SYNOPSIS

KEY POINT SUMMARY

OBJECTIVES

To determine if exposing surgical patients to plants affects their recovery rates and overall stress levels.

Therapeutic Influences of Plants in Hospital Rooms on Surgical Recovery

Park, S.-H., Mattson, R. H., 2009 | HortScience. Volume 44, Issue 1, Pages 102-105

Key Concepts/Context

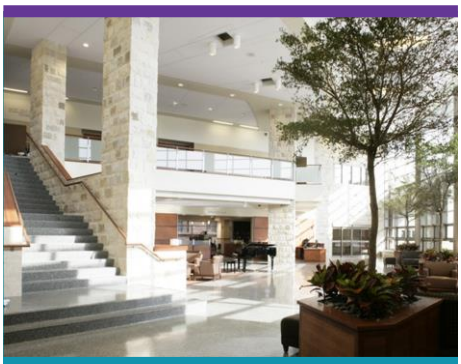
Surgical procedures can instill a sizeable amount of anxiety in patients from all different backgrounds. Previous studies have thoroughly explored how increased stress and anxiety can adversely influence the recovery process following a surgical procedure. Visual and physical contact with natural elements such as plants has been linked with stress reduction, and may be a more viable option as opposed to repeated use of anesthetics and analgesics. Further research is needed to understand how effective exposure to nature can be for patients recovering from surgery.

Methods

This study took place over the course of one year in an 809-bed suburban hospital. 80 female patients participated, all of whom had undergone thyroidectomy surgery. Patients were randomly assigned to rooms with plants or no plants, with an equal number of single- and six-patient rooms being divided between the two populations. Views from all patient windows showed only the sky, with no visible plant life. The vital signs of all patients were measured throughout the duration of their stay, and all questionnaires related to anxiety and fatigue were issued post-surgery.

Findings

Patients who viewed plants remained in the hospital for significantly shorter periods of time than those who had no plants in their room (average of 6.08 days versus 6.39 days). Patients exposed to plants also required less medication following surgery. No significant differences in vital signs were found between the two groups of patients. Five days after surgery, fatigue levels were significantly lower in the plant population of patients when compared to the no-plant patient population.



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Limitations

This study took place in a single healthcare center and involved a homogenous patient population. Details regarding which types of plants are more effective for mitigating anxiety and fatigue are not thoroughly explored. Staff perceptions on plant presence and maintenance are not explored.

Design Implications

Visibility of nature (indoor or outdoor plants in particular) has been associated with significant reductions in patient length of stay, anxiety, fatigue, and medication intake. Designers could consider designing patient rooms and other healthcare spaces to accommodate indoor plants and provide views of outdoor foliage where possible.