Living with dementia:

Can design make a difference?

The **Design Research Centre** at Kingston University London funded by the **Audi Design Foundation** has completed a 12 month study looking at ways of improving the quality of life for people with Alzheimer's disease. Identifying opportunities to influence the design of care homes was a priority.

The team has worked with specialists in environmental psychology, architecture, cognitive disability, environmental design, engineering product design, healthcare and lighting. Principally staff, managers, carers and relatives in the care homes have been central to the research.

The role of design was explored in both the external and internal environment of 19 care homes. Key findings indicate that there is potential for design to affect changes to quality and excellence from exterior facades to interventions for stimulating leisure pursuits.

The cause of this debilitating disease is unclear; however a combination of age, genetic and environmental factors, diet and overall general health may be contributory factors. Beyond essential care we see the design of buildings and interiors as a major source of a sense of well-being for all. In fact many care home professionals believe that the building itself, a lack of design for independent living, or even boredom and frustration could cause a rapid decline for residents with Alzheimer's disease. Residents who have been moved to a more sympathetic and stimulating home have shown significant improvement in their physical or psychological condition. This effect was not directly attributable to greater luxury or staffing ratios.

Exterior

Firstly the appearance of the building and the fit with the external context is a major influence on relatives' and staffs' morale. Does the building feel 'homely' or institutional when approaching it? Orientation of the building is fundamental to its performance; light reflectance, interesting vistas, connection to the locale will affect the perception of the home as a domestic environment which is still part of a community. A variety of window configurations and less symmetry to front elevations can aid this objective. Relatives have stated they prefer to see single storey buildings that they approach through a front gate, with a pathway, and even a fenced garden. This would allow some residents to roam safely. Low level sensory fragrant planting near the front entrance with opportunities for sitting, socialising and watching the movement of people can be both beneficial and stimulating.

Interior

We found that impressions of the home affected regularity of relatives' and friends' visits. A solid classic front door which marks the entrance to the building is seen to be more about 'home' than a glazed door which can encourage residents to want to wander. The lighting should mimic a domestic scenario with a variety of sources safely positioned at different points in an entrance hall. Domestic décor, books and TV can provide familiar if unused stimulation. Many carers and relatives are critical of institutional colour schemes found in some homes; hiding doors which should not be opened by painting with the same colour as the wall is one useful intervention and a

cue for encouraging certain behaviour. Frequency of falls and an expectation of 'quality' drive the use of floor carpet in many homes; this is a huge burden to staff, pushing wheelchairs and is difficult to keep clean and odour free. There is scope for innovation in flooring which could be beneficial to all.

Things to touch, feel and fiddle with should be a vital part of these interiors. Tactile resources such as soft fabric samples right through to engine parts are appreciated by the residents.

Some homes visited had a central street as a main thoroughfare with 'shops', 'cafe', hairdresser and even a 'pub' which increased traffic and self-determination. In corridors leading to bedrooms curved corner walls were of interest; residents traced their hands along the surfaces. These corridors appeared less oppressive and more spacious. Homes had a range of signage and room names that might work but many pictograms were not understood at all by the residents. Personalisation of doors is widely used and immense effort is put into the use of an individual's memorabilia; local initiatives can be seen everywhere of varying quality.

A ubiquitous activity such as wandering around the building and choosing to sit anywhere alone, with a relative, carer or in groups can give residents a sense of independence. The design of furniture for this sector is key; incontinence and immobility are fundamental issues.

A sense of place can be generated by using visuals such as key colours and decor for identifying dining, relaxing or entertainment areas. Visiting a 'blue room' was seen as a 'trip out' for some residents in one home. Contrast of door handles on doors, sanitary ware against walls and safety rails is mandatory for the visually impaired people in care homes.

An improvement observed recently is in the layout of seating in a more domestic and less rigid institutional way; this encourages interaction. Spaces for intimate privacy and quiet reflection are always needed. Kitchens are key to encouraging shared and normal domestic activities and for passing time with visitors and relatives; this demands innovative kitchen design.

Bedrooms and ensuite bathrooms present a challenge for the design of care home buildings; staff have to operate in a supportive environment bathing residents - a major physical activity.

A wide range of leisure pursuits is vital for a large number of static and immobile residents; they are often missing, poor quality or misguided. Reports on various kinds of sensory rooms have not been positive; poor design, non-independent use by residents, fear of the spaces by both staff and visitors leave them locked up.

Gardens

Low level wooden border fences and planted hedgerow screens with tall hardy shrubs provide soft visual boundaries; they also create protection for the residents wandering in the garden. Planting of long grasses and low height bright flowers and herbs brings sensory experiences of sound and fragrance to the exterior.

Plenty of social seating near to the house and within a smaller fenced garden area can be used for relaxed social interaction. The area should have sites and centres for secure independent activities such as a greenhouse, sheds, vegetable planters and wheelchair accessible raised beds. A mix of sensory and interactive planting and seating with different types of bird feeders can be stimulating focal points for the gardens. Living with cats and chickens around on the site is appreciated and evident in some homes with the appropriate building and landscape.

Gardens and access routes between complexes of small house units require forms of shelter without complete enclosure. These walkways from one house to another should permit as much natural light as possible to the routes. Roofing methods in external transition areas between houses should allow for well lit internal spaces. Shelters or glazed canopies around the outside of communal rooms so that residents can sit sheltered but in the open air is essential in warmer weather.

Bringing outside life into the home is important but not easy to configure. A provision for secure community use of part of a garden for children to play, and residents to exercise would stimulate and encourage families to visit.

Design can have an impact on the homes. Informed decision making from commissioners of buildings to the individual carer and home manager all contribute to the success or failure of a home to provide a quality of life that we all would want for families, friends and ourselves.

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