Title:
Influencing Frontline Nurses Through an Academic-Practice Partnership to Drive a PCU Quality Improvement Initiative

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Session Title:
Quality Improvement in the Clinical Setting
Slot:
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9:30 AM

Keywords:
Academic Practice Partnership, PCU and Quality Improvement

References:
American Association of Critical Care Nurses(AACN). (2016). Progressive care fact sheet. Retrieved from: http://www.aacn.org/wd/practice/content/progressivecarefactsheet.pcms?menu=practice

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Singer, A. J., Thode Jr, H. C., Viccellio, P., & Pines, J. M. (2011). The association between length of emergency department boarding and mortality. *Academic Emergency Medicine*, *18*(12), 1324-1329. doi: 10.1111/j.1553-2712.2011.01236.x

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Abstract Summary:
This session will demonstrate the benefits of an academic practice partnership in mentoring and enabling front line staff to innovate improvements in patient care. This session will review a nursing-created re-evaluation of PCU Status Tool and how use of the tool significantly reduced PCU patient length of stay ($p<.001$).

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
1.) The learner will be able to discuss benefits of an academic practice partnership in the mentoring of front line nurses as innovators in translating data into excellence in care.	Discussion using audio and visual aids of an academic practice partnership. Example provided on role of faculty advisor to Nursing Practice Congress and subsequent mentoring of front line nurses in data collection, analysis, and understanding implications for practice from data analysis.
2.) The learner will be able to examine how effective EBP strategy solutions to address one problem can be successfully applied to an unrelated problem	Discussion using audio and visual aids on how a checklist principle for CAUTI prevention was applied to re-evaluation of a PCU patient status. Also will examine the results of implementing a checklist for PCU status re-evaluation.

Abstract Text:

Background and Significance of Problem: Progressive Care Units (PCU) manage the care of patients who are on the critical care spectrum, but at a lower acuity level (AACN, 2016). In this level one regional trauma academic medical center, the lack of available PCU beds frequently contributes to emergency department (ED) overcrowding, subsequent ED diversion status, high ED nurse workload, and over flow admission to one of the Intensive Care Units (ICUs), burn center, or the postanesthesia care unit (PACU). At this safety-net medical center, the ED inpatient throughput times were twice the national average. ED overcrowding and extended boarding times have been directly associated with adverse patient outcomes, such as increased mortality and length of stay (Singer et al., 2011). Frontline nursing staff at this facility identified an issue related to inappropriate assignments of patients to PCU status, and failure to downgrade from PCU to floor status in a timely manner resulting in a lack of available PCU beds. This issue was identified and brought to the medical center's Nursing Practice Congress (NPC) to assist with a resolution. Nursing Practice Congress is an academic-practice partnership between the medical center and college of nursing.

The NPC formed a workgroup called the PCU Professional Action Coordinating Team (PACT) to address the issue. The PCU PACT members were originally comprised of a mix of front line staff, clinical nurse educators, and nurse manager. Dearmon, Riley, Mestas, and Buckner (2015) and Riley, Mestas, Dearmon, and Buckner (2016) documented the benefit of adding a college of nursing faculty advisor to NPC and NPC PACTs to serve as a mentor to frontline nurses in integrating evidence-based practice and making decisions which are data-driven. The PCU PACT existed for a year prior to the appointment of a College of Nursing faculty as an advisor to the PACT. Before the addition of a faculty advisor, the PCU PACT lacked data to enable implementation of an action plan. The inclusion of a faculty advisor with a PhD in nursing with a background in clinical research to the PACT enabled thoughtful clarification of the problem, formulation of realistic goals, and data driven analysis of the problem.

With the faculty advisor's mentoring, the PCU PACT reviewed the medical center's current admission policy and procedure and the literature for guidance on how to address the inappropriate PCU admissions

and retentions. The hospital policy did not have clear criteria for both admission to the PCU and transfer to escalate or deescalate the level of care. After reviewing the literature, the PCU PACT formulated admission and discharge criteria policy for the medical center based on the landmark and currently used Society of Critical Care Medicine guidelines (Nasraway et al., 1998). The PCU PACT also performed a review of literature to investigate potential strategies to improve patient throughput for the PCU and subsequently for the ED as well. There was a dearth of literature regarding strategies which specifically addressed PCU throughput. However, one strategy associated the use of nurse-driven checklists with decreased incidence of nurse sensitive indicators, such as catheter associated urinary tract infections. (Parry, Grant, & Sestovic, 2013). Vogus and Hilligoss (2015) note that healthcare organizations have difficulty evolving into high reliability organizations (HROs) in one aspect because of failure to examine how a care process could potentially fail, similar to when an inexperienced clinician attempts to determine when to change a PCU status without a standardized process. Checklists are one of many strategies employed by HROs. The PCU PACT hypothesized the utilization of a nurse driven checklist for determining PCU status and re-evaluation similar to the strategy used by Parry et al. (2013), could decrease PCU length of stay (LOS) and improve appropriate PCU status designation, therefore improving PCU throughput. This hypothesis led to the development of a nurse-driven PCU Status Tool.

Data Collection: Baseline data collection examined four data points: (a) the time a patient was designated as a PCU status patient, (b) the time the patient physically arrived to the PCU, (c) the time the patient's status was changed from PCU status, and (d) the time the patient physically left the PCU. Baseline data collection examined one quarter of 2015 (n=114). After implementation of the nurse-driven, re-evaluation tool, post implementation data was gathered for one quarter in 2016 (n = 116) evaluating the same data points. During the implementation data collection phase, an unintended control group (n = 127) emerged in which the PCU Status reevaluation tool was not used.

Results and Discussion: SPSS version 23 was used to run a Mann-Whitney U for analysis. The use of the nurse-driven PCU Status Tool decreased both the average and median length of stay by 24 hours in the PCU resulting in a statistically significant finding ($U= 9{,}944.5$, $p<.001$). This data analysis of PCU admissions and length of stay demonstrated a need for additional PCU beds and led to an expansion of two beds in the physical PCU, approved by the hospital CEO. The justification and business plan for the additional PCU beds was written by one of the frontline nurse members of the PCU PACT. Further data collection and review of PCU status patients led to an administrative decision to house seven overflow PCU status patients on an additional in patient unit. The nurse-driven PCU Status Tool is now utilized in the ED and PCU units on all new admissions, and PCU status is reassessed in a standardized method. Follow up data collection has demonstrated the use of a nurse-driven PCU Status Tool continues to decrease time in PCU status, thus freeing up beds for waiting patents.

Implications for Nursing Practice: Nurses on the frontlines of patient care are best positioned to identify critical issues in care delivery systems, but often lack the forum to contribute to resolution of same. Evidence has demonstrated the effects of shared governance structure in engaging frontline nurses and empowering them to influence improvements in their practice (Kramer & Schmalenberg, 2003). Academia introduces evidence based practice (EBP) to students; however, the forum to integrate EBP into daily practice must be thoughtful and meaningful. A shared governance academic-practice partnership model informs both frontline nurses and their academic mentors (Dearmon et al. 2015; Riley et al., 2016). Frontline nurses develop skills toward deliberate, thoughtful, and meaningful integration of EBP into practice. Academic mentors develop acute awareness of challenges and issues relevant to modern healthcare, and are welcomed in the practice environment as real team members. This partnership informs relevant education of current and future students, positively influences nursing practice and leads change toward improved patient outcomes.