



KEY POINT SUMMARY

OBJECTIVES

The objective of this research was to explore the extent to which the physical environment and culture support or inhibit the provision of care and communication by RTs in radiation therapy departments.

Time, space and Technology in Radiotherapy Departments: How do these Factors Impact on Patient's Experiences of Radiotherapy?

Merchant, S., O'Connor, M., & Halkett, G., 2015 | European Journal of Cancer Care. Volume 26, Issue e12354, Pages 1-9

Key Concepts/Context

Radiation therapy is one of the more common treatments available to cancer patients. Radiation therapists (RTs) are the clinical providers who interact with patients and provide the treatment. The authors note that different organizations like the National Comprehensive Cancer Network in the U.S., the National Institute of Health and Clinical Excellence in the UK, and the National Breast Cancer Center and National Cancer Care Initiative in Australia either have or recommend developing guidelines for palliative, supportive, and psychosocial care in oncology settings. Literature shows that patients have reported anxiety about the illness, the treatment, and its impact on their everyday activities, which in turn has the potential for non-compliance with the treatment requirements. In this study, RTs, nurses, and patients in two treatment centers (of two different large public hospitals in Australia) were observed and interviewed. The study sought to assess to what extent the physical and cultural environment of the treatment unit was supportive for care and communication. Findings indicate that the physical design of the two centers was not conducive for patient-centered care or for effective communication between patient and RT.

Methods

This research was a critical ethnographic study design. It was part of a larger study of two large public radiation therapy centers (referred to as H1 and H2) in Australia. The participants in this study included radiation therapists and nurses and patients undergoing radiation treatment for varying cancer types. The treatment unit had a waiting area with seating and a sub-waiting area near the treatment room. The treatment room was referred to as the bunker because of its windowless thick walls – designed to deter radiation leakage. The treatment equipment, linear

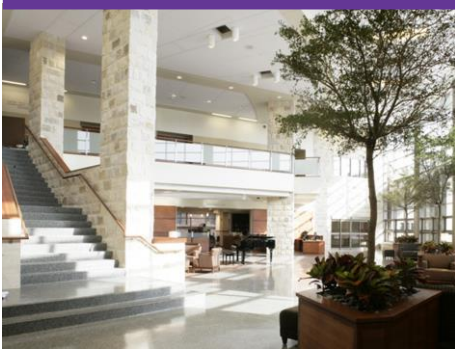


accelerators, was housed in the treatment room. Data was collected through observations, informal interviews, and conversations with participants. Additionally, 11 patients, four RTs, and one oncology nurse in H1, and one patient, one RT, and one nurse from H2 were interviewed one-on-one for periods of 30 minutes to one hour. On completion of the collection of observational data, 20 RTs were purposively selected to participate in four group interviews. Data was collected from 46 participants over six months at H1 (May-October 2009) and for one month from 25 patients in H2 (November 2009). Other supplementary sources of data collection were several RT meetings (attended by authors), documents on existing procedures, and notes maintained in a reflective journal throughout the duration of data collection. Data analysis involved reading field notes and interview transcripts multiple times before starting to code and presenting to fellow researchers for feedback before grouping the codes into themes.

Findings

On analyzing the data, the following themes emerged:

1. **Time and space:** The treatment rooms had very high demand. On any given day, the number of patients coming in for treatment was very high. This, combined with the highly focused tasks of prepping and treating patients – all to be accomplished within a quick and efficient time frame, created immense pressure on RTs and nurses. The patients felt the pressure of time and efficiency too – they made efforts not to be late for treatment appointments. The anxiety was aggravated in the treating environment that did not allow the patients much privacy, especially in terms of communication with nurses and RTs. The sub-waiting rooms at the treatment room entrance did not provide adequate scope for conversation either, as they were shared space.
2. **Technology-driven culture:** Because operation of the equipment entailed several tasks requiring strict adherence to protocols, the focus of the RT was on the technical aspect of the treatment process rather than on the patient. The treatment rooms were dominated by the equipment and machines.
3. **Impact on patients:** Patients found the treatment environment to be strange, alienating, a scary unknown, and out of one's comfort zone. They found the waiting room to be bleak.



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Limitations

The authors identify the following limitations to this study:

- The study was limited to two radiation therapy centers.
- The two hospitals had a few differences, but were culturally similar.

Other limitations include:

- The paper provides only a brief description of the layout of one treatment center. The authors do not elaborate on the differences in the physical environment of the two therapy centers.
- There is no description of the waiting areas – whether there were any design elements of positive distraction.
- The paper does not elucidate the reason data collection lasted for six months at one center and for only one month in the second.

Design Implications

The study findings indicate that the lack of privacy in waiting and sub-waiting areas of radiotherapy centers can hinder communication between the patient and provider. The authors made the following design suggestion for future facilities: small consultation rooms near the treatment room.

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