



KEY POINT SUMMARY

OBJECTIVES

To gather both quantitative and qualitative data on the effectiveness of the Adaptive Stimulus Dosage (ASD), Adaptive Daily Rhythm Atmospheres (ADRA), and Artificial Skylight (AS).

Adaptable healing patient room for stroke patients. A staff evaluation

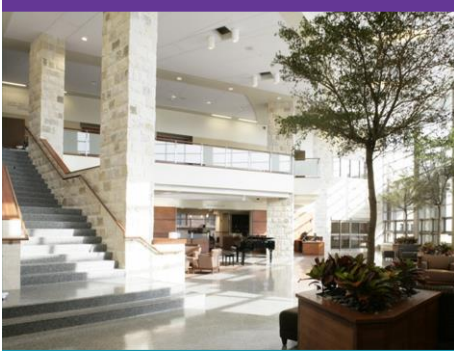
Daemen, E M L, Flinsenbergh, I. C. M., Van Loenen, E. J., Cuppen, R. P. G., Rajae-Joordens, R. J. E., 2014 | *Methods Of Information In Medicine. Volume 53, Issue 5, Pages 406-415*

Key Concepts/Context

The Adaptable Healing Patient Room (AHPR) is a structural design intended to enhance the healing process of neurology patients, especially patients recovering from stroke. It consists of three main components: Adaptive Daily Rhythm Atmosphere (ADRA), Artificial Skylight (AS), and Adaptable Stimulus Dosage (ASD). AHPR works to counteract the artificial, unknown, and uncomfortably sterile environments which, according to previous studies, stroke patients are often confined to during recovery periods. By assessing the efficacy of the AHPR, a better understanding of stroke patient preferences within the built environment can be determined, and more informed design and staff management decisions can be made.

Methods

30 participants (comprised of various hospital neurology and geriatric department staff) tested the AHPR in a laboratory environment modeled after a hospital patient room. Groups of two to four participants were led through the study procedure by a study moderator, while two note takers documented spoken feedback given by the participants. Participants filled out questionnaires about the perceived influence of specific aspects of the AHPR on the patient healing process (e.g., better sleep, enhanced overall well-being, faster healing). The concept of the AHPR was rated anonymously on a 7-point Likert scale by all participants, and the ratings were supplemented by written comments that were analyzed with a non-parametric Kruskal-Wallis test and a post-hoc Mann-Whitney test. During the lab simulations, quantitative data were gathered on the AHPR's projected impact on patient healing and staff workflows.



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Findings

Participants acting as patients indicated that the tight schedule of the AHPR's different phases would provide a positive sense of structure to the overall healing process of neurology patients. The automatic lighting adjustments in particular were seen as very convenient and effective in producing both energizing and relaxing feelings. Hospital staff members who participated in order to provide feedback from the perspective of therapists noted that the AHPR was occasionally cumbersome and at odds with the environment they wished to maintain with the patients; for example, one therapist noted that cozier lighting (as opposed to simulated daytime lighting) during their visits with patients could have contributed to an enhanced sense of trustworthiness. The hospital staff generally indicated that greater degrees of customization, personalization, and control within the AHPR system could provide an enhanced sense of flexibility and naturalness to the entire concept. Overall feedback from all participants was positive; the AHPR was seen as an effective and novel approach to patient care that utilized several evidence-based designs to improve the healing process.

Limitations

This study was carried out in a controlled laboratory environment as opposed to an actual hospital. Additionally, all of the participants were hospital staff members from various backgrounds rather than actual neurology patients. While this approach afforded the researchers an opportunity to analyze the different aspects of the AHPR closely and comprehensively, it couldn't account for real patient perspectives or other unforeseeable variables that might arise in a hospital environment.

Design Implications

The AHPR incorporates several evidence-based designs, such as natural and artificial lighting, relaxing audio, and video installations in an all-in-one patient room structure that aims at improving the healing process and assisting staff in the delivery of healthcare services. Even if designers don't implement the entire AHPR system, designing neurology patient rooms or treatment schedules similar to aspects of the system could prove beneficial.

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