SYNOPSIS

KEY POINT SUMMARY

OBJECTIVES

The objective of this research was to evaluate the perceptions of staff, patients, and families regarding the environmental qualities of infusion suites.

Ambulatory infusion suite: Pre- and post-occupancy evaluation

Shepley, M.M., Rybkowski, Z., Aliber, J., & Lange, C. 2012 | *Building Research & Information.* Volume 40, Issue 6, Pages 700-712

Key Concepts/Context

The authors refer to the lack of research on the design of cancer facilities while emphasizing the need to study the impact of the physical environment of infusion suites on patient experience. This study evaluates the perceptions of patients and staff of two infusion suites – old and new, specifically in connection with social interaction, privacy, and access to nature. The study found that both patients and staff found the new facility to be more supportive of these aspects than the old unit. Respondents also agreed that interaction, privacy, and access to nature were important in an infusion suite.

Methods

This study involved a before-and-after comparison of two infusion suites. A paper-based survey, a practitioner-focused facility evaluation (PFE), was administered to patients, family members, and staff who had used both suites. The questionnaire for the patients and family differed from that of the staff. There were 22 respondents in all – 12 patient/ family and 10 staff. The old and the new facilities had been used by nine patients/ family and eight staff. The data was analyzed statistically.

Findings

The study found that:

- About 93% of all respondents in the old facility either agreed or strongly agreed that it was important for patients to interact, have access to nature, and have provision for privacy.
- About 95% of all respondents in the new facility either agreed or strongly agreed that it was important for patients to interact and have provision for privacy; 91% considered access to nature to be important for patients.

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- Regarding staff access to nature, 88% of the staff respondents in the old unit and 100% in the new unit considered access to nature as important.
- All respondents (patient, family, and staff) found the quality of environment in the new facility to be better relative to the old facility, with regard to social interaction (p=0.002); access to nature (p=0.000); and provision of privacy (p=0.000).
- Patients and family, independent of staff responses, considered the quality of environment in the new facility to be higher relative to the old facility, with regard to social interaction (p=0.033); access to nature (p=0.019); and provision of privacy (p=0.021).
- Staff, independent of patient and family responses, also considered the quality of environment in the new units to be better than the old ones for patients with regard to social interaction (p=0.026); access to nature (p=0.000); and provision of privacy (p=0.000).
- In the old unit, both patients and staff had similar ratings (3.8 and 3.9 respectively) for the quality of social interaction. Their ratings were vastly different for privacy (staff - 1.5 and patients - 3.4) and for access to nature (staff - 1.4 and patients – 3).
- In the new unit, patient and staff rated their perceptions of all three variables between 4.1 and 4.7.
- In response to the staff's access to nature, the staff rated the new unit higher than the old unit (p=0.0029).
- Regarding patient experience, specific spaces in the two suites were rated by the staff as follows:
    - Social interaction:
        - Highest: Old: Waiting and reception areas; New: Waiting and main infusion area
        - Lowest: Old: Main infusion area; New: Nourishment area
    - Access to nature:
        - Highest: Old: None mentioned; New: Waiting, reception and infusion area
        - Lowest: Old: All areas: New: Nourishment area
    - Privacy:
        - Highest: Old: Family resource room; New: Examination and private infusion room
        - Lowest: Old: All other spaces; New: Waiting and nourishment areas
- Specific spaces in the two suites were rated by patients as follows:
    - Social interaction:
        - Highest: Old: Waiting, reception, and family resource areas; New: private and main infusion area, waiting and reception area
        - Lowest: Old: Nourishment and main infusion area; New: Nourishment area

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DESIGN IMPLICATIONS

The implications for design regarding infusion suites as inferred from this study are as follows:

Design windows that provide views of nature.

Design spaces and incorporate furniture (for example, chairs that can be oriented toward or away from other patients depending on the intent to interact) that promote interaction.

- Access to nature:
  - Highest: Old: None mentioned; New: Waiting, reception and infusion area
  - Lowest: Old: All areas: New: Nourishment, examination, and family resource areas
- Privacy:
  - Highest: Old: Private infusion room; New: Private infusion room
  - Lowest: Old: All other spaces; New: All other spaces

- Specific spaces in the two suites regarding of perception of staff's access to nature were rated by the staff as follows:
  - Highest: Old: none mentioned; New: Nurse lounge, nurses' station and greeter station
  - Lowest: Old: Break room and lounge; New: Staff work room and staff break room
- Patients and families considered the old, not cheery, darkness and crowdedness of the rooms, lack of privacy, and being lined up for infusions to be the negative aspects of the old unit. Staff considered the high traffic, the old and dirty appearance, the lack of space for families, the
- absence of privacy for patients and staff to be the negative aspects of the old unit.
- Staff considered the visibility from the nurses' station, the nearness of the pharmacy, the waiting area, the café, and the homey/ coziness to be the most-liked aspects of the old unit. Patients mentioned only the fish tank in the lobby in this regard.
- Patients and families referred to the access to privacy, beautiful grounds, windows, and the bright, open, clean, warm, pleasant and organized atmosphere as the aspects they liked most about the new unit.
- Staff considered the brightness, windows, open and spaciousness, cleanliness, the flow, the hall, and the shape of the bays and televisions to be the most-liked aspects of the new facility.
- The tight parking lot, the lack of control of sounds, and noise because of curtains were the aspects of the new infusion suite disliked most by the patients.
- The staff considered the lack of homelike atmosphere, limited privacy in the lobby, and limited private spaces for large families to be negative aspects of the new unit.

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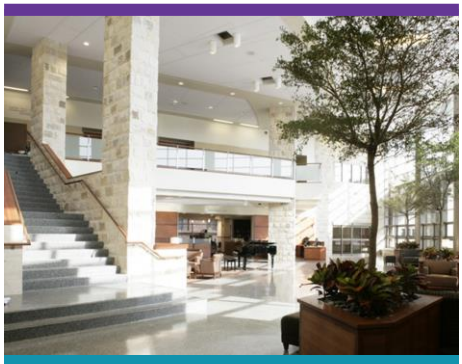

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Limitations

The authors indicate that the small sample of their study could have been a limitation, but it was overcome by the use of a paired samples t-test to analyze the data.

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