Title:
The Importance of Collaborative Interprofessional Education on Advancing Leadership and Quality Improvement Attributes

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Session Title:
Developing Leaders Through Interprofessional Collaboration

Slot:
K 04: Monday, 19 September 2016: 11:15 AM-12:00 PM

Scheduled Time:
11:15 AM

Purpose:
The purpose of this presentation is to: Introduce Patient Safety and Quality Improvement principles and its relationship to the Plan -Do -Study -Act Cycle to nursing and medical student interprofessional teams through experiential learning. Developing non-traditional curricular activities improves communication, team skills, and increases collaboration that supports patient safety culture.

Keywords:
Health Professions Students Collaboration, Interprofessional Education and Quality Improvement

References:

Abstract Summary:
Nursing and medical students were organized into blended teams. Event included three phases: IHI online modules, lecture bursts highlighting patient safety, QI, and Principles of PDSA Model. Application of QI knowledge was illustrated in a competitive egg drop game. Teams tested changes in their packing strategies during repeated PDSA cycles.

Learning Activity:

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
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<tr>
<td>Develop minimal student competency in QI principles through the completion of IHI modules with knowledge based questions.</td>
<td>Completion of IHI modules prior to attending QI/IPE event o QI 101: Fundamentals of Improvement o QI 102: The Model for Improvement: Your Engine for Change</td>
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<td>Demonstrate through post class worksheets and replicating PDSA cycle basic understanding of small change concepts</td>
<td>Organizers created blended Interprofessional Teams Icebreakers achieved over informal lunch</td>
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<td><strong>Quality Improvement</strong></td>
<td>What is QI? Why is QI important? What impact does QI have on patient safety? How is patient safety evaluated using QI principles?</td>
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<td><strong>Introduction of PDSA Cycle Principles</strong></td>
<td>Principles of PDSA cycle and repeated application of the PDSA concepts related to the egg drop activity.</td>
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<td><strong>Principles of QI/PDSA applied to a CAUTI clinical scenario</strong></td>
<td>Pre/Post test knowledge, attitudinal. And SPICE-R surveys completed.</td>
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<td><strong>Debriefing of Nursing students’ experiences with event</strong></td>
<td>Data collection evaluation Faculty debriefed, shared results, and developed lessons learned alongside future steps.</td>
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**Abstract Text:**

Emerging data suggests that effective and competent interprofessional teams improve health care outcomes and patient satisfaction. Healthcare systems are becoming more reliant on teamwork and collaboration among the professions and professionals. The result of this industry adjustment necessitates Health professions educators to design curricular activities and instructional strategies that promote interaction with learners from different professions.

Our Interprofessional Education (IPE) Quality Improvement (QI) began with the Introduction of Patient Safety and Quality Improvement principles as it relates to the Plan-Do-Study-Act (PDSA) Cycle to nursing (seniors) and medical Students (M1) through experiential learning within interprofessional teams. Secondly, within one joint, four-hour class event, students collaborated as they learned about patient safety, and the application of QI tools. Since the physician-nurse relationship is the main component that interfaces with the patient during hospitalization, developing non-traditional curricular activities to improve communication and team skills is needed to be collaborative in supporting a patient safety culture. In the pursuit of the Triple Aim goals, the Institute of Medicine, Association of American Medical Colleges, American Association of Colleges of Nursing, and Institute for Health Care Improvement recommendations place emphasis on the importance of QI skill-building and interprofessional education (IPE). Therefore, this event was to enhance QI knowledge and team-based skills that are associated with improved patient experiences and outcomes, fewer adverse events, and at lower healthcare costs.

Organizers blended senior level nursing students (225) and first year medical students (159) into groups (Total 384). This event had three phases: Phase 1: Selected Institute of Healthcare Improvement online modules were completed prior to the event, Phase 2: Lecture bursts (20 mins) highlighted Why, Patient safety? What is QI?, and Principles of PDSA Model, and Phase 3: Experiential Team-based learning. After a brief discussion on principles of quality improvement, student teams applied their quality improvement knowledge to a game-based activity before transferring the experience to a clinical scenario. The groups of nursing and medical students participated in a competitive team building egg drop game. Each team was provided 4 eggs and instructed to use the available materials, and prepare packages for their eggs in an effort to protect their eggs while being dropped from a ladder. The costs of materials were provided to each team. Teams had the opportunity to test changes in their packing strategies in repeated PDSA cycles. At the end of the activity faculty members facilitated discussion about how the learners applied QI principles and how the activity related to team work and improvement projects similar to those in the clinical setting. Knowledge and attitudinal pre and post-assessment surveys were administered to assess changes pre and post-intervention. The Student Perceptions of
Interprofessional Clinical Education – Revised (SPICE-R) instrument was completed post intervention to assess attitudes toward interprofessional health care teams, followed by a focus group debriefing.

The results of 1) Pre-class IHI open school modules completion rate, 2) The Pre/Post-test results of SPICE-R and the Quality Improvement Evaluation will be presented and combined with the faculty report of focus group debriefing to provide a full picture of student perception of this learning modality and interprofessional teamwork. In addition, findings of the PDSA student knowledge worksheets will be provided.

Preliminary Survey findings reflect that students from both School of Medicine and College of Nursing show an increase in agreement with the SPICE-R statements related to Interprofessional Clinical Education.

Review of the class inquiry and worksheets provided the faculty data to evaluate the learning session. The faculty review of the pre-class IHI Open School modules provided a total number of students who completed the modules and were introduced to QI principles (PDSA). In addition, post class QI worksheets determined basic understanding of small change concepts including: identifying specific aims in an improvement project, determining outcome measures, and writing a small plan for change based on a personal change scenario. In addition, faculty observation during the egg-toss assessed student communication among the teams which provided baseline communication skills and actions during the learning exercise.

Interprofessional education and quality improvement learning strategies should be imbedded into health care professions curricula. Well-functioning teams are necessary to improve patient care and health. Learners need the skills and confidence to transform our healthcare system and work collaboratively to serve patients and their families. Newer educational models suggest that learners who learn together are more likely to develop the competencies needed to effectively care for patients. Students verbalized the event was beneficial and informative while learning within an interprofessional setting.