



KEY POINT SUMMARY

OBJECTIVES

The objective of this study was to explore associations of environmental characteristics of residential aged care homes and the QoL of their dementia patients.

The Relationship between the Quality of the Built Environment and the Quality of Life of People with Dementia in Residential Care

Fleming, R., Goodenough, B., Low, L-F., Chenoweth, L., & Brodaty, H. 2016 | *Public Dementia Volume 15, Issue 4, Pages 663-680*

Key Concepts/Context

Over the last 35 years there have been studies pertaining to the benefits of facilities designed for people with dementia. In recent years literature has also indicated that quality of life (QoL) is related to different levels of cognitive functioning and activities of dementia patients in care homes. The authors, however, indicate that these studies were inadequate in providing a clear picture of associations between the quality of the environment and the QoL of dementia residents living there. Data originally collected for investigation of the impact of humor therapy on residents in aged care homes in Sydney, Australia were analyzed statistically to determine relationships between quality of built environment and QoL. The study found that a dementia patient's assessment of quality of life in an aged care home is influenced by the quality of their living environment.

Methods

This study used data collected to examine the impact of humor therapy on depression, agitation, social engagement, and QoL in aged care home residents and on the quality of the built environment (Sydney Multisite Intervention of LaughterBosses and ElderClowns (SMILE) study). A final sample of 275 residents (from an original total of 497) from 35 aged care homes participated in the study. This sample was comprised of residents over the age of 50 who were not acutely ill, not overtly psychotic, had at least limited communication ability, and had someone who could provide consent for their participation in the study. Data on environment was collected using the Environmental Audit Tool (EAT) (Fleming, 2011), which had 72 items under 10 subscales, all based on the following design principles –



unobtrusive safety features, small size, good visual access, enhancement of helpful cues, reduction of unhelpful stimulation, familiarity, provision to deter wandering, links to the community, provision of space for privacy, and social engagement. The data for QoL was collected separately from the environment data using the self-reported and proxy versions of a tool specifically designed for people with mild to severe dementia – DEMQOL (Smith et al., 2007). Data on resident demographics and psychological and medical information were collected from case files. Data was analyzed statistically – DEMQOL self-reported scores (global and total) and DEMQOL proxy scores (global and total) were used as dependent variables in linear regression models where the independent variables were those found to be significantly associated with QoL of dementia patients in previous studies (Bannerjee, 2009). The EAT total score was also an independent variable. The DEMQOL self-reported score was the only one having a significant regression model, so it was entered into a linear regression with the 10 EAT subscales total scores.

Findings

The quality of the physical environment was found to be relevant to the well-being of people with dementia. Data analysis showed that a resident's capacity to engage in activities of daily life was the best predictor of quality of life; the quality of environment was the next best predictor of quality of life.

The following EAT subscales were found to have a significant impact on QoL:

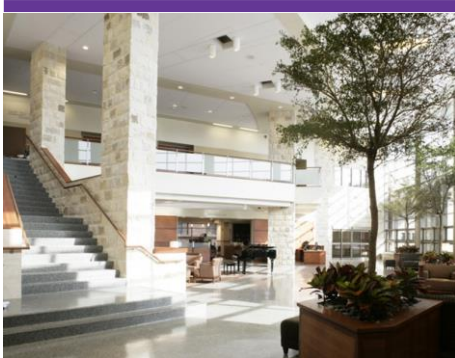
- Provision for alternates to wandering (R^2 0.143, $p=0.03$)
- Familiarity (R^2 0.149, $p=0.01$)
- Provision of spaces for privacy and social interaction (R^2 0.143, $p=0.028$)
- Provision of opportunities for engagement in domestic activities (R^2 0.142, $p=0.032$)

Limitations

That the study did not control for quality of care was considered by the authors to be a major limitation. Other limitations identified by the authors were: the study sample was not random – the criteria for participation were in accordance with suitability for the SMILE study; the sample was not representative of residential aged care residents; the facilities were not representative of the quality of environments in Australia.

Design Implications

This study found the quality of the physical environment to be important to the quality of life for people with dementia living in care homes. The authors suggest incorporating this concept when designing or renovating spaces for dementia care



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facilities. They have also provided the following design suggestions for these facilities vis-à-vis their findings from existing literature:

- Providing alternates to wandering: paths to guide residents to engage in activities; accessible outside areas
- Familiar environments: the scope for residents to bring personal items to the aged care homes
- Provision of spaces for privacy and social interaction: rooms or areas with varying ambience levels catering to those who prefer being alone
- Provision of opportunities for engagement in domestic activities: have more homelike features within the larger institutional environment

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