

# KEY POINT SUMMARY

#### **OBJECTIVES**

To determine if ceiling art in a radiation therapy computed tomography (CT) room affected patients' treatment experience, and to identify which pieces of ceiling art were most preferred among patients.

# Ceiling art in a radiation therapy department: its effect on patient treatment experience

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# **Key Concepts/Context**

In computed tomography (CT) rooms, an important element in conducting effective radiation therapy is stabilizing each patient in a comfortable, reproducible position. Devices such as neck and head masks, knee rests and foot locks are often used to stabilize patients, but emotional reactions from patients can impede upon their ability to maintain the necessary treatment positions.

Healthcare environments have recently begun implementing art into their structural design in order to reduce stress and anxiety in patients while increasing overall satisfaction with the treatment experience. A previous study found that patients perceived their treatment experience to be significantly better when their interactions with staff were perceived as high quality. This perception was associated with a positive perception of the environment, improved mood, and an altered physiological state. These findings have led to the consideration of creating calming and comforting environments for patients receiving radiation therapy.

#### **Methods**

41 patients (average age of 57.9) who were each prescribed a minimum of 10 daily radiation treatments were involved in the study. These patients were required to lie in a supine position during their treatment procedures.

Participants were given a 12-question survey during their final week in radiation therapy. The survey gathered opinions on ceiling displays. The survey emphasized aesthetic appeal, overall treatment experience, and engagement levels prompted by the ceiling displays.

Every sixth participant was invited to an in-person discussion so that qualitative data regarding treatment experiences could be obtained. The discussion focused on individual patient preferences relating to the ceiling art. A total of six 10-





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minute interviews were conducted. Two permanent ceiling displays, called SUN1 and SUN2, were used in the experiment. SUN1 was a day- themed high-resolution photograph that took the viewing distance of the patient in the room into consideration. SUN2 was night-themed and featured high-resolution photographs of stars. All patients were exposed to each ceiling display at least once during their treatment regimens.

## **Findings**

Results from the 12-item survey indicated that patients did not have a particular preference for either ceiling installation. In-person interviews revealed that patients regularly discussed the ceiling artwork with friends and family. All six patients interviewed in person stated that the ceiling art improved their overall treatment experience. All 41 participants suggested that similar artwork should be installed in other hospital departments.

## **Design Implications**

Ceiling installations could improve overall patient experience, especially in areas where patients are required to lie on their backs for extended periods of time. Any decorative installments intended to provide therapeutic effects should be highly visible to patients and staff; backlit LED lights for ceiling installations or other appropriate lighting fixtures should be considered, and the decorative installations themselves should be an appropriate size relative to their environment.

### Limitations

The small number of research studies identified makes generalizability to a larger population difficult. The authors note that there is a lack of valid and reliable studies in this area of design.

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