

DIAGNOSTIC POST-OCCUPANCY EVALUATION OF THE LANDSCAPE ENVIRONMENTS IN A PRIMARY CARE CLINIC: ENVIRONMENTAL AND SOCIAL PERFORMANCES

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1 ABSTRACT

Hospitals and other healthcare facilities are resource intensive. Facing increasing challenges due to global climate change, healthcare facilities have taken the initiatives to design and build their campuses using sustainable strategies. Low impact developments (LIDs) and green infrastructures have been integrated into medical campuses to support landscape performances. Meanwhile, healthcare facilities' landscapes and gardens have been recognized as contributors to a supportive and therapeutic care environment for patients, visitors, and staff. However, in observance of the emerging studies and trending practices in the realm of healthcare landscape research and design, comprehensive post-occupancy evaluations (POEs) of the built landscape environments regarding their performances and users' experiences have been insufficiently conducted and reported to date. This paper examined the environmental and social aspects of landscape performances of a primary care clinic following a holistic diagnostic POE approach, including various LID practices and the impacts on stormwater management and carbon emissions. A panel of experts evaluated the human-perceived restorativeness of the clinic's various green open spaces using an audit toolkit. Users' behaviors were observed onsite and documented through behavior mapping. A focus group interview was also conducted to explore users' perceptions and attitudes about the built landscape environments. This study revealed that various LID practices improved stormwater management, reduced carbon dioxide, and conserved landscape irrigation water demand on the clinic site. Nature and restorative elements improved users' satisfaction about the clinic environment. Barriers to the effective usage of certain areas were identified and discussed including physical access, seating and shading structures, and color plant palette.

1.1 Keywords

Occupancy Evaluation, Healthcare Design, Landscape Performance, Environmental Benefits, Social Performance