Editorial

Future Nursing Home Design: An Important Component in Enhancing Quality of Life

John E. Morley MB, BCh *

Division of Geriatric Medicine, Saint Louis University School of Medicine, Saint Louis, MO

The first nursing homes were built in Constantinople during the time of the Byzantium empire to provide a home for infirm elderly persons.1 Since these early nursing homes, there have been dramatic changes in the design of nursing homes. In the United States, the original nursing homes were modeled after hospitals, as is still the case for most skilled nursing facilities. These designs focus on nursing efficiency. In the 1970s, M. Powell Lawton, in Philadelphia, moved toward focusing on designs that are more resident friendly and designed the Weiss Pavilion. His concepts stressed the need for privacy and environmental approaches to the care of older persons with dementia.2,3 He stressed the importance of recognizing the importance of the interaction between psychological and environmental influences. Private rooms are associated with better resident, family, and staff satisfaction.

With the modern approach to culture change, there has been pressure to develop smaller nursing homes with private rooms for everybody.4–6 In larger nursing homes, there has been a movement to create smaller units—special care units—for persons with dementia and behavioral problems.7–10 Modern units may incorporate a high-stimulus “Snoezelen” room or “Namaste” room.11–15 Exercise has proven to be highly efficacious, not only for improving cognition but also for decreasing difficulties.16–23 For this reason, having areas such as wander gardens and adequate indoor space represent an important design feature for Special Care Units. There is also need for a quiet conference room where small groups can undergo cognitive stimulus therapy.24–27

Other important areas for dementia care are adequate signage, including personalized pictures or “memory boxes” outside the rooms and using different decorations on each door to make wayfinding easier.28 Windows to the outside at adequate height for wheelchair users also allow persons to better establish different routes to their room or eating space. Floor plan design, as well as furnishing, also plays a helpful role in wayfinding. Straight pathways from the bedrooms to the living/dining rooms are an important feature.29 Adequate lighting appears to be important for persons with dementia. High-lux light (2000 lux), especially in the morning, can help to readjust alterations in circadian rhythm that occur in persons with Alzheimer disease.30–33 Studies have shown that most natural light in nursing homes is inadequate.34

Those in the nursing home population tend to be frail, have sarcopenia, and are at marked increased risk of falls and fractures.35–35 In this issue of the Journal, a novel fall-prevention method is debuted. The authors have shown a marked decrease in fracture rate using dual-stiffness flooring.56 These compliant floors can reduce the impact of force on a hip after a fall by nearly 50%. Other design features to prevent falls include having grab bars in the corridor and toilets, having no strong contrasts on flooring, minimizing floor hazards, covering cement and wooden floors with carpet, and enhancing lighting. A space for a small gymnasium where residents can do resistance exercises is an important design feature.57–59

Another study in this month’s Journal examined the effect of creating household units in a larger nursing home.60 The authors found some small positive changes, including reduction in physical restraint use.61 They used the MDS 2.0 for data collection and the new MDS 3.0 would appear to be a more sensitive instrument to recognize changes, especially in dysphoria and cognition.62–65 As they point out, previous studies have shown that personalizing the environment and having smaller nursing homes can have positive effects on a variety of factors.66–70 This is particularly true for improving the dining experience and reducing the anorexia of aging.71–80 Similar suggestions of positive effects have come from building “Green Houses,” which house 10 to 15 residents.81

Finally, as I have previously pointed out in an editorial, high technology is coming to nursing homes.82 At a basic level, this will be the electronic medical record.83 Not far behind this is the electronic monitoring of residents, such as is being done at Tiger Place in Missouri.84,85 In addition, a variety of electronic devices to improve therapy and resident mobility are not far behind.

Nursing homes design plays an important role in resident quality of life. Research into nursing home design represents a major component of the International Association of Gerontology and Geriatrics/World Health Organization global agenda for clinical research and quality of care in nursing homes.86

References


E-mail address: morley@slu.edu.

* Address correspondence to John E. Morley, MB, BCh, Division of Geriatric Medicine, Saint Louis University School of Medicine, 1402 S. Grand Boulevard, M238, St. Louis, MO 63104.

http://dx.doi.org/10.1016/j.jamda.2013.01.018


