Good practice in designing care environments for patients with dementia

The physical environment and design of a ward or care setting for people with dementia can have a profound effect on patients’ quality of life as well as improving symptoms of the disorder. We discuss good practice in the design of such environments.

Dr Roohi Afshan* Specialist Registrar, Merton Community Mental Health Team for Older Adults, Springfield University Hospital, 61 Glenburnie Road, Tooting, London SW17 7DJ, UK.
Dr Rajen Shah Consultant Psychiatrist, Merton Community Mental Health Team for Older Adults, Springfield University Hospital, 61 Glenburnie Road, Tooting, London SW17 7DJ, UK.
*email afshan.k@btinternet.com

Design of the physical environment of a ward or residential home is increasingly seen as an important aid in caring for people with dementia. The purpose of this article is to highlight good practice in the design of the physical environment.

Not just Bricks and Mortar, published by the Royal College of Psychiatrists in 1998, informed the planning of new acute adult mental-health inpatient units. The report focused on the size, staffing, structure, site, and security of these units, and most of the recommendations would be applicable in acute mental-health units for older people. However, the loss of abilities caused by dementia and physical impairments associated with ageing are special considerations that should be taken into account when planning wards for older people.

The physical environment can prevent behavioural symptoms in people with dementia. This idea is grounded in Lawton’s theoretical writings on person–environment fit, which have been influential in the development of models of dementia care. Lawton postulated that an inverse relationship exists between the competency of the individual and the effect of their environment. A poor fit between an individual and his environment can result in negative behaviours and poor functional outcomes.

The work done in developing dementia-specific care environments has been successful to a degree in meeting the needs of people with dementia, and these same general principles can be used to help to resolve environmentally induced problems in patients with dementia in acute care settings both in and mental-health units and in nursing homes.

Patients’ safety

Memory loss, disorientation, reduced comprehension and sensory impairment can contribute to increased risks in this group of patients. Features such as same level access throughout the unit, slip resistant flooring, grab rails, appropriate access into and within buildings, safety switches, and hot water controls are important.

Patients’ attempts to leave the facility can be a significant problem. Locking the exit door can increase agitated behaviour. Design solutions to prevent unwanted attempts at exiting often make use of the deficits of the residents. In one study, placing a full-length mirror in front of an exit door reduced attempts to leave by 50%. This was attributed to residents’ loss of identity leading to distraction by their own image. The presence of glass doors and adjacent large windows offering views to the outside are considered to be factors that may increase the incidence of exiting. Installation of matching blinds that restrict view to the outside or painting the door and the door knob the same colour as the surrounding walls to disguise them are suggested strategies.

Observation by staff is essential to maintain a safe environment for people with dementia, and design interventions should take into consideration the need to maintain ease of surveillance.
Maintenance of dignity

Single bedrooms with ensuite toilets in adult mental-health units are recommended. Beds should be high enough to enable safe transfer of patients and there should be adequate space around the bed for safe access. Incontinence is a common issue in patients with dementia. Toilet size should be large enough to allow staff to assist the patient, should have neutral décor, reduced glare and noise, increased illumination, and easy access. Additionally, an environment offering a familiar and normal dining experience and the value of reducing sensory stimulation while eating has been increasingly recognised.

Retaining competencies and functioning

Practical skills

The environment should be designed to allow patients to maintain their functional abilities. A kitchen and laundry area where patients can be encouraged to engage in familiar activities with the guidance of an occupational therapist can help to maintain skills.

Carefully planned outdoor areas are extremely valuable. Exposure to natural sunlight helps to regulate circadian rhythm and sleep-wake cycles, offers the opportunity to exercise, and increases feelings of wellbeing. The outdoor space needs to be part of the overall ward design, with attention paid to ease of access, pathways, shelter, and planting schemes.

Orientation

Dementia results in impairment of orientation and difficulty coping with competing stimuli. Therefore, people with dementia need positive cues in their environment to help them to retain competency. Strategies suggested to improve orientation are the use of landmarks, and the appropriate use of direct and indirect highlighting. Direct highlighting involves making the intended place or object the focus of attention, whereas indirect highlighting is a tool to guide a person to the intended area. A sign beside a door handle or on the floor may work better than one posted above the door as people with dementia tend to keep their eyes cast downward.

Other strategies include clear room numbers, use of distinguishing colours for residents’ doors and rooms, and use of pictures as well as words. A view to the outside through a secure outdoor area may help to orient patients to the season, time and geography, although an outside view through an exit door is likely to encourage wandering and is not advisable. Orientation is also affected by building configuration. In a quasi-experiment with 105 residents, spatial orientation was facilitated by L or H shaped corridors and other surveys have shown that smaller facilities were associated with higher levels of orientation than were larger units.

Sensory stimulation

Light and lighting for older adults must be considered not only in terms of enhancing vision but also with regards to the neuroendocrine system and vitamin-D synthesis. Appetite, physical condition, anxiety, and anger have been shown to improve as a result of improved availability of light.

People with dementia face particular deficits, including difficulty with colour discrimination, depth perception, and sensitivity to contrast. These deficits exacerbate normal changes in vision that accompany ageing. Design should include strategies to reduce glare, and to increase contrast where appropriate to minimise confusion in depth perception. Bright daylight entering into a room can be moderated by using adjustable blinds. It can take older adults 5–30 minutes to adapt to changes in light intensity. Sudden contrast such as that experienced when moving from direct sunlight outside to dimmer light inside, can be countered by keeping the connecting areas well lit. Internal lights should be covered to avoid shining directly into patients’ eyes.

Wandering

Wandering is a common behaviour observed in people with dementia. It is associated with a number of causes such as boredom, disorientation, habit, and an attempt to leave a loud and noisy environment. Wandering related to boredom and habit can be accommodated with pathways that facilitate positive wandering. The path should go through secure areas including a secure outdoor area and should showcase activities alternative to wandering that people might participate in or observe. It should pass landmarks to assist in orientation such as toilets and sitting areas and should never have a dead end but rather form a loop.

Agitation

Unit size

Not Just Bricks and Mortar suggested that acute mental health wards for younger adults should have no more than 15
Control of distracting stimuli

People with dementia are unable to screen out unwanted stimuli and often become more confused, agitated, and anxious when overstimulated. To avoid overstimulation, areas in which patients spend most time should be away from the unit entrance because of high levels of pedestrian traffic and noise. Clutter should be eliminated as it is visually distracting and dangerous for trips and falls. Consequently, adequate storage facilities are critical.

Conclusion

More can be done to improve the physical design and environment of wards and care homes for people with dementia. The research evidence presented indicates ways in which the environment can be changed to improve the quality of life and problematic dementia-related behaviours and complications.

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References


Key points

Principles to be considered when planning an acute mental-health unit for elderly patients:

1. Safety—design should enable the person with dementia to remain safe, particularly regarding sensory impairment and attempts to leave the unit.
2. Design should help to maintain patients’ dignity by giving attention to bed areas, toileting, and bathing experience.
3. Design should enhance patients’ competencies by providing positive cues in the environment and the provision of kitchen, living, and garden areas to encourage participation in meaningful activities.
4. Good design may help to manage difficult and challenging behaviours in dementia.