



KEY POINT SUMMARY

OBJECTIVES

The purpose of the study was to evaluate how a novel environmental intervention for imaging rooms, which integrated multiple elements of healing environments including positive distractions and personal control over environment, affects the perceptions and satisfactions of its primary users -- patients and staff.

Impact of Imaging Room Environment: Staff Job Stress and Satisfaction, Patient Satisfaction, and Willingness to Recommend

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Key Concepts/Context

The built environment significantly affects the healthcare experiences of patients and staff. Imaging environments are particularly intimidating and dehumanizing. No research studies have specifically addressed the role of the physical environment in imaging rooms.

Methods

Anonymous questionnaire surveys were conducted to compare patient and staff perceptions of the physical environment, satisfaction, and stress in two types of imaging rooms: imaging rooms with the intervention installed (intervention rooms) and traditionally designed rooms without the intervention (comparison rooms).

The study was conducted in two phases: a staff survey in the first phase (2008-2009) focusing on staff perceptions of the physical environment, staff stress, job satisfaction, and staff-perceived service quality; and a patient survey in the second phase (2009-2010) focusing on patient perceptions of the physical environment and patient satisfaction with imaging services. The staff survey was conducted in magnetic resonance imaging (MRI) rooms and computed tomography (CT) rooms at six imaging facilities located in different regions of the country. All participating facilities were affiliated with major hospitals. Four intervention rooms (three MRI rooms and one CT room located in four facilities, and six comparison rooms (three MRI rooms and three CT rooms in five facilities) voluntarily participated in the study. About 70 questionnaires were distributed to MRI/CT technologists working in the participating imaging rooms (41 to intervention rooms, 29 to comparison rooms). A total of 54 questionnaires were returned (28 from intervention rooms, 26 from comparison rooms). A total of 400 questionnaires (200 for each room) were



DESIGN IMPLICATIONS

Viewing images can have a direct impact on emotional processing centers in the brain; thus, art for healthcare facilities must be carefully selected.



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distributed to adult outpatients who recently visited the participating MRI rooms. A total of 157 patient questionnaires were completed and returned. The staff questionnaire was adapted from a questionnaire developed and tested by Berry and Parish (2008), the 4.5-page staff questionnaires included 80 closed-end questions in three parts. The patient questionnaire was 1.5 pages long and included 19 closed-ended questions.

Findings

Imaging technologists and patients perceived the intervention rooms to be significantly more pleasant looking. Patients in the intervention rooms reported significantly higher levels of environmental control and were significantly more willing to recommend the intervention rooms to others.

Limitations

Some limitations identified by the authors include:

- The findings of simulation experiments cannot be directly translated into actual healthcare settings.