

## **Resident Engagement/Design Features**

*Two articles in the last issue of Canadian Nursing Home prompted the author of this submission to address certain environmental design issues as they relate to resident 'engagement' and involvement in 'purposeful activities.' In de-emphasizing health conditions (i.e., dementia, etc.), the author discusses the creation of environmental features "that allow residents to be an active participant in everyday life rather than a passive recipient of care."*

**By Bill Benbow, M.S.W.**

# **Design features for resident engagement and meaningful activity**

**T**here is a growing awareness that the design of dementia care homes can be 'enabling' or 'disabling' - both for those who work in them and those who live in them. The design of space can be supportive of productive and spontaneous activity; however, too often, design features create barriers to meaningful activity. Buildings

can be restrictive and confining - or they can be supportive of remaining ability.

### **Activity/Inactivity**

Donovan and colleagues (2014) studied seven New Brunswick nursing homes and found that residents sleep 1/4 to 1/3 of the time during the day and spend an average of 2/3 of their time in their own rooms. Residents are found in activity lounges only 4.5% to 7.4% of the time, and in scheduled activities less than 3% of the time; sitting and watching takes up almost 40% of the time.

This data raises the question: How can we

*'Lifestyle' or 'life skill' stations, like this doll nursery, are designed to spark memories and encourage interest and interaction.*

motivate residents to leave their rooms and find meaning and purpose in their daily lives? More specifically, can the design of a care facility facilitate such engagement?

There is a movement away from designing care homes strictly for control and surveillance, to designing them so they encourage engagement and curiosity in everyday activities.

Research efforts exploring the effectiveness of activities and the impact of design are, unfortunately, rare. Except for a few studies, we are left with practical experience to guide the design parameters/criteria/framework/guidelines/specifications for the inducement of meaningful activities.

### **Facilitating participation**

This article is based on a literature search of recent scholarly investigations and practice-based suggestions for designing the environment to facilitate meaningful activities - and get residents out of their rooms.

Perhaps the first step is to ensure that the design of the care facility 'does no harm', i.e., it doesn't create barriers to involvement in activities.



Elizabeth Brawley points out that the layout and design of the physical environment can be a hinderance to resident participation in activities. She lists several unappealing scenarios or hazards:

- Insufficient lighting/excessive glare;
- Uncontrolled noise/no sound mitigation;
- Rough walking surfaces;
- Poor stair design;
- Poor quality of seating;
- Unsafe bathroom design. (Brawley, 2001)

In a UK study of six nursing homes, Innes and colleagues used focus groups of dementia residents and their families to discover aspects of design that were important to them. She notes that factors such as noise levels, lighting, visual contrast, acoustics, colour and cues all can influence the person with dementia's ability to participate.

### Variety and views

Anthea Innes, a professor of dementia studies at Bournemouth University in the UK, further notes that no single environment will suit all residents: some will need more security, while others will need freedom to move about.

Residents prefer variety and choice in terms of where to spend time - sometimes preferring quiet, and other times more actively participating in the life of the home. Innes also found that residents were less concerned with specific building features and more with what you do in a building.

Another of her findings was the popularity of lounge areas with a view of the entrance or of a staff work area. Watching the comings and goings of visitors and staff was a popular activity. Wayfinding and access to outdoors were identified as important design features of the building (Innes, et al., 2011).

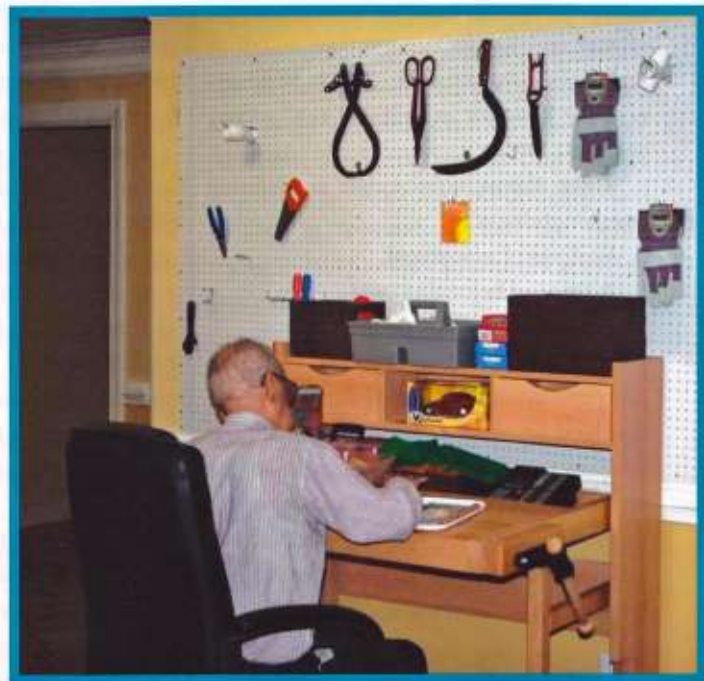
It is rightfully assumed that persons with dementia benefit from involvement in meaningful activity. But what exactly is 'meaningful activity' from the perspective of those with dementia? A Canadian study specifically set out to discover the answer.

For the majority of participants in the study, the most motivating factor was being active and doing as much as they possibly

*Lifestyle activities are being developed in a number of facilities to provide meaningful activities through 'life skill stations,' that are, in reality, activity stations designed to spark memories of a resident's past hobbies and work life.*

*The goal is to create small vignettes that help residents recognize familiar 'activity' objects and encourage interest, movement and interaction.*

*Those with experience providing these 'Life Skill Stations' have found that they are helpful in the retention of older, long-term memories (Abruzzo, 2009).*



The 'Hobbyist's station



The 'Garden' station

The 'Vanity' station



could, including household chores, work-related endeavours, leisure time activities and social involvements: "I want to do everything I can for as long as I can" (Phinney, et al., 2007).

Three things were noted as defining 'meaningfulness':

1. Feelings of enjoyment;
2. A sense of belonging; and
3. Personal autonomy or choice.

In answer to the question: 'What situations created this possibility for them (to be involved in meaningful activities?), their findings suggested that familiarity with the physical environment was an important factor in their involvement in activities; i.e., familiar places, familiar objects, and familiar activities (Phinney, et al., 2007).

### Misreading spatial settings

In a related British study, the relationship between 'spatial settings' and 'meaningful activity' was explored in a dementia care facility (Torrington, 2006). The author maintains that "... meaningful space that supports activity is therapeutic, but space that gives confused messages is common in buildings used by older people; residents often misread the space, and the setting they find themselves in (Ibid., 2006).

As Torrington goes on to explain, "the functional purpose of rooms need to be clear and recognizable. Multi-purpose spaces (within rooms) can be particularly confusing, as can the size of communal spaces."

She found that buildings that positively support activity are associated with well-being, while buildings that only focus on safety and health are shown to be poorer in quality of life. She argues that this is likely due to the restrictions placed on free movement, such as locking doors to outdoor garden space.

### Supportive features

Risk needs to be balanced with autonomy! Supportive features include physical support for mobility and accessibility, a variety of spaces that facilitate activity and, ideally, links with the community.

In addition, Torrington encourages good support for cognitive frailty and giving residents control of their environment. She

emphasises that the physical environment is one of the major factors in influencing how a person derives meaning from his or her everyday activities.

Torrington's study (2006) also included a 'user needs survey' of residents and their families to identify activities that are enjoyed. Highest ranked activities were:

- recalling, reminiscing, seeing old photos, visiting and socializing with family;
- second ranked activities were: walking and moving about (*wandering??*).
- third ranked were outings, cleaning and dusting, kitchen chores, singing and music.

### Behavioural inactivity and 'sensory sameness'

Planned walking was found to increase both physical and social stimulation. Useful environmental modifications felt to be helpful included increasing the space available for safe walking (Robinson, et al., 2006).

Lawton Powell states that "behavioural inactivity and 'sensory sameness' are the enemies of quality of life" (Powell, 2001). Design solutions are suggested to decrease disturbing behaviour such as pacing, and increasing social behaviour by providing choices between private and social space, retreat opportunities, sitting areas that provide opportunity for the resident to observe activity (i.e., a front porch, etc.), and small groupings of chairs.

In addition, there needs to be opportunities for increased energy-releasing activity such as rummaging and simple chores such as folding clothes or mixing and kneading dough (Powell, 2001).

A Hong Kong study explored whether leisure activities slow dementia progression in nursing home residents in the mild dementia stage. Mahjong, Tai Chi, and simple handicrafts (connecting beads, etc.) were the activities studied. Only the Mahjong group experienced a gradual improvement in global functioning and a slightly slower rate of dementia progression over time. The authors conclude that mahjong, and other complex mental activities, can lead to a slightly slower rate of progression of impairments in residents with dementia (Sheung-Tak Cheng, et al., 2014).

A study of seven nursing homes in Maryland investigated the kinds of activities

that were most engaging for residents with dementia. It was found that one-on-one socializing (conversation) with a real person, including a real baby, was the most engaging, followed by activities involving family artifacts, and then simulated work experiences such as sorting and stamping envelopes, folding towels, etc.

The most engaged participants responded best to social stimuli and the task-oriented activities. These 'task type' activities conferred some observable positive effect and generally engaged the resident for a significant period of time (Cohen-Mansfield, 2010).

### 'Life skill stations'

Sandra Davis and colleagues describe the movement in Australia away from designing long-term care homes for the purpose of controlling or diminishing behaviour difficulties. Instead, develop environments that actively encourage pleasing, interesting and satisfying experiences. These authors stress the use of the physical environment to provide a range of daily activities that are interesting and pleasurable. They give as examples a resident kitchen, a 'bus stop' seating area, a clothes/washing line, an old car, an office area, a craft table with supplies, and, of course, the garden area (Davis, et al., 2009).

These 'lifestyle activities' are being developed in a number of facilities to provide meaningful activities through 'Life Skill Stations,' that are, in reality, activity stations designed to spark memories of residents' previous hobbies and work life.

The goal is to create small *vignettes* that help residents recognize familiar 'activity' objects and that encourage interest, movement and interaction.

Those experienced with 'Life Skill Stations' (or 'memory care stations') have found them helpful in the recollection of older, long-term memories (Abruzzo, 2009).

The Stations provide residents the opportunity to practice specific skills that are chosen based on their life stories, or on an aspect of their life. Vintage furniture and props for each memory care station are chosen to be reminiscent of a time when residents may have put them to use. Examples include:

- Office Station: a vintage roll-top desk,

telephone, and typewriter encourage the recalling of working at the office.

- Vanity Station: antique mirror, or vintage jewelry awaken memories of grooming.
- Hall Tree Station: a hall tree with a baseball jersey, military uniform, or dress up clothes.
- Kitchen Station: a hutch with vintage cooking utensils or a working resident kitchen with supervision.
- Laundry Station: could be an ironing board with a non-functioning iron, clothes and linens to fold, or assisting with the residents' personal laundry.
- Doll Station: with crib, rocking chairs and baby dolls.
- Garden station: with pots for water, plants to rearrange.
- Travel Station: with travel guides, maps, books.
- Handy-man station: tool bench with user-safe tools and gadgets, things to take apart and repair.
- Old Music station: record player, records, headphones, posters.
- Medical Station, Teacher's Station, etc.

**Note:** Memory/Lifestyle Stations require restocking, maintenance and upkeep to stay fresh, stimulating, and individualistic

### A 'therapeutic' environment

Rebecca Hart, gerontologist/author, features similar life-skill stations in her 'model care facility' that she calls the *Hart Home away from Home (HHH)*.

She describes these activity stations as comforting and reminiscent of who the individuals were and what they did before they moved to a care setting. These familiar activities can restore a sense of purpose and meaning and sense of self (Hart, 2014); that is, they're therapeutic

British Architect, Martin Habell, who has been designing dementia care facilities for over twenty years, has evolved the concept of 'the environment as a tool for care' into an activity based model.

He sees the internal environment being used for therapeutic benefit using movement, memory trails, behaviour cues, signage, sun light therapy, light spectrum control and landscape.

The design is based on a movement path,

trail, or loop which has activity and memory stations along the way.

Resident rooms are located around the perimeter, and linked by the trail which passes through lounges and a variety of activity areas such as large communal spaces, smaller semi-private seating, a snoezelen area, interactive stations such as computer, office, music; a tasting station beside a small residents' kitchen, all with views to a central, and accessible, indoor 'paradise garden' (Habell, 2013).

Habell is especially concerned with providing plenty of natural light and views, as well as ample directional cues. For example, along the route there are changing sensory displays which act as memory triggers, such as old holiday and movie posters, vintage items, old photos, and even a variety of olfactory stimulations - which he calls 'nostalgic aroma packs.'

As an architect, Habell is conscious of functional space requirements for care facilities and maintains that his model approximates the universal average of 50 square metres per resident (Habell, 2013).

This model has been replicated by Horizon Bay in Tampa Bay, Florida in a two story building with 24 resident rooms surrounding a courtyard.

The circular floor plan allows residents to wander through 14 life-skill stations, as well as purposeful destinations, such as dining, activity and lounges. The layout is designed to stimulate the residents and bring them back to constructive and pleasant memories.

(See: <<http://www.aptura.net/Aptura/resources/Horizon-Bay-Success-Story.pdf>>).

### Impeding or promoting

Clearly, the physical design of a long-term care home can impede, or promote, meaningful engagement in activities. Design features for dementia care are evolving as we learn more about the effect of environment upon care.

One explored area is the use of technology in stimulating memories and providing meaningful activities. For example, this writer has observed the use of a corridor-mounted flat screen TV to showcase a resident on a special occasion or, by rotation, pictures and videos from his or her life.

In summary, Monte Olinger, an experienced architect, suggests that translating our evidence-based and experience-based knowledge of dementia care into a constructible, well-programmed care facility requires that flexibility be designed into it. This is required so that the building or nursing home can support activities that can be modified to meet the needs of specific residents. He suggests the environmental aspects of the home could include the following:

- Design a unique and individual surrounding. The visual theme would be inspired by the resident's past experiences.
- Provide the resident with opportunities for solitude and dignity, accessible through personal choice.
- Provide the resident with spaces for social interaction, accessible through personal choice.
- Protect the resident from physical trauma, social or environmental in nature.
- Utilize light, natural and artificial, to benefit the resident.
- Provide engaging outdoor areas where there are opportunities for group socialization and activities - as well as solitude.
- Build spaces for staff retreat and meditation.
- Provide spaces, elements, and vistas that engage the resident and does not encourage thoughts of leaving.
- Support the ability to change elements in the future.
- Include clear simple way-finding cues in the architecture and color.
- Be mindful of the importance of color from an elderly's perspective.
- Select furnishings, accessories, and finishes that address the realities of Alzheimer's disease, including, but not limited to soiling, flammability, fluid barriers, accidental impact, and antimicrobial finishes. Be aware that bed requirements for the aged are unique and specify accordingly.
- Develop the proposed facility around a sustainable model (Olinger, 2012).

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### Wedding station



The 'handyman station'



A Visit to the hat station



A 'games' room

An old radio and vintage desk

