Quick QI: A Two-Week Self-Directed Quality Improvement Project

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Quick QI: A two-week, self-directed quality improvement curriculum

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BACKGROUND

- Quality improvement (QI) is an increasingly important part of graduate medical education.
- ACGME requires training in QI and engagement in QI activities.
- The approach to QI curriculum design is not standardized.
- Team-based projects and combinations of didactic and experiential learning are common elements of QI curricula.
- Incorporation of adult learning theory elements is a successful method of teaching QI.
- Adult students learn best when participating in real-life problems, drawing from past experience, self-directing in their learning, and reflecting on current practice.

DESCRIPTION OF THE PROBLEM

- Physician trainees are busy, making integration of QI curricular requirements difficult.
- Restriction of resident duty hours by ACGME since 2003 creates a challenge in incorporating QI education into a training program.
- VCU Internal Medicine has a two-week rotation structure.
- Educators must be creative in developing a QI curriculum that is efficient and effective.

DESCRIPTION OF THE INNOVATION

- We created a short, self-directed QI curriculum.
- We aim to expose residents to QI theory and methods, existing program and institutional QI activities.
- Residents will create a QI project and develop teaching skills in the realm of QI and patient safety.
- By completing this rotation, residents will:
  1. Demonstrate the ability to break down a clinical problem, create a process map, form an interdisciplinary team, and brainstorm effective interventions to improve the identified clinical problem.
  2. Participate in quality improvement activities at both the training program and the institutional level.
  3. Practice educator skills by preparing and facilitating a Morbidity and Mortality conference.
- This approach to QI curriculum design is not standardized.
- Restriction of resident duty hours by ACGME since 2003 creates a challenge in incorporating QI education into a training program.
- Educators must be creative in developing a QI curriculum that is efficient and effective.

ASSESSMENT OF THE INNOVATION

- Recognition system error and advocates for system improvement.
- Monitors practice with a goal for improvement.
- Accepts responsibility and follows through on tasks.

Didactic Learning (Knowledge)

- Institute for Healthcare Improvement Open School
- Costs of Care value conversations

Hands-On Experience

- Clinical QI Project (personal or safety reporting system)
- IPASS Sign-out Evaluations
- Institutional Safety Report
- Root Cause Analysis

Teaching Experience

- Sign-out Feedback
- Safety Rounds and Coaching
- Intern Morbidity and Mortality Conference

Reflective Practice

- Personal Medical Error

Figure 2. Description of the Innovation

What QI experience do you have?

<table>
<thead>
<tr>
<th>Pre (n=30 (96.8%))</th>
<th>Post (n=24 (77.4%))</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>20.0%</td>
</tr>
<tr>
<td>I have been to a QI meeting (not lecture)</td>
<td>16.7%</td>
</tr>
<tr>
<td>I have been a passive part of a QI team</td>
<td>30.0%</td>
</tr>
<tr>
<td>I have been an active part of a QI team or led a team</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

What do you know about QI?

<table>
<thead>
<tr>
<th>Pre (n=30 (96.8%))</th>
<th>Post (n=24 (77.4%))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolutely nothing</td>
<td>50.0%</td>
</tr>
<tr>
<td>I have heard of it</td>
<td>16.7%</td>
</tr>
<tr>
<td>I have heard of it and discussed it</td>
<td>33.3%</td>
</tr>
<tr>
<td>I understand basic terminology and concepts</td>
<td>20.0%</td>
</tr>
<tr>
<td>I could give a lecture</td>
<td>62.5%</td>
</tr>
</tbody>
</table>

DISCUSSION

- 31 residents have completed rotation as of March 2018. Every rotator is given a pre-rotation and post-rotation survey to assess perceptions of knowledge, skills, and attitudes.
- There is a marked increase in active QI experience after completing the rotation.
- Knowledge assessment shows many feel comfortable giving a lecture on QI after completing the rotation.
- Confidence in leading a QI project (i.e. “agree” or “strongly agree” on survey) increased from 30% before the rotation to 87.5% after completing the rotation.
- Six rotators (19.4%) completed the required IHI Basic Certificate in Quality and Safety.
- Six rotators (19.4%) have chosen to continue their project or have pursued scholarship opportunities.

LESSONS LEARNED AND NEXT STEPS

- Learners gained substantial QI knowledge and skills efficiently.
- Despite reliance on self-motivation, all residents have completed all rotation requirements.
- Some residents complete extra QI training, continue their developed projects, or pursue scholarship opportunities.
- Future steps include:
  - Coordinate the QI projects to expedite institutional system change.
  - Align QI projects with institutional safety priorities.

REFERENCES