Through A Glass Darkly:
Reaping the Benefits of an Institution-Wide Quality Improvement Curriculum for First-year Residents
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AIM: To implement an institution-wide GME Patient Safety and Quality Curriculum. Development of an Institution-Wide Curriculum in concert with UW Health’s Quality Department, the curriculum’s goals included introducing residents to:
1) the tenets of a culture of safety and best practices associated with handling medical errors,
2) systems of care and human factors engineering, and
3) the FOCUS-PDCA process of improvement.

Data from the Quality Improvement Knowledge Application Tool (QIKAT) is used as the primary tool to assess resident learning. The QIKAT in concert with Resident quiz results, self-assessment, and learner feedback is all utilized to evaluate the effectiveness of the curriculum and to make improvements annually. In 2012, the curriculum was made available to all GME program trainees and faculty.

Improvement Level (Players) and Methods (Staged curriculum, standardized processes & tools)

- Individual
  - Quality Improvement Knowledge Application Tool (QIKAT) developed in 2012 to assess resident learning of Quality Improvement principles by the research team
  - The QIKAT assesses knowledge pertinent to understanding the improvement process using the 5’s of defining a project, setting and establishing measures to evaluate effectiveness
  - Three educators were trained in valid scoring of pre-test; once the curriculum had been implemented, the QIKAT Curriculum Committee was permitted to score the QIKAT and determine resident understanding.
  - The second (2012-13) cohort of 108 PG1s completed the pre-test and also went through the process of completing the second round of learning and assessment.
  - The additional criteria identified in the literature as conditions for successful implementation of the curriculum were the following: 1) Evaluate Impact of Resident Quality and Safety Council; 2) Reap benefits of A3 collaborative effort; 3) Document outcomes in a project report.

- Cross-GME Program
  - Program Directors introduced QIKAT in PG1s and year 1 residents in 2013 to Program Directors in concert with the UW School of Medicine and Public Health.
  - The education and training of physicians in the science of improvement is a challenging feature of the method of development. The main methods to influence the study’s assumptions are shared throughout the levels of improvement, creating an integrated approach.

Methods

- Quality Improvement Knowledge Application Tool: QIKAT (Fig. 1, 2012) was used to assess resident learning of Quality Improvement principles by the research team
- The QIKAT assesses knowledge pertinent to understanding the improvement process using the 5’s of defining a project, setting and establishing measures to evaluate effectiveness
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Outcomes

- Quality Improvement Knowledge Application Tool Score: 1) Response focus
  - Numbered scores interpreted below:
  - QIKAT section 1: Scores are interpreted as follows:
    - 0=no response
    - 1=scooters were not significant or not applicable
    - 2=understood
    - 3=conceptualized
    - 4=removes the need for further education and training.
  - The QIKAT was used to evaluate after the first year of implementation, allowing for comparison with future years.

Limitations:

- We found the QIKAT to have some limits as a tool for assessing individual resident’s knowledge and ability to apply process improvement principles to patient safety and other issues. For example, learners often conflated the principles of effective scientific research design with the design of an aim and measures for improvement.
- This was the primary reason for the development of additional criteria with which to score QIKATs in year 2 of the study (See Table B, Methods Column).
- A six-month delay in collecting post-QIKAT results after the last addition of the curriculum also limited the opportunity of the research team to effectively assess its value as a measureable measure of resident learning.

Next Steps:

1) Evaluate Impact of Resident Quality and Safety Council
2) Continue to strengthen education based on findings from Quality Improvement Survey at multiple levels of focused improvement
3) Reap benefits of A3 collaborative approach

Conclusion:
The GME Curriculum Committee learned early on that it would not be able to make a significant impact on the silo-ed culture of a large tertiary health care organization without making small tests of change and using multiple tools to assess the effectiveness of the program. The Committee made small adjustments based on feedback on the outcomes of these measures over the course of nearly three years. While recognizing that culture change is never easy and that GME is not politically or operationally in the best position to promote institutional change, it is evident that overall, the cohesiveness of outcomes we are tracking for our project demonstrate that increased discussion and dialogue have been generated around the broad Q5/QI curriculum and that it has fostered a climate in which new joint GME/Quality initiatives are taken. Over the first half of 2012-13, this time period, virtually all of these ventures are helping to facilitate the work necessary to prepare UW-Madison for the ACGME’s Clinical Learning Environment Review and have moved the institution’s culture closer to the vision of full integration of GME into the culture of safety and quality to which it aspires.

Source: https://www.mededportal.org/icollaborative/resource/474