NEW IDEAS

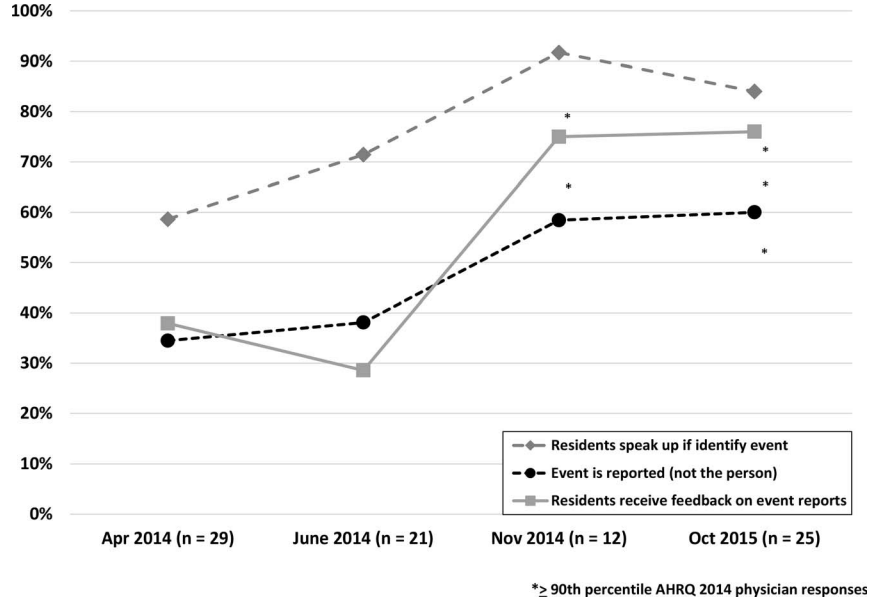
QI-on-the-Fly: Continuous Faculty Development to Enhance Patient Safety Teaching and Reporting

Setting and Problem

Faculty development is essential, and yet there remains a paucity of empirical studies of faculty development for patient safety and quality improvement (PS/QI). Our Lady of the Lake pediatrics residency, which encompasses 33 residents and more than 90 faculty physicians, recognized the need for a faculty development model that would provide timely, continuous, point-of-use support to help physician educators and learners develop a more robust PS/QI culture. The goal of the curriculum was to integrate PS/QI knowledge in teaching team discussions in order to increase physician engagement in recognizing, reporting, and responding to safety events in the children's hospital.

Intervention

Recognition that faculty needed more content support to promote more frequent patient safety discussions resulted in a "just-in-time" faculty development program called "QI-on-the-Fly." This was designed to have a low threshold for participation, while providing proximal to practice information that all faculty could utilize. A workgroup, consisting of a program director, quality officer, faculty, and residents, created and delivered an e-mail curriculum that was sent weekly over the course of a year to inpatient teaching faculty. The curriculum included material adapted from the Institute for Healthcare Improvement (IHI) and the Agency for Healthcare Research & Quality (AHRQ), along with other resources. Each e-mail consisted of content centered around a key PS/QI topic that would support 15-minute conversations on teaching rounds. E-mail content also included video demonstrations of safety discussions, PS/QI teaching tips, and up-to-date reports from the quality team on process changes resulting from root cause analyses and rapid cycle improvements. For example, a QI-on-the-Fly e-mail might begin with a brief



FIGURE

Select Agency for Healthcare Research & Quality (AHRQ) Patient Safety Culture Questions: Percentage Positive Response for Residents

Note: The FIGURE depicts responses from 3 resident cohorts, including different residency classes (academic years 2013–2014 [April 2014], 2014–2015 [June 2014 and November 2014], and 2015–2016 [October 2015]), and suggests sustained improvements in measures of safety culture over the course of the project.

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discussion of the "Swiss cheese model" of error causation and continue with a review of key terms, such as active failures and latent conditions. E-mails also include questions for faculty to incorporate on rounds, a brief video from the IHI Open School, a germane report (eg, feedback from a safety event investigation) from the children's hospital quality team, and links to additional resources.

QI-on-the-Fly modules took approximately 2 to 4 hours to create (case examples are available from the authors). Bimonthly surveys were distributed to the residents and students on the inpatient teams to gauge their perceptions of whether PS/QI topics were being discussed on rounds. We also followed select AHRQ Patient Safety Culture Survey items, including (1) "residents will freely speak up if they see something that may negatively affect patient care"; (2) "when an event is reported, it feels like the person is being written up, not the problem"; and (3) "we are given feedback about changes put into place based on event reports."

Outcomes to Date

Survey results showed that following implementation of QI-on-the-Fly, residents have become more active participants in PS/QI discussions, and that these discussions are taking place 76% of the time on rounds. Responsibility for facilitating PS/QI discussions became more broadly owned, as evidenced by physician assistants and upper-level residents leading QI-on-the-Fly discussions with multidisciplinary teaching teams. There has been sustained improvement in responses to AHRQ survey questions over time, suggesting the perception that the "safety culture" has improved (FIGURE). This perception is supported by increased physician engagement in reporting and responding to safety events. There has been a nearly 4-fold increase in event reporting by faculty and residents at the children's hospital. Resident reporting of patient safety events increased from 5% of 36 total events reported in April 2014 to 25% of 59 total events reported. There was also an increase in the total number of entered patient safety events. This resulted in an increased number of root cause analyses and rapid cycle improvements. Residents participated in 78% of these events, whereas there was no resident involvement previously.

Faculty reported that the e-mail delivered model of PS/QI faculty development was easy to share with teams to ignite PS/QI learning and discussion. The ease of implementation coupled with the relatively high impact of the QI-on-the-Fly curriculum suggest that similar low-cost, low-effort programs can be replicated by other specialties and can be sustained over time.

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