



KEY POINT SUMMARY

OBJECTIVES

This study reviews previous uses of EBD and UD in the development of patient areas in breast care centers while providing informational support for future implementations.

Specialty space: Breast care centers

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Key Concepts/Context

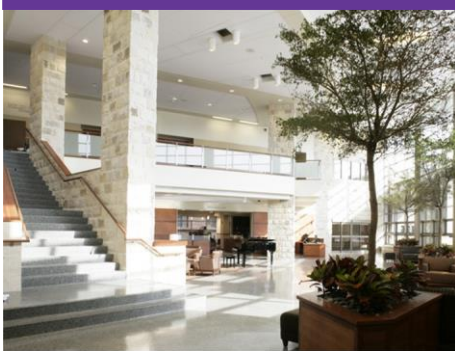
Breast care centers seek to provide interdisciplinary and comprehensive breast care, but the interior designs of these facilities vary widely. Evidence-based design (EBD) seeks to improve healthcare environments by implementing designs correlated with positive health outcomes, while universal design (UD) involves planning for all patient abilities. EBD and UD guidelines can help designers plan for or evaluate breast care center designs so that they can provide enhanced levels of accessibility, privacy, and aesthetic benefits to patients, staff, and visitors.

Methods

The author performed a literature review that included a combination of peer-reviewed studies, websites of breast care centers from around the world, topics revealed through researcher observations, and EBD-related data. A list of themes was created based on the literature review, comprised of the following overarching topics: designs supporting a variety of user abilities, lighting and views, privacy, and aesthetics.

In addition to the literature review, the author performed an in-person field evaluation of a local breast care center, which entailed observing the interiors of three patient areas and noting their adherence to UD guidelines and the EBD process. An interview focusing on the effects of the center's interior designs on patient, staff, and visitor interactions was conducted with the coordinator of the facility.

The field observations and coordinator interview helped the author develop a staff survey, which was completed by nine staff members of the breast care center. This survey intended to compare staff perceptions with regard to priorities for remodeling, using the check-in waiting area and mammogram waiting area as spaces for comparison. Results from the surveys were analyzed using quantitative correlational analysis with Qualtrics (v3.11.0) and an online data analysis tool.



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All data resulting from the literature review, field observations, coordinator interview, and staff surveys were used to create a set of EBD- and UD-oriented design practices for breast care centers that may be applied to either the planning of future facilities or the evaluation of existing facility designs.

Findings

In general, all data gathered during this study indicated that following UD guidelines and the EBD process can provide a more comprehensive, user-friendly, and accommodating design schema for breast care centers.

Through the field observations at the local breast care center, the author identified several instances where the consideration of EBD and UD could have improved physical conditions and benefitted patients and staff. These instances included ineffectively located white noise, a lack of visual and auditory privacy, ineffective wayfinding systems, and a perceived lack of intimacy. Additionally, the coordinator interview and staff surveys revealed a perceived lack of wheelchair accessibility, a lack of visual barriers, and a lack of auditory privacy, all of which negatively impacted patient care and comfort, further supporting the author's own observations. Among these perceptions, wheelchair maneuverability and privacy were the most dissatisfying factors at the facility; the literature review found that these factors were associated with higher standards of care at other facilities. Wheelchair access issues included a lack of wall-mounted automatic door openers, and a lack of different seating options for patients with different needs or preferences. Concerning wayfinding, the author found it difficult to locate the restroom from the ultrasound waiting area as well as the mammogram waiting area, which indicated an issue with 'perceptible information' in UD terms.

Limitations

The author notes that the staff survey was limited in the number of topics it could cover, suggesting that a follow-up survey with additional topics could have helped better inform results on the staff's perceptions of different facility designs. All in-field observations for this study were conducted at a single location over an undisclosed course of time. A relatively small sample size of staff perceptions (nine, or 10 if the facility coordinator is included) were involved in this study.

Design Implications

Breast cancer centers could benefit from the creation of a 'spa-like' atmosphere (for instance, using patient robes instead of hospital gowns). Monochromatic color schemes can decrease patient stimulation and promote relaxation. Natural elements such as wood, plants, stone, and views of nature can also be beneficial. Private check-in areas, effective wayfinding systems, and adherence to building codes to provide adequate wheelchair access are also highly recommended.



And Also...

The appendix section of this study includes images (particularly Fig. A7) that depict specific design decisions that disregard UD guidelines and the EBD process; this could be a helpful example for healthcare designers seeking a visual reference.

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