Utilization of a Standardized Patient Hand-off Tool on Patient Safety, Quality of Report, and Nursing Team Work

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Background

Transitions in care, or clinical hand-offs, are high risk activities that require effective communication processes among all staff to maintain continuity in patient care (Manser & Foster, 2011). The transfer of essential information and the responsibility for care of the patient from one area of care to another is an integral component of healthcare communication (Friesen, White & Byers, 2008). Communication failures during hand-off can lead to adverse events that are entirely preventable (Beach et al., 2012).

The Joint Commission has established a requirement for standardization of this error-prone process, due to its high risk (JCAHO, 2006). Strategies to improve hand-off include standardization (including the use of a tool to ensure that essential information is always included), tailoring tools to be used for a particular hand-off (such as an inter-unit transfer), placing the information in the same order every time, and the use of technology (Reisenberg, Leistch & Cunningham, 2010).

Bedside nurses within The Johns Hopkins Hospital Surgical Nursing Research Committee (SNRC) identified inter-unit handoff as a prominent patient safety concern and developed this QI project. This committee is comprised of bedside nurses in the Post Anesthesia Care Unit (PACU), Intensive Care Unit (ICU), and inpatient units. Vital information was being omitted when a patient was transferred between care areas, which was affecting safe patient care and nurse teamwork. Members of the SNRC wanted to develop a tool that would help standardize this inter-unit handoff process.

Objectives

1. To improve perceived organization of handoff report between units.
2. To improve team work between nurses in different levels of care.
3. To reduce the number of nurses reporting Patient Safety Events related to handoff.

Methods

In August 2015, baseline data was collected concerning nurses' experience with handoff report. A comprehensive inter-unit handoff tool was implemented in all surgical PACU, ICU, and inpatient units at JHH. This tool serves to organize how inter-unit handoff progresses and provides sending and receiving nurses with trigger words so that key information is not excluded. If the sending and receiving nurse can use the same tool, inter-unit handoff could follow a more organized pattern.

The tool was distributed electronically and as a hard copy to all units. The completed tools were collected on a routine basis to visualize actual usage techniques so that the tool could be tailored to real-time needs. Post-survey data was collected at 12 weeks to evaluate the efficacy of the tool in enhancing the three previously determined measures.

The pre and post surveys were created using Qualtrics survey software and were electronically distributed to over 600 nurses within the Department of Surgery. Both surveys included 24 questions about tool usage, teamwork, communication and patient safety, while responses were collected over a two week period.

Manser, T., & Foster, S. (2011). Effective handover communication: an overview of research and improvement efforts. *Best practice & research Clinical anaesthesiology*, 25(2), 181-191.

Friesen MA, White S, Byers J. (2008). Hand-offs: Implications for nurses. Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville (MD). Agency for Healthcare Research and Quality.

Beach C, Cheung DS, Apker J, Horwitz LI, Howell EE, O'Leary KJ, …Williams M. (2012). Improving interunit transitions of care between emergency physicians and hospital medicine physicians: a conceptual approach. *Acad Emerg Med*, 19(10): 1188-95.

Joint Commission on Accreditation of Healthcare Organizations (JCAHO). (2006). Root Causes of Sentinel Events. http://www.jointcommission.org/NR/rdonlyres/FA465646-5F5F-4543-AC8FE8AF6571E372/0/root_cause_se.jpg

Reisenberg L, Leitzsch J, and Cunningham J. (2010). Nursing handoffs: A systematic review of the literature. *American Journal of Nursing*, 110(4): 24-34

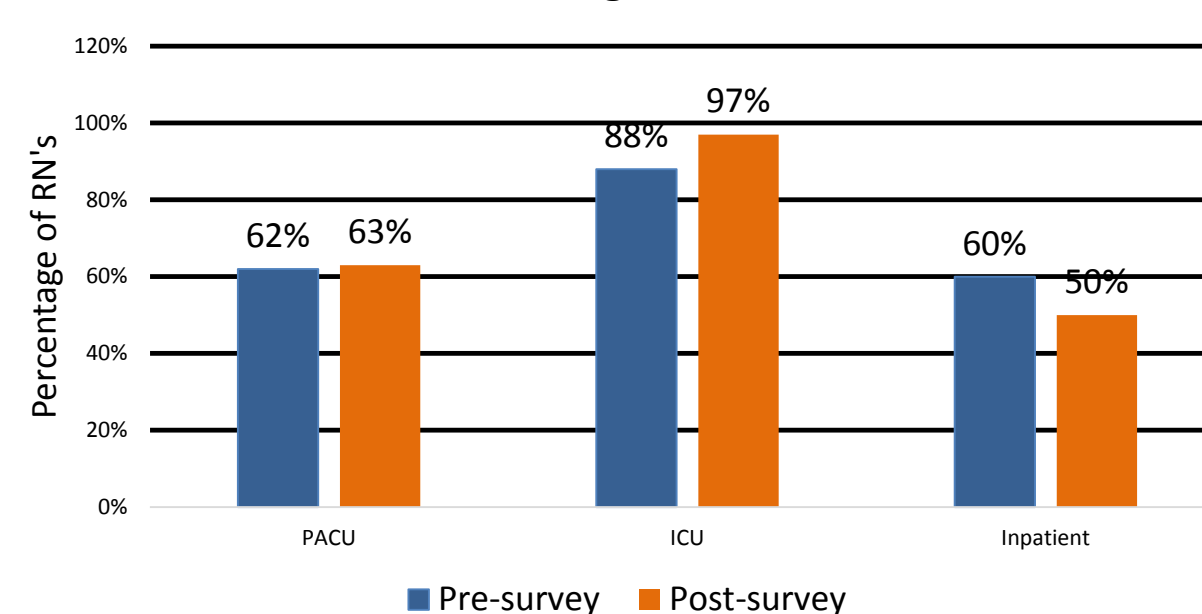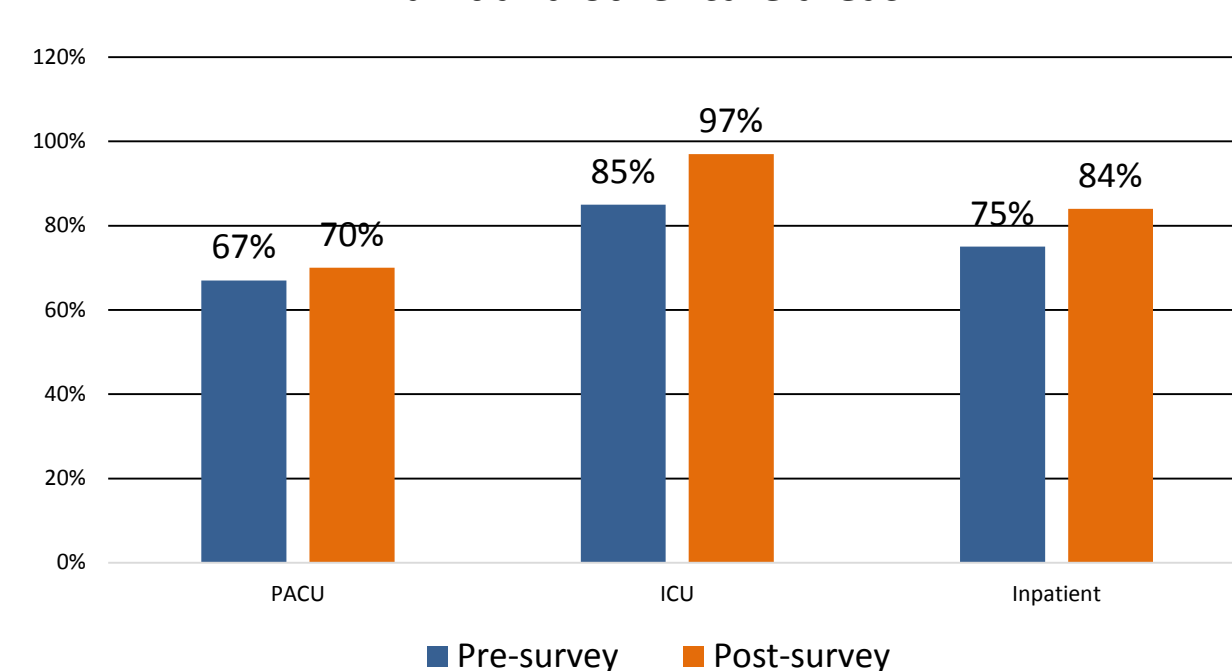Figure 1: Percentage of RN's who agree/strongly agree that handoff from these care areas are organized

Figure 2: Percentage of RN's Who Agree/ strongly agree that there is good teamwork between my unit and other care areas

Results

Survey data from Qualtrics was analyzed following the pre and post surveys. 215 nurses responded to the pre-survey while 120 nurses responded to the post-survey from three levels of care: PACU, ICU and Inpatient units.

Figure 1 displays the number of nurses who believed that nursing handoffs from different care areas were organized before and after the implementation of the standardized inter-unit handoff tool. This was a combined value of "Agree" and "Strongly Agree" responses to the statement "There is good teamwork between my unit and PACU/ICU/inpatient unit".

Figure 2 displays the number of nurses who believed good teamwork exists between units before and after the implementation of the standardized inter-unit handoff tool. This was a combined value of "Agree and Strongly Agree" responses to the statement "Nursing handoffs from PACU/ICU/inpatient unit are organized"

Figure 3 displays the number of nurses who reported being involved in a patient safety event related to nursing handoff before and after the implementation of the standardized inter-unit handoff tool.

Figure 3: Percentage of RN's who were involved in a PSN event related to nursing handoff
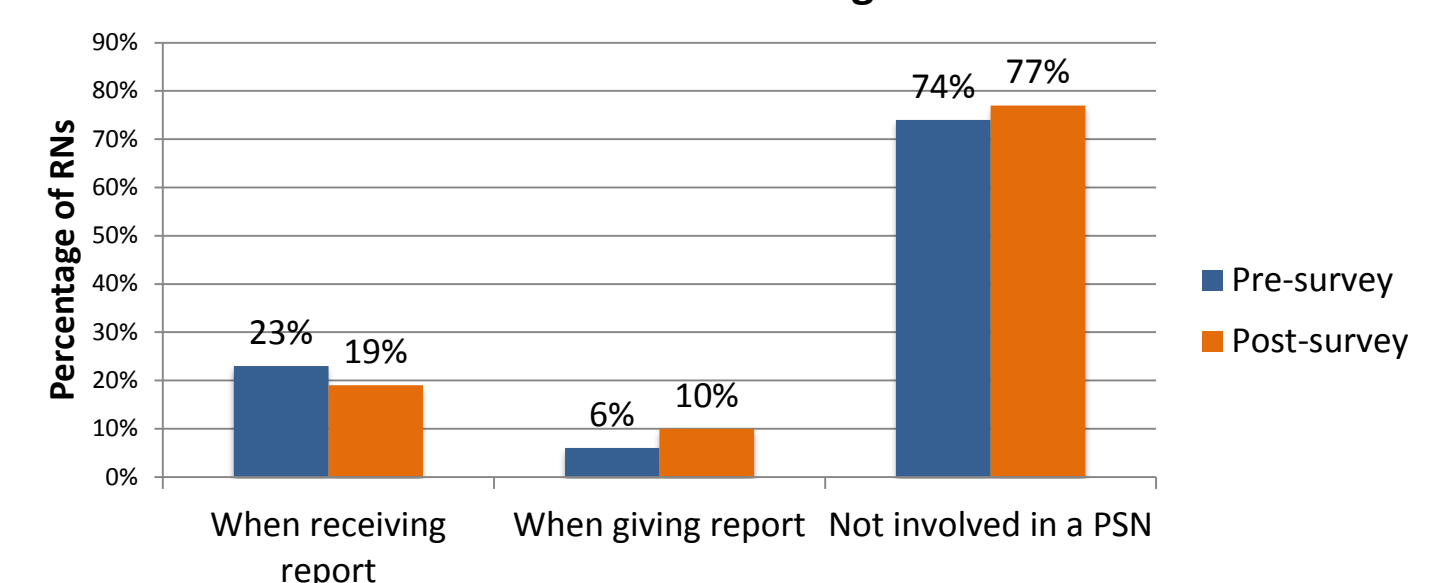
Conclusions

Results indicate that the standardized hand-off tool improved organization of handoff in some care areas and improved teamwork in all care areas.

The PACU only slightly improved in perceived handoff organization, while the ICU saw a 9% increase in this area. Handoffs from inpatient units were perceived as 10% less organized. The researchers identified this as an area of improvement. New graduates RN's were consistently using this tool while more experienced nurses deferred to their previous practices, which we identified as a potential breakdown in communication.

One of the greatest outcomes directly addressed how nurses perceived teamwork between care areas. Pre-implementation, the overall percentage of nurses who reported (agree or strongly agree) good teamwork between units was 76%. Post-implementation this number rose to 84% overall. Each individual care area saw an increase in perceived teamwork, with the ICU experiencing the largest improvement of 12% (Figure 2). The unique, grass-roots development of this tool established trust within the staff on each of the units, as their input was valued and incorporated into the tool.

The number of RN's who reported not being involved in a patient safety event increased after the implementation of the standardized handoff tool, while those who reported being involved increased when giving and decreased when receiving report. If units could improve their utilization of the standardized tool, the potential for improved teamwork and more organized handoffs could promote a safer environment for patients.

Two major limitations were identified throughout this project. When reviewing actual patient safety net events, the volume did not reflect what was reported by nurses in the survey. This can be attributed to high patient volume and limited time for nurses at the bedside to submit these reports. Secondly, we intended to distribute a second post survey, but were limited by the hospital-wide Employee Engagement survey and Needs Assessment. We were sensitive to survey fatigue and wanted to prioritize these surveys because they have a greater impact on institution wide initiatives.

Moving forward, we would like to see this standardized tool used in other departments besides Surgery and be available for electronic use within EPIC. During a SRNC meeting, feedback from bedside nurses indicated that handoff from the Emergency Department (ED) is disorganized. We hope to implement the standardized inter-unit handoff tool within the ED so that nurses from this care area will be able to give a comprehensive, organized report to other care areas within JHH.

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