SYNOPSIS

KEY POINT SUMMARY

OBJECTIVES

A controlled pre-/post-study was undertaken within the Veterans Health Administration to understand the effects of multisensory stimulus during bathing on the behaviors of veterans with dementia.

Investigating the feasibility of multisensory environments to improve the assisted bathing experience for veterans with dementia: A clinical trial

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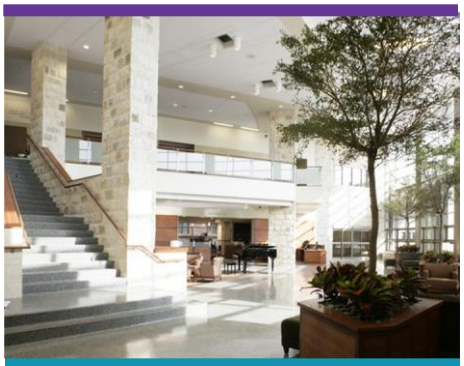
Key Concepts/Context

While multisensory environments (MSE) are generally regarded as therapeutic for people with dementia, this study was undertaken to understand the behavioral effects of MSE stimulus during bathing for veterans with dementia. Following the evaluation of MSE use in a bathing room representative of most found in long-term care settings, the study authors concluded that the exhibition of increased positive behaviors and decreased negative behaviors supports a functional relationship between improved bathing responses and multisensory interventions.

Methods

A controlled clinical trial was conducted in a 187-bed major U.S. military long-term care facility in the Southeast U.S. to assess the impact of a multisensory behavioral intervention during assisted bathing to improve the patient experience. The participant sample consisted of a convenience sample of four veterans with advanced dementia. For consistency, one nurse and four certified nursing assistants provided bathing and administered the intervention in teams of two over a period of two months. The study setting consisted of a single open-plan communal bathing room with gray ceramic tile walls and floor, a solid surface ceiling, and fluorescent lighting. The intervention consisted of MSE equipment, including: bathing chair, solar wall projector, preferred music, lavender aroma therapy for men, peppermint aroma therapy for women, and color-changing wall washer lights, a bubble tube, and handheld waterproof fiber optic cables. The study used a single-case research design with staggered starts so each participant could serve as their own A-to-B control. Bathing was offered twice per week and each video-recorded session served as the unit of measurement. A total of 48 bathing session video recordings were reviewed by two study team members to reduce bias and maintain interobserver agreement. Behaviors were coded and classified as either positive or



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challenging in accordance with the Care Assessment Bathing Tool developed by Sloane and colleagues.

Findings

Two of the four participants displayed an increase in positive behaviors including emotional happiness and engagement, between baseline and the intervention. All four participants demonstrated a decrease in distressed behaviors, including physical or verbal aggression, agitation, sadness, anger, and anxiousness, between baseline and the intervention. The increase in positive behaviors and decrease in negative behaviors support a functional relationship between improved bathing responses and multisensory interventions.

Limitations

The limited diversity and sample size of the study as well as consistency of the staff make it difficult to generalize and replicate outcomes broadly. It is also possible that positive or negative behavioral reactions could be credited to individual MSE stimulus or the individuals who provided bathing assistance rather than the combination of all MSE stimulus. The intervention was isolated to MSE equipment and did not include any adjustment to the interior design features (e.g., lighting, finishes, fixtures, etc.) or layout of the bathing room, which may also positively impact the sensory experience.

Design Implications

This study took place in a bathing room that is representative of most found in long-term care settings. While it might not make sense to include every possible type of sensory stimulus in every bathing environment, intuitive and adaptive layout, interior finish, fixture and furnishing solutions that can be modified to suit the needs and sensory preferences of patients should be considered. Multidisciplinary groups of designers, care providers, and patient advocates should come together during the design planning process to consider which types of passive and active sensory elements may benefit patients and caregivers during bathing.

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