit after planting a basket in the Mud Room

WORKING IN PARTNERSHIP

Lorraine Haining, Dementia Care Specialist, Hica

This research was undertaken with a passion to improve the day to day lives of our residents living at the Lodge, using the elements of nature that are so readily available but often overlooked. There were many challenges along the way with a slow start, however the outcomes have made it all worthwhile! By remodelling and utilising our external environment on a regular basis and linking with resources in our local community, the evidence clearly demonstrates the benefits for residents, families and staff. We now have an upskilled staff group with a much improved sense of achievement and job satisfaction. Despite the challenges it has posed for staff our residents are out every day, they engage in meaningful outdoor activity that families and friends also benefit from by being fully involved in the process. Our staff group have gained new skills and grown in confidence, resulting in improved job satisfaction and sense of achievement in a very challenging environment. Now we must sustain this improvement and continue to challenge the myths and legends that still exist about the way we should be supporting people with dementia living in care homes.

Lorraine Haining



Judith Culshaw, Deputy Chief Executive, Age Concern, Central Lancashire Julie Newton, Manager Charnley Fold Enhanced Dementia Day Support in Bamber Bridge

We welcomed the chance to work once again with Dr Garuth Chalfont in refreshing the design and use of the gardens at Charnley Fold and to contribute to this research. The outdoor work space and gardens continue to provide the core activity and opportunities for meaningful engagement with our service users throughout the year, come rain or shine. During this research we were able to observe the positive changes in mood, behaviour and communication with individuals who spent time outside either passively or actively. The training provided staff with a range of 'tools' to use to improve communication with individuals. Once they were comfortable with this approach their enthusiasm and motivation brought confidence to the team to be innovative and creative with individuals.

Feedback from service users, their carers and family is still very positive, with some service users bringing their own 'overalls' as they can't wait to get active in their 'job in the garden' at Charnley Fold. I am convinced that for individuals with dementia their carers and staff, this model of Green Care enhances health and wellbeing, increases opportunities for purposeful activity and promotes communication between partners.

Judith Culshaw and Julie Newton



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1. AIMS FOR PROVIDERS

What we are trying to achieve in Central Lancashire

- ◆ Centre of excellence
 - Specialist design
 - Learning environment
- ◆ A shift in culture
 - Breaking stigma
 - Changing staff approaches
 - Normalising dementia
 - Care planning based on skills not deficits
- ◆ A therapeutic approach
 - Improvement and maintenance of skills
 - Resilience for people with dementia and their carers
 - Improved quality of life
 - For all levels of need
- ◆ Access to outdoors as the norm
 - Seeing the whole environment as vital to the delivery of support
 - Recognising the importance of nature
 - Making therapeutic use of the outdoors the norm

What you as a provider will need

- ◆ Environment and resources
- ◆ Leadership from your management
- ◆ Accountability from your staff
- ◆ Set of agreed therapeutic aims for each resident
- ◆ A way to measure outcomes



Magnolia tree in a public garden, Cardiff, Wales

2. THERAPEUTIC DEMENTIA CARE DEFINED

Reducing needs through an enabling environment

- ◆ Maintaining and improving skills
- ◆ Improving quality of life for people with all levels of need and ability
- ◆ Agreed set of goals and a way to measure progress
- ◆ Can involve the use of recognised therapies (art, horticultural, animal, aroma, etc)
- ◆ Engagement between a person with dementia and another person, plus stimulation from a Third Thing

Dementia Green Care and the 'Third Thing'

1. **Nature** is plants, animals, earth, water, sun, sky, season and climate
2. **Connection to nature** has been shown to have human benefits:

PROVIDES sensory stimulation, pleasure, distraction, orientation and Vitamin D

ENABLES engagement, exercise, movement, relaxation, purpose and meaning

IMPROVES appetite, blood pressure, focus, verbal expression, sleep patterns, mood, memory, strength, agility, balance and delayed onset of dementia

DIMINISHES apathy, agitation & aggression

The jigsaw diagram shows the beneficial overlap of nature engagement (A) with social engagement (B). By creating a focus on a 'Third Thing' (which could be football, a pet parrot or anything the person values and enjoys) enhances their ability to communicate. Research has shown this effectively improved the experience for the person with dementia when something in the garden or outdoors was the Third Thing (Chalfont, 2011). Therefore, Dementia Green Care is therapeutic because it uses nature and the natural world as the Third Thing.

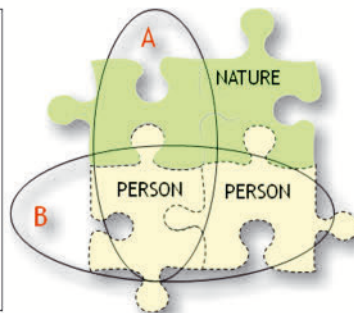


Sweet peas at the garden gate

PROSENTIA HYPOTHESIS

Nature is a tool for interaction between people to enable wellbeing for a person with dementia.

(Chalfont, 2011)



'Impaired Nature Relatedness'

is to become a nursing diagnosis defined as 'Damaged or weakened personal connection to nature (plants, animals, earth, water, sun, sky, season and climate) due to a reduction in nature-based stimulation, sufficient to cause adverse health effects.'

3. OPERATIONS AND STAFF TRAINING

Goals of the care providers include the health and happiness of residents, reduction in their distressed behaviour, family satisfaction and job satisfaction for staff. Achieving these involves a number of requirements.

Operational requirements

- ◆ Management and leadership (skilled, experienced and person-centred)
- ◆ Compassion, compatibility and confidence of staff teams
- ◆ Short, fun, creative and inspired projects to engage people with dementia with the natural world
- ◆ Accountability, support and praise of staff for their actions and efforts
- ◆ Commitment to staff training and sharing of good practice throughout the team across the home
- ◆ Data collection of nature-related activity for monthly assessment and reporting
- ◆ Comparison of data with resident outcomes to determine efficacy of nature activity



Staff learning to weed and cultivate



Supporting a resident who enjoyed carrying the pots


Learning together how to make an activity fun, satisfying and perhaps even memorable



Planting seeds in the Mud Room and planning a watering strategy so they sprout

Staff Training requirements

- ◆ Outdoor resources available and how to use them
- ◆ Hands on practical tasks in the garden
- ◆ How to set up and carry out activities
- ◆ Involving residents of all levels of ability
- ◆ Data collection for assessment purposes (such as filling in the Nature Activity sheets)



Example Training – One (specifically designed for a mixed group including carers, nurses, administrators, therapists, OTs, residents and owners)

"Helping residents experience nature is a benefit for many reasons – physical, psychological, cognitive, emotional, spiritual or occupational.

We at (name of your home) aim to provide a therapeutic connection to nature as a core element of dementia care."

1. Powerpoint presentation on "*Dementia Green Care*" to explain what is meant by a 'therapeutic' nature activity

2. What do we want to achieve here? - Brainstorm the many ways people would enjoy spending time outdoors at your home or day centre

3. Designing and preparing for nature-related activities for your residents or service users:

- ◆ Identify the areas outdoors that can be used and think about what is possible there
- ◆ Identify various games equipment you have or need and where you will be able to use it
- ◆ Bird feeders and birdbaths you have and what more you could do to attract wildlife

Comfort Break and Refreshments

GIVE IT A GO!

Hands-on practical activity session - things that can be done easily and quickly

- ◆ Plant a hanging basket (at an indoor activity space if necessary)
- ◆ Identify sensory/fragrant plants in your garden (lavender, santolina, lamb's ear, rosemary...?). This can also be done indoors. It can stimulate a bit of reminiscing as well.
- ◆ Perform a seasonal planting activity (eg. Plant bean seeds or sweet peas in the garden using a bean pole teepee)
- ◆ Plant some fragrant plants or edible plants in the garden
- ◆ Take out some recreational equipment and play a game on the lawn
- ◆ Gardening, weeding, mowing, sweeping up, etc. This last activity is a chance for staff to practice (or indeed learn for the first time!) nature-related activities.



Example Training – Two (specifically designed for care staff and nurses)

'Nature-relatedness' means having a connection to the natural world. This is necessary no matter where you live, even when you move into a care environment. These activities will help your residents experience nature. This is a benefit for many reasons - physical, psychological, cognitive, emotional, spiritual or occupational. Green Care means 'enabling a therapeutic connection to nature'.

A. Presentation

"Green Care for People with Dementia: Enabling a therapeutic connection to nature"

B. Learn the Activities

1. Go to the shed, get the push mower out and give it a push on the grass.
2. Pick a raised bed, identify the plants by name and decide whether they are a weed or not. Plan how you will engage a resident in the job - what to remove, what to harvest, what to plant, what to touch and smell. Locate beans to plant.
3. Find various sports equipment, take it out onto the lawn and try playing with it.
4. Organise planting a hanging basket - arrange soil, tools and annuals – you will plant it later.
5. Garden Stroll (Plants) – walk round the garden, identify sensory plants that may be particularly engaging.
6. Garden Stroll (Birds) – locate the bird feeders, the bird seed and the watering can for the bird bath.
7. Weeding – learn to weed by hand and to cultivate the soil with a long handled cultivator.
8. If raining – walk with an umbrella outside, find plants growing within the home, locate the watering can.

Comfort Break and Refreshments

C. Engage residents in activities

Work in pairs. Plan your strategy. Identify a resident who could possibly be at risk of impaired nature-relatedness (that means they cannot or do not go outside independently). Go together and bring that person outside into one of the gardens, dressed appropriately. Take your time and engage them in 1 or 2 of these pre-planned activities. Return them to their community.

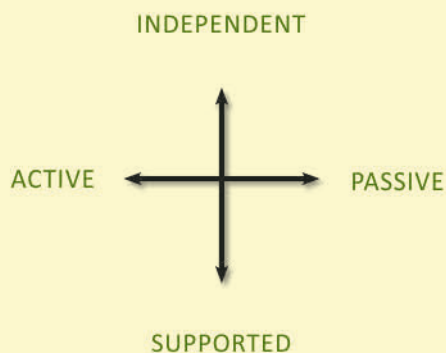
D. Learn to fill in Nature Contact sheets – For each resident who participated in an activity enter their data onto the sheets given. Then swap round and correct each others sheets. Did you use the correct codes? Did you put down all that applied to the activities the resident engaged in?

E. Reflect on Outcomes and Barriers of attempted activities

What worked well and why? What were the sticking points or barriers to a good experience for your resident? How will you improve it next time?

4. USE OF OUTDOOR SPACES IN PRINCIPLE

Design not to limit or control, but to interest and engage. Support and enable people into movement and activity. *Regardless of the facility or location of a garden for people with dementia, if it intends to provide nature as an intervention (if the garden intends to be therapeutic) then certain principles apply which are outlined here.*



Use

Key Points to consider: What are the aims of the garden? How will it be used to achieve them?

- ♦ Will it be an **active space** that is designed to stimulate and enable active engagement?
- ♦ Will it be a **passive space** to encourage calm, peace and rest? Do you need a bit of both?
- ♦ Is it for **independent use** by the residents? The area needs to be completely visible from indoor communal rooms.
- ♦ Is it only for **supported use** by the residents? This does not have to be adjacent the living area nor visible from communal rooms.

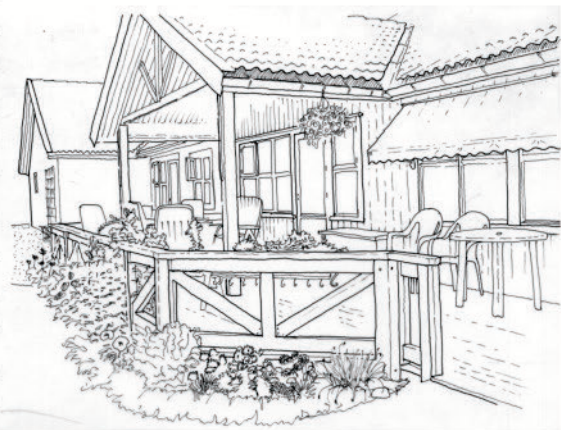
- ♦ Does it need to have several uses? (Risk-free for the independent users may be under-stimulating for those who go outside with support.)
- ♦ Must it support people with a wide range of needs and abilities? (This calls for different areas to be separated but integrated.)
- ♦ Do people live here or visit? (Residents need to be enabled to go outside every day, whereas day service users already do so.)



Harvesting rhubarb

A. Passive and Active Space

Passive spaces can be designed without any special knowledge of people with dementia. Some types of passive space are not designed for people to be in or use, so they do not need to encourage movement or activity. For instance a **View Garden** can be seen from inside the home but there may be no way to get into it. Instead it provides a pleasant view and perhaps a glimpse of wildlife. Another type of view garden can be seen from the road but is likewise inaccessible. You cannot get there from inside the home. Such a space can be useful as wildlife habitat, a rain garden or simply curb appeal.



This porch is an ideal sitting out space attached to the side of this care home in Norway



A warm, dry and sheltered sitting out space

An inhabited type of passive space would be a **Sitting Out Space**. This may or may not be independently accessible. It could be available for residents to use if taken there by a supporter. An example could be a bench out in front of the home or a rocking chair on the front porch. There may be neighbourhood activity to see but a resident could neither go there under their own steam nor stay there on their own. (An exception to this is when assistive technology is used to allow freedom while monitoring whereabouts.) A sitting out space is usually just a comfortable, seating area that residents can get to and use on their own. There may be a bird bath or bird feeder. There is always a need for such spaces where residents are not expected to be actively involved. A sitting out space can offer peace and quiet, a sense of freedom, an enjoyable view, some fresh air, a chance to get away from others or perhaps to enjoy a private chat.

Active Space

To encourage active lifestyles for older people in care, promote movement and activity by designing an environment of people and place.
A garden is therapeutic if it...

A polytunnel is excellent for focused group activities



Men at work



- ◆ Enables frequent trips outdoors for fresh air, sunshine and connection to nature
- ◆ Enables people to be actively engaged outdoors in a variety of ways
- ◆ Can be accessed by residents independently (or dependently with assistance)
- ◆ Enables safe movement throughout the garden by accommodating for physical and perceptual limitations

- ◆ Offers opportunities for staff to calm, distract and redirect interest (eg 'taking a sensory stroll')
- ◆ Supports activities that can be recorded, measured and compared to resident outcomes



Feeding the ducklings - 19 hatched in December



Watering geraniums while somebody mows the grass

Create a successful therapeutic space by making these activities routinely possible:

- ◆ Feeding, exercising, petting or caring for animals
- ◆ Encouraging and nurturing the presence of wildlife (birds & ducks, bats & butterflies, hedgehogs & frogs, to name a few)
- ◆ Starting and tending to seeds and plants
- ◆ Domestic activity - doing jobs like mowing the lawn, raking leaves and sweeping up; also pegging out laundry on a clothes line
- ◆ Frequent or routine involvement in useful, meaningful garden work
- ◆ Harvesting fruit, veg, herbs & flowers for cooking or using them inside the home
- ◆ Play and recreation (such as miniature golf, lawn darts, skittles, badminton or kicking a ball. Use of racquets, bats & balls for swinging, hitting, aiming, catching, kicking or throwing)
- ◆ Exercise, sports or green gym (for aerobic exercise, repetitive movement, balance, coordination and use of strength. Make particular use of the legs, hands, arms and back to combat constant sitting and lack of purposeful work.)



Catch and throw



Pull some weeds



Hide the chalk for kids to find



Do your laundry

B. Risk-Free Gardens versus Risk-Assumed Gardens **NEW!**

The concept of a **Risk-Free Garden** or a **Risk-Assumed Garden** was a design innovation that arose during the HIEC project. It is useful because it avoids the fate of many care home gardens that are so low-risk they are useless therapeutically. While a certain amount of caution is necessary if you are to provide a 'duty of care', what usually happens is that no risk is allowed anywhere. So residents are condemned to a life of boredom and under-stimulation which logically can lead to so-called 'challenging behaviour'.

The design assumption in typical care home gardens is that everyone must be able to use all spaces safely - completely on their own. But a garden with the lowest level of risk fails those with the highest level of need. This applies particularly to those residents with very distressed behaviour and the staff who work with them. Here is a creative solution to bring life and people back into care home gardens. This concept prevents all outdoor spaces in the home from being designed with the lowest possible expectation for resident involvement. If a garden fails to excite staff and families, stimulating their imagination, residents will miss out, regardless of current popular aspirations to bring life and interest to care homes.



Daisies



Hydrangeas



Spirea 'Bridal Wreath'

1. Risk-Free Gardens are areas that a person with dementia will use independently, on their own, and all movement and activity is possible unassisted. This space is free of risk for a person with any mental health challenges or complex needs including dementia and distressed behaviour. It is assumed that any resident area outside is visible from indoors and a person in it can therefore be seen by staff through the windows or doors. So while residents and service users may be safely unassisted in a Risk-Free Garden, they are neither unseen nor unmonitored.



Peonies

2. Risk-Assumed Gardens are areas that a resident or service user with dementia will only use when accompanied by a staff member, a family member, a friend or other responsible person. While all persons with dementia may be able to use certain parts of a Risk-Assumed Garden on their own safely, the idea is that these places would be enriched to the point where families and staff will want to engage with the person in a set of fun, shared, high-quality garden experiences - common to the outside world but all in one place here with support nearby if needed.

This should be an optional garden space and not be the only garden the home has. Nor can it take the place of a garden attached to a lounge or common area that residents could access independently. It is intended as a special destination that will enhance and extend family visits and the role of families in the home by providing areas with meaning and purpose. Features include a pond, steps, roses, an allotment, a swing and play equipment.



Octopus Seesaw by Kompan

Courtyards that are highly visible from internal spaces can be the best of both worlds, with open door access for residents unassisted as well as some risk-assumed items like a glider or swing seat and a piece of exercise equipment. In practice, if any garden space is where

residents must be accompanied in order to go there, then this is perfectly suited to be a risk-assumed garden. For instance, if residents live upstairs in a home, they can usually only come down and go outside with staff or family. So adding these items to that space would be ideal.



Steps & grape vines in a nursing home garden in Stuttgart



Glider seat

Rose photos courtesy of Beth Brandkamp



Covered swing seat

C. Social and Therapeutic Horticulture

Gaining personal health and well-being through gardening is the focus of Social and Therapeutic Horticulture (STH) in the UK. The practice uses plants, a person-centred care philosophy and a social aspect to achieve results with many different client groups. There is also a focus on gardens and the environment within which horticulture is carried out. STH has built an internationally recognised body of practice and expertise, although



Planting baskets to sell at the garden party

evidence from the literature with this client group is lacking. Our design approach to therapeutic dementia care garden spaces and their beneficial use draws from the success of STH and extends the working practice towards people with dementia and distressed behaviour. The term Horticultural Therapy is widely used in the US and elsewhere. There are practical, theoretical and semantic differences between the two approaches but the main theme remains – health and wellbeing through interaction with plants and nature. As such there are many applications within Dementia Green Care.

Diagram content from THRIVE



Gloveless soil work



Planting pansies in the shed



Chalfont 2013

Repotting Christmas cactus

5. HIEC DESIGN AND RESEARCH PROJECT

This project and the making of this handbook of design and practice were made possible through a grant from the HIEC (Health, Innovation and Education Cluster) of the NHS Central Lancashire. The goal was to improve the wellbeing of people with dementia through design of the outdoor spaces in which they received care, either as residents or service users, in two sites in Central Lancashire, and to share the findings throughout the county and online.

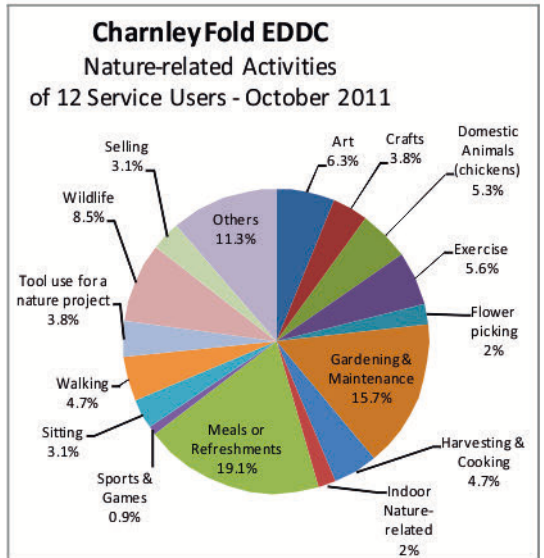
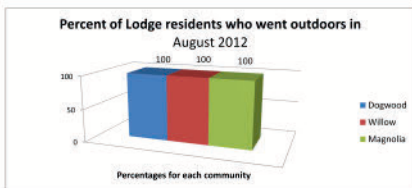
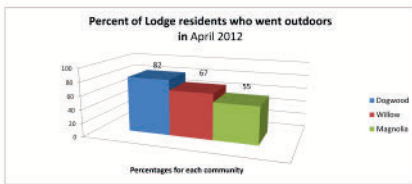
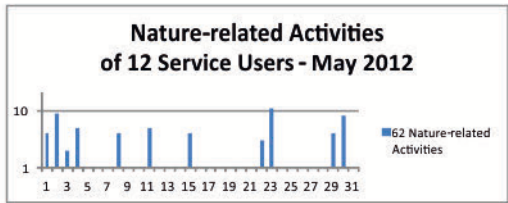
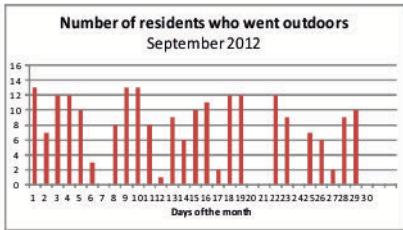
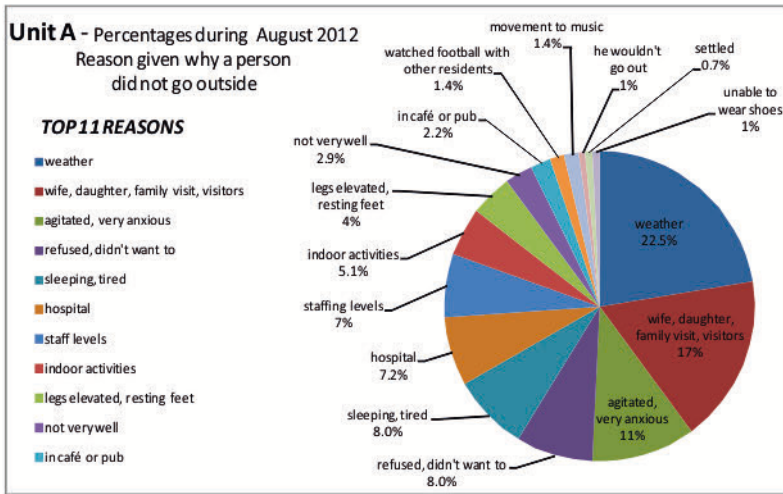
First, the two existing gardens were analysed to determine how well they were meeting the needs of service users and residents. These assessments required observation and analysis over a period of months, including discussions with families, staff and management. Based on these findings, a plan was proposed. Once approved the garden renovations commenced. A professional joiner handled the carpentry, but the rest of the work was carried out in a way that encouraged the residents to become involved. Some were standing by to supervise and some could be encouraged to help with the hands-on work. Skills in the staff team were drawn upon, families gave of themselves - even children of the staff came in to give a hand.



Once the gardens were changed, staff were trained to use them and a methodology was developed to assess how well this was happening. Forms were devised (and improved upon) for staff to fill in each day and also to act as a prompt about activities that were now possible in the gardens. So as well as a research tool, the Master list of Nature-related Activities was intended to educate all who used it (copy on page 22).

Data were collected daily and analysed for 12 months. Statistics, graphs and charts were made available each month to the Care Home and the Day Support Service summarising the involvement of residents and service users in the outdoor areas and nature-related activities (indoors and out). There were also statistics kept on the reasons given why a person did not go outside, how the resident was affected by going outdoors, and the specific types of activities engaged in. In the care home there were summary charts for the individual communities as well as the numbers and percentages for the home overall. Here are some examples of the monthly charts and graphs produced from the data.

Examples of monthly analysis of garden usage resulting from daily data collection



MASTER LIST of NATURE-RELATED ACTIVITIES – All either happen outdoors or nature is the stimulation

ART (with natural materials, can be done indoors)	CRAFT (with natural materials, can be done indoors)	DOMESTIC ANIMALS	EXERCISE
1. Painting 2. Drawing 3. Holding materials 4. Watching/commenting on art happening	5. Making a craft using fruit, flowers, seeds, nuts, conkers, etc. 6. Holding/touching these things	7. Feeding or watering 8. Cleaning out 9. Holding or stroking 10. Taking for a walk	11. Jogging or running 12. Movement to music 13. Dancing 14. Yoga or stretching
FLOWER PICKING 15. Picking or cutting 16. Bringing indoors 17. Putting into water 18. Using to decorate	GARDENING (can be indoors) 19. Planting seeds, bulbs or plants 20. Watering 21. Weeding or dead-heading 22. Sweeping or raking 23. Mowing grass or snow removal 24. Helping or watching somebody else gardening	HARVESTING or COOKING 25. Harvesting or gathering 26. Cooking or preparing 27. Eating homegrown fruit or vegetables grown here at Springhill	LAUNDRY 28. Hanging it out to dry 29. Using clothes pegs/pins
MEALS & REFRESHMENTS 30. Drink 31. Snack 32. Meal	SPORTS & RECREATION 33. Ball games (bowl, throw or catch) 34. Using a racket (badminton, etc.) 35. Darts (using a target) 36. Games (dominoes, bingo, etc.) 37. Card games 38. Playing in the snow, snowmen, etc.	SITTING 39. Sitting alone (quietly, reading...) 40. Sitting with others (socialising)	WALKING 41. Pleasure, purpose, pram 42. Sensory stroll (touching & smelling fragrant plants) 43. Going onto the balcony
WILDLIFE	44. Filling bird feeder 45. Throwing bread to ducks, birds 46. Filling bird bath with fresh water 47. Making food for birds (suet blocks, popcorn and cranberry necklaces...)	VEHICLE TRAVEL 52. Out with staff 53. Out with family 54. Being transported (GP appointment, hospital)	OTHER 55. _____ 56. _____ 57. _____

GENERIC FORM - CUSTOMISE TO SUIT by CHALFONT DESIGN www.chalfontdesign.com

DAILY NATURE CONTACT CHECKLIST for _____
 (Please fill in the blanks and put the activity codes in the boxes for all that applied each day)

STUDY SITE _____ DAY OF WEEK _____ DATE ____/____/____
 This person **went outside** today. Went out with who? _____ Stayed out how long? _____
 They **did not** go outside today. Main reason(s) why not? _____
 Observing Staff Member _____ Activity codes from master list

--	--	--	--	--

 Mood/Wellbeing – Was it Minimal (1), Moderate (2) or Maximum (3) before & after?
 Before activity Afterwards Comments _____

STUDY SITE _____ DAY OF WEEK _____ DATE ____/____/____
 This person **went outside** today. Went out with who? _____ Stayed out how long? _____
 They **did not** go outside today. Main reason(s) why not? _____
 Observing Staff Member _____ Activity codes from master list

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 Mood/Wellbeing – Was it Minimal (1), Moderate (2) or Maximum (3) before & after?
 Before activity Afterwards Comments _____

STUDY SITE _____ DAY OF WEEK _____ DATE ____/____/____
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 Before activity Afterwards Comments _____

Findings and Outcomes - The Lodge

One very positive outcome was the gradual improvement of the number of residents who went outside during the month, which rose to 100% for all nursing communities by the end of the study. This is an important outcome not only because doing the research empowered staff to improve their practice, but because the community who led the way with this effort was upstairs and needed the most effort to take their residents outside. This overturns the assumption that living on the ground floor automatically means better access and use of the outdoors for residents who are living there.

A second outcome of the study was the improvement in staff awareness of the importance of nature in the lives of people with dementia, the benefits of staff training, and the value of improving the outdoor spaces and the material resources that staff have at their disposal. Something as simple as a little push mower has made a big difference.



Building a bird table



Helping remember the pot you planted yesterday

A third important outcome of the research has been the opportunity to feedback about service development, as management has found the monthly reports quite valuable as a tool to evaluate their staff restructuring decisions.

A fourth very positive outcome has been the number of times residents are now taken outside the home and into the community. These are residents with quite distressed behaviour who have been to the pubs, the supermarket, the garden centre and the nearby village shop. As staff have gained confidence in their ability to manage taking people out, they have also been taking people further afield – in the car to play golf at the driving range or on the train to watch a football match. As staff come back with their success stories about a drink and a meal in the pub with no problems at all, this is a great boost for morale and good practice. This can only help to dispel the stigma in society around dementia and distressed behaviour.



Staff member and a resident digging out raised beds before they are relocated

Afternoon tea with a sunny vantage point against the new trellis fencing





Chalfont 2013

Helping a resident feel the soil and plant a bulb

Findings and Outcomes - Charnley Fold

The challenge of this enhanced day support service is to intervene at the point of carer breakdown, to keep people with dementia living at home for longer with a higher quality of life for themselves and their carer, and to support both people to 'live well' into the future. Based on detailed case studies of service users it was possible to track the impact the service has had, specifically for people with dementia in which nature and use of the outdoor areas played a key role. The starting point is always 'what are the aims for this individual?' This environmental design research made possible the ongoing development of the therapeutic usefulness of the outdoor environment - enabling people to achieve these aims.

The main task was to identify and address the changing needs of service users (and the implications for garden design) since the initial gardens were developed four years ago. Some service users were 'aging in place' having attended for two years or more while others had more pronounced and complex needs from day one. Their needs, strengths and frailties both physically and cognitively were becoming more pronounced and diverse. The gardens were found to be as relevant today as when they were first installed, but the challenge was to make them even more enabling both from the staff as well as the service user perspective in order to keep the spaces vital to the delivery of support and to increase therapeutic potential.

Overheard during a Gardening Group at Charnley Fold

Are we gardening this afternoon? Oh lovely, I feel useful.
How are the seedlings I planted? I'm going to sweep up outside.
I've brought me overalls and I've got me boots on.
Are we going out? Where are we going? Oh lovely, Thank you.
I want to do life drawing with some fresh flowers.
I'm not going out there, it's too cold.
If I walk, it clears my head. It makes me feel free.
I don't do gardens but I'll help you.
Where do you want me? Come on, let's get cracking.
I need to finish painting the bench.
I want to do it, but I've got a bad back. I just want to sit in the sun.
I can breathe. I hate a hot room. I was brought up outside, raised proper.
The sun has got his hat on, hip, hip, hip hooray!
I used to work on a farm, you know, we didn't have time to play.
If you get me some wellies, I'll dig that hole. I feel great being outside and being useful.
Can I buy these when they grow? No, no look, if you turn it like this we can paint the bottom.
The birds are spoilt round here. Posh food for these birds.
The squirrel pinched all the food.
That's an Acer, that is. I've never seen Lillies that big.
I don't like getting dirty, but I'll do it with gloves on.
Here, give me that spade. I used to be a grave digger.
I'm growing a tree for you. When can I bring it in?
I'll feed them, but I'm not cleaning them out. Hello girlies.
I've got so much growing at home again. Do you want some of me apples?
Oh it feels so good, fresh air. I've just been pottering about. Time to chill, put the kettle on.
Let's have a brew then. We've done a good job, look at it. Amazing. A garden is such a good place to be.



*Former grave digger
getting into the gardening*



Findings and Outcomes (continued) - Charnley Fold

Various aspects of the outdoor environment were restructured and improved upon to allow:

- Greater visibility across the garden for staff to supervise in ways that increase independence of participants
- Ease of maintenance tasks for staff and service users by consolidating planting areas
- Ease of chicken care by repositioning the storage shed for feed and supplies
- Direct connection between the garden room and outdoors by installing a porch and raised bed at the door



Pick your own lettuce at the Garden Party in the new raised beds by Geoff Porter

CASE STUDY From Enhanced Day Support, Charnley Fold, Bamber Bridge

It has been difficult for Mr D over the past few years to come to terms with his diagnosis. Being a very practical, hands on man it has been hard for Mr D and his family to deal with the impact this has had on all of them. Having two daughters and a son, the whole family have devised many coping strategies enabling Mr D to live well with dementia. Mr D, is 62 years old and was diagnosed in 2010. He and his wife attended the Positive Outlook Programme just over a year later.

Mr D has familiarised himself with the environment at Charnley Fold Enhanced Day Support, having attended for a period of just over a year. His unique person centred programme within Enhanced Day Support included outdoor activities – eg, as he is a man who enjoys the freedom that the outside offers.

As Mr D's dementia progressed he had periods of agitation throughout the day as he struggled to make sense of his feelings/emotions and understanding of what was happening at that moment in time.

On one of these occasions staff at Charnley were able to guide Mr D into the garden to a private seated area where he was given an opportunity to express his negative feelings and overcome his immediate difficulties. The open environment offered him a sense of freedom – to talk and express himself and had a calming relaxing effect to assist in decreasing his agitation. Whilst sitting outside – 'two friends' chatting – a colleague walked through the garden and asked if they'd like a cup of coffee (normalising the situation). Gradually Mr D became focused on the garden itself noticing a robin sitting on the fence, making comments about the weather and the 'well made' bench he was sitting on.

The feelings of fear/confusion/sadness/loss had passed as he regained connection to the outdoor/garden environment.

Janet Turner, Deputy Manager Enhanced Day Support

DESIGN GUIDE



As well as the physical requirements, a beneficial connection to nature must be facilitated more broadly by involving staff, families, friends and volunteers in the ongoing use of the space. This Design Guide section will help you create the outdoor spaces that support this approach. It gives a clear design brief about the physical spaces required for therapeutic outcomes, explaining with images from practice how they are intended to be used and providing sample plans that address them.

6. DESIGN FOR SUCCESSFUL DEMENTIA GREEN CARE

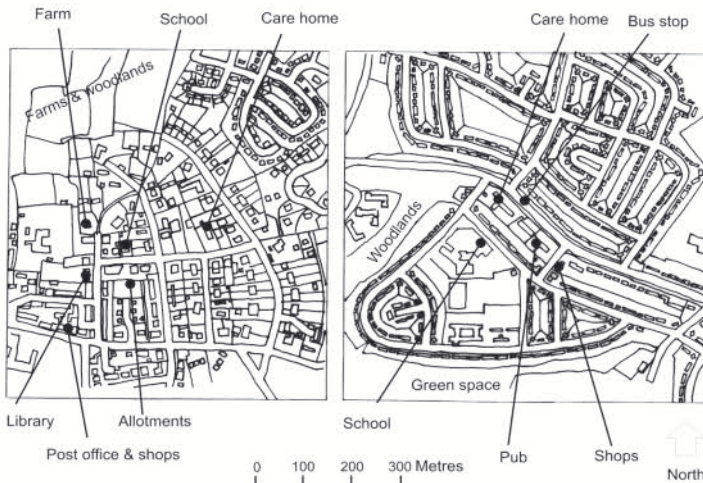
For an outdoor space to provide therapeutic benefit to residents and service users certain requirements for the layout, circulation, elements and features must be met. Consider the location and position of the building in the early stages of planning or renovating your site, as the indoor-outdoor connection will impact use of the garden and its therapeutic potential.

1. Direct access from resident communal area to resident garden space
2. Majority of space available for gardens must be to the south, east or west of the building
3. Visual access to a resident garden space from windows of indoor communal areas
4. Level area or large enough to incorporate accessible changes in level and still have useful spaces
5. Views of the neighbourhood from indoor and outdoor resident areas
6. Balconies, terraces or roof gardens on upper floors [For guidance see DSDC (2010) by Marshall]
7. Nearby neighbourhood places (small local shop, newsagent, supermarket, pub, lake, library, post office, etc.) within walking distance

Requirements for Building and Gardens



Visual connection between an activity kitchen and the garden



Proximity to Local Neighbourhood: Amenities within walking distance

For more on the site design stage, refer to Chapter 6 - Site Considerations, in Pollock and Marshall (2012).

Design to empower people to use the garden

Enable Travel

1. Provide accessible non-trip thresholds into and out of the home, as well as the garden structures like a shed, workshop, greenhouse or gazebo.

2. Create paths to lead a person through a sequence of experiences. Provide destinations so a person is rewarded for venturing out.

3. The main path should be of fairly uniform width. If you have enough room, also create an alternate path of lesser width.

This can function in two different ways. A

person can walk along alone feeling a sense of freedom, adventure and independence. This slightly narrower path can also allow a person to walk accompanied (or use a wheelchair) but at a slower pace. This naturally happens because as you stop to turn the corner there is an opportunity to notice, comment on and touch the plants in front and to either side of you both. Walking around the garden becomes a 'sensory stroll' with fragrant plants in abundance on either side of the path, evoking the intimacy and pleasure of an old-fashioned flower garden.

4. Try to avoid running a path against the wall of the building past private bedrooms (for privacy) or if windows open outwards (for safety). Most windows now have limiters that restrict opening but it doesn't hurt to double check to avoid collisions with open windows.

5. Make all turns wide enough for 2 people side by side or a person in a wheelchair. In a Risk-Free Garden a handrail or other design element is needed to guide people around corners. (A person 'on a mission' will walk straight forward, not noticing the path has turned.) Other than a handrail the path can go around the edge of a raised bed or there can be a

picket fence along the edge of the path to help guide a person who is independently walking.



The 'Lavender Walk' offers a sensory stroll



Path leads to a destination

6. Paths should not lead directly to a gate or a door the person is not allowed to use.

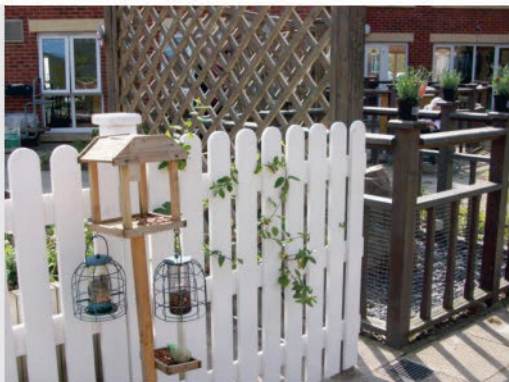
7. Only make a predictable circular path if space is very limited. Make the path interesting if possible. Myth: avoid intersections where the person will need to make a decision. Instead, provide opportunity for choice, intuition, learning, autonomy and personal preference.

Enable Transition

1. A transitional space must occur at the door to provide an edge between indoors and outdoors. This can be an awning, a canopy or a porch.

2. Along the way provide fences, gates, arches and pergolas as transitional elements.

3. **Fences** within the garden offer support for walking and standing. They are to be of a normal garden style common to the area.



Picket fence attracts vines and ornaments



4. **Gates** are there to be used. Like accessible doors leading into the garden, gates are meant to give people opportunities to maintain the skill of opening a gate, walking through and shutting it behind them. Gates are also opportunities to be courteous and hold it open for others. Gates standing open are invitations to enter. Standing open they also facilitate entry for those unable to use a gate unassisted.

Arch and gate encourages passing through

have when passing through and under a structure. They also signal a transition between two places and create an opportunity for the two spaces to be different in content and character.

6. **Pergolas** allow us to feel the changing height of a structure over our heads in a way that feels safe and protective. A pergola that has fragrant vines trained up the posts and across the top on sections of trellis will eventually be effective in creating shade. A clear polycarbonate roof set on the top, above the area of vine support, will keep the space dry and encourage use. A pergola walkway will benefit from a roof - either clear to allow sun through or solid for shade.



Fragrant evergreen vine on arch

Enable Stopping



A seat enroute to encourage stopping

3. Covered seating areas encourage stopping off along the route. A pergola with a clear plastic roof keeps furniture dry, in use and in service longer.

4. Different features such as an arbor seat, a glider bench or a swing seat allows a person to relax, chill-out or calm down. An arbor seat can also be incorporated into an arch, at a transitional point in-between two garden areas where a person can people-watch.



Covered seating that is always dry - a nearby space for a private chat

6. Generally, lawn areas, planting beds and paths should be designed on a domestic scale. Even though the overall size of the garden may be larger than what people are used to at home (or not!), there must be a sense of human scale if you want people to engage with the garden landscape. This is especially important in a Risk-Free Garden where people will be encouraged to go outdoors alone. If it feels like a hotel, a public park or a managed landscape they will not feel welcome to potter about (pick flowers, carry a pot, go into the shed, push the broom) or nod off in the swing.

1. Furniture throughout the garden enables people to take the journey at their own pace by stopping often along the way.

2. Different sizes and configurations of seats provide places to sit and rest along the way. Chairs and tables as well as single chairs, benches and 'conversation chairs' at various points around the garden offer a real mixture. They are also destinations where something can happen – a snack, a chat, a gathering or activity of some sort.



Sunny seating beside fragrant lavender

5. Make small vantage points beside the main path to stop, rest and look out. Myth: no dead ends. Dead ends need to be meaningful, to provide a view or item of interest. They can be a pleasant distraction or diversion enroute as they act like side roads, where the main road continues along. A person can stop, enjoy what the space has to offer, turn back out into the main path and continue along their way.



Not a 'dead end' but just off the beaten path with an interesting view

Design not to limit or control, but to interest and engage

Designing a garden for therapeutic benefit of the people using it is not a new concept and probably something you are already doing, but applying this to dementia care is a recent phenomenon. Research supports this approach by evidencing the multiple benefits for people's health and wellbeing. By designing nature into the daily lives of people with dementia you will be contributing to the emerging 'dementia green care' movement.

Design Goals

A primary focus of your designed environment will be to provide nature as a therapeutic tool with which to engage a person with dementia. She or he can become involved in the garden environment either by themselves or with someone – usually a friend, family member or paid carer. The interaction that occurs between people in the garden is actually helped along by nature stimulation, because plants, animals, earth, water, sun, sky, season and climate give people something to talk about.



Apples and flowers

Consider cultural aspects in your region of the country and the variation of age, gender and ethnicity of the people in the home. Plan for the garden to represent their interests, whether this is designed in from the start or the possibility exists for people to personalise the space once they are living there. Garden ornaments or features help a person identify with the landscape and afford them a sense of belonging.



A wishing well brought from home by a resident has helped him settle in



Hanging up a handmade bird treat

The Design of Passive Space

A passive space is one that encourages calm restfulness where residents can enjoy some peace and quiet, a sense of freedom, some fresh air and a chance to get away from others.

As mentioned earlier, a 'sitting-out space' should be a comfortable seat or seating area that residents can go to and use on their own. The person passively receives stimulation from the natural world, so plants and nature must be abundant. As green is the most calming colour, using various shades and textures of green will add to the restful effect, similarly to the design of many Japanese gardens. Plants with blossoms of blue or white will add to the interest and fragrance of the garden space without distracting from the peacefulness.

All of the senses come into play. As well as certain calming elements, passive space requires the absence of distraction. The sound of water can be added with a water feature that gives an audible quality to the space. But auditory stimuli such as a noisy air-conditioning unit, the flushing of toilets or a constantly banging door need to be avoided.

Likewise, smells can be pleasant or not. Consider the normal operations of the building (kitchen, laundry, sluice and bathrooms) when planning the location of outdoor seating.



A peaceful sanctuary with multiple shades and textures of green. Flower blossoms are either white or blue. The soft gurgling of a water feature resonates within the space. Various seating styles are on offer.



A warm spot next to fragrant textural planting with a rock water feature nearby.

Thought should also be given to visual distractions. Consider the view you are framing with the positioning of seating. Is it a busy parking lot or an entrance to the building? Ensure the view is calm and not distracting, or design it to include elements of screening if needed.

Perhaps most important: consider thermal comfort. Is the microclimate at the seating space conducive to spending time there? Will the person be too hot or too cold?

Remember that small can be beautiful. It is not the size of the garden space but the attention to detail that shapes the person's experience.

The Design of Active Space



A walk before tea - to be encouraged around the garden during family visits



Interacting with volunteers - a designated person will need to coordinate regular involvement

To create active space, these therapeutic activities need to be enabled through design, planning and organisation of staff time, equipment and supplies:

- ◆ Feeding, exercising, petting or caring for animals
- ◆ Starting and tending to seeds and plants
- ◆ Doing 'proper jobs' like mowing, raking and sweeping, or pegging out laundry
- ◆ Frequent or routine involvement in useful, meaningful garden work
- ◆ Harvesting fruit, veg, herbs & flowers for cooking or decorating inside the home
- ◆ Playing with racquets, bats, golf clubs and balls (swing, hit, aim, catch, kick or throw)
- ◆ Exercise, sports or green gym (for aerobic exercise, repetitive movement, balance, coordination and use of strength.)
- ◆ Playing on playground equipment (choose items that kids of all ages can enjoy).



Ball play is popular with the men. Ensure balls and sports equipment are kept nearby and can be found easily and quickly



Prompt activity near the games lawn by setting the stage with props so activity can be spontaneous

Design Elements to Promote Activity

1. Potting shed, workshop (or a bespoke combination of the two), or a purpose-built polytunnel for doing garden projects, planting up, woodwork or tinkering with tools.
2. Tool stores, cabinets and equipment storage for tools, games, cushions, etc. to encourage people to use the outdoors. Familiar things to carry, push or kick give meaning and purpose to the movement.
3. Electric outlets in the workshop for powertools, lights, a radio, a heater, a kettle, etc. to make the place usable and comfortable (i.e. Shed Therapy approach).
4. A lawn area useful for play and games, sports, grass cutting, building snowmen, etc.
5. Wildlife area with habitat plants, feeders, bird tables, nesting boxes and a bug hotel.
6. Water taps and/or a water butt for watering plants, topping up the water feature and cleaning and refilling the bird baths.
7. Different types of fencing and trellis to support hanging baskets, bird feeders, silly signs and decorative elements. All joinery should be comfortable to the touch, sanded smooth and treated. Once structures and features are built they can be preserved with paint, stain or oil. The joiner can advise on what to use for which wood and the maintenance required.
8. Horticultural activity spaces for small groups or one-to-one work in a focused space.



Covered porch and raised bed outside the garden room



Young and old playing in the snow on the lawn



A ground level planting bed

Social and Therapeutic Horticulture (STH) is practiced with many different client groups around the UK. By engaging in the practice of STH, an individual can gain personal health and well-being through gardening. The horticultural activity proposed here for dementia care gardens draws on this practice of using plants, a person-centred care philosophy and social interaction to achieve results. To be most effective with this client group a designed space must work well for both staff and residents.

Horticultural Therapy Area - Example 1

Paving throughout in a unified colour and pattern makes this space easy to use and navigate around. A large canopy from the lounge provides a transitional space between the indoors and outside, a space that can be used in all weather conditions for outdoor seating and activity. Large sturdy pots with a variety of bulbs and fruiting plants provide easy access to nature and do not create obstacles as smaller pots would. A variety of seating options allows the residents a choice in where they sit in the garden and variety in what they can view from that space. A glider seat provides gentle rocking motion which can be comforting to users.

A flowering trellis creates a separation between the horticultural therapy area and the rest of the garden; it also provides a nice backdrop to a seating zone, when it is planted with fragrant climbers with different coloured blooms. Raised beds at different heights provide spaces where residents and carers can do activities, even those who need to sit can be involved. A workshop space and green house provide additional indoor environments for horticultural therapy, where potting and nurturing plants can happen.

Additional stores also provide added storage spaces for tools and gardening equipment. Keeping animals can be a therapeutic experience for residents. Thought is also given to the year-round animal care required by staff. Here two different spaces are provided - one closer to the home for protection and convenience during the winter months. Outside planting and growing is encouraged with the provision of a small plot for vegetables and an orchard of fruit trees. The process of growth through to harvesting would be enjoyable for staff and residents alike.



Illustration and description
by Hanna Doyle

Horticultural Therapy Area - Example 2

Here again a large canopy provides shelter and transitional space between the garden and the indoors. Seating of various kinds can be placed in this area to make a space residents could use for a variety of activities in all-weather situations. Varying the colour and texture of the block paving significantly in the central space, signifies that this area is a zone of horticultural activity, and something different to the surrounding paved space.

A workshop with an adjoining greenhouse are located close to the building allowing residents of all abilities easy access to it. Inside, work benches, seating and storage for tools and garden equipment can be found. Views out from the greenhouse and the potting area position residents very close to nature, especially bird life. As in a duck blind, birds can be observed without disturbing them. The bird table and bird bath are maintained as an activity by the residents, further encouraging the presence of wildlife.

A flowering trellis again creates a separation between the horticultural therapy area and the rest of the garden, but also encourages residents to look beyond this space by creating a curiosity factor.

Raised beds at different heights provide spaces where residents and carers can do activities, even those who need to sit can be involved. The raised beds can be easily viewed from the lounge or covered porch area. So even on rainy days, daily inspection can be made of the plants' progress, giving residents ownership over their garden space.

*Illustration and description
by Hanna Doyle*



7. Risk-Free and Risk-Assumed Gardens

The concept of a Risk-Free Garden or a Risk-Assumed Garden avoids the fate of many care home gardens that are so low-risk they are useless therapeutically.

This concept prevents all outdoor spaces in the home from being designed with the lowest possible expectation for resident involvement.

Risk-Free Gardens are outdoor areas that a resident with dementia could use independently (on their own, by themselves). This type of space is of special value to residents who are physically able, highly mobile and walk constantly. These gardens need to be visible from indoor rooms so staff can see people using them. A balcony is an example of a Risk-Free Garden as residents will be able to access it as and when they want. A Risk-Free Garden would have an open-door policy.



Having a drink in a Risk-Free garden in the sunshine

Risk-Assumed Gardens are outdoor areas that a resident with dementia will only use when accompanied by a responsible person.

These are the key characteristics:

- ◆ Part of the garden (perhaps all of it) may not be visible from indoor rooms.
- ◆ It is intended as a special destination that will enhance and extend family visits by providing areas with meaning and purpose.
- ◆ This is where much of the therapeutic activity will happen between staff and residents.

'Family Garden' is the name used to identify an area that is Risk-Assumed because it will be frequented by families and will include all-ages play equipment.



Seating near vibrant colour and fragrance



Mowing the pavement counts!



Ladies enjoying a drink in late August

Creating Risk-Free Gardens

These are areas that a person with dementia, even with distressed behaviour, can use independently and unassisted. The following design criteria apply:

- ◆ For rapid movement and limitations in spatial awareness, make path surfaces uniform in width, colour and texture
- ◆ If a poured surface is used ensure proper fall lines so there is no standing water on the path. Also make the final surface texture not too smooth (slippery) and not too rough (friction)
- ◆ Furniture is largely 'fixed' and static; moveable furniture is heavy and robust making it difficult to push over
- ◆ Pots and planters are at a size and height to be clearly visible to a person while walking quickly. (Anything lower than the waist will not be seen and may be walked into or tripped over)
- ◆ No structures are to be placed against the perimeter fence if they could be used to climb on (eg raised beds and benches)
- ◆ Trellises if they enclose space are to be diagonal with small holes (impossible to climb)
- ◆ Create no ambiguous openings a person may try to squeeze through – make them large enough to walk through or close them off
- ◆ No plants with prickles or thorns and nothing poisonous
- ◆ Use toughened safety glass for windows in a shed, greenhouse or potting shed
- ◆ No water bodies (eg. ponds and fountains with a water surface and depth of water)
- ◆ Create a lawn that is flat and level with no curbing or upstands between the lawn and the beds
- ◆ A continuous path leading away from the door and returning either to that door or some other way back inside
- ◆ Allow for visibility from inside windows of the home. Make sure people outside can be easily seen from indoors, even when in a workshop, gazebo or other structure. Consider placement of windows in these structures for sun and visibility both into and out of them
- ◆ Fences that divide gardens must both connect and contain



Wide handrails support walking and hold pots up at eye level - structure is multi-purpose



View over the picket fence from one garden to the other normalises relationships between people and places by connecting as well as containing

Garden Features that can be made safe and used in a Risk-Free Garden

Garden Feature	Adaption for use in a Risk-Free Garden
Potting Shed or Workshop	<ul style="list-style-type: none"> ◆ Put windows on 3 sides and a door on the fourth side with a window in it. ◆ Position the structure where it can be seen from inside the home.
Shed	<ul style="list-style-type: none"> ◆ If contents are harmless (chicken feed, straw, bird feed, soil, pots, etc.) then put the shed where it can be seen from inside the home and leave it unlocked. ◆ If it contains tools, keep locked and use when staff are outside with residents.
Water Feature	<ul style="list-style-type: none"> ◆ Use the bubbler type with water flowing over a stone and gurgling down through small rocks into an enclosed reservoir. There is no water surface in this type. ◆ To have a water surface so the fountain actually makes a splashing sound, you can fit a metal grate to span across the water surface of a pond, just a couple of inches below the surface. This is easier to build if the pond is square or round and has solid walls (brick or concrete). The grate prevents someone falling in.
Pots, Planters and Ornaments	<ul style="list-style-type: none"> ◆ Small low pots, planters and ornaments in a normal garden can be tripping hazards if a person does not see them in time to avoid them. Such items can be placed against a wall or in a planting bed. ◆ For pots in the paved areas, use large, tall, sturdy pots (can be round or square) that are table height, easier for people to plant and highly visible.
Pergola, Trellis, Arch or Tree	<ul style="list-style-type: none"> ◆ Any person in a care environment would struggle to take their own life but it is still possible to achieve! A pergola, trellis, arch or tree will have what are called 'ligature points' and hence they are often ruled out in clinical/hospital mental health settings. For people with dementia and distressed behaviour these structures could still be lethal if a person is intent on suicide. But a garden with no vertical structures or trees is lethal to the soul. So do not rule them out altogether. Instead, use these structures in garden areas visible from indoors. Most importantly, know your residents. If anybody is at risk of self-harm, go outside with them until they are no longer at risk of injuring themselves. Structures can also be designed ligature-free.

Example of a Risk-Free Garden

This garden provides numerous opportunities for activity, exercise, human interaction and quiet seating areas. Block paving around the edges of the central lawn leads residents around the outer garden space easily and clearly. A variety of seating spaces are provided, giving many options for either quiet personal space or sitting with others. Plant beds are scattered around the garden, providing buffers, areas of seasonal interest and sensory experience.

The horticultural therapy area can be clearly seen from the lounge, allowing for natural surveillance of the space. Resin bound surfacing is used here, so any soil or garden debris can be swept or washed away to maintain a clean attractive surface. Raised beds of various sizes are provided for residents to plant.



An adjoining allotment area is located to the rear of the garden providing somewhere residents can spend time nurturing edible crops, which may be reminiscent of activities from their past.

The potting shed would have views out into the small orchard of fruit trees, where they can watch seasonal changes happen and birds feeding.

The games lawn is a central space where games and exercise can take place. It can also be used as an events space for summer gatherings of residents, staff and family.

*Illustration and description
by Hanna Doyle*

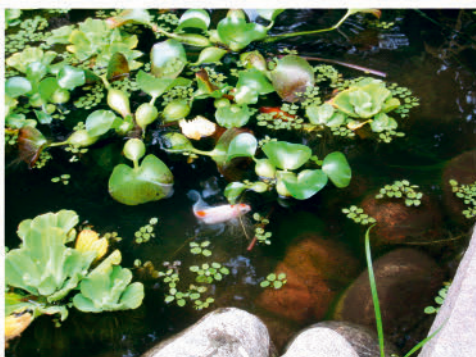
Creating Risk-Assumed Gardens

These are areas that a person with dementia and distressed behaviour is assisted to use. It provides a whole series of normal yet high-quality experiences common to the real world, ones they may not be able to safely enjoy on their own.

Garden Features of a Risk-Assumed Garden include:

- ◆ A small set of steps (2 or 3) with a handrail at each side to promote agility and balance
- ◆ Pathways enlivened with short slopes, ramps or a bridge to promote exercise
- ◆ Fish pond and recognisable water features, like a fountain that splashes onto a water surface
- ◆ Different surfaces for various walking experiences (eg. cobblestones, sand and rubberised surface)
- ◆ Rose garden close enough to people for blossoms to be touched and sniffed
- ◆ Play equipment such as a spring rider, a see-saw or a slide
- ◆ Green gym and senior exercise and playground equipment for strength, flexibility and fun
- ◆ Glider, rocking chair or swing seat
- ◆ Allotment and compost piles for normal cultural expectations and memories
- ◆ Outdoor toilet would be helpful if garden is a distance away (a modern composting toilet does not require plumbing)

Water features in use at care environments:



Small fishpond at a nursing home in Stockholm, Sweden



Nursing home pond in Stuttgart, Germany



Cleaning the flowform at Charnley Fold is an activity

Example of a Risk-Assumed Garden

This garden is made up of a sequence of spaces for various activities. A covered seating space is provided; connecting the lounge indoors with the garden, making this a sheltered space outdoors which will act as the transition space between the two, encouraging people to step out into the garden. There are numerous opportunities for seating; including benches, seats beside tables for group gatherings, a circular bench with a central tree, seating beneath a pergola, a work station bench, and a moving swing seat. There is ample storage space in the small units provided at various places in the garden. Here staff and residents can store garden tools, work materials, games and sports equipment. To the south of the garden, a wild life pond delivers a more naturalistic garden feature; marginal planting and boulders would make this a pleasant place to sit. The games lawn is a space for active games, as well as outdoor gatherings for picnics and events. Play features such as a small grass mound and sandpit have been added here to provide visiting children some active play space. The horticultural therapy area sits to the east of the garden, providing opportunities for residents to plant and grow in their garden space.

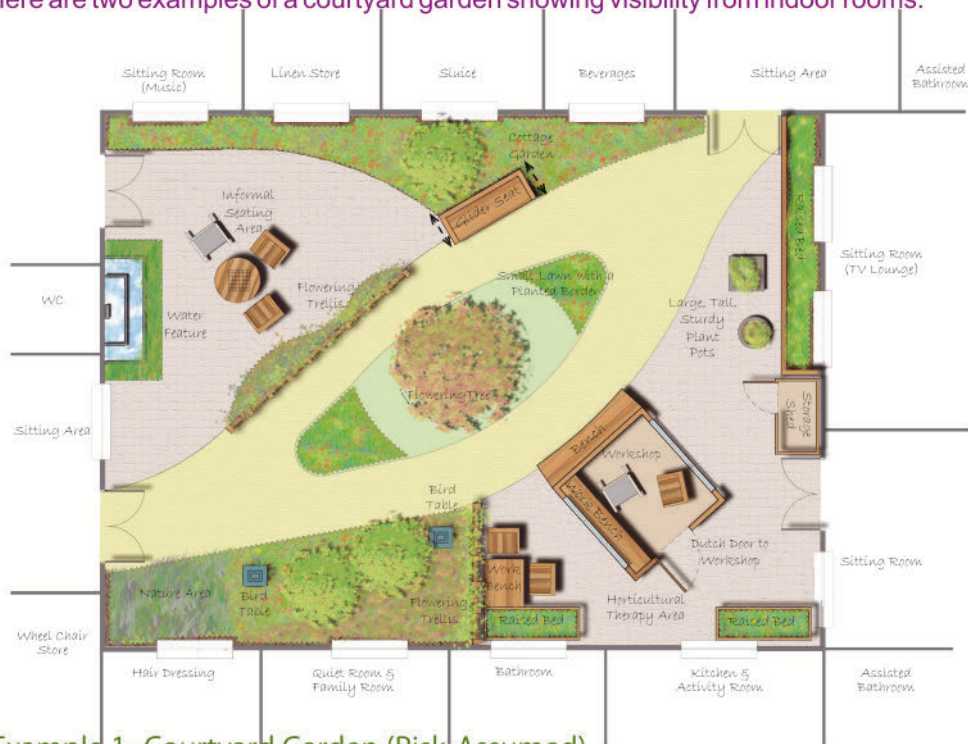
Illustration and description by Hanna Doyle



Courtyard Gardens

As these are visible from internal rooms, and because an internal courtyard is an enclosed space, they should at least be 'Risk-Free', with an open door policy for residents to access the space unassisted. Depending on the home's ability to facilitate engagement, to know and understand the residents and to manage the risk, a courtyard can also have some 'Risk-Assumed' items like water features, a glider or swing seat and a piece of exercise equipment.

Here are two examples of a courtyard garden showing visibility from indoor rooms:



Example 1- Courtyard Garden (Risk-Assumed)

This courtyard space has a central lawn with a planted border of fragrant, colourful plants. It acts as the focal point to the main access paths from the building, providing a zone for active movement. The central flowering tree anchors the space, and gives residents interesting seasonal experiences both from inside the building and from within the courtyard. An informal seating area in close proximity to a water feature will create a space where residents can sit, and enjoy the sensory qualities of water. Planted edges to the courtyard provide not only a privacy buffer to the interior spaces, but also make the courtyard into a pleasant green garden, with planting variety. Trellis arrangements provide a variance in height to the structure of the space, a place for flowering climbers to grow and places where people can sit and feel protected. The horticultural therapy area is a place where residents can undertake activities and have ownership of their courtyard garden.

Illustration and description by Hanna Doyle

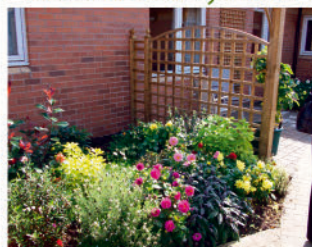
Example of a Courtyard Garden (Risk-Free)

Block paving provides a safe, smooth, non-slip walking surface throughout. Areas of sun and shade are provided for use by individuals, couples or groups. Plantings include edible plants, vegetables, traditional cottage garden as well as native plants, trailing vines, herbs, fragrant plants and colourful annuals. A garden work area contains a work bench and a shed for organised horticultural activities or simply pottering about. Raised beds, tall pots and trellises bring plants within reach. Diverse plantings add colour and fragrance to trigger memories, provide meaningful occupation, stimulate the senses and lift the spirit. Wildlife is encouraged by providing food, forage, shelter, and perches with the native wild area, pergola, arch, tree, trellises and bird feeders. Awnings provide shade on the sunny side of the space.



Photos of courtyard as built

Illustration and description by Hanna Doyle



Dahlias in the mixed border



Fragrant honeysuckle climbing the pergola



Colourful sunny border

SUMMARY

This handbook has explored the need for people with dementia and distressed behaviour to enjoy and benefit from the natural world. We have looked through the lens of a design and research project carried out in a couple of locations and also drawn on our considerable collective experience in the field. Although this does not pretend to be authoritative, we have tried to delve deeply into specific environments to see what can be learned, and how this insight might be able to improve the services we are working within. For a space to be a benefit to these residents and service users involves elements and features that have been spelled out here and elsewhere. For an early text of relevant design guidance refer to [Designing gardens for people with dementia](#) by Annie Pollock (2001) for the DSDC, University of Stirling. For a recent addition to this literature we recommend [Designing outdoor spaces for people with dementia](#) by Pollock and Marshall (2012).

Beyond the physical requirements, for an outdoor space to be actively therapeutic requires *people* to be involved. Nature-related training for staff should be routinely given. Staff, families, friends and volunteers need to be outside with the residents, making it possible for them to use and enjoy the garden spaces. This may sound simple, but if your gardens are not used as you intended, this will be the missing piece of the puzzle.

Nurse assisting a resident during a nature therapy session



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Images of Dovedale East Garden
with special thanks to Barchester



Workshop with stable door and port hole windows



Warm, sunny pergola with clear roof



Porch with clear roof, handrail and raised bed



*Accessible workbenches for seating or standing
with garden views of the games lawn*

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Swing seat being built



Planter box beneath workshop window



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Places for activity that are separate and distinct



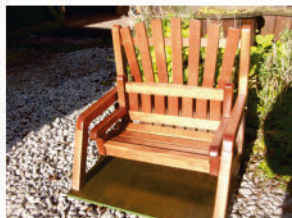
Seating, raised bed, double gate and workshop



Planter beside pergola for sensory plants within reach



A version of the two-seater swing seat with trellis top and open sides



Small-scale model of a new style of swing seat for discussion with client

Swing seats, bridges and other therapeutic garden features are manufactured in Buena Vista's UK workshop and installed locally where they are subject to rigorous ongoing evaluation by staff, family carers and service users to ensure maximum use, safety and enjoyment.



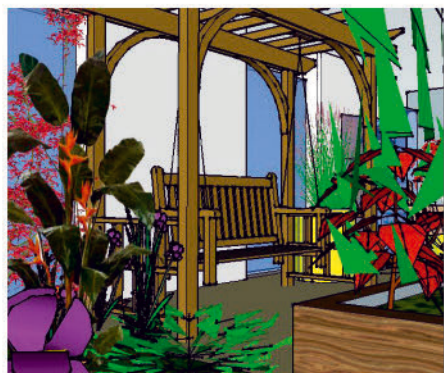
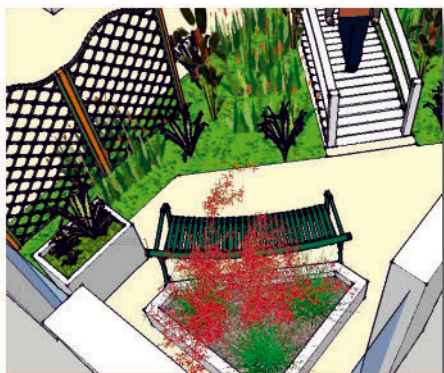
Monet Bridge is to be under-planted with irises for an uplifting experience, a bespoke design for Vida Hall in Harrogate



Games lawn, seating & view out from the workshop

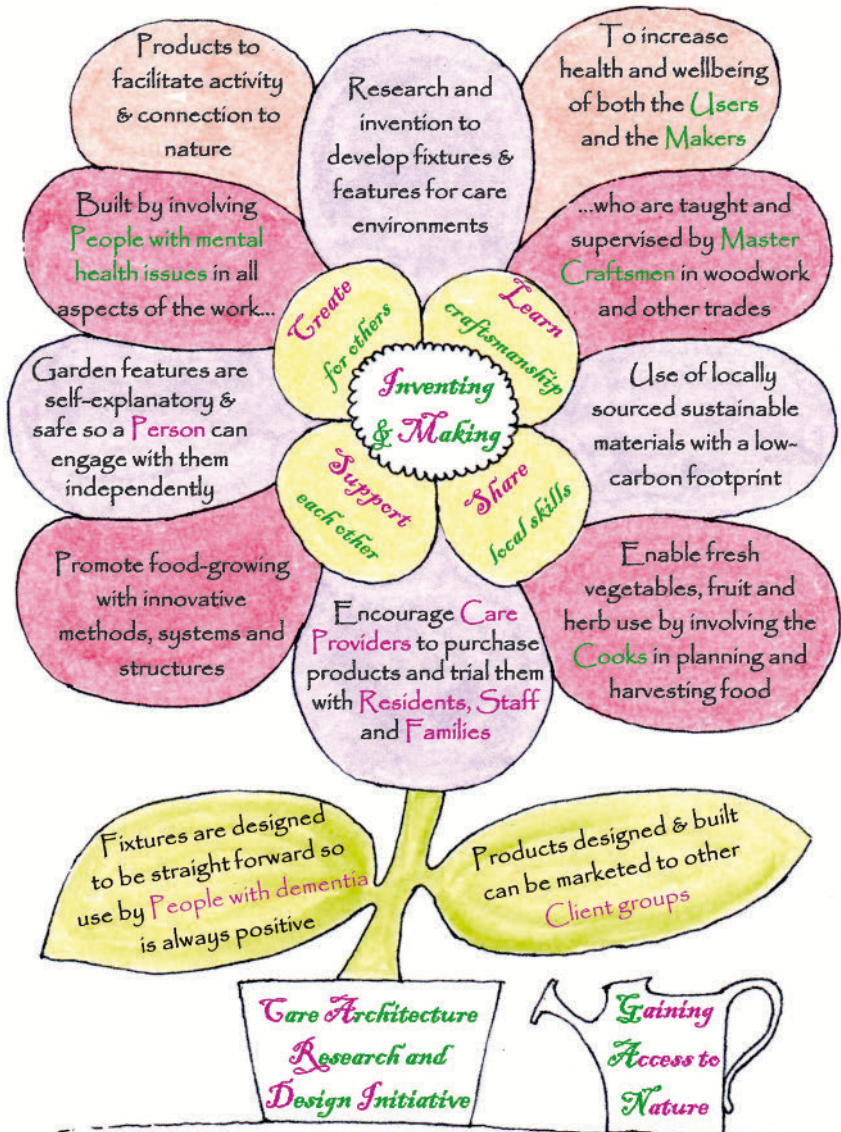
Contact us to discuss your garden requirements

Courtyard Garden Concepts designed for Vida Hall, Harrogate by Chalfont Design



Garden features in these images are indicative only. Actual elements such as the bridge, greenhouse, fountain and swing seat are bespoke designs. Bridge is shown as built on the previous page.

CARDIGAN Club



*The Dementia Green Care Handbook presents guidance on therapeutic uses of outdoor spaces in nursing, residential and day support facilities for people with dementia. Informed by on-site investigation and renovation of two key sites in Lancashire, this project placed a special emphasis on people with dementia and distressed behaviour and gained evidence as to how the garden environment could improve their **quality** of life.*



photo by Juergen Georg

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