
CHN Brief | Heart Health and Nature (H2N)

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Background

Designing healing environments that incorporate nature in health care settings has been shown to improve patients' health outcomes and is becoming increasingly more important to patients and their families. Hospitals and clinics with white walls often feel dehumanized, which creates a variety of stressors: pain, discomfort, anxiety, and lack of familiarity. Innovative ways to implement patient-centered and holistic care include viewing nature through windows and adding indoor plants to health care settings. Adding plants to health care settings is a natural approach to remove these stressors and replace them with positive distractions that relax the patients and their families, giving them peace of mind. Despite the shown benefits of exposure to nature and health care, **there is a lack of research showing the effect of viewing nature and health outcomes during clinic visits.**

Proposed Work

This project will examine the effect of the exposure to nature on health outcomes of patients with chronic heart disease. Blood pressure, heart rate, and stress levels will be measured both before and after the visit to determine the effect nature has on these patients. These patients will be randomly assigned into three groups: 1) exposure to an exam room with windows and plants; 2) exposure to an exam room with windows but no plants; or 3) exposure to an exam room without windows and plants. The plants will be arranged in an aesthetically pleasing way to bring a sense of security to the patients and their families. Each patient will spend the same amount of time waiting for the physician in the exam room. The patient's perceived wait time when exposed to nature compared to the patient's actual wait time will also be measured. The difference in blood pressure, heart rate, and stress levels will be used to prove the *positive* impacts nature has on patients' overall health.

Impact

The project will show that exposure to nature not only provides emotional support and a pleasant patient experience, but also *contributes to the patient's physical wellbeing by lowering stress levels, blood pressure, and heart rate.* It will also lead to the evidence-based design of clinics to benefit all types of patients nationwide. Properly designing exam rooms with nature will not only reduce negative psychological feelings (fear, anxiety, and stress) but improve physical health outcomes. **This study will lead to improved health outcomes for patients and support the use of nature in a healing environment.**

