Humane Design for Hospital Landscapes: A Case Study in Landscape Architecture of a Healing Garden for Nurses

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Key Concepts/ Context

Increasingly, evidence demonstrates that physical, social, and spiritual characteristics of the landscape interrelate to have an effect on renewal. Nurses have very high stress levels and turnover rates. A healing garden was designed to provide opportunities for stress relief and renewal for the nurses.

Methods

The method combined a standard landscape architecture ecological site design process with a qualitative empirical study of staff characteristics and landscape preferences. The ecological variables of the site were developed by means of on-site observation of views, wind, sun, temperature, humidity, etc., across seasons. Behavior on site was also informally observed. A survey was designed and distributed to nursing staff to understand their preferences for a healing garden that encourages restorative experiences of renewal. The first part of the survey was a series of multiple-choice questions developed to understand nurse attitudes toward being outside in general and being outside at the hospital during working hours. The second part of the survey was to establish nurse preferences for the attributes of a physical space that supported stress reduction. Nurses were asked to review two design proposals for the courtyard and give negative and positive evaluations of both design concepts. Sixty-one nurses participated the survey.

Findings

Some 95% of the respondents felt that it was important for their coworkers to get outside and 88% of the nurses felt that it was important to get outdoors at some point. The vast majority of nurses went outside to be alone (52%). The most
preferred activity is to sit (25%). The courtyard was preferred as a place for privacy instead of social gathering. Based on the survey results, the use of the existing courtyard was limited by weather conditions and perceptions of insufficient seating and/or the lack of privacy. The least-favored features of the existing courtyard as a place for stress relief were nature-/weather-related issues (36%) and the extensive use of concrete (32%). The most-favored features of the existing courtyard that contribute to the nurses’ renewal experience were the presence of furniture and contact with nature. The results of the survey on design proposals demonstrated the nurses’ intense preference for a private place and encounter with nature. The resultant final design focused on creating small private places for one or two people and using planters and portable furnishings as visual screens for privacy. This project created a natural opportunity to conduct a before-after comparative study to determine whether the method used in the design of this garden produced a viable outcome.

**Design Implications**

- For renewal and stress-relief purposes, the healing garden for nurses should create a sense of privacy. Meanwhile, the garden should be usable under various weather conditions.
- Plant trees and shrubs along paths and around seating to block views from surrounding windows.
- In a 1:1 proportion, provide a diversity of places that are comfortable, oriented to witnessing nature, and situated in response to microclimates.
- Organize private nooks along the way to allow observation of passersby while ensuring privacy of use.
- Provide an aesthetic experience that contrasts with the hygienic experience inside the hospital.
- Design for limited but repeated use by emphasizing threshold features that underscore the transitional experience into the garden area. Mark the main thresholds and edges to heighten the sense of place in the hospital campus.
- Increase access to the outdoors by creating locations that capture the best microclimate spots for year-round enjoyment.
- Design a friendly space by providing some moveable seating furniture, preferably the kind you can stretch out on (e.g., chaise lounges, long benches, and grassy knolls).
- Create and/or frame views of the sacred qualities of the adjacent chapel.
- Provide more spaces and design features in both public areas and patient rooms that can afford family activities.

**Limitations**

Some limitations identified by the authors include:
• A post-occupancy evaluation is needed to examine the outcome of the design, including retention rates and staff satisfaction. The data on usage such as the location and frequency of breaks taken during working hours should be collected, including the frequency of use, time of use, purpose of use, and duration of use. Nurses’ attitudes towards the features that contribute to the renewal experience also should be collected for the post-occupancy evaluation.

Some additional study limitations include:

• A more structured behavior observation protocol could be adopted for more accurate comparison of how nurses use the garden before and after the redesign.