

Good design for people with dementia in hospital

Hospital environments can have a big influence on the wellbeing of patients with dementia. In the third article of our series on hospital dementia care, **Sarah Waller** sets out principles of good design



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When the revised Dementia-Friendly Hospital Charter was launched last year, it was an opportunity to review progress and update the charter on several fronts, including the care environment. It was the outcome of a major work programme undertaken by the National Dementia Action Alliance Hospitals Taskforce, which wanted to ensure that the charter enhanced the hospital experience for people with dementia as much as possible.

The care environment, of course, makes a significant contribution to this experience. In the charter, the relevant standard states an expectation that “the care environment is comfortable and supportive, promoting patient safety, wellbeing and independence and people with dementia are enabled to find their way around the hospital”. Here, I want to explain why the physical environment of care is so important for patients living with dementia in hospital, the key principles of dementia-friendly design and how it can make a difference, and the benefits of environmental assessment.

Looking at environmental self-assessment – an integral part of the taskforce’s programme – the charter identifies the following key areas:

- the environment promotes safety, encourages independence, activity and social interaction
- policies are in place to minimise moves within hospital wards
- noise and distractions are minimised
- signage and orientation cues support navigation and ease decision-making about which way to go throughout the building
- ward design enables people with dementia to continue to undertake activities of daily living
- King’s Fund and other environmental assessment tools, e.g. the University of Stirling’s “Virtual Hospital”, are used to ensure appropriate environments
- PLACE (NHS Patient-Led Assessments of the Care Environment) audits are used to meet the required standard
- the estates strategy incorporates dementia-friendly design principles.

Why have a standard?

The environments in which we live and work have a profound influence on our physical and psychological wellbeing, but it is easy for staff working in hospital every day to forget that they

can present a potentially frightening and bewildering experience for patients and carers, given the unfamiliar surroundings, noise, clutter, poor signage and very busy spaces.

Normal ageing has an impact on the senses, particularly sight and hearing, and this is exacerbated by the distortions in perception associated with dementias such as Alzheimer’s disease and dementia with Lewy bodies. In its report, *Counting the cost* (2009), Alzheimer’s Society drew attention to the significant and detrimental effect acute hospital stays can have on patients with dementia, many losing their independence in undertaking activities of daily living and perhaps becoming unable to return home.

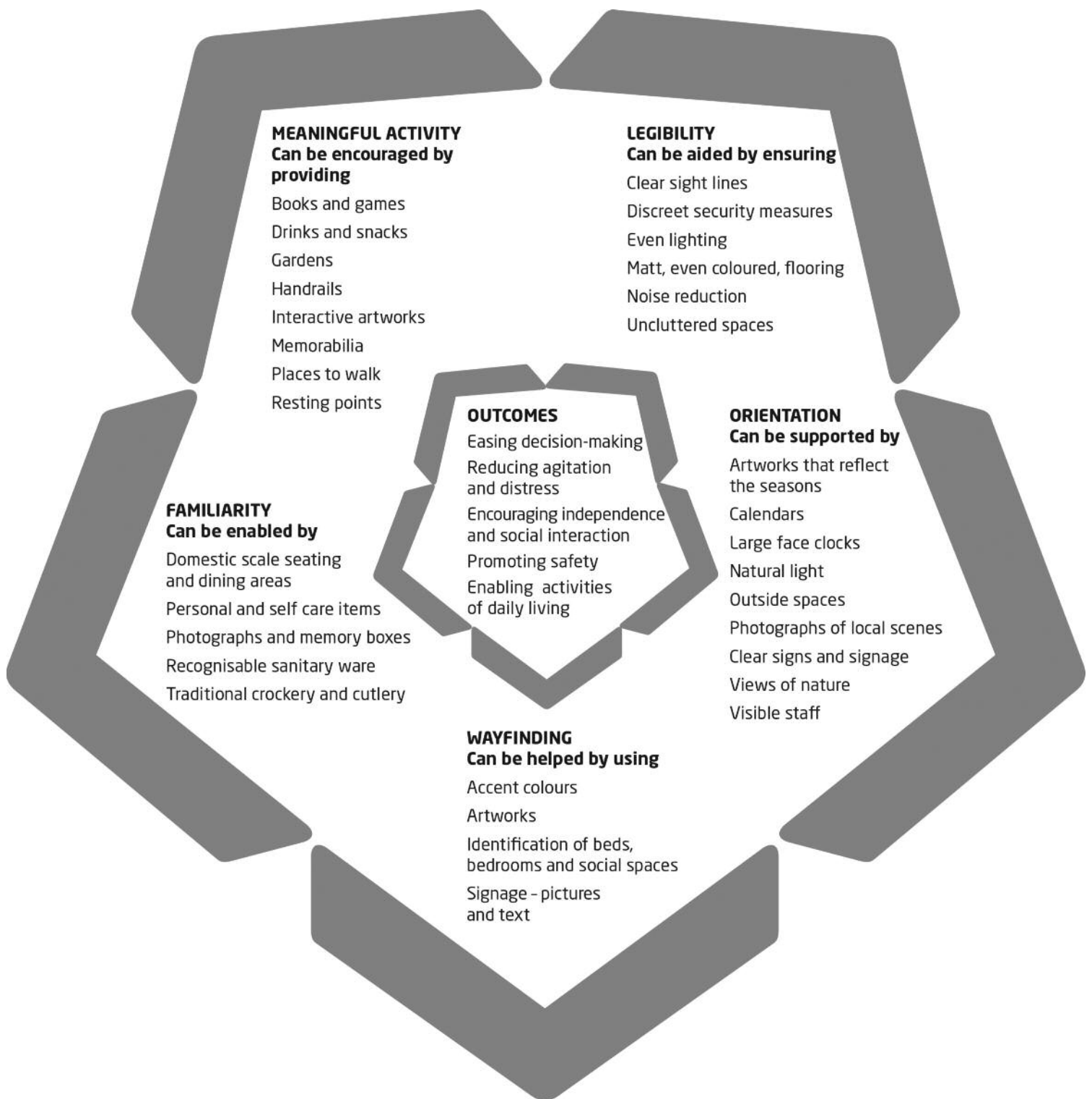
If this happens, the consequences can be devastating for the patient and their family, on top of which it is costly for the care system too. It is vital that the patient’s surroundings do not help to bring this about. There is evidence that poorly designed and maintained care environments can lead to increased agitation, disorientation and distress as people living with dementia are likely to:

- be confused and agitated in unfamiliar environments, particularly if they are visually over-stimulated, for example with a plethora of signs and notices
- be unable to see things, for example, handrails and toilet seats if these are the same colour as the wall or sanitary ware
- experience shadows or dark strips in flooring as a change of level and therefore try to step over them
- resist walking on shiny floors as they may think they are wet
- want to explore and walk around.

In contrast, appropriately designed environments have the potential to:

- reduce the incidence of agitation and behaviours that challenge
- ease decision making
- encourage independence
- promote safety
- improve nutrition and hydration
- increase engagement in activities of daily living
- encourage greater carer involvement
- improve staff morale, recruitment and retention.

All of these factors, taken together, can assist in reducing the cost of services (Waller *et al* 2013).



Design principles

Design principles developed by the King’s Fund (2014) indicate that creating dementia-friendly environments can have a big impact on hospital care. These principles are grouped around the five themes of legibility, orientation, wayfinding, familiarity and meaningful activity (see figure). A parallel set of design principles is set out by the Department of Health in its Health Building Note, Dementia-friendly Health and Social Care Environments (2015), which gives advice on addressing sensory, cognitive and physical impairments and focuses on:

- safety
- optimum levels of stimulation and engagement in meaningful activity
- use of lighting and contrast
- supporting orientation and wayfinding
- encouraging nutrition and hydration
- providing access to the outdoors
- maintenance of privacy, dignity and independence.

Such initiatives point towards a wider understanding of the importance of dementia-friendly design which is reflected in the national ►

Fig 1 – Dementia Friendly Design Principles
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► training framework (Skills for Health 2018). But Alzheimer's Society's Fix Dementia Care campaign and results from the PLACE audit (NHS Digital 2018) suggest that there is still much to do. What has become clear is that improvements to the environment benefit from a multidisciplinary approach; in particular, it is critical to engage with colleagues in estates and facilities departments.

Making a difference

There is now an understanding of how disruptive and anxiety-provoking ward moves can be for any patient and this is particularly so for those with cognitive problems and dementia. The taskforce felt that minimising ward moves was key to creating dementia-friendly hospitals and that they should have policies for achieving this goal.

One of the big benefits is that spaces and their layout become more familiar to patients. In terms of practicalities, the main elements reported as making a real difference to people with dementia are:

- familiar spaces, furniture and sanitary ware
- clear sight lines and removal of distractions
- improved lighting, flooring and signage
- use of colour, aids to wayfinding and orientation (including artworks)
- provision of social spaces and age-appropriate activities.

This may look like quite a daunting list, but even small improvements such as decluttering corridors and noticeboards, imaginative signage with pictures and text, and using artworks such as photographs of local landmarks as navigation aids can be beneficial. For example, patients will find it easier to locate their own bed if the bed bay or room is clearly numbered and there is a picture they can recognise hanging at the bedhead (see photo).

Good design for dementia is good design for everybody. It is an integral part of creating dementia-friendly hospitals, and evidence shows staff also benefit with consequent improvements in recruitment, retention and morale

Hospitals can be very noisy places and someone with dementia can find unwanted noise such as call bell systems and televisions left on while no one is watching them especially objectionable. It can cause confusion and sensory overload, so noise on wards should be managed and a quiet space provided for patients where practical. Music can be therapeutic and patients should be encouraged to listen to personal playlists or bring their own music into hospital if at all possible.

While decorative furnishings are fairly uncommon in hospitals, highly patterned wallpapers, carpets and curtains should be avoided as patterns may be misperceived as actual objects. Bold stripes can look as though they are moving and black doormats can be perceived as a hole that needs stepping over. Immense care should be taken with floor-to-ceiling images, for



Left: Small seating area
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example a life-size telephone box, as they may be seen as real and there have been incidents where patients have attempted to walk into them.

Activities of daily living like going to the toilet independently can be hard to maintain in hospital. For one thing, patients may be unable to find the toilet and incontinence can be the consequence. Painting toilet doors throughout the hospital in a distinctive colour - yellow has proved popular - together with clear signage can really help to maintain continence.

But don't overdo the colour palette: too many different colours in one place can produce visual clutter and be rather disturbing. It is more important to ensure that there is good colour contrast between surfaces so that patients can distinguish the handrails from the wall or a white toilet seat from white sanitary ware.

It is difficult to create a sense of normality in a busy hospital environment but if space is available a day room can be redesigned to offer a comfortable and more homely space for patients and relatives. Small social spaces, even two chairs and a coffee table in a corridor or bed bay, can be enough to entice patients to get out of bed and socialise (see photo). Tables and chairs on the ward will encourage patients to eat together, providing another opportunity to socialise and also to improve nutrition and hydration.

Why assessment tools?

As we understand more about dementia, so we understand the necessity of making environmental improvements in hospitals and sustaining them over time. Environmental assessment tools can help make the case for change to senior managers. It is not always just about the money, but their support will be needed if a capital scheme to improve lighting, acoustics or flooring is necessary.

Evidence-based environmental assessment tools such as those already mentioned from the King's Fund and University of Stirling may do the trick. For example, the King's Fund's EHE tool for ward environments is available free to download from the Association for Dementia Studies and is in use both nationally and internationally.

If possible, engage members of the multidisciplinary team and patients or carers in the environmental assessment. It is a practical way to embed knowledge of how important care environments are and can change attitudes. An assessment can assist in setting priorities, perhaps by drawing attention to the fact that signage is poor and hung so high it is hard to see, or by highlighting the lack of coloured crockery to provide contrast so that patients can distinguish their food from the plate. Thanks to these assessment tools, many hospitals have incorporated dementia-friendly design principles into their estates strategy, ongoing maintenance and capital programmes.

Conclusion

Good design for dementia is good design for everybody. Design is now recognised as an integral part of creating more dementia-friendly hospitals and evidence shows that staff also benefit with consequent improvements in recruitment, retention and morale.

But care environments cannot be seen in isolation. As the charter makes clear, they are part of a wider programme of change that enables partnership working and more personalised care for patients living with dementia. Adopting the principles of dementia-friendly design leads to the creation of comfortable and supportive environments promoting safety, wellbeing and independence for patients living with dementia and their families. ■

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