



KEY POINT SUMMARY

OBJECTIVES

The objective of this paper is to report on research findings from psychology and neuropsychology that can inform design guidelines to decrease spatial disorientation for people with dementia.

Decreasing Spatial Disorientation in Care-Home Settings: How Psychology can Guide the Development of Dementia-Friendly Design Guidelines

O'Malley, M., Innes, A., & Wiener, J. M. 2015 | *Dementia Pages 1-14*

Key Concepts/Context

People who have Alzheimer's disease (AD) will eventually face a decline in navigation and orientation skills. Most, if not all, people with AD, will move to a care home. The dilemma for many is finding their way around a new environment. To enable care-home layouts to be learned with ease, the authors assert that improvements in design layout could compensate for impaired abilities and reduce disorientation for those with dementia.

Methods

Design tools and architectural references that discussed ways to alleviate disorientation were reviewed to examine their contributions towards orientation in the designed environment. The topics were broken down into floor plan and [building] structure and interior design features such as landmarks and color. The authors then reviewed the literature on the psychology of navigating and discussed how this information could help inform way-finding design decisions in these types of environments.

Findings

After review of all the literature, the authors concluded an in-depth understanding of these landmark functions is paramount in developing improved and more specific dementia friendly design guidelines. Landmarks serve as beacons (i.e., something memorable and close in proximity that leads you to a goal), orientation cues (elements often referred to as global landmarks, something instantly recognizable), and associative cues (i.e., landmarks you pass every day that help you remember a route). Creating good landmarks involves understanding 'place recognition,' or how unique and memorable it is – enabling a person's ability to create a cognitive map



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(mental map that provides information about the spatial relationships between spaces—landmarks can help to link spaces). Unfortunately, as the authors noted, there is little research on the impact of AD on navigation. The authors assert that combining methods from psychology and social sciences provides an advantageous way forward to improve dementia-friendly design guidelines. They recommend onsite research studies to help explain the impact that dementia has on people learning to navigate new environments.

Design Implications

Designers should pay attention to literature on the underlying causes and symptoms of disease entities to help them understand how to address these issues through design elements. This paper begins that discussion when designing for people who have difficulty with navigating skills due to memory loss. This information is also applicable to others, such as those with trauma brain injury, who have memory loss.

Limitations

This paper is not discussed as a systematic literature, therefore, some research may not be represented here.