

Improving Rehabilitation Outcomes with the Use of a Therapy Courtyard: Post-Occupancy Evaluation

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The application of learning theory underpins the science of rehabilitation. People in rehabilitation relearn daily behaviors often with new adaptive strategies. Therapies rely on demonstration and repeated practice. People with disabilities learn best in the environments in which they will be living their lives. Many rehabilitation hospitals have home-like designed spaces for patients and families to practice and experience activities of daily living (“ADL Rooms”). The purpose of this project, funded in part by the UniHealth Foundation, was to design, implement and evaluate the use of a unique outdoor therapy program in a newly constructed acute-licensed rehabilitation hospital. In addition to providing a natural outdoor sensual experience, the courtyard areas (especially a physical therapy courtyard) were intended to provide special therapeutic features such as stairs, curbs, ramps, benches and a variety of surface textures including sand, grass, and gravel to help patients achieve competency in maneuvering the outside physical environment as they transition to community living.

A Post Occupancy Evaluation was designed for this project, in which the courtyard areas were observed systematically throughout a two-week period (41 hours); patients and visitors were interviewed (N=51); and staff were surveyed (N=100). In addition, functional outcomes in mobility were assessed at discharge and compared pre- and post-implementation.

The results of observations suggested both intended and unintended consequences in the use of the courtyard spaces. The Physical Therapy courtyard was observed in use over 40% of the sampled hours; and as expected, it was used largely for therapy activities. Other courtyards were observed in use in up to 30% of samples and were used largely for leisure and recreational activities. An unplanned, but positive, observation was of outpatients and therapists from other campus locations using the spaces for therapy and practice. Patient and visitor interviews suggested that most (67%), but not all, patients used the courtyard spaces at least once and found them enjoyable. Results of staff surveys suggested that there was some concern among staff about the use of courtyard spaces for practice and physical activity. The encouragement of patients and families to use the spaces was significantly correlated (Spearman $r = 0.270$, $p < .01$) to the self-report of use by staff. Functional outcomes in use of stairs improved between the pre- and post-implementation periods.

The results suggested that the therapy courtyard was successfully integrated into the therapy program. The promising improvement in functional outcomes should be followed for the long-term, but is confounded by the overall re-engineering of therapy programs inspired, in part, by the opportunities presented by the physical therapy courtyard. Finally, the results point to on-going issues in rehabilitation services

concerning conflicting goals; from the staff perspective, of patient safety and patient independence; and from the patient perspective, between the sick role and reentry into home and community life.