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

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ABSTRACT:
Objective: The study objective was to examine whether standardized same-handed room configurations contribute more to operational performance in comparison to standardized mirror-image room configurations. Based on a framework that physical environment standardization supports process and workflow standardization, thus contributing to safety and efficiency, the study examined the comparative effectiveness of the standardized same-handed configuration and the standardized mirror-image configuration.

Background: Patient room handedness has emerged as an important issue in inpatient unit design, with many hospitals adopting the standardized same-handed room concept at all levels of patient acuity. Although it is argued that standardized same-handed rooms offer greater levels of safety and efficiency in comparison to standardized mirror-image rooms, there is little empirical evidence either to support or refute these contentions.

Method: An experimental setting was developed where elements of the physical environment and approach to the caregiver zone were systematically manipulated. Twenty registered nurses (10 left-handed and 10 right-handed) provided three types of care to a patient-actor across nine physical design configurations, which were videotaped in 540 separate segments. Structured interviews of the subjects were conducted at the end of each individual set of simulation runs to obtain triangulation data. Video segments were coded by nursing experts. Statistical and content analyses of the data were conducted.
Results: Study data show that standardized same-handed configurations may not contribute to process and workflow standardization—hence, to safety and efficiency—any more than standardized mirror-image configurations in acute medical-surgical settings. Data suggest that a global view of the patient care environment upon entry is the most sought-after familiarization factor to reduce cognitive load.

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