An Empirical Examination of Patient Room Handedness in Acute Medical-Surgical Settings

Within the past decade, we have witnessed an increase in the design of standardized, same-handed patient rooms, intended to improve both efficiency and safety. Based on concepts successfully applied in the aviation industry, many healthcare designers have embraced the idea that standardized, same-handed rooms may increase staff members’ familiarity with the environment and reduce their cognitive load.

The study by Pati et al. (2010) that we will discuss is the first empirical study to address whether standardized same-handed rooms offer benefits when compared to standardized, mirror-image design. Specifically, this study asks 1) whether care-giver location can be “force functioned” so that he or she is providing care on the right side of the patient, and; 2) “what is the essence of familiarity in the patient care environment”?

The study was conducted in a simulation-training laboratory within a nursing school. Subjects included a total of 20 nurses, 10 left-handed and 10 right-handed. Nine different physical configurations, with various constraints to approach (e.g., open or approach from patient’s left or right side) and obstructions (e.g., IV pole) were evaluated. An actor served as the patient for all care scenarios. Nurses performed three different tasks in each of the nine configurations. Following analysis of nurses’ videotaped behavior during the trials and interviews with nurses, the authors conclude that standardized same-handed design does not appear to increase process and workflow standardization, therefore may not affect safety or efficiency.