



KEY POINT SUMMARY

OBJECTIVES

The objective of this research was to review the evidence in literature for design recommendations for outdoor environments in healthcare facilities.

A Review of Design Recommendations for Outdoor Areas at Healthcare Facilities

Shukor, S. F. A., Stigsdotter, U., & Nilsson, K. 2012 | *Journal of Therapeutic Horticulture*. Volume 22, Issue 2, Pages 32-47

Key Concepts/Context

The authors allude to the growing body of scientific literature that indicates the positive contribution of natural environments to human health. The stress caused by staying in a healthcare facility can be allayed by supportive outdoor natural environments. The authors conducted a systematic literature review of peer-reviewed articles and best practice guidelines to compile recommendations for designing supportive gardens in healthcare facilities.

Methods

The method adopted by the authors was a systematic literature review. The online search for literature was focused on the design characteristics of therapeutic, healing, restorative, or supportive gardens, landscapes, or environments in peer-reviewed literature and best practice guidelines published in English before July 2012. The authors shortlisted 21 articles from the 138 that the search yielded. Of these, 10 were peer reviewed and 11 were best practice guidelines. They were organized by type of hospital and country of location. The analytical framework of the study was based on a garden audit tool developed by Cooper, Marcus, & Barnes (2010) and on design guidelines by Tyson (1998). The designed recommendations in the articles were added to the framework.

Findings

The search yielded research and guidelines pertaining to pediatric hospitals, psychiatric hospitals, hospices, acute care hospitals and nursing homes. The authors compiled the following design recommendations from the review of these:

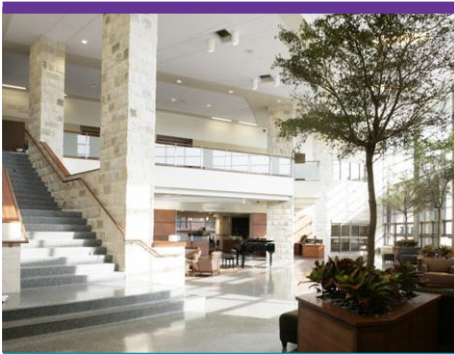
- The location and view of the garden are crucial to its usage. Hence it was important to:



DESIGN IMPLICATIONS

The findings of this study indicate that the following design aspects make it crucial for their usage:

- Visibility of gardens and other outdoor areas from building and their location near common facilities.
- Accessibility for physically-disabled and ease of navigation for all users – signage and landmarks.
- Scope for gatherings, therapy, social support and privacy; adequate seating.
- Transitional areas, like porches between outdoor spaces and the buildings.
- Different species of plants – variance in color, smell, texture.
- Drinking fountains and restrooms.
- Locate gardens near common facilities to ensure visibility
- Have welcoming entry ways into gardens
- Ensure gardens are visible from the building for patients too ill to use them
- Accessibility and ease of finding and going into a garden were as important as being accessible for users with physical disabilities
 - Ease of access into the garden allows patients to independently explore and use it.
 - Paths should be: firm and smooth surfaces for easy navigation of wheelchairs; glazed finishes to be avoided for glare and reflection; designed to minimize falling and slipping
 - The garden should have wayfinding cues for easy navigation – landmarks like water fountains are one example.
- Layout of the garden and the hierarchy of its space (into private, semi-private and public areas)
 - Gardens should have the scope for gatherings, therapy, and social support; the ability to cater to different users – patients, staff, visitors and volunteers
 - There should be transitional space between the outdoor and indoor space in the form of arbors, porches, or trellises – for refuge from bad weather and for patients not keen to venture out.
- Seating in the garden should be:
 - For individuals and groups. Attention should be paid to seat height and ensuring seating is placed close to nature.
 - Fixed and movable seating. Benches should be placed with backs to the hospital building.
 - Located in the sun and shade
- Plants contribute to supportive outdoor areas by creating privacy and calm surroundings.
 - Plants should offer a multi-sensory experience – variance in color, smell, and texture
 - Use of native plants make a patient familiar
 - Use of plants that attract birds and insects



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- Toxic and allergy-triggering plants should be avoided.
- Design details
 - Using colors in constructed elements in gardens creates a contrast, are attractive to pediatric patients and beneficial to visually impaired patients. Signage in gardens should have a high level of contrast for easy readability.
 - Play elements should be added to gardens in all healthcare facilities, not just in pediatric ones.
 - Water features in gardens attract both the elderly and children. The safety aspect of water features (depth of the water) should be taken into consideration (especially in pediatric and psychiatric facilities).
 - Sculptures in the garden are considered to be a positive element, although abstract art has a negative impact.
- Practical services like drinking fountains and restrooms (especially in nursing homes and hospices) in the gardens would make user experience of the outdoor more comfortable. It should also have storage for garden tools.

Limitations

The authors mention the following to be limitations of their study:

- Some relevant websites may have been overlooked during the search.
- The choice of keywords and inclusion criteria may have disregarded probable search outcomes.
- All types of healthcare facilities were not included in the search.

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