Health Benefits of Gardens in Hospitals

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Abstract

This discussion concentrates mainly on health related benefits that patients realize by simply looking at gardens and plants, or in other ways passively experiencing healthcare surroundings where plants are prominent. The belief that plants and gardens are beneficial for patients in healthcare environment is more than one thousand years old, and appears prominently in Asian and Western cultures.
Advantage: Such as lowering the cost of delivering healthcare and improving staff satisfaction.

Introduction

One important reason is linked to the fact that extraordinary amounts of money are spent internationally for construction of healthcare environments. This funding for hospitals potentially represents a major source of resources for gardens, plants, and related features such as atriums. Consider the. Example of only one large medical complex in the United States, the Texas Medical Center in Houston, which plans to spend about $1.8 billion on new construction during the next two years. In the State of California alone, new spending for hospital buildings will be upwards of $14 billion by 2010. This reality implies great opportunities for funding and creating new gardens to enrich and improve the lives of patients and the environments of hundreds, if not thousands, of existing medical facilities. Gardens became less prevalent in hospitals during the early decades of the 1900s, however, as major advances in medical science caused hospital administrators and architects to concentrate on creating healthcare buildings that would reduce infection risk and serve as functionally efficient settings for new medical technology.

Importance of Health Outcomes Evidence

Healthcare administrators everywhere are under strong pressures to control or reduce costs yet increase care quality. Faced with imperative demands such as paying for costly new medical technology, administrators may often consider gardens as desirable but nonessential.
Convincing the medical community to assign priority and resources usually requires providing credible evidence that gardens or plants produce benefits yet are cost-effective compared to alternatives, including not providing gardens/plants.
Health outcomes are numerous and varied, but most refer to measures of a patient's medical condition or to indicators of healthcare quality.

- Clinical indicators that are observable signs and symptoms relating to patients' conditions. (Examples: length of stay, blood pressure, intake of pain drugs)
- Patient/staff reported outcomes. (Examples: patient reports of satisfaction with healthcare services, staff reported satisfaction with working conditions)
- Economic outcomes. (Examples: cost of patient care, recruitment or hiring costs due to staff turnover)

Stress Reducing Effects of Viewing Plants

There is considerable evidence that restorative effects of nature scenes are manifested within only three to five minutes as a combination of psychological/emotional and physiological changes. Concerning the first, psychological/emotional, many views of vegetation or garden-like features elevate levels of positive feelings, and reduce negatively toned emotions such as fear, anger, and sadness. Certain nature scenes effectively sustain interest and attention, and accordingly can serve as pleasant distractions that may diminish stressful thoughts.

Benefits of Nature and Gardens in Healthcare Settings

It is important to emphasize that broadly parallel findings have been obtained when patients stressed in healthcare settings have been visually exposed to nature. A study by Heerwagen and Orians, for instance, found that anxious patients in a dental fears clinic were less stressed on days when a la rge nature mural was hung on a wall of the waiting room in contrast to days when the wall was blank. Well-designed hospital gardens not only provide calming and pleasant nature views, but can also reduce stress and improve clinical outcomes through other mechanisms, for instance, fostering access to social support and privacy, and providing opportunities for escape from stressful clinical settings. In addition to ameliorating stress and improving mood, gardens and nature in hospitals can significantly heighten satisfaction with the healthcare provider and the overall quality of care. Evidence from studies of a number of different hospitals and diverse categories of patients (adults, children, and elderly patients; ambulatory or outpatient settings, inpatient acute care wards) strongly suggests that the presence of nature -- indoor and outdoor gardens, plants, window views of nature -- increases both patient and family satisfaction.

Benefits of Healthcare Gardens for Staff

Healthcare staffing problems are a critical issue in most Asian countries. It has been known for decades that healthcare occupations such as nursing are stressful because they often involve overload from work demands, lack of control or authority over decisions, and stress from rotating shifts.
These serious staff related problems imply major importance for the aforementioned finding that healthcare staff heavily uses gardens for positive escape from workplace pressures and to recuperate from stress. Additionally, it should be emphasized that evidence has begun to appear showing that hospital gardens increase staff satisfaction with the workplace, and may help hospital administrators in hiring and retaining qualified personnel

Effects of Nature on Clinical Outcomes

Findings from a few studies focusing on hospitals and other healthcare facilities suggest that views of nature can have important benefits in terms of improving patient clinical outcomes. Another medical outcomes study compared the recovery records of gall bladder surgery patients who had a bedside window view of either trees or a brick building wall with no nature. Patients with the view of trees more frequently received positive written comments from staff about their conditions in their medical records ("patient is in good spirits"). Those in the wall view group, however, had far more negative evaluative comments ("patient is upset," "needs much encouragement"). Another major difference was that persons with the view of trees, compared to the wall view patients, needed far fewer doses of strong narcotic pain drugs

Qualities of Effective Restorative Gardens

Few studies have examined rigorously how different design approaches and specific environmental characteristics affect hospital garden performance with respect to fostering restoration from stress or improving medical outcomes. No well controlled experiment has investigated, for instance, whether designing flowers beds with curvilinear in contrast to rectilinear forms or edges influences a garden's effectiveness in producing stress recovery. Nonetheless, the studies described in earlier sections have yielded a few broad conclusions and general guidelines regarding design directions for creating successful healthcare gardens. The limited evidence to date suggests that gardens will likely calm or ameliorate stress effectively if they contain verdant foliage, flowers, water (not tumultuous), congruent or harmonious nature sounds (birds, breezes, water), and visible wildlife (birds).

Summary

Findings from several studies have converged in indicating that simply viewing certain types of nature and garden scenes significantly ameliorates stress within only five minutes or less. Further, a limited amount of research has found that viewing nature for longer periods not only helps to calm patients, but can also foster improvement in clinical Outcomes -- such as reducing pain medication intake and shortening hospital stays.
Well-designed hospital gardens not only provide restorative and pleasant nature views, but also can reduce stress and improve clinical outcomes through other mechanisms such as increasing access to social support, and providing opportunities for positive escape from stressful clinical settings.

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