Impact of the physical environment of residential health, care, and support facilities (RHCSF) on staff and residents: A systematic review of the literature

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Key Concepts/Context

Strategies related to the design of the built environment should be considered within the context of the culture of the organization and the resident population. This study of the physical environment of residential health, care, and support facilities addresses the range of settings and population, where other studies have been lacking. The literature review strongly suggests that the built environment is an important component of care provided in residential care settings.

Methods

Guidelines of the Centre for Reviews and Dissemination (CRD) (2010) were followed. These steps included establishing a review team and developing review protocol. Next, background was developed, along with review questions, inclusion/exclusion criteria, and defining the study population.

The initial article search produced 1216 studies; after applying the criteria, 142 studies remained. Seventy-nine studies were added, for a total of 221 studies. Following the final screen, 66 studies remained.

The Mixed Methods Appraisal Tool (MMAT) was used to test the quality, and articles were given a quality score.

Data was extracted from the final 66 studies, including setting, mean age, sample size, study design, design category, physical environmental feature studied, outcome variable, and quality assessment.

Visual models were created to show the link between environmental design strategies, environmental conditions, and outcomes in residential settings.
SYNOPSIS

- Inclusion of outdoor gardens and exposure to outdoor environment
- Smaller facility and unit size for frail dementia residents
- Exposure to bright light (artificial and natural) through the course of the day

More research is needed using larger sample size and rigorous methods. In addition, further research is needed on the role of the physical environment in reducing HAI and falls in Residential Health, Care, and Support Facilities.

Findings

Though there are mixed findings, the literature review strongly suggests that the built environment is an important component of the care provided in residential care settings.

Limitations

Limitations included quality variance in the study sample, changing sample population over time, impact of physical environment which is difficult to unravel in multi-factorial studies.

Design Implications

- Inclusion of outdoor gardens and exposure to outdoor environment
- Smaller facility and unit size for frail dementia residents
- Exposure to bright light (artificial and natural) through the course of the day

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