

Designing a patient centred environment for older people in acute care: recognising and reconciling tensions identified from a systematic review of the literature

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As numbers of emergency admissions for older people increase, acute hospitals face an imperative to develop facilities to meet the needs of frail older in-patients with complex health problems. Evidence-based design is increasingly recognised as a method for achieving a safe and effective hospital environment. This research aims to improve the processes, quality and outcomes of acute services for older in-patients.

A comprehensive review of the design and healthcare literature on the physical environment for older in-patients in acute care was undertaken across 7 database sources (health, architecture and general science) supplemented by following up citations, examining related articles and project chasing. Data were extracted into a standardised form and, for 20 design topics, were combined using tabular presentation and narrative synthesis.

868 studies were initially identified from the per protocol search. 60 related specifically to the frail, aged and those with dementia with 808 studies considering issues judged relevant to a wider general hospital population. Single elements such as safety and noise were well covered by the literature, whilst other considerations (e.g. dignity, privacy, and spatial layout) were comparatively poorly covered. A key finding from the systematic review was an identification of themes indicating tensions or 'trade-offs' between elements often examined separately (e.g. carpeted floors are associated with reduced fractures from falls, but increase concern about infection and allergies; need for freedom and autonomy juxtaposed with the need for observation and safety; design should stimulate withdrawn/depressed patients but not over stimulate

those who are manic/agitated).

Such tensions argue for a holistic consideration of the evidence base, in contrast to unilateral approaches typically harnessed in individual research studies. Although systematic reviews are criticised for requiring that problems are first clearly defined and hence "tamed" in advance, this review demonstrates how deconstruction, and subsequent reconstruction of a complex design scenario can lead to enhanced understanding of real world 'wicked problems' to inform the search for innovative design responses.