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Transforming the Patient Experience with Smart Room Technology

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Objective: Smart room technology is an innovative way to prioritize the patient experience by providing patients with an easily accessible hospital companion. This study introduced smart room devices into hospitals to determine whether their use would improve the patient experience as compared with those who did not use the device.

Methods: We conducted a prospective cross sectional study from March through September at Thomas Jefferson University Methodist Hospital. Smart room devices were placed in 11 rooms in the post-operative unit. Patients were surveyed by Jefferson medical students and DICE team members with regards to their overall experience using a 5 item likert scale: very good, good, neutral, bad, and very bad. The user group was also asked about the ability of the device to meet expectations.

Results: During this time period, 37 consented to participate in the study. The age range was 55-64 years old. Nine patients used the device while 28 did not. Non-device users were either in an incompatible hospital room or declined usage due to short anticipated stays. Length of stay for device users was 4+ days while length of stay for non-users was 1 day or less. Three of the nine (33%) patients using the device rated their overall experience as “very good” while the remaining six did not respond. Of the patients not using the device, 16 rated their experience as “very good,” 9 as “good,” 2 as “neutral” and 1 as “bad.” Among the device users, 3 reported the device exceeded expectations while the remaining 6 did not respond.

Conclusions: Due to small sample size and attrition bias, it remains inconclusive whether smart room technology improves the patient experience. However, this study reveals successful implementation of smart room technology in hospitals and advocates for their future integration in hospitals.