

Title: Small Troubles, Adaptive Responses (STAR-2): Frontline Nurse Engagement in Quality Improvement

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Experts point out an underutilized opportunity for improvement: leveraging frontline staff experience to identify and resolve operational failures. Addressing microsystem problems from the frontline perspective holds promise for propelling quality improvement within clinical units. **Aims:** The purpose of this multi-site project was to describe the type and frequency of first-order operational failures detected by frontline nurses in 24 medical-surgical units. **Methods:** Fourteen hospitals across the country were recruited for this study. Thus far, 429 registered nurses from eight hospitals were engaged in recording, real-time, operational failures using the STAR-2 Pocket Card (SPC). Nurses submitted one SPC per shift for a maximum of 10 shifts over a 20-day period. Nurses recorded operational failures across 6 categories. Descriptive statistics were used to examine the type and frequency of the detected first-order operational failures. **Results:** A total of 2419 SPCs were submitted reporting 15,592 operational failures across the eight hospitals. An average of 2.02 ± 2.1 operational failures was reported per shift per nurse. The distribution of operational failures fell primarily on issues related to equipment/supplies (27.7%), followed by medication (18.8%), information/communication (15.8%), staffing/training (14.6%) and physical unit/layout (6.9%). 15.8% of the failures were recorded within the “other” category. 120 SPCs (5%) reported that no operational failures occurred during the shift. An additional 6 hospitals are in the data collection phase. **Conclusions:** Operational failures directly impact the safety and quality of patient care. The results of this study indicate that leveraging frontline clinicians can help improve healthcare delivery by understanding the nature of operational failures that exist in clinical units. The preliminary results of this study will be combined with microsystem culture data (i.e. HSOPS, TCAB, etc) to determine the role of environmental factors on operational failures. In total 14 hospitals have been engaged across the country through the Improvement Science Research Network.

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